

Final 4/15/2013

**Language to be Included into the Draft GRSG RMP Amendments and EISs**Chapter 3 – Affected Environment*Lands with Wilderness Characteristics*

The purpose and need of the National GRSG Planning Effort is limited to making land use planning decisions specific to the conservation of greater sage-grouse habitats. No decisions related to the management of LWCs will be made as part of this planning effort; therefore, management of LWCs is considered outside the scope of this plan amendment process. Impacts to LWCs from the alternatives being analyzed for this planning effort are presented in section [REDACTED].

As part of the original FLPMA Section 603-mandated inventories, inventories that were conducted during past RMP revisions and amendments efforts, and through other various LWC inventory updates that have recently taken place, inventories for wilderness characteristics were conducted between [REDACTED] and [REDACTED] and reflect the most up-to-date LWC baseline information for this planning area. For inventories that were conducted after 2011, findings were documented following guidance in *IM 2011-154, Requirement to Conduct and Maintain Inventory Information for Wilderness Characteristics and to Consider Lands with Wilderness Characteristics in Land Use Plans*, which is now encompassed in BLM Manuals 6310 and 6320. LWC inventories will be updated for any site-specific project NEPA analyses that are conducted in the planning area to determine if a project will have impacts to LWCs identified through previous or updated inventory efforts.

Include a brief summary and reference the findings from the most recent LWC inventories that were conducted in the planning area (regardless of how old these inventories are). In many cases, this information can be derived from the existing RMPs that this plan amendment will be amending.

Chapter 4 – Environmental Consequences*Lands with Wilderness Characteristics*

In any format consistent with the structure of the plan amendment EIS's chapter 4, analyze the impacts to LWCs for all of the alternatives analyzed in this document. Please use the baseline information for the most recent LWC inventories that were summarized in chapter 3.

## Lands with Wilderness Characteristics (LWC)

Section 201 of FLPMA requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values, which includes wilderness characteristics. It also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of public lands. Regardless of past inventory, the BLM must maintain and update as necessary, its inventory of wilderness resources on public lands. In some circumstances conditions relating to wilderness characteristics may have changed over time, and an area that was once determined to lack wilderness characteristics may now possess them. The BLM determines when it is necessary to update its wilderness characteristics inventory.

Under the following circumstances, the BLM considers whether to update a wilderness characteristics inventory or conduct a wilderness characteristics inventory for the first time:

1. The public or the BLM identifies wilderness characteristics as an issue during the National Environmental Policy Act (NEPA) process.
2. The BLM is undertaking a land use planning process.
3. The BLM has new information concerning resource conditions, including wilderness characteristics information submitted by the public that meets the BLM's minimum standard described in the Wilderness Characteristics Inventory Process section of this policy.
4. A project that may impact wilderness characteristics is undergoing NEPA analysis.
5. The BLM acquires additional lands.

There also may be other circumstances in which BLM will find it appropriate to update its wilderness characteristics inventory.

The primary function of an inventory is to determine the presence or absence of wilderness characteristics.

BLM has completed LWC inventory in the Four Rivers, Bruneau, Jarbidge, Pocatello, and Upper Snake Field Offices. Partial inventories have been completed in Owyhee, Shoshone, Burley, Challis and Salmon Field Offices.

Pocatello and Upper Snake Field Offices inventory found those offices have no lands with wilderness characteristics.

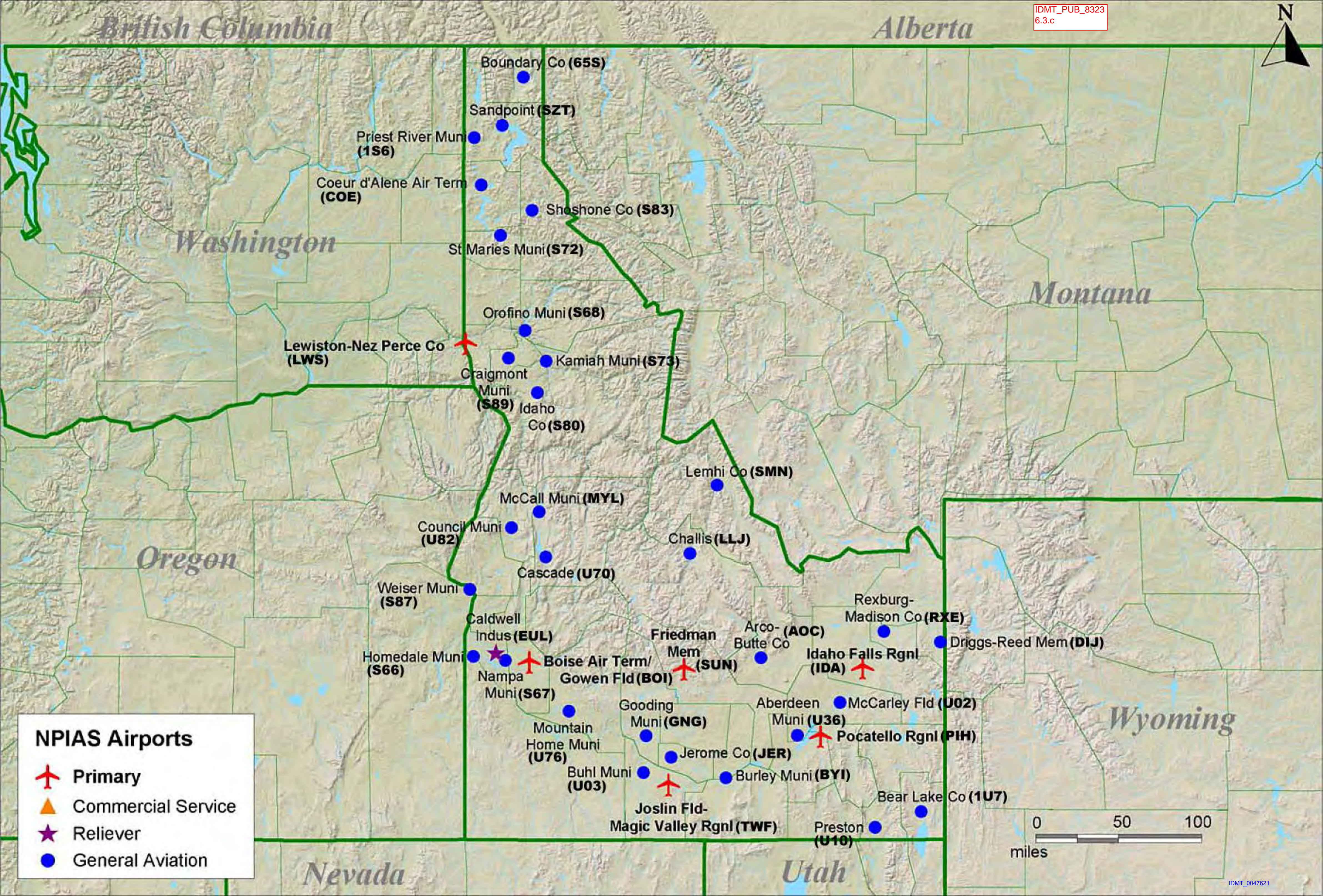
Four Rivers, Bruneau, and Jarbidge inventories found areas that do contain lands with wilderness characteristics.

Owyhee, Shoshone, Burley, Challis and Salmon Field Offices do not have final inventory reports.

There are XX,000 acres of lands with wilderness character within the planning area boundary.

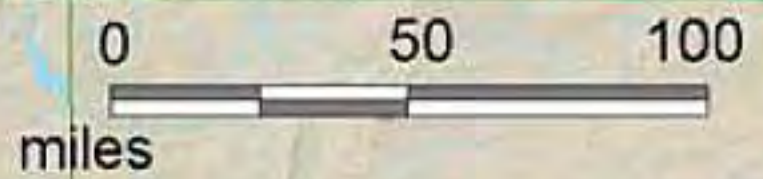
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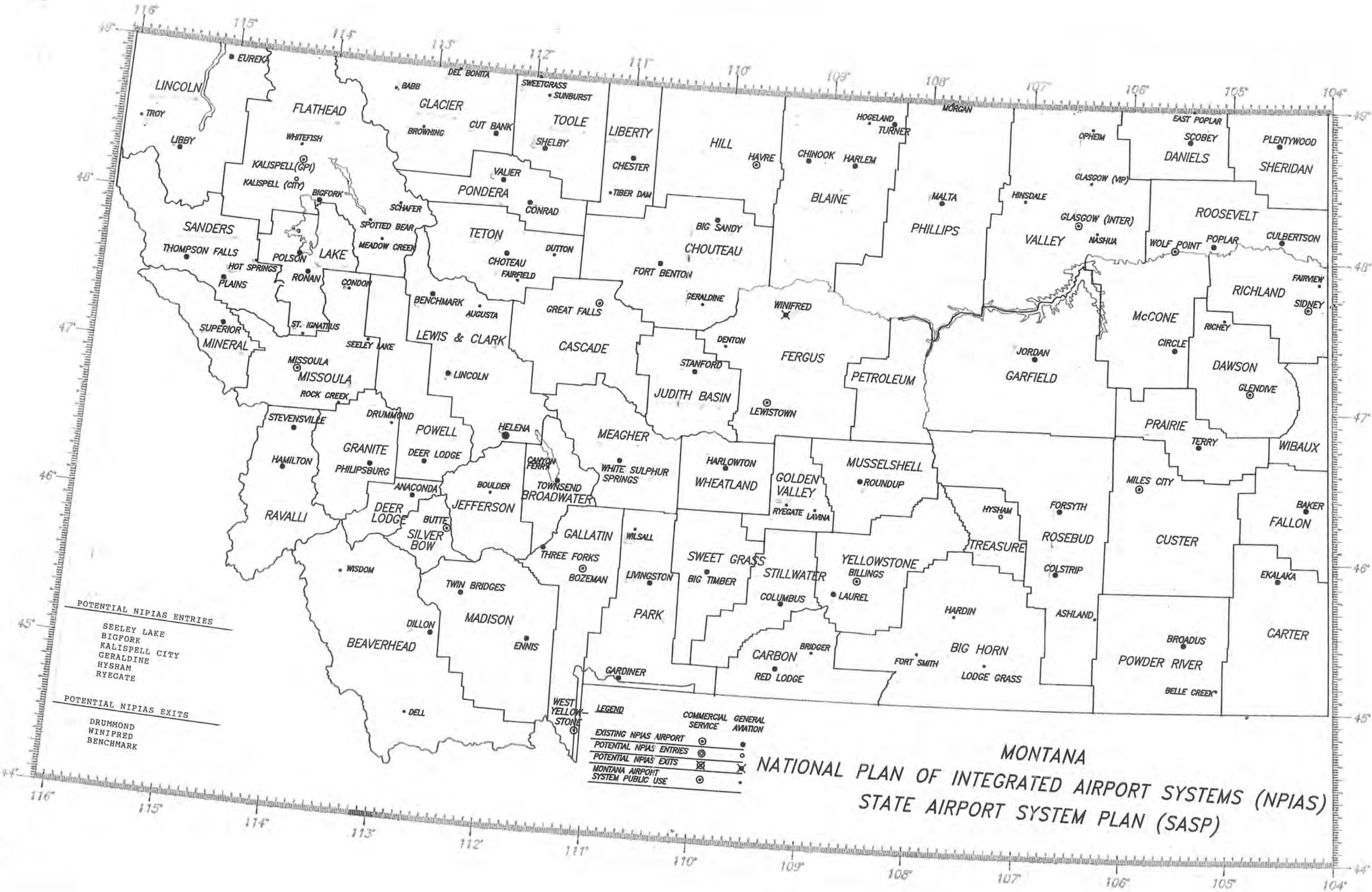
BLM Manual 6310 Conducting Wilderness Characteristics Inventory on BLM Lands 2012  
BLM Manual 6310 Considering Lands with Wilderness Characteristics in the BLM  
Land Use Planning Process 2012



**NPIAS Airports**

-  Primary
-  Commercial Service
-  Reliever
-  General Aviation





MONTANA  
 NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS)  
 STATE AIRPORT SYSTEM PLAN (SASP)

## Predation

The greater sage-grouse is potential prey to a variety of predator species, such as the golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), common raven (*Corvus corax*), American badger (*Taxidea taxus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), weasels (*Mustela* spp.) and others (Schroeder et al. 1999, Coates 2007) but none specialize in the species (Hagen 2011). Adults are susceptible to predation while on leks or nests, and eggs are vulnerable as well (Schroeder et al. 1999, Coates 2007, Hagen 2011). Predation is the most commonly identified cause of direct mortality for sage-grouse during all life stages (USFWS 2010 citing others) but numerous studies since the 1970's suggest that nest predation is not a widespread problem and generally high survival rates of adults and older juveniles suggests that on average, predation is not limiting populations (Connelly et al. 2000, Hagen 2011). As a result, there is little scientific support for predator management over broad geographic or temporal scales (Hagen 2011).

In areas where habitat is not limited and of good quality, predation is not a threat to the persistence of the species (USFWS 2010). However, in fragmented habitats or areas with subsidized predator populations, such as where landfills or other human factors attract and concentrate scavengers (Coates 2007), or where electrical transmission or other man-made structures facilitate nesting and perching by avian predators such as ravens (Howe 2012), predation may limit population growth (Hagen 2011).

In the context of the Idaho/Southwestern Montana sage-grouse conservation strategy, direct predator control at the broad-scale is outside of the scope of BLM and FS decision space. Rather, such control efforts would be under the purview of the states of Idaho and Montana, and/or USDA APHIS Wildlife Services, in cooperation with the USFWS.

As land-management agencies, the primary role of the BLM and FS is the management of habitats and land uses and associated authorizations. Therefore, the amelioration of predation effects on sage-grouse in this conservation strategy is best accomplished through 1) the appropriate management, improvement or restoration of sagebrush habitats and 2) the siting and design of anthropogenic structures in a way that eliminates or reduces risk from predators that may utilize them to their advantage.



## Ecoregional Context and Landscape Approach

Public lands are undergoing complex environmental challenges that go beyond traditional management boundaries. In response, the BLM is instituting a landscape-scale management approach which evaluates large areas to better understand the ecological values, human influences, and opportunities for resource conservation. This approach frequently allows identification of environmental changes that might not be apparent in smaller areas.

The BLM's landscape approach includes Rapid Ecoregional Assessments (REAs) which provide a framework for integrating science and management. REAs evaluate landscape scale ecoregions, which are large areas with similar environmental characteristics. The BLM has initiated fourteen REAs since 2010. The Nevada-NE California Sub-Region lies within the Central Basin and Range (CBR) and the Northern Basin and Range (NBR) ecoregions.

REAs synthesize the best available broad-scale information data to examine the current status of ecological values, conditions, and trends within the ecoregion conservation elements and change agents, and provide geospatial responses to a defined set of management questions. Assessments of these larger areas provide land managers additional information and tools to use in subsequent resource planning and decision-making.

REAs describe and map conservation elements, which are areas of high ecological value, ecoregionally important resources, and e habitat types, and species, or species assemblages of management concern. REAs look across all lands in an ecoregion to identify regionally important habitats for fish, wildlife, and species of concern. REAs then gauge the potential of these habitats to be affected by four overarching environmental *change agents*: climate change, wildfires, invasive species, and development (both energy development and urban growth). REAs also help identify areas that do not provide essential habitat, that are not ecologically intact or readily restorable, and where development activities may be directed to minimize impacts to important ecosystem values. provide a coarse-grain look at the areas where impacts from change agents are concentrated, and areas that are still relatively intact, or have opportunities for restoration or protection.

In the Nevada-NE California Sub-Region, the Central Basin and Range REA (CBR REA) has been completed while the Northern ~~Basin and Range~~ Great Basin REA is underway nearing completion. The CBR REA will be used to inform and enhance the quality of resource management and environmental analysis at the landscape level. The REA information is considered in the development of management objectives that can be adapted to the changing environment. This REA will aid in identifying priority areas for conservation and development, including important areas for wildlife habitat and migration corridors, and help inform finer-scale information and assessments at the local level.

Nevada is a vast land and the BLM and USFS are responsible for managing approximately 70% of the state. In order to effectively manage it, the BLM and USFS are taking a cohesive management approach based on partnerships, built on the principle of conserving or improving natural resources across the landscape. The landscape level REAs allow the BLM and USFS to collaborate beyond the usual jurisdictional boundaries with the goal of conserving the native ecological communities, traditional uses, and helping to maintain the rural Nevada culture that makes it so unique.

For additional information about BLM's Landscape Approach website at [http://www.blm.gov/wo/st/en/prog/more/Landscape\\_Approach.html](http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach.html)

As REAs are completed the information about each REA is posted on the REA website. The website includes published REA reports and the REA Data portal. The data portal provides access to an interactive map and downloadable data.

[http://www.blm.gov/wo/st/en/prog/more/Landscape\\_Approach/reas.html](http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas.html)

### Central Basin and Range REA Citation:

**Commented [LD1]:** Also recreation, minerals, exurban, and agriculture

**Commented [LD2]:** The NGB REA also looks at grazing as a change agent, maybe there is a way to incorporate that

**Commented [LD3]:** Final from contractor expected in May 2013

**Commented [LD4]:** Will both REAs be used, or just the CBR?

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Comer, P., P. Crist, M. Reid, J. Hak, H. Hamilton, D. Braun, G. Kittel, I. Varley, B. Unnasch, S. Auer, M. Creutzburg, D. Theobald, and L. Kutner. 2012. *Central Basin and Range Rapid Ecoregional Assessment Report*. Prepared for the U.S. Department of the Interior, Bureau of Land Management. 168 pp + Appendices

## Paleontological Resources (Gregory Liggett, BLM MT State Paleontologist)

Paleontological resources (fossils) have long been recognized for their scientific, educational, and recreational value. A fossil is any evidence of past life, and includes body fossils such as shells and bones, as well as trace fossils such as footprints, burrows, trails, or other evidence of an organism's presence. Fossils are preserved in rocks and are usually discovered when they are eroding out of the rock at the surface, or during ground-disturbing activity such as road grading or trenching. Most individual organisms that lived in the past did not die in such a way as to have their remains fossilized, and fewer still will be collected and studied before they erode away. Therefore fossils are considered rare and nonrenewable.

All fossils contain information about past life, but not all fossils are significant. Significant fossils are those that are unique, unusual, or rare, are diagnostic, stratigraphically important, and add to the existing body of knowledge. In order to determine a fossil's significance, an assessment must be made by someone who is experienced in the field of paleontology, and who possesses a sufficient mastery of the existing body of knowledge to understand how a given fossil contributes to our overall understanding.

The Bureau of Land Management (BLM) has managed fossils as a valued resource for many years. Legal authority to manage fossils comes from a variety of laws, executive orders, and policies. The laws include the National Environmental Policy Act of 1969 (NEPA) and the Federal Land Policy and Management Act of 1976 (FLPMA). More recently, the Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act of 2009, also known by its popular name, the Paleontological Resources Preservation Act (PRPA), directs land managers within the Department of the Interior Agencies and the U.S. Department of Agriculture, but not including either Indian or Military (Department of Defense) lands, to manage and protect fossils using scientific principles and expertise. PRPA does not make a distinction between the types of organism preserved; therefore, all fossil resources, plants, invertebrates, and vertebrates that are determined to be scientifically significant are to be actively managed.

As mentioned, fossils are found in rocks. The rocks that we see today were formed over millions, and sometimes billions, of years. When the animal or plant that we find today as a fossil was alive, the environmental conditions of that location were significantly different. For example, the rock that fossils are found in today may have been formed by sediments at the bottom of an ocean, or along the edge of a tropical river or lake. By using the evidence preserved in the rocks, and by examining fossils, scientists can piece together the history of the Earth, its changing environmental conditions, and its changing life forms.

Given that most fossils are preserved in sediments from past environments that have been changed into rocky outcrops, understandably, most fossils are found in sedimentary rocks. The other major categories of rocks, igneous and metamorphic, are much less likely to preserve fossils—however it is not impossible.

Igneous rocks are those that are related to volcanic activity, wherein the rock is formed by the cooling of magma or lava, or during a volcanic eruption. While those environments are not generally suitable for living things, there are on rare occasions fossils associated with igneous rocks. For example, an animal may be killed by lava that surrounded it, but the cooling rocks might preserve an impression of the animal as a mold. Such a mold is a fossil—evidence of past life. Entire herds of rhinos have been preserved under ash deposits resulting from distant volcanic eruptions. And the development of caves or fissures in these otherwise unfossiliferous rocks could produce extensive collections of fossils.

Metamorphic rocks are those that have been changed by extremes of heat and pressure. Fossils that occur in the rocks prior to undergoing metamorphic change can be preserved as long as the metamorphism is low grade and not extreme enough to alter them beyond recognition. Such might be the case in a limestone with fossils that gets altered to a low grade metamorphic marble with fossils still visible.

Geologists have mapped the rocks exposed at the Earth's surface. Rocks that are similar in character, usually due to how they formed, are organized into mappable units called formations. Formations are formal units and are given names consisting generally of a place name and the word "formation," or the characteristic rock type. Examples include the Sixmile Creek Formation and the Aspen Shale. The place name is generally derived from the region in which the formation is first recognized.

Given that the environment in which a formation forms will strongly influence its likelihood of preserving fossils, and not all formations are equally likely to have fossils, the BLM uses a coding system to rank a formation's probability of containing significant fossils. This system is the Potential Fossil Yield Classification (PFYC), a numerical ranking from 1 (low potential) to 5 (very high potential). This system allows land managers to predict where significant fossils will occur in order to make informed planning decisions with regard to fossil resources.

Several important points should be kept in mind. Fossils are not evenly distributed throughout a formation, and so even highly ranked formations may produce only occasional fossils in a given locality. And, that a code of 1 does not mean that a geologic formation has no chance to produce significant fossils. Indeed, the discovery of a fossil in a class 1 rock unit might be all the more significant given its

unexpected occurrence. The system is just designed to help in planning, and cannot replace detailed analysis on a case-by-case basis by trained personnel.

### Indicators

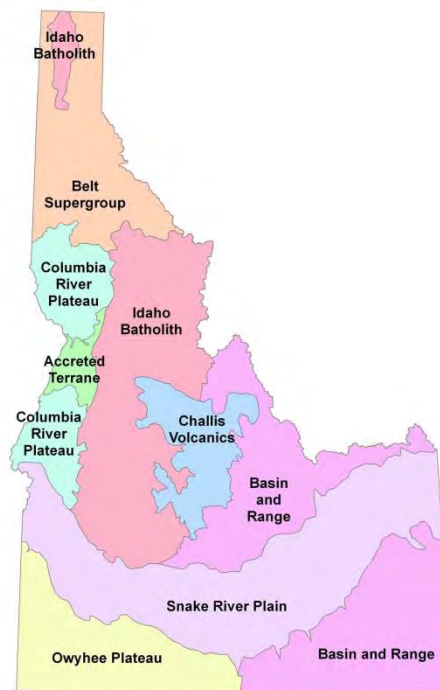
- Number of paleontological sites within the planning area
- Extent of rock outcrops and their PFYC values
- Number of permits issued to work on the resource

### Existing Conditions

#### Conditions of the Planning Area

The geology of the planning area is diverse, and includes several physiographic regions: 1) Basin and Range; 2) Snake River Plain; 3) Owyhee Plateau; 4) Challis Volcanics; 5) Idaho Batholith; and 6) Columbia River Plateau (Figure 1). These regions are created by their fundamental geologic character. Fossiliferous formations can be found throughout the entire planning area, but it is to be expected that some regions have more fossil-rich rock than others.

**Figure 1. Map showing the relationships of the physiographic regions of Idaho.**



Areas expected to be generally more fossil-rich include the Basin and Range and Snake River Plain. Within the Basin and Range of both Montana and Idaho various intermontane basins have many known fossil localities (Hanneman, 1989;

Hanneman and Wideman, 1991). Additionally, Mesozoic and Paleozoic rocks are exposed that often contain fossils in this region.

The Snake River Plain contains extensive sedimentary deposits, particularly from the last several million years and have produced a wide array of fossils such as the American Falls Reservoir faunas (Pinsof, 1998) and the older Hagerman Horse Quarry (Bjork, 1970; McDonald, 1993). Even basalt flows (formed by lava) in the Snake River Plain have formed many caves in the form of lava tubes and blisters, and most contain extensive fossil accumulations (Winterfeld and Rapp, 2009d).

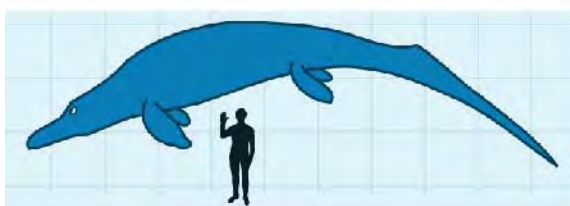
**Figure 2. A sample of some vertebrate fossils from Idaho. A) *Equus simplicidens* from the Hagerman Horse Quarry, ~3.5 million years old; B) *Bison latifrons*, a very large-horned species from the Ice Age, ~100,000 years ago; C) *Cymbospondylus*, a large marine reptile from the ichthyosaur group, ~ 220 million years old; D) the enigmatic tooth whorl of the Paleozoic shark *Helicoprion*, ~310 million years.**



A



B



■ *Cymbospondylus*: 2.0 meters (30 feet)  
■ *Homo sapiens* (male): 1.8 meters (6 feet)

C



D

### Conditions on BLM-Administered Lands

A number of resources are available to characterize the paleontological resources on BLM administered land in the planning area. However, statements made must remain generalized due to the nature of the data available at this time.

For example, for the Montana portion of the planning area information was gathered from a georeferenced database of localities at the Montana State Office.

That locality information was compiled from BLM-funded inventories of fossil resources (Nichols and Hanneman, 2000), localities reported to BLM by permittees, and localities reported in scientific literature. However, compilation of this information is still ongoing. Even so, there are 227 known fossil localities on BLM land within the planning area in Montana.

Most of the compiled information on Idaho can be found in reports on the fossil resources of Idaho (Winterfeld and Rapp, 2009a; Winterfeld and Rapp, 2009b; Winterfeld and Rapp, 2009c; Winterfeld and Rapp, 2009d; Winterfeld and Rapp, 2009e). In those overviews, localities were tallied by 7.5 minute quadrangle maps for each District in Idaho. From those summaries the total number of quadrangles with documented localities and that contain BLM lands were counted, and the approximate number of localities was summed. From these various sources, it can be estimated that over 1,800 fossil localities could be on BLM land within the planning area. The details are presented in Table 1.

**Table 1. Summary of data from various sources on the approximate number of paleontological localities on BLM land within the planning area. The numbers for Idaho come from commissioned reports on the paleontology of that state. That information was summarized by 7.5 minute quadrangles, with approximate number of localities given for each quad. Here is presented the count of quadrangles and the sum of localities within those quadrangles that included BLM land. Montana data is compiled from the locality database at the Montana State Office.**

District	Quadrangles with Localities	Localities
Boise	53	1,022
Twin Falls	32	418
Idaho Falls	63	190
Western Montana		227
<b>Total</b>		<b>1,857</b>

## Trends

With the passage of PRPA the paleontology program of the BLM is slowly being able to take on more active management of paleontological resources. The resources are managed in collaboration with BLM partners such as universities and museums across the country, as it is those parties that provide much of the work done on collecting, studying, storing, and providing meaning to our fossil resources. Additionally, BLM and our partners strive to educate the public about the value of this natural heritage.

In general, the desired outcomes for the paleontological resource is to: 1) protect the resource from unnecessary damage, theft, or vandalism; 2) ensure that the resource is responsibly collected by qualified individuals working to benefit the public through their actions; 3) utilize the resource in educational programs for the general public; and 4) teach the public about BLM's role in the management of this important resource.

The impact to fossils from the management of other resources on BLM land can be negligible to deleterious, depending up on nature of those actions. However, by maintaining best practices for the identification of resources and the mitigation of damage, the paleontological resources should continue to remain an invaluable part of the national trust.

### References

- Bjork, P.R., 1970. The Carnivora of the Hagerman local fauna (late Pliocene) of southwestern Idaho. *Transactions of the American Philosophical Society*, 60(7): 1-54.
- Hanneman, D.L., 1989. Cenozoic basin evolution in a part of south-western Montana, University of Montana, Missoula, 347 pp.
- Hanneman, D.L. and Wideman, C.J., 1991. Sequence stratigraphy of Cenozoic continental rocks, southwestern Montana. *Geological Society of America Bulletin*, 103(10): 1335-1345.
- McDonald, H.G., 1993. Hagerman fossil beds. *Rocks and Minerals*, 68: 322-326.
- Nichols, R. and Hanneman, D.L., 2000. Overview of paleontological resources on public lands in Madison and Beaverhead Counties, Montana.
- Pinsof, J.D., 1998. The American Falls Local Fauna: Late Pleistocene (Sangamonian) vertebrates from southeastern Idaho. *Idaho Museum of Natural History Occasional Paper*, 36: 121-145.
- Winterfeld, G.F. and Rapp, R.A. (Editors), 2009a. Survey of Idaho Fossil Resources Volume 1: Introduction to the Geologic History of Idaho. Erathem-Vanir Geological Consultants, Pocatello, 155 pp.
- Winterfeld, G.F. and Rapp, R.A. (Editors), 2009b. Survey of Idaho Fossil Resources Volume 2: Boise BLM District. Erathem-Vanir Geological Consultants, Pocatello, 146 pp.
- Winterfeld, G.F. and Rapp, R.A. (Editors), 2009c. Survey of Idaho Fossil Resources Volume 3: Coeur D'Alene BLM District. Erathem-Vanir Geological Consultants, Pocatello, 71 pp.
- Winterfeld, G.F. and Rapp, R.A. (Editors), 2009d. Survey of Idaho Fossil Resources Volume 4: Idaho Falls BLM District. Erathem-Vanir Geological Consultants, Pocatello, 198 pp.
- Winterfeld, G.F. and Rapp, R.A. (Editors), 2009e. Survey of Idaho Fossil Resources Volume 5: Twin Falls BLM District. Erathem-Vanir Geological Consultants, Pocatello, 119 pp.

## Wildland Fire Management

The wildland fire management program encompasses the full range of hazardous fuels, an appropriate preplanned response to unplanned ignitions of wildland fires, and the rehabilitation of lands affected by these unplanned ignitions.

The wildfire suppression program utilizes a coordinated effort to respond to all unplanned ignitions (wildfire) with a preplanned, appropriate response. Each response is guided by resource management plan and fire management plan direction. As the severity and number of wildfires escalates, the further response and prioritization of fire suppression resources becomes a collaborative effort between field, district, and state managers working closely with interagency partners.

Analyzing fire occurrence and drawing any direct or indirect correlation between supplied data is a far from perfect science. Some generalizations can be roughly interrupted such as an average length of fire season in days for current districts, the number of fires that could be reasonably expected annually, and the number of acres that are burned on an average year.

Trend analysis of fire starts and acres burned in the sage steppe ecosystem is very general and dependent predominately upon weather and fuels conditions. The relative fuel conditions of live fuel moistures and fine fuel loadings coupled with weather conditions such as relative humidity, wind speed, and days since last rainfall drive large fire growth in the grass fuel type.

Fire occurrence is weighed towards human causes, especially around urban centers and along major highway corridors. (insert/provide ID BLM fire occurrence map, showing both human and lightning starts??) However, lightning is the major contributor to multiple large fire days and high numbers of BLM acres burned. Lightning storms generally track from Southwestern towards Eastern Idaho, leaving successive lightning starts across all three southern districts, often times in remote or difficult to reach areas. These lightning events are commonly associated with strong winds which contribute to rapid large fire growth. Summer storms commonly lack significant rainfall. It should be reasonably expected that the majority of large fire days correspond to high percentile BI days.

Since 2006, emphasis upon the protection of sage-grouse habitat during suppression actions has taken center stage in planning and operational discussions. High numbers of PPH and PGH acres were burned in 2007 and 2012. XXX PPH and XXX PGH acres have been burned from 2006 through 2012. Again, the majority of these acres were burned during corresponding high BI days or periods.

Burning Index (BI)--A number related to the contribution of fire behavior to the effort of containing a fire. The BI is an index that rates fire danger related to potential flame length over a fire danger rating area.



<b>Historical Large Fires (300 Acres and Greater) 1980 to 2012</b>			
	Average Date of First Large Fire Per Year	Average Date of Last Large Fire Per Year	Average Days Between First and Last Large Fires
Boise District	6/12	9/18	96
Idaho Falls District	7/13	9/10	57
Twin Falls District	6/26	10/2	96

<b>BLM Fire Data 1980 to 2012</b>					
		Fires	BLM Acres Burned	Non-BLM Acres Burned	Total Burned Acres
Fires Occurring on BLM Lands and Suppressed by BLM	Human	3,373	1,140,029	525,949	1,665,978
	Natural	2,728	4,610,547	1,198,145	5,808,693
	Totals	6,101	5,750,577	1,724,095	7,474,672
Fires Threatening BLM Lands Where Action is Taken By BLM to Prevent Spread to BLM	Human	1,792	341,094	246,680	587,774
	Natural	522	53,783	203,884	257,667
	Totals	2,314	394,877	450,564	845,441
Total Fires Affecting BLM Acres		9,623	6,249,279	2,183,453	8,432,732

## Fire Regime Condition Class:

### Natural Fire Regime:

A natural fire regime is a general classification of the role fire would play across a landscape without

modern human mechanical intervention.<sup>1,2</sup> The five natural fire regimes are classified based on average

number of years between fires (fire frequency) combined with the severity of the fire on the dominant

overstory vegetation (amount of vegetation replacement). These five regimes include:

I – 0 to 35 year frequency and low (surface fires most common) to mixed (less than 75% of the dominant overstory vegetation replaced) severity;

II – 0 to 35 year frequency and high severity (greater than 75% of the dominant overstory vegetation replaced);

III – 35 to 100+ year frequency and mixed severity (less than 75% of the dominant overstory vegetation replaced);

IV – 35 to 100+ year frequency and high severity (greater than 75% of the dominant overstory vegetation replaced);

V – 200+ year frequency and high severity (greater than 75% of the dominant overstory vegetation replaced).

### Fire Regime Condition Class (FRCC):

A fire regime condition class (FRCC) is a classification of the amount of change in fire

frequency and severity from the natural fire regime.<sup>3</sup> The three classes are based on low (FRCC

1), moderate (FRCC 2), and high (FRCC 3) change from the natural fire regime.<sup>4,5</sup> The change in natural fire regime results from changes to one or more of the following fire regime attributes:

Vegetation characteristics (i.e., species composition, structural stages, stand age, canopy closure, and mosaic pattern); Fuel composition; Fire frequency, severity, and pattern; and Other associated disturbances (e.g., insect and diseased mortality, grazing, and drought).

Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural fire regime. Uncharacteristic conditions are considered to be those that did not occur within the natural fire regime. Examples of uncharacteristic conditions include invasive species (e.g. weeds, insects, and diseases) or excessive vegetation removal. The amount of change is based on comparison of the fire regime attributes as identified above to the natural fire regime. The amount of change is then classified to determine the FRCC.

<sup>1</sup> Agee, J.K. 1993. Fire ecology of Pacific Northwest Forests. Island Press, Wash. DC. <sup>2</sup> Brown, J.K. 1995. Fire regimes and their relevance to ecosystem management. Pages 171-178 *In* Proceedings of Society of American Foresters National Convention, Sept. 18-22, 1994, Anchorage, AK. Society of American Foresters, Wash. DC. <sup>3</sup> Hann, W.J., Bunnell, D.L. 2001. Fire and land

management planning and implementation across multiple scales. *Int. J. Wildland Fire*. 10:389-403. <sup>4</sup> Hardy, C.C., Schmidt, K.M., Menakis, J.M., Samson, N.R. 2001. Spatial data for national fire planning and fuel management. *International Journal of*

*Wildland Fire* 10:353-372. <sup>5</sup> Schmidt, K.M., Menakis, J.P. Hardy, C.C., Hann, W.J., Bunnell, D.L. 2002. Development of coarse-scale

### **Current Conditions:**

The Hazardous Fuels Reduction Program (HFR) involves a variety of treatments to modify vegetation to provide for firefighter safety, reduce the potential of wildfire spread, reduce the detrimental effects of wildfire on a landscape, protect private holdings and infrastructure, and decrease the costs of rehabilitation efforts after a wildfire has occurred. Depending on the specifics of the overall project, multiple treatment types may be involved over several years to obtain the specifications for the project. One example of this would be: For an annual grass dominated area, prescribed fire will be used to remove existing layers of the annual grass and reduce the seed source. Chemical application(s) would be utilized to further reduce the seed source and the resulting new annual grass plants. Mechanical seeding(s) of perennial (native or non-native, grass/shrub/forb) mixtures would occur, pending the most successful time of year for application(s).

### ***Examples of treatment types:***

**Prescribed Fire (Treatment)** – An HFR Treatment Category for any fire ignited by management actions to meet specific objectives and to achieve Fire Management Plans.

**Mechanical (Treatment)** – An HFR Treatment Category that describes work that manually or mechanically removes or modifies fuel load structures to achieve Fire Management Plans.

**Other (Treatment)** – An HFR Treatment Category that describes work involving the use of chemicals and biological methods to achieve Fire Management Plans.

In Idaho, the HFR Program has been in place since the start of the 2000 National Fire Plan identified the need and funding source to develop and maintain the program. Within the last 5 years, which would represent the most current treatments on the existing landscape, the following acreage and types of treatments are shown below. The prescribed fire acreages have decreased from historical levels due to multiple large scale wildfires accomplishing the removal of undesirable vegetation in areas planned for future projects. Mechanical treatments have increased in, both, seeding and mechanical reductions of conifer encroachment throughout PPH and PGH areas. The use of chemical or “Other” types of treatments has grown to increase the probability of success of seeding(s) of perennial (native or non-native, grass/shrub/forb) mixtures by removing the dominance and competitiveness of the undesirable annual grass and weed species. Biological or “Other” treatments (insects, goat, specific pathogens) have recently been of interest in very specific areas due to the “high risk” in areas that may have significant values should accidents occur during implementation of mechanical treatments (rocks, windows, etc.).

## **Trends:**

### **Treatment type and acreages over the past 5 years:**

**Prescribed Fire:** 2008-11,199 acres, 2009- 8,647 acres, 2010- 7,189 acres, 2011- 6,398 acres, 2012- 3,021 acres.

**Mechanical:** 2008- 46,073 acres, 2009- 38,992 acres, 2010- 33,975 acres, 2011- 30,987 acres, 2012- 30,725 acres.

**Other:** 2008- 59,003 acres, 2009- 47,991 acres, 2010- 36,500 acres, 2011- 39,895 acres, 2012- 71,666 acres.

Over the past few years, the focus of the HFR program was to treat acreages within the Wildland Urban Interface (WUI). This was specific to protecting private in-holdings in the attempt to decrease the detrimental effects of wildfire to human structures and the associated infra-structure for the communities. Direction was to focus the majority of expenditures in the WUI and expend minimal amounts on landscape level treatments. Budgetary erosion and increased costs are forcing decisions in the fire management arena to decrease the capability of the proactive HFR program to maintain the reactive suppression and rehabilitation efforts. If this trend continues it is forecasted that the HFR program will be non-existent by 2018. The side effects of this trend is that areas, regardless of ownership, would be left untreated or maintained and landscapes will have minimal treatments to: Reduce fire growth in areas of conifer encroachment, invasive annual grasses and weeds, habitats of concerned species, watersheds of communities and fuel breaks to compartmentalize fire growth.

## Emergency Stabilization and Rehabilitation (ESR)

Alteration to the historic fire regime has substantially reduced the sagebrush steppe communities of the Sub Unit and the larger Great Basin. The exclusion of wildfire within the upper elevations shrub steppe communities (primarily mountain big sagebrush) has converted approximately XXX acres of sage-grouse habitat into juniper woodland.

The greatest loss of sage-grouse habitat however has been from cheatgrass proliferation and wildfire within the lower elevation sagebrush communities (primarily Wyoming big sagebrush). Historically, wildfire was not a common occurrence within the Wyoming big sagebrush sites. Current literature estimates the fire interval at approximately 100 years. When these sites did burn, the discontinuous fuels of the scattered native bunch grasses likely resulted in small, discontinuous fires. Conversely, cheatgrass is highly flammable due to its uniform fine fuels which dry out early in the growing season. Each recurring fire set the stage for further cheatgrass expansion, resulting in an ever increasing cheatgrass/fire cycle and loss of sage-grouse habitat. On many of these sites, fire-return intervals have been shortened to between two and four years (Whisenant 1990).

Most lower elevation shrub steppe communities within the subunit (even those containing minimal cheatgrass understories) will cross a threshold into fire maintained cheatgrass dominated communities unless they are successfully rehabilitated within the first couple years following wildfire. Such areas are also highly susceptible to noxious weed invasions. Therefore, successfully reestablishing perennial vegetation within this narrow time frame is essential for reducing the loss of low elevation sage-grouse habitat.

Fire rehabilitation consists of mitigating damaging effects from wildfire and in restoring vegetative structure and function to recently burned fire damaged areas which cannot recover on their own. These efforts consist of seeding perennial grasses, shrubs, and forbs. The seeding technique is based largely on seed size. Most grasses (which have relatively large seeds) are drill seeded to effectively cover the seed, whereas sagebrush and many forbs (which consist of small seeds) are most successful broadcast seeded.

Drought and invasive annual grass competition are the two biggest challenges to reestablishing perennial vegetation following wildfire on the low elevation sites. Seedlings are most successful during years of adequate precipitation and on sites where cheatgrass competition is minimal such as recently burned sagebrush stands in good condition, or sagebrush stands with cheatgrass in the understory which burned hot enough consume cheatgrass seed lying on the soil surface underneath the sagebrush canopy. Accordingly, the higher the density of sagebrush cover prior to the burn, the greater the likelihood for seedlings success. Because sagebrush fires burn hotter and slower than grassland fires, the cheatgrass seed lying on the soil surface underneath the sagebrush canopy is usually consumed, whereas the seed laying outside of the sagebrush canopy or other shrub free areas (such as previously burned cheatgrass dominated sites) is not consumed and remains viable. Accordingly, the areas underneath the burned sagebrush canopy create a cheatgrass free "clean" seedbed which allows seeded species to establish relatively free of cheatgrass competition. Although the areas

outside of the canopies will remain dominated by cheatgrass, the established plants underneath the former sagebrush canopy will usually outcompete the adjacent cheatgrass over time. However, strong wind driven fires often prevent consumption of cheatgrass seed, thereby require cheatgrass control. Seeding previously burned cheatgrass-dominated sites devoid of a brush overstory, is not usually successful because these rapid cheatgrass driven fires do not provide enough heat to consume cheatgrass seed lying on the soil surface.

Herbicides have proven to be the most effective and noninvasive method for controlling annual grasses prior to seeding. Before 1991, the use of herbicides to control invasive annual grasses was prohibited on public land. Therefore, various tilling methods such as plowing and disking were the only available options. Unfortunately, these treatments obliterated remaining native vegetation and biologic soil crusts, increased site susceptibility to wind erosion and often resulted in seed being drilled too deeply, thereby opening the site for total cheatgrass domination when seedings were unsuccessful. Prescribed fire was used in attempts to kill cheatgrass seed while still on the plant. Although such fires kill some seed still on the plant, they do not burn hot enough to kill cheatgrass seed on the soil surface.

Intensive livestock grazing is often suggested for controlling cheatgrass competition. Although targeted grazing may have some applications for fuels management, it is not effective in reducing cheatgrass competition. During the short time when cheatgrass is highly palatable in the spring, a sufficient number of livestock cannot be concentrated on a small enough area to reduce the cheatgrass seed significantly or reduce cheatgrass seed lying on the soil surface. In addition, this type of grazing can be detrimental to remaining perennial grasses which opens the site up for further cheatgrass expansion in the future.

BLM is authorized to use various approved contact and pre-emergent herbicides for controlling invasive annual grasses. Both types of herbicides have their advantages and shortcomings.

Contact herbicides such as Glyphosate which has been widely and successfully used within the Twin Falls District. These herbicides must be applied during the short period that cheatgrass is actively growing, and before seed development occurs. When numerous cheatgrass crops occur on a given year, repeated applications are required. Additionally, application rates must be tuned to minimize damage to existing perennial plants while effectively controlling the invasive annuals. Glyphosate is quickly absorbed into the soil and therefore has no potential for offsite non-target damage from moving soil particles

Preemergent herbicides such as imazapic and sulfometuron methyl are highly effective in controlling invasive annual grasses while having minimal impacts to most established perennial species. They are also classified as nontoxic to fish and wildlife. These herbicides do not require the specific application timing needed with glyphosate, and their residual action in the soil controls annual grasses whenever they happen to germinate. The residual action lasts from 1 to three years, depending on soil moisture, pH, and temperature. In addition to controlling invasive annual grasses prior to seeding, these herbicides could be used to help maintain and protect existing native plant communities which have been invaded with annual grasses. Such treatments would allow the natives to gain a competitive advantage over the

exotic annuals, and the associated reduction in annual grass fuels would reduce the site's risk to wildfire. A limitation of these herbicides is their potential to damage crops at extremely low concentrations. Accordingly, these herbicides cannot be used near agricultural areas or on unstable soils.

Recent research on naturally occurring fungi and bacteria for controlling cheatgrass is encouraging and may prove to be an effective future control method.

Selecting plant materials which can establish and persist in these arid cheatgrass competitive environments is essential for restoring sagegrouse habitat lost through wildfire. Prior to 1986, fire rehabilitation funds could not be used for sagebrush seeding. Since that time, sagebrush is included in most fire rehabilitation seedings on its respective ecological sites. Occasionally, during busy fire years, sagebrush seed shortages restrict its use to priority burned sage-grouse habitat.

Native grasses and forbs are preferred over introduced species when they can meet the above requirements. Historically, few adapted native grass seed was available which could persist in these desert environments, thereby requiring the use of durable introduced species such as crested wheatgrass. Over time, selections of native blue bunch wheatgrass, basin wildrye, Snake River wheatgrass, squirreltail, Indian ricegrass, and Sandberg bluegrass have become increasingly available and are now used extensively in fire rehabilitation seedings for areas that receive at least 10" of annual precipitation in recently burned sagebrush communities. For the past ten years, BLM has been funding the interagency Great Basin Native Plant Selection and Increase Project for increasing native seed availability, especially native forbs important to sage-grouse, and to improve the success of land managers in establishing native plants (<http://www.fs.fed.us/rm/boise/research/shrub/greatbasin.shtml>)

However, some important native grasses (such as Thurber's Needlegrass) are still not widely available and or effective in competing with cheatgrass in the harshest environments. In these areas, durable introduced species as Siberian wheatgrass and Russian wild rye are still the only viable option. Even those species are often unsuccessful on those sites. Additionally, restoring native plant communities in repeatedly burned annual dominated grasslands has proven largely unsuccessful. Considerable speculation and research has attempted to understand why. A lack of mycorrhiza, soil nutrients, and other changes to the soil environment from years of invasive annual grass domination is believed to be at least partially responsible.

The theory of "assisted succession" is suggested as a method for ultimately restoring these areas by first vegetating with resilient introduced species to break the fire cycle, removing annual grass dominance and deplete annuals' seed source, and restore soil characteristics which may in time make the site more hospitable to restoring the native community, followed by eventual seeding with natives. Accordingly, this is a long term costly process which cannot begin to be implemented until the fire cycle has been broken. Until the majority of annual grass dominated landscapes can be rehabilitated to less fire prone species in the long-term, these short fire cycles will result in a continual loss of these investments, and in the remaining native sagebrush steppe communities.

Seeded areas require rest from livestock use to become fully established, followed by livestock management which will maintain plant health and vigor. BLM policy traditionally prescribes a minimum of growing season rest period (from livestock grazing), and until plant establishment objectives are met. Depending on moisture and other site conditions, longer rest is often needed grazing can be resumed. However a true native restoration could require years of rest from grazing to become successfully established (depending on plant materials used and site characteristics). Such large scale treatments could have significant repercussions to grazing permittees, and may also necessitate more restrictive management to maintain the native seeded species over the long term.

The ability to protect these areas from recurring wild fire is crucial to maintaining the reestablished sagebrush component. Successful fire rehabilitation seeding contributes partially to this goal by changing the fuels from highly flammable annual grasses with high fuel continuity, into less fire prone perennial bunch grasses which stay greener longer and which provide much less fuel continuity. Accordingly, when fire does return to these rehabilitated areas, the fires are often spotty which leave substantial unburned sagebrush islands and a seed source for naturally reestablishing sagebrush. Additionally, the burned perennial grasses quickly re-sprout and compete effectively with annual weeds.

Also needed is a system of effectively managed fuels breaks consisting of durable fire resistant vegetation (such as forage kochia) placed primarily along roads to reduce the wildfire size, and provide lines of defense for fire suppression efforts.



Sage-grouse EIS Travel Management Status,  
Winter, 2013

<b>Idaho Falls District</b>				
<b>Field Office</b>	<b>TMP Name</b>	<b>Completion Date</b>	<b>Planned Completion Date</b>	<b>TMP acres</b>
Challis	Challis FO TMP	2008		792,000
Pocatello	Blackrock EA	1995		20,000?
	Bear Lake	2011		55,400
	Soda Hills	2011		15,000
	Pocatello SRMA		2014	32,700
	Curlew_Deep Creek		2013	169,000
Salmon	PFO East Dispersed		2015/16	109,000
	SFO N_TMP	2011		160,000
	SFO S_TMP		2013	300,000
Upper Snake	Various TMAs		2017	1,800,000
<b>Twin Falls District</b>				
<b>Field Office</b>	<b>TMP Name</b>	<b>Completion Date</b>	<b>Planned Completion Date</b>	<b>TMP acres</b>
Bur_Sho_RMP	Bur_Sho_TMP		2021	854,000
Shoshone	NHWY_20_TMP		2014	240,000
	Craters_Moon_TMP	2009		465,000
Jarbidge	Various TMAs		2019	1,300,000
<b>Boise District</b>				
<b>Field Office</b>	<b>TMP Name</b>	<b>Completion Date</b>	<b>Planned Completion Date</b>	<b>TMP acres</b>
Owyhee	Wilson_CK_TMP	2007		29,000
	Murphy_TMP	2009		233,000
Owyhee/Bruneau	OMA_TMP		2014	2,800,000
Four Rivers	MNSRBOP_NCA_TMP		2015	379,000
	Various_FRFO_TMAs		2017	778,000

The Omnibus Act of 2009 limited recreational mechanized and motorized travel on public lands within Owyhee County to legally established routes as the the date of enactment. The area affected by that portion of the Act includes the entire Owyhee and Bruneau Field Offices, and the XXacres of the Jarbidge Field Office. Generally, individual Travel Management Plans follow Land Use Plan revisions within five years of the signing of a ROD. Current Bureau policy effectively requires the reallocation (open/limited/closed) of vast open acreage to limited with the exception of smaller manageable polygons, e.g. dunes, etc.

## Appendix A: Non-Market Valuation Methods

This appendix addresses economic valuation of three categories of non-market resources that are present in the study area and could potentially be affected by the alternatives. These three categories of non-market value are recreation, values of sage grouse to households in the intermountain west, and value of the ranching tradition to the ranchers themselves and residents as well as visitors to the region. Recreation is included because actions that promote the conservation of sage-grouse habitat may result in changes in recreation opportunities, such as increasing the amount of habitat for other wildlife species that may be hunted or viewed that depend on public lands, roads open or closed for recreation access, and the quality of the recreation experience.

At the outset it should be noted that the economic non-market values described in this appendix are not directly comparable to regional economic indicators commonly used to describe how natural resources on public lands contribute to the regional economic indicators such as output/sales, labor income, and employment. These indicators provide valuable information to the local public as well as to regional government agencies for purposes of public service and infrastructure planning. These impacts or contributions are often referred to as distributional effects as they describe the effects to the region. However, these indicators do not represent net economic value. For example, in economic terms, labor income associated with mineral production would actually be considered a cost to the producer. Similarly, expenditures by a recreation visitor associated with a visit to public lands would be viewed by the recreationist as a cost. One last example would be the total sales generated by the sale of minerals extracted from Federally-owned minerals – the total sales do not reflect the net economic value since the costs associated with the extraction are not accounted for (including labor income, supplies, equipment as well as potentially non-market costs such as those cost associated with pollution). This section considers the economic value of the non-market outputs – a concept described below.

### ***Total Non-market Economic Value***

Many of the multiple uses in the study area are not bought and sold in competitive markets. For instance, many recreational visitors to public lands pay no or low admission fees, and the presence of wild animals such as sage grouse have no “market price”, yet both have value to people. In some cases people gain value from *using* these non-market resources, such as recreation on public lands; in other cases, protection of some natural resources provides both a use value (e.g., wildlife viewing) as well as a non-use value (e.g., the value some people hold for knowing that a specific natural resource exists and is protected even if they never intend to “use” or visit it).

Economists call the sum of these two values Total Economic Value. Use values typically can be for consumptive uses (e.g., hunting) and/or non-consumptive uses, such as viewing or being present on site (e.g., camping, hiking, etc.). In contrast, non-use values occur off-site to people who derive enjoyment from knowing a natural environment,

habitat or species exists in its natural state, either for themselves (existence value) and/or future generations (bequest value). Krutilla (1967) documents the conceptual origins of these two elements of non-use value, and Freeman (2003) provides a rigorous theoretical treatment.

Non-use or existence values can potentially be enjoyed by millions if the good or service (e.g., the presence of a specific wild species such as wild salmon or rare bird species) is of widespread interest. Thus, while the non-use value per household may much lower than a value per day received by a visitor, in total, non-use values may be quite large.

### ***Recreation Values***

Economists measure the net economic use and non-use values as “Consumer Surplus”. At its most basic level, consumer surplus is the maximum amount a person would pay minus the amount they actually have to pay. Consumer surplus, which is also sometimes referred to as “net willingness to pay,” is a measure of benefit has been used by economists and federal agencies for decades (e.g., see U.S. Water Resources Council, 1983; USEPA, 2009, 2010).

For public land recreation, especially on BLM and USFS recreation sites, entrance fees are typically very low or non-existent, so the value people place on these public land recreation opportunities is not fully measured simply by the entrance fees they pay. In economic terms, there is not a competitive market or a “market clearing price” for access to public recreation sites. Therefore, there can be a substantial difference between what people pay to visit a recreation site (e.g., entrance fees plus travel costs, including the value of time) and the maximum amount they would pay.

A common non-market valuation method used for recreation is the travel cost method (TCM). In this method, economists survey visitors to a recreation site and collect data on their frequency of trips, travel distance and costs incurred to access the site. Because the survey uses information from actual visitors, the TCM is a “revealed preference” method of valuation; economists use the travel costs as a proxy to determine the value that people gain from using the site. Variations in the travel cost across visitors, along with their respective number of trips, allow economists to statistically estimate a relationship between travel cost and quantity of trips – an aggregate demand curve for the recreation site, much like a demand curve for goods and services that are sold in competitive markets. This aggregate demand curve will tend to show that individuals with a relatively high travel cost take fewer trips on average, while individuals with a lower cost take more trips on average. From this aggregate demand curve, economists can calculate consumer surplus. Many of the consumer surplus values for recreation in the literature (e.g. Loomis, 2005) and recently developed by the USFS (e.g. Bowker et al., 2009) rely upon TCM.

Figure A-1 provides an illustration of a demand curve for recreation on a particular site. In Figure A-1, the aggregate demand is shown on an average basis, that is, for an

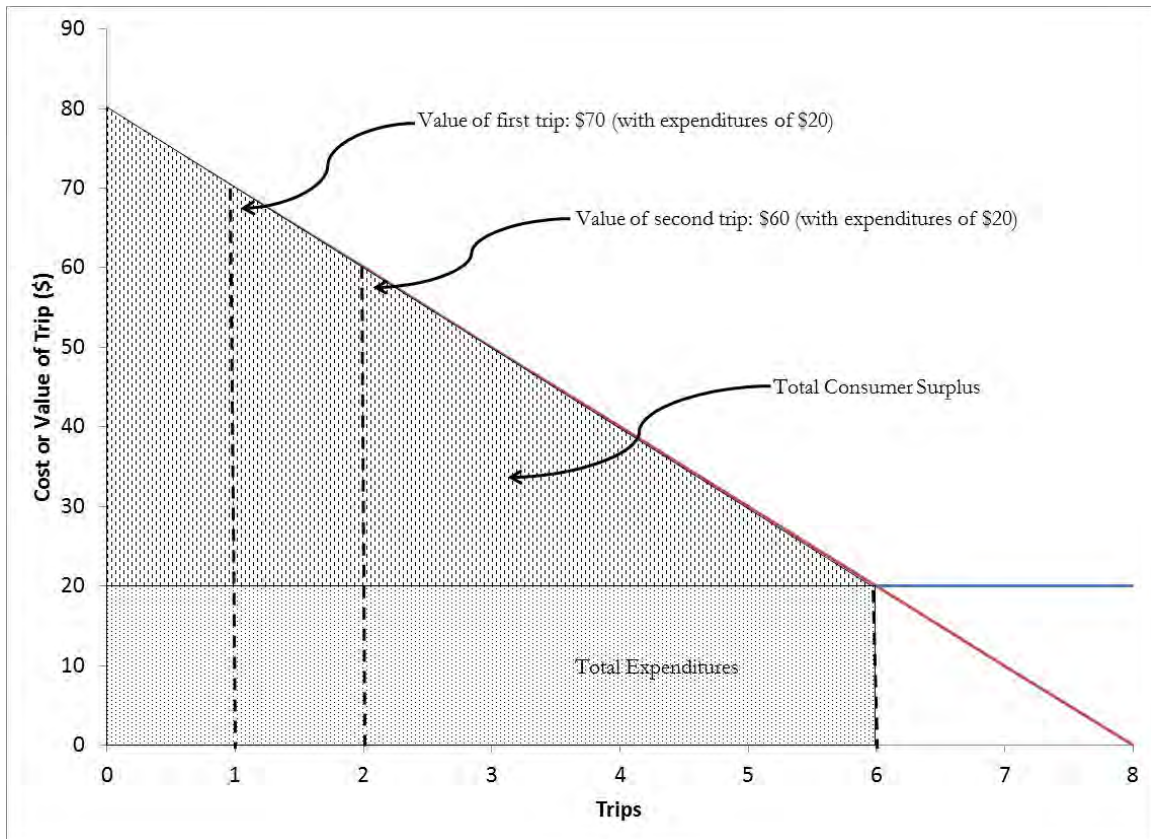
average individual consumer. The downward-sloping diagonal line in Figure A-1 represents the relationship between the travel cost and quantity of trips demanded by this average consumer. In the figure, the value of the first several trips is relatively high (\$70 for the first and \$60 for the second trip), while the value of the sixth trip is lower (\$20 in the figure). In a TCM study, these values are statistically derived from the aggregate demand calculated for the entire population. The downward slope of the demand curve corresponds to declining value associated with each trip, which is typical for most goods and services.<sup>1</sup> It also corresponds to the fact that visitors will take fewer trips to areas with a higher travel cost.

Each visitor receives a net benefit from each trip, which is measured by the difference between what they had to pay and the maximum amount they would pay for each trip. In Figure A-1, the net benefit for the average visitor is the difference between their actual expenditures of \$20 per trip and the maximum amount they would pay for each trip. As shown, the first trip has a net benefit of \$50 (\$70 of value less \$20 in expenditures), the second trip \$40 (\$60 less \$20), and so on until the sixth trip. At the sixth trip the visitor's cost is the same as their benefit, and hence there is no net benefit from further trips. Thus, this gain to the visitor over and above what they spend is their "consumer surplus."

**Figure A-1. Consumer Demand Curve and Consumer Surplus for Recreation Trips**

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<sup>1</sup> Note that for some types of recreation use, users may gain increased value over a portion of the number of trips; for example, mountain bikers may experience increased enjoyment of subsequent trips to a single location as their trail-specific skills and knowledge increase with repeat visits. Climbers and other users may also experience similar gains over repeat visits. However, even these users will likely hit a point where the marginal value begins to decrease with more trips.



Given the large range and diversity of sites in the study area, BLM and the USFS did not perform original TCM analysis of visitation in the study area. Rather they relied upon transferring existing recreation values from TCM studies such as Bowker et al. (2009) and other recreation values from the existing literature (Loomis, 2005; Loomis and Richardson, 2007; USFWS, 2009) to the recreation activities in the study area, focusing on existing studies in the Rocky Mountain and Great Basin area (Idaho, Montana, Utah, Colorado, Wyoming, Arizona, New Mexico, and Nevada). This approach, known as “Benefit Transfer,” is well-developed in academic and policy literature and has been used by federal agencies including the USEPA (see Griffiths et al., 2012 for a recent listing of economic studies where benefit transfer was used), U.S. Army Corps of Engineers, Bureau of Reclamation, USFS (U.S. Forest Service, 1991; also see Ervin et al., 2012 for a recent application of benefit transfer to the Mount Hood NF), and other agencies. Benefit transfer is widely used in academic applications as well; see Wilson and Hoehn (2006) for a series of journal articles on benefit transfer.

BLM measures recreation activity in various units, including a “visitor hour”, which represents the presence of one or more persons in an area for continuous or simultaneous periods of time aggregating one hour (e.g., one person for one hour or two persons for 30 minutes each). A “visitor day” as defined by BLM represents twelve

visitor hours (BLM, 2003). The BLM Recreation Management Information System provides data on recreation visitor days (RVDs); to be compatible with these units, BLM identified non-market values for various recreation activities in units of dollars per RVD. Values from economic literature, based on primary research conducted on various recreation sites, were matched to BLM and USFS recreation activity classifications. Table A-1 provides a listing of the values per day representing the study area of Idaho and southwest Montana.

**Table A-1. Consumer Surplus for Recreation Activities**

<b>Recreation Activity Category</b>	<b>Consumer Surplus per Visitor Day (2012 dollars)</b>
Backpacking	36.48
Camping	31.73
Cross Country Skiing	36.32
Fishing	66.00
Floatboating/Rafting/Canoeing	82.28
General Recreation	42.96
Hiking	107.16
Hunting	65.51
Motorboating	65.24
Mountain Biking	175.21
Off-Road Vehicle Driving/Off-Highway Vehicle	51.35
Other Recreation	47.69
Picnicking	52.27
Pleasure Driving	71.65
Rock Climbing	61.32
Sightseeing	41.33
Snowmobiling	51.75
Swimming	35.10
Waterskiing	69.23
Wildlife Viewing	37.00
Sources: Rosenberger, 2012; Loomis, 2005; Loomis and Richardson, 2007; Bowker et al., 2009; USFWS, 2009.	

Consistent with the description above of consumer surplus and the TCM, readers should interpret the values in Table A-1 as the consumer surplus or the amount of value that the average visitor derives from a full day of recreation beyond their actual expenditures. Thus, a typical off-highway vehicle user would pay an average value of \$51.35 more than their trip cost to have the opportunity to participate in a typical day of driving off road vehicles.

Table A-2 shows the total consumer surplus associated with recreation activities on BLM and USFS managed lands for the sub-region, including the BLM Field Offices of Bruneau, Burley, Butte, Challis, Dillon, Four Rivers, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, and Upper Snake, as well as the Beaverhead-Deerlodge, Boise, Salmon-Challis, Sawtooth, and Caribou-Targhee National Forests (note that NVUM does not

provide recreation data for the Curlew National Grassland). RVDs on BLM lands presented in Table A-2 are calculated directly from Report 26 from the BLM RMIS (Report 26 provides RVDs based on recorded visitor hours – defined above – and dividing by twelve). For this analysis, BLM used average RVDs per year over the period 2008-2012. RVDs on National Forests are calculated from the most recent available data (ranging from FY2005 to FY2009 for the forests noted) from the USFS National Visitor Use Monitoring (NVUM) report (USFS, 2013). RVDs for National Forest lands were calculated based on the total number of site visits, the “main activity” reported by recreators, and the number of hours per day reported engaging in that activity, with the number of RVDs equal to the number of hours divided by twelve. Note that conservation measures for sage grouse may only affect specific types and fractions of the public lands that contributed to the visitor days used to estimate the surplus values in Table A-2.

<b>Table A-2. Total Consumer Surplus for Recreation in Idaho/Montana Sub-Region</b>		
<b>Recreation Activity</b>	<b>Average RVDs Per Year</b>	<b>Total Consumer Surplus (millions of 2012 dollars)</b>
Backpacking	168,100	\$6.1
Big Game Hunting	602,123	\$39.4
Camping	2,463,485	\$78.2
Cross Country Skiing	104,161	\$3.8
Fishing	896,544	\$59.2
Floatboating/Rafting/Canoeing	327,189	\$26.9
General Recreation	90,222	\$3.9
Hiking	484,388	\$51.9
Hunting – Other	755,614	\$49.5
Motorboating	189,607	\$12.4
Mountain Biking	80,562	\$14.1
Off Road Vehicle Driving/ Off-Highway Vehicle	445,795	\$22.9
Other Recreation	594,560	\$28.4
Picnicking	268,400	\$14.0
Pleasure Driving	354,478	\$25.4
Rock Climbing	34,261	\$2.1
Sightseeing	907,664	\$37.5
Small Game Hunting	101,068	\$6.6
Snowmobiling	281,388	\$14.6
Swimming	65,754	\$2.3
Waterfowl Hunting	36,525	\$2.4
Waterskiing	7,403	\$0.5
Wildlife Viewing	350,318	\$13.0
<b>Total</b>	<b>10,113,748</b>	<b>\$515.0</b>
Source: BLM 2012; USFS 2013; consumer surplus per RVD shown in Table A-1.		

***Values associated with populations of sage-grouse***

Economists have long recognized that wildlife species, especially rare, threatened and endangered species, have economic values beyond just viewing. This is supported by a



series of legal decisions and technical analyses. The U.S. Court of Appeals in 1989 first clarified that the U.S. Department of Interior, in assessing damages in Natural Resource Damage Assessment (NRDA) cases, should include what it termed as “passive use values”, that is, existence values provided to non-users of the species – as a compensable value in addition to any use value. These passive use values are also included in Oil Pollution Act (OPA) damage assessments as well. The term passive values is interchangeable with the term non-use values defined previously. This ruling and subsequent analysis for NRDA and OPA assessments are consistent with well-established economic theory showing that people derive value from passive use or non-use as well as active uses of resources (Krutilla, 1967). Economists have devoted a great deal of conceptual and empirical work to refining concepts and developing methods to measure these passive use values.

The dominant methods are “stated preference” methods, of which the most prominent is the Contingent Valuation Method (CVM). The basic element of this method is to use a survey to construct or simulate a market or referendum for protection or improvement of a natural environment, habitat or species, and then having the respondent indicate whether or not they would pay for an increment of protection, and if so how much they would pay. While the method has developed a great deal of sophistication that has increased the validity of the willingness to pay (WTP) responses, there is admittedly a degree of bias that can result in stated WTP exceeding actual WTP by a factor averaging 2-3 (Loomis, 2011; Murphy et al., 2005; List and Gallet, 2001). While not a perfect estimator of WTP, CVM provides a useful means for estimating the public’s passive use values.

Numerous academic papers and even entire books have been written on CVM. Mitchell and Carson (1989) was one of the first, while Alberini and Kahn (2006) is a more recent treatment. To date there have been about 7,500 CVM studies in over 130 countries (Carson, 2011). A number of federal agencies have used or referenced stated preference methods, including the Bureau of Reclamation, Environmental Protection Agency, National Park Service, and state agencies such as the California Department of Fish and Game, Idaho Fish and Game, and Montana Fish, Wildlife and Parks. The USFWS commissioned an original CVM study of the economic values the public receives from reintroduction of wolves in the areas of Idaho, Montana and Wyoming, and used those values in an EIS on wolf reintroduction (USFWS, 1994). The Bureau of Reclamation, National Park Service, and Lower Elwha S’Klallam Tribe commissioned a CVM study on the value of removal of the Elwha and Glines Canyon Dams (Meyer et al., 1995). The U.S. Bureau of Reclamation also commissioned an original CVM study on the values of providing stable river flows to benefit riparian vegetation, endangered species and cultural resources. That study was cited by then-Secretary of Interior Bruce Babbitt as a factor in selecting the more protective flow regime from Glen Canyon Dam despite it having more foregone hydroelectricity (Babbitt, 1996).

BLM and USFS conducted a literature search to demonstrate the potential range of values that could be associated with species that are candidates for listing as threatened or endangered, such as sage-grouse populations. Analysts first verified there are no existing studies on TEV or non-use valuation specific to the sage-grouse. This is not an uncommon occurrence, as there are dozens of rare or potentially threatened species which have not been valued despite the very high policy relevance of the species and the large magnitude of economic value at stake in these policy decisions.

BLM and USFS used three criteria to identify studies that are most applicable to the current analysis: (1) whether the species valuation study was located in the same geographic region as the sage-grouse habitat; (2) whether the species was listed or not listed as a threatened or endangered species; (3) whether the species was hunted or not (implying a mix of use and non-use values).

The primary database of articles was the recent peer reviewed journal article by Richardson and Loomis (2009), which is a compilation of the economic values of threatened, endangered and rare species. A literature review was also conducted to determine if there had been any recent studies on sage grouse or closely related species. Unfortunately, there is not a perfect match in the literature in terms of geographic region (intermountain) and a species that is both hunted and rare. Table A-3 provides a summary of the studies with features most similar to the sage-grouse species.

**Table A-3. Existing Estimates of Annual Total Economic Value of Protecting Habitat for Species Similar to Sage-Grouse**

Region	Species	Listed	Hunted	Annual Value per Household <sup>b</sup>	Change valued
Four Corners (AZ, CO, NM, UT)	Mexican Spotted Owl	Yes	No	\$58.49	Avoid extinction in 15 years in Four Corners region
New England	Wild Turkey	No	Yes	\$16.72 <sup>a</sup>	Avoid extinction in New England
Texas (also L.A., NYC, Chicago, Atlanta)	Whooping Crane	Yes	No	\$43.69 <sup>a</sup>	Avoid extinction
Maine	Peregrine Falcon	Yes	No	\$32.37 (one time)	Restore self-sustaining population
South Carolina & Rest of U.S.	Red-Cockaded Woodpecker	Yes	No	\$14.69	Restore habitat to increase chance of survival to 99%
<p>Sources: Loomis and Ekstrand, 1997 (Mexican spotted owl); Stevens et al., 1991 (New England wild turkey); Bowker and Stoll, 1988 (whooping crane); Kotchen and Reiling, 2000 (peregrine falcon); Reaves et al., 1999 (red-cockaded woodpecker). All of these sources are as cited in Richardson and Loomis (2009).</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>a. Average of estimates from the study.</li> <li>b. As noted in the text, these stated preference values for household may have a degree of hypothetical bias that could overstate the actual monetary amount households would pay by a factor of 2-3.</li> </ul>					

As can be seen in Table A-3, there is one study with a geographic region overlapping the sub-region (Mexican spotted owl), and one study on a species that was hunted at the time (wild turkey). At the time of the study, the Mexican Spotted Owl was a threatened species under the Endangered Species Act, and respondents were told in the survey that it was a threatened species. The whooping crane, red-cockaded woodpecker peregrine falcon studies involved an endangered species.

All of these studies used the CVM method in a mail survey. Households were asked whether they would pay a specific dollar amount, with that amount varying across individuals in the sample (i.e., the valuation questions were “closed-ended”, although the wild turkey study and red-cockaded woodpecker also used an open-ended valuation question for some respondents). Researchers used the closed-ended valuation questions to generate a statistical valuation function. This valuation function exhibited internal validity: the higher the dollar amount households were asked to pay, the lower the percentage of them that would pay that dollar amount.

With the exception of the peregrine falcon study, which asked respondents to commit to a one-time payment, each survey asked respondents to pay annually to accomplish the stated goal (typically, preventing the species from going extinct in the region of interest, although this varied by study as the table shows). For the peregrine falcon and red-cockaded woodpecker, households were told that their payment would restore a self-sustaining population (i.e., one that would not go extinct).

The original wild turkey study provided an estimate of three values (in 1990 dollars) which were averaged and then adjusted to 2012 dollars using the CPI, resulting in a value of \$16.72 per household per year. The same procedure was used to update the 1996 dollar values of the Mexican Spotted Owl to 2012, resulting in values of \$58.49 per household per year. The higher values for the Mexican Spotted Owl may be due to the large area of habitat (4.6 million acres stated in the survey and shown on a map) that would be protected in the Four Corners area by paying, and the fact the species was not a hunted species. The whooping crane values are fairly large at \$43.69 per household per year; this value represents a Total Economic Value, including both use and non-use value, as some of the sample included people who actively “used” the species (as wildlife viewers).

The study values in Table A-3 demonstrate that many people, or segments of the public, hold substantial value for protecting threatened and endangered species, which may carry over to the sage-grouse. However, additional studies would be needed to identify values specifically for sage-grouse protection. Given that protection is a public good available to all households in the intermountain west, the aggregate or intermountain regional value could be substantial.

#### ***Values associated with grazing land***

Public lands managed for livestock grazing provides both market values (e.g., forage for livestock) and non-market values. Many ranchers themselves value the ranching lifestyle in excess of the income generated by the ranching operations. This is evident in some ranch sales transaction data which suggests some ranch properties have sold for more than the market value of the public land forage (Bartlett et al., 2002; Taylor, 2006). One of the primary reasons public lands ranchers indicate they own land is for the “tradition, values and culture” rather than primarily for profit (Tanaka et al., 2005). Many public land ranchers work elsewhere part-time and rely on the ranch for only 20 percent of

their income (Hanus, 2011), relying instead on outside jobs or other savings to support their ranching lifestyle. Land appreciation has also provided increased value and therefore served as an economic resource for ranchers (Tanaka et al., 2005; Torell et al., 2005). As several of these authors note, changes in public land grazing that reduce the profitability of grazing may not directly translate to withdrawal from ranching, due to the fact that economic factors are not necessarily the primary motivation for public land ranching.

Some studies have found non-market values of ranching associated with use values to residents (Mangun et al., 2005) and tourists in the form of open space and western ranch scenery (Ellingson et al., 2006). However, some others see non-market opportunity costs associated with livestock grazing that may, depending on management methods and other variables, reduce native plant species and forage for wildlife (Todres et al., 2003). The potential exists for other residents or visitors to prefer lifestyles or have lifestyle needs that are not consistent with grazing or ranching lifestyles or landscapes.

Methods available to measure the use values to residents and tourists associated with grazing land include stated preference methods similar to contingent valuation (Ellingson et al., 2006; Mangun et al., 2005). Methods for attempting to isolate any amenity values that ranchers themselves may hold include the hedonic price method. This method uses observed sale prices of ranch land as a function of the characteristics, including both conventional market factors (e.g., size of ranch, quantity of forage) but also amenity values (e.g., scenic views, presence of wildlife species, on-site fishing or hunting opportunities) that may be provided by the ranch (Torell et al., 2005). The additional value that ranchers pay for the amenity values of the ranch provide some indication of how much they value these amenities. Using the hedonic price method to estimate a “lifestyle value” separate from the market and amenity values has yet to be done in the literature. This may be due to the fact that lifestyle values attributed to living on a ranch or ranching is present on nearly all ranch properties sold. As such, statistically it is difficult to isolate the contribution of ranching lifestyle to differences in ranch property values as ranching lifestyle is a common feature of nearly all ranch properties sold.

### ***References***

Alberini, A., and J. Kahn. 2006. Handbook on Contingent Valuation. Edward Elgar, Northampton, MA.

Babbitt, B. 1996. Record of Decision, Operation of Glen Canyon Dam. Final Environmental Impact Statement. Washington, DC: U.S. Department of the Interior.

Bartlett, T., L.A. Torell, N. Rimbey, L. van Tassell, and D. McCollum. 2002. Valuing Grazing on Public Land. Journal of Range Management 55: 426-438.

Bureau of Land Management (BLM). 2003. Guidelines to Reporting Recreation Visitation. June 23. Washington, DC: U.S. Department of the Interior.

Bureau of Land Management (BLM). 2012. Recreation Management Information System. Report 26, Visitor Days and Participants by Office and Activity. Washington, DC: U.S. Department of the Interior.

Bowker, J.M., M. Starbuck, D. English, J. Bergstrom, R. Rosenberger, and D. McCollum. 2009. Estimating the Net Economic Value of National Forest Recreation: An Application of the National Visitor Use Monitoring Data. Faculty Series Working Paper, FS-09-02. Dept. of Agricultural and Applied Economics, University of Georgia, Athens, GA.

Bowker, J.M., and J.R. Stoll. 1988. Use of dichotomous choice nonmarket methods to value the whooping crane resource. *American Journal of Agricultural Economics* 70, 372–381.

Carson, R. 2011. *Contingent Valuation: A Comprehensive Bibliography and History*. Edward Elgar, Northampton, MA.

Ellingson, L., A. Seidl and C.J. Mucklow. 2006. Tourists' Value of Routt County's Working Landscape, 2005: Summary Report. EDR 0-07, Economic Development Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO. <http://dare.colostate.edu/pubs/EDR/EDR06-07.pdf>

Ervin, D., G. Larsen and C. Shin. 2012. Simple Ecosystem Service Valuation Can Impact National Forest Management, *AERE Newsletter* 32(1): 17-22. May.

Freeman, M. 2003. *The Measurement of Environmental and Resource Values*. Resources for the Future Press, Washington DC.

Griffiths, C., H. Klemick, M. Massey, C. Moore, S. Newbold, D. Simpson, P. Walsh, and W. Wheeler. 2012. U.S. Environmental Protection Agency Valuation of Surface Water Quality Improvements. *Environmental Economics and Policy* 6(1): 130-146.

Hanus, A. 2011. Socio-Economic Profile and Analysis of Seven Oregon Counties Included in the Greater Sage-Grouse Conservation Strategy for Oregon. Association of Oregon Counties.

Kotchen, M., and S. Reiling. 2000. Environmental attitudes, motivations, and contingent valuation of nonuse values: a case study involving endangered species. *Ecological Economics* 32, 93–107.

Krutilla, J.V. 1967. Conservation Reconsidered. *American Economic Review* 57: 777-786.

List, J., and C. Gallet. 2001. What experimental protocol influences disparities between actual and hypothetical stated values? *Environmental and Resource Economics* 20: 241–254.

Loomis, J. 2005. Updated Outdoor Recreation Use Values on National Forests and Other Public Lands. General Technical Report PNW-GTR-658. USDA Forest Service Pacific Northwest Research Station, Portland, OR.  
[http://www.fs.fed.us/pnw/pubs/pnw\\_gtr658.pdf](http://www.fs.fed.us/pnw/pubs/pnw_gtr658.pdf)

Loomis, J. 2011. What's to Know about Hypothetical Bias in Stated Preference Valuation Studies. *Journal of Economic Surveys* 25(2): 363-370.

Loomis, J. and E. Ekstrand. 1997. Economic Benefits of Critical Habitat for the Mexican Spotted Owl: A Scope Test Using a Multiple Bounded Contingent Valuation Survey. *Journal of Agricultural and Resource Economics* 22(2): 356-366.

Loomis, J. and L. Richardson, 2007. Benefit Transfer and Visitor Use Estimating Models of Wildlife Recreation, Species and Habitats. Department of Agricultural and Resource Economics, Colorado State University.  
<http://dare.colostate.edu/tools/benefittransfer.aspx>

Mangan, N., A. Seidl, C.J. Mucklow, and D. Alpe. 2005. The Value of Ranchland to Routt County Residents 1995-2005. EDR 05-02, Economic Development Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO.  
<http://dare.colostate.edu/pubs/EDR/EDR05-02.pdf>

Meyer, P.A., R. Lichtkoppler, R.B. Hamilton, D.A. Harpman, C.L. Borda, and P.M. Engel. 1995. Elwha River Restoration Project: Economic Analysis, Final Technical Report. Developed by the Project Human Effects Team. A Report to the U.S. Bureau of Reclamation, National Park Service, and Lower Elwha S'Klallam Tribe. Davis, CA. Online: [http://digital.library.ucr.edu/cdri/documents/R264\\_Economic\\_analysis.pdf](http://digital.library.ucr.edu/cdri/documents/R264_Economic_analysis.pdf).

Mitchell, R. and R. Carson. 1989. Using Surveys to Value Public Goods: The Contingent Valuation Method. *Resources for the Future*, Washington DC.

Murphy, J.J., Allen, P.G., Stevens, T.H. and Weatherhead, D. 2005. A meta-analysis of hypothetical bias in stated preference valuation. *Environmental and Resource Economics* 30: 313-325.

Reaves, D.W., R. Kramer and T. Holmes. 1999. Does Question Format Matter? Valuing an Endangered Species. *Environmental and Resource Economics* 14: 365-383.

Richardson, L. and J. Loomis. 2009. The Total Economic Value of Threatened, Endangered and Rare Species: An Updated Meta- Analysis, *Ecological Economics* 68: 1535-1548.

Rosenberger, R. 2012. Recreation Use Values Database. Downloaded October 13, 2012. [http://recvaluation.forestry.oregonstate.edu/sites/default/files/RECREATION\\_USE\\_VALUES\\_DATABASE\\_%20SUMMARY.pdf](http://recvaluation.forestry.oregonstate.edu/sites/default/files/RECREATION_USE_VALUES_DATABASE_%20SUMMARY.pdf)

Rosenberger, R. and J. Loomis. 2000. Using Meta-Analysis for Benefit Transfer: In-Sample Convergent Validity Tests of an Outdoor Recreation Database. *Water Resources Research*, 36(4): 1097-1107.

Stevens, T., J. Echeverria, R. Glass, T. Hager and T. Moore. 1991. Measuring the Existence Value of Wildlife. *Land Economics* 67(4): 390-400.

Tanaka, J., L.A. Torell and N. Rimbey. 2005. Who Are Public Land Ranchers and Why are They Out There? *Western Economic Forum*: 14-20. Fall 2005.

Taylor, T. 2006. Rural Communities and Public Lands in the West: Impacts and Alternatives. University of Wyoming. USDA Research, Education and Economics Information System (REEIS).

Todres, T., A. Seidl, D. McLeod, A. Bittner, R. Coupal and K. Inman. 2003. Preferred Public Land Use and Policy in Moffat County: Final Report of Countywide Opinion Survey. APRPR03-11. Agricultural and Resource Policy Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, <http://dare.colostate.edu/pubs/ARPR/ARPR%2003-11.pdf>.

Torrell, L.A., N. Rimbey, O. Ramirez, and D. McCollum. 2005. Income Earning Potential versus Consumptive Amenities in Determining Ranchland Values. *Journal of Agricultural and Resource Economics* 30(3): 537-560.

U.S. Court of Appeals. DC Circuit. 1989. *State of Ohio v. U.S. Department of Interior* (880 F.2d. 432).

U.S. Environmental Protection Agency. 2000. Guidelines for Preparing Economic Analyses. EPA 240-R-00-003. Washington, DC.

U.S. Environmental Protection Agency. 2009. Valuing the Protection of Ecological Systems and Services. EPA-SAB-09-012. Washington, DC.

U.S. Environmental Protection Agency. 2010. Guidelines for Preparing Economic Analyses. EPA 240-R-10-001. Washington, DC.



U.S. Fish and Wildlife Service (USFWS). 1994. Final Environmental Impact Statement: The Reintroduction of Gray Wolves to Yellowstone National Park and Central Idaho. Washington, DC: U.S. Department of the Interior.

U.S. Fish and Wildlife Service (USFWS). 2009. Net Economic Values of Wildlife-Related Recreation in 2006. Report 2006-5. Washington, DC: U.S. Department of the Interior.

U.S. Forest Service (USFS). 1991. Resource Pricing and Valuation Procedures for the Recommended 1990 RPA Program. Washington, DC: U.S. Department of Agriculture.

U.S. Forest Service (USFS). 2013. National Visitor Use Monitoring, Round 2 Results. USDA Forest Service Natural Resource Manager. Visits by Market Segment, Activity Participation, Regional Annual Visit Duration, and Annual Visitation Estimate for Selected Forests: Beaverhead-Deerlodge NF (FY 2005), Boise NF (FY 2009), Salmon-Challis NF (FY 2009), Sawtooth NF (FY 2005), and Caribou-Targhee NF (FY 2005). Washington, DC: U.S. Department of Agriculture.

Downloaded in April 2013 from: <http://www.fs.fed.us/recreation/programs/nvum/>.

U.S. Water Resources Council. 1983. Principles and Guidelines for Water and Related Land Resource Implementation Studies. Washington, DC.

Wilson, M. and J. Hoehn. 2006. Valuing Environmental Goods and Services Using Benefit Transfer: The State-of-the-art and Science. Ecological Economics. Special Issue Volume 60.

Appendix X. Detailed Employment and Earnings Data

Table I. Employment Levels by Industry Sector and County in 2010<sup>1,2</sup>

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Farm	255	496	2,217	290	1,212	269	137	548	1,773	140	297
Forestry, fishing, & related activities <sup>3</sup>	139	(D)	(D)	122	(D)	(D)	(D)	(D)	442	(D)	(D)
Mining (including oil and gas)	35	(D)	(D)	88	(D)	38	(L)	336	109	38	(D)
Utilities	(D)	(D)	69	31	50	(L)	0	38	51	(L)	35
Construction	184	142	1,494	1,979	4,335	51	(D)	(D)	618	(D)	195
Manufacturing	70	77	2,416	521	2,450	56	(D)	(D)	1,288	(D)	48
Wholesale trade	28	80	1,391	256	3,616	(D)	(D)	104	477	(D)	37
Retail trade	313	442	1,973	1,839	8,484	157	(D)	405	1,779	(D)	272
Transportation and warehousing	(D)	(D)	609	244	1,814	(D)	11	104	875	(D)	42
Information	22	37	96	452	1,388	(D)	16	39	102	(D)	47
Finance and insurance	73	93	737	897	2,839	69	(D)	127	449	75	87
Real estate and rental and leasing	132	97	591	2,098	2,812	43	34	180	436	64	102
Professional and technical services	93	(D)	(D)	1,591	3,697	8,064	23	162	370	(D)	95
Management of companies and enterprises	0	0	(D)	(D)	131	(D)	(D)	(D)	(D)	0	(D)
Administrative and waste services	79	(D)	603	(D)	3,183	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	190	323	553	(D)	(D)	(D)	(D)	(D)	15
Health care and social assistance	(D)	(D)	1,877	1,025	8,579	(D)	(D)	(D)	(D)	(D)	95
Arts, entertainment, and recreation	138	58	191	863	956	29	(D)	49	159	10	91
Accommodation and food services	89	199	775	2,772	4,256	88	(D)	175	478	(D)	301
Other services, except public administration	111	149	1,200	1,369	3,394	(D)	(D)	200	659	24	111
Federal government	119	89	428	203	1,225	140	27	84	272	42	183
State government	(D)	25	361	41	710	13	(D)	20	168	(D)	44
Local government	(D)	577	3,332	1,337	4,334	155	(D)	613	1,343	(D)	263
Categories for which data were not disclosed	402	538	1,230	1,193	558	450	568	1,460	1,867	541	602
<b>Total Employment</b>	<b>2,282</b>	<b>3,099</b>	<b>21,780</b>	<b>19,534</b>	<b>60,576</b>	<b>9,622</b>	<b>816</b>	<b>4,644</b>	<b>13,715</b>	<b>934</b>	<b>2,962</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Elmore, ID	Fremont, ID <sup>3</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Farm	866	698	886	2,118	1,335	1,888	402	524	663	1,403	476
Forestry, fishing, & related activities <sup>4</sup>	(D)	(D)	(D)	(D)	546	348	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	38	38	(D)	(L)	(D)	(D)	(D)
Utilities	32	(D)	(L)	42	25	(D)	(D)	(D)	(D)	58	(L)
Construction	499	493	508	340	1,015	595	392	(D)	919	556	69
Manufacturing	459	100	253	814	877	1,460	142	(D)	808	962	30
Wholesale trade	110	(D)	145	218	346	(D)	64	(D)	1,364	580	34
Retail trade	1,197	465	620	588	962	1,169	442	147	1,867	732	219
Transportation and warehousing	301	180	211	351	411	1,159	(D)	60	(D)	370	110
Information	125	(D)	37	43	58	101	50	(D)	125	128	23
Finance and insurance	289	175	211	162	371	241	141	(D)	667	205	(D)
Real estate and rental and leasing	448	299	290	222	333	363	206	(D)	611	268	(D)
Professional and technical services	245	151	206	284	(D)	230	227	(D)	1,296	232	(D)
Management of companies and enterprises	(L)	0	(D)	12	(D)	(L)	16	0	(D)	(L)	0
Administrative and waste services	412	117	(D)	132	301	314	158	(D)	(D)	125	(D)
Educational services	172	(D)	(D)	15	(D)	95	20	(D)	(D)	(D)	(L)
Health care and social assistance	581	(D)	(D)	(D)	(D)	608	336	(D)	(D)	(D)	90
Arts, entertainment, and recreation	92	62	71	116	268	167	108	(D)	291	79	(D)
Accommodation and food services	814	308	253	298	305	401	307	(D)	1,014	538	(D)
Other services, except public administration	577	337	415	456	612	577	377	(D)	728	567	109
Federal government	4,832	147	153	139	164	146	268	117	209	147	41
State government	68	324	25	111	139	75	96	93	45	49	10
Local government	1,324	697	749	923	1,173	906	496	314	1,886	1,348	421
Categories for which data were not disclosed	161	742	1,288	891	937	511	211	1,071	5,183	912	472
<b>Total Employment</b>	<b>13,604</b>	<b>5,295</b>	<b>6,321</b>	<b>8,275</b>	<b>10,216</b>	<b>11,392</b>	<b>4,459</b>	<b>2,326</b>	<b>17,676</b>	<b>9,259</b>	<b>2,104</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Fremont County includes Yellowstone Park.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Farm	1,079	957	748	2,118	696	534	1,120	614	150
Forestry, fishing, & related activities <sup>3</sup>	(D)	(D)	165	828	196	(D)	557	146	(D)
Mining (including oil and gas)	(D)	(D)	38	73	38	(D)	393	95	444
Utilities	(D)	96	(D)	222	(D)	(D)	111	13	(D)
Construction	234	605	104	2,404	208	370	5,647	628	936
Manufacturing	233	1,171	1,080	3,285	488	118	2,727	148	638
Wholesale trade	122	297	(D)	1,443	177	179	1,686	42	446
Retail trade	345	744	273	5,848	387	588	8,221	407	2,631
Transportation and warehousing	(D)	333	304	1,732	(D)	(D)	1,234	141	(D)
Information	39	(D)	(D)	659	108	46	824	16	348
Finance and insurance	(D)	405	88	1,728	105	193	2,361	161	580
Real estate and rental and leasing	(D)	369	62	2,023	156	407	4,317	311	815
Professional and technical services	(D)	(D)	65	2,029	123	193	5,605	(D)	1,101
Management of companies and enterprises	(D)	(D)	(D)	202	(D)	0	190	(D)	(D)
Administrative and waste services	126	462	(D)	3,022	(D)	135	2,286	182	(D)
Educational services	(D)	(D)	(D)	380	(D)	(D)	1,114	26	248
Health care and social assistance	(D)	(D)	78	5,761	(D)	(D)	5,039	210	3,278
Arts, entertainment, and recreation	61	95	(D)	556	59	170	2,481	499	655
Accommodation and food services	192	320	(D)	2,811	182	538	5,887	1,010	1,924
Other services, except public administration	210	720	192	2,512	214	317	3,525	300	1,266
Federal government	103	129	61	736	98	260	1,121	108	474
State government	28	75	48	430	24	396	5,956	13	1,150
Local government	632	980	599	3,886	647	374	2,881	450	1,167
Categories for which data were not disclosed	868	1,700	443	0	634	1,013	0	205	1,949
<b>Total Employment</b>	<b>4,272</b>	<b>9,458</b>	<b>4,348</b>	<b>44,688</b>	<b>4,540</b>	<b>5,831</b>	<b>65,283</b>	<b>5,725</b>	<b>20,200</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Ada, ID <sup>3</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Farm	1,762	959	116	3,242	112	546
Forestry, fishing, & related activities <sup>4</sup>	529	(D)	(D)	1,135	(D)	(D)
Mining (including oil and gas)	326	(D)	(D)	77	(D)	(D)
Utilities	921	127	(D)	158	(D)	46
Construction	14,651	2,727	183	5,492	335	720
Manufacturing	15,646	2,190	39	8,044	116	347
Wholesale trade	9,550	1,147	(D)	2,481	(D)	62
Retail trade	29,193	5,382	166	9,378	412	938
Transportation and warehousing	5,902	1,347	116	2,998	59	176
Information	4,751	542	(D)	854	42	148
Finance and insurance	15,166	2,202	(D)	3,021	115	401
Real estate and rental and leasing	15,093	1,614	(D)	3,258	161	526
Professional and technical services	18,078	1,769	(D)	2,911	(D)	476
Management of companies and enterprises	4,232	287	(D)	370	(D)	(D)
Administrative and waste services	23,463	2,529	112	3,708	294	(D)
Educational services	4,757	505	25	2,178	19	177
Health care and social assistance	31,615	5,868	83	8,518	699	783
Arts, entertainment, and recreation	5,459	857	430	880	152	407
Accommodation and food services	16,728	3,330	174	3,574	456	1,366
Other services, except public administration	12,539	2,374	112	4,270	295	746
Federal government	7,030	895	206	1,169	134	159
State government	11,944	4,139	20	963	(D)	38
Local government	14,365	3,190	340	7,545	(D)	624
Categories for which data were not disclosed	0	135	402	0	1,112	550
<b>Total Employment</b>	<b>263,700</b>	<b>44,115</b>	<b>2,524</b>	<b>76,224</b>	<b>4,513</b>	<b>9,236</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Deer Lodge and Park Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 2. Employment Percentages by Industry Sector and County in 2010<sup>1,2</sup>**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Farm	11.2%	16.0%	10.2%	1.5%	2.0%	2.8%	16.8%	11.8%	12.9%	15.0%	10.0%
Forestry, fishing, & related activities <sup>3</sup>	6.1%	(D)	(D)	0.6%	(D)	(D)	(D)	(D)	3.2%	(D)	(D)
Mining (including oil and gas)	1.5%	(D)	(D)	0.5%	(D)	0.4%	(L)	7.2%	0.8%	4.1%	(D)
Utilities	(D)	(D)	0.3%	0.2%	0.1%	(L)	0.0%	0.8%	0.4%	(L)	1.2%
Construction	8.1%	4.6%	6.9%	10.1%	7.2%	0.5%	(D)	(D)	4.5%	(D)	6.6%
Manufacturing	3.1%	2.5%	11.1%	2.7%	4.0%	0.6%	(D)	(D)	9.4%	(D)	1.6%
Wholesale trade	1.2%	2.6%	6.4%	1.3%	6.0%	(D)	(D)	2.2%	3.5%	(D)	1.2%
Retail trade	13.7%	14.3%	9.1%	9.4%	14.0%	1.6%	(D)	8.7%	13.0%	(D)	9.2%
Transportation and warehousing	(D)	(D)	2.8%	1.2%	3.0%	(D)	1.3%	2.2%	6.4%	(D)	1.4%
Information	1.0%	1.2%	0.4%	2.3%	2.3%	(D)	2.0%	0.8%	0.7%	(D)	1.6%
Finance and insurance	3.2%	3.0%	3.4%	4.6%	4.7%	0.7%	(D)	2.7%	3.3%	8.0%	2.9%
Real estate and rental and leasing	5.8%	3.1%	2.7%	10.7%	4.6%	0.4%	4.2%	3.9%	3.2%	6.9%	3.4%
Professional and technical services	4.1%	(D)	(D)	8.1%	6.1%	83.8%	2.8%	3.5%	2.7%	(D)	3.2%
Management of companies and enterprises	0.0%	0.0%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	0.0%	(D)
Administrative and waste services	3.5%	(D)	2.8%	(D)	5.3%	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	0.9%	1.7%	0.9%	(D)	(D)	(D)	(D)	(D)	0.5%
Health care and social assistance	(D)	(D)	8.6%	5.2%	14.2%	(D)	(D)	(D)	(D)	(D)	3.2%
Arts, entertainment, and recreation	6.0%	1.9%	0.9%	4.4%	1.6%	0.3%	(D)	1.1%	1.2%	1.1%	3.1%
Accommodation and food services	3.9%	6.4%	3.6%	14.2%	7.0%	0.9%	(D)	3.8%	3.5%	(D)	10.2%
Other services, except public administration	4.9%	4.8%	5.5%	7.0%	5.6%	(D)	(D)	4.3%	4.8%	2.6%	3.7%
Federal government	5.2%	2.9%	2.0%	1.0%	2.0%	1.5%	3.3%	1.8%	2.0%	4.5%	6.2%
State government	(D)	0.8%	1.7%	0.2%	1.2%	0.1%	(D)	0.4%	1.2%	(D)	1.5%
Local government	(D)	18.6%	15.3%	6.8%	7.2%	1.6%	(D)	13.2%	9.8%	(D)	8.9%
Categories for which data were not disclosed	17.6%	17.4%	5.6%	6.1%	0.9%	4.7%	69.6%	31.4%	13.6%	57.9%	20.3%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Elmore, ID	Fremont, ID <sup>3</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Farm	6.4%	13.2%	14.0%	25.6%	13.1%	16.6%	9.0%	22.5%	3.8%	15.2%	22.6%
Forestry, fishing, & related activities <sup>4</sup>	(D)	(D)	(D)	(D)	5.3%	3.1%	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	0.4%	0.3%	(D)	(L)	(D)	(D)	(D)
Utilities	0.2%	(D)	(L)	0.5%	0.2%	(D)	(D)	(D)	(D)	0.6%	(L)
Construction	3.7%	9.3%	8.0%	4.1%	9.9%	5.2%	8.8%	(D)	5.2%	6.0%	3.3%
Manufacturing	3.4%	1.9%	4.0%	9.8%	8.6%	12.8%	3.2%	(D)	4.6%	10.4%	1.4%
Wholesale trade	0.8%	(D)	2.3%	2.6%	3.4%	(D)	1.4%	(D)	7.7%	6.3%	1.6%
Retail trade	8.8%	8.8%	9.8%	7.1%	9.4%	10.3%	9.9%	6.3%	10.6%	7.9%	10.4%
Transportation and warehousing	2.2%	3.4%	3.3%	4.2%	4.0%	10.2%	(D)	2.6%	(D)	4.0%	5.2%
Information	0.9%	(D)	0.6%	0.5%	0.6%	0.9%	1.1%	(D)	0.7%	1.4%	1.1%
Finance and insurance	2.1%	3.3%	3.3%	2.0%	3.6%	2.1%	3.2%	(D)	3.8%	2.2%	(D)
Real estate and rental and leasing	3.3%	5.6%	4.6%	2.7%	3.3%	3.2%	4.6%	(D)	3.5%	2.9%	(D)
Professional and technical services	1.8%	2.9%	3.3%	3.4%	(D)	2.0%	5.1%	(D)	7.3%	2.5%	(D)
Management of companies and enterprises	(L)	0.0%	(D)	0.1%	(D)	(L)	0.4%	0.0%	(D)	(L)	0.0%
Administrative and waste services	3.0%	2.2%	(D)	1.6%	2.9%	2.8%	3.5%	(D)	(D)	1.4%	(D)
Educational services	1.3%	(D)	(D)	0.2%	(D)	0.8%	0.4%	(D)	(D)	(D)	(L)
Health care and social assistance	4.3%	(D)	(D)	(D)	(D)	5.3%	7.5%	(D)	(D)	(D)	4.3%
Arts, entertainment, and recreation	0.7%	1.2%	1.1%	1.4%	2.6%	1.5%	2.4%	(D)	1.6%	0.9%	(D)
Accommodation and food services	6.0%	5.8%	4.0%	3.6%	3.0%	3.5%	6.9%	(D)	5.7%	5.8%	(D)
Other services, except public administration	4.2%	6.4%	6.6%	5.5%	6.0%	5.1%	8.5%	(D)	4.1%	6.1%	5.2%
Federal government	35.5%	2.8%	2.4%	1.7%	1.6%	1.3%	6.0%	5.0%	1.2%	1.6%	1.9%
State government	0.5%	6.1%	0.4%	1.3%	1.4%	0.7%	2.2%	4.0%	0.3%	0.5%	0.5%
Local government	9.7%	13.2%	11.8%	11.2%	11.5%	8.0%	11.1%	13.5%	10.7%	14.6%	20.0%
Categories for which data were not disclosed	1.2%	14.0%	20.4%	10.8%	9.2%	4.5%	4.7%	46.0%	29.3%	9.8%	22.4%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Fremont County includes Yellowstone Park.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Farm	25.3%	10.1%	17.2%	4.7%	15.3%	9.2%	1.7%	10.7%	0.7%
Forestry, fishing, & related activities <sup>3</sup>	(D)	(D)	3.8%	1.9%	4.3%	(D)	0.9%	2.6%	(D)
Mining (including oil and gas)	(D)	(D)	0.9%	0.2%	0.8%	(D)	0.6%	1.7%	2.2%
Utilities	(D)	1.0%	(D)	0.5%	(D)	(D)	0.2%	0.2%	(D)
Construction	5.5%	6.4%	2.4%	5.4%	4.6%	6.3%	8.7%	11.0%	4.6%
Manufacturing	5.5%	12.4%	24.8%	7.4%	10.7%	2.0%	4.2%	2.6%	3.2%
Wholesale trade	2.9%	3.1%	(D)	3.2%	3.9%	3.1%	2.6%	0.7%	2.2%
Retail trade	8.1%	7.9%	6.3%	13.1%	8.5%	10.1%	12.6%	7.1%	13.0%
Transportation and warehousing	(D)	3.5%	7.0%	3.9%	(D)	(D)	1.9%	2.5%	(D)
Information	0.9%	(D)	(D)	1.5%	2.4%	0.8%	1.3%	0.3%	1.7%
Finance and insurance	(D)	4.3%	2.0%	3.9%	2.3%	3.3%	3.6%	2.8%	2.9%
Real estate and rental and leasing	(D)	3.9%	1.4%	4.5%	3.4%	7.0%	6.6%	5.4%	4.0%
Professional and technical services	(D)	(D)	1.5%	4.5%	2.7%	3.3%	8.6%	(D)	5.5%
Management of companies and enterprises	(D)	(D)	(D)	0.5%	(D)	0.0%	0.3%	(D)	(D)
Administrative and waste services	2.9%	4.9%	(D)	6.8%	(D)	2.3%	3.5%	3.2%	(D)
Educational services	(D)	(D)	(D)	0.9%	(D)	(D)	1.7%	0.5%	1.2%
Health care and social assistance	(D)	(D)	1.8%	12.9%	(D)	(D)	7.7%	3.7%	16.2%
Arts, entertainment, and recreation	1.4%	1.0%	(D)	1.2%	1.3%	2.9%	3.8%	8.7%	3.2%
Accommodation and food services	4.5%	3.4%	(D)	6.3%	4.0%	9.2%	9.0%	17.6%	9.5%
Other services, except public administration	4.9%	7.6%	4.4%	5.6%	4.7%	5.4%	5.4%	5.2%	6.3%
Federal government	2.4%	1.4%	1.4%	1.6%	2.2%	4.5%	1.7%	1.9%	2.3%
State government	0.7%	0.8%	1.1%	1.0%	0.5%	6.8%	9.1%	0.2%	5.7%
Local government	14.8%	10.4%	13.8%	8.7%	14.3%	6.4%	4.4%	7.9%	5.8%
Categories for which data were not disclosed	20.3%	18.0%	10.2%	0.0%	14.0%	17.4%	0.0%	3.6%	9.6%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.



**Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Ada, ID <sup>3</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Farm	0.7%	2.2%	4.6%	4.3%	2.5%	5.9%
Forestry, fishing, & related activities <sup>4</sup>	0.2%	(D)	(D)	1.5%	(D)	(D)
Mining (including oil and gas)	0.1%	(D)	(D)	0.1%	(D)	(D)
Utilities	0.3%	0.3%	(D)	0.2%	(D)	0.5%
Construction	5.6%	6.2%	7.3%	7.2%	7.4%	7.8%
Manufacturing	5.9%	5.0%	1.5%	10.6%	2.6%	3.8%
Wholesale trade	3.6%	2.6%	(D)	3.3%	(D)	0.7%
Retail trade	11.1%	12.2%	6.6%	12.3%	9.1%	10.2%
Transportation and warehousing	2.2%	3.1%	4.6%	3.9%	1.3%	1.9%
Information	1.8%	1.2%	(D)	1.1%	0.9%	1.6%
Finance and insurance	5.8%	5.0%	(D)	4.0%	2.5%	4.3%
Real estate and rental and leasing	5.7%	3.7%	(D)	4.3%	3.6%	5.7%
Professional and technical services	6.9%	4.0%	(D)	3.8%	(D)	5.2%
Management of companies and enterprises	1.6%	0.7%	(D)	0.5%	(D)	(D)
Administrative and waste services	8.9%	5.7%	4.4%	4.9%	6.5%	(D)
Educational services	1.8%	1.1%	1.0%	2.9%	0.4%	1.9%
Health care and social assistance	12.0%	13.3%	3.3%	11.2%	15.5%	8.5%
Arts, entertainment, and recreation	2.1%	1.9%	17.0%	1.2%	3.4%	4.4%
Accommodation and food services	6.3%	7.5%	6.9%	4.7%	10.1%	14.8%
Other services, except public administration	4.8%	5.4%	4.4%	5.6%	6.5%	8.1%
Federal government	2.7%	2.0%	8.2%	1.5%	3.0%	1.7%
State government	4.5%	9.4%	0.8%	1.3%	(D)	0.4%
Local government	5.4%	7.2%	13.5%	9.9%	(D)	6.8%
Categories for which data were not disclosed	0.0%	0.3%	15.9%	0.0%	24.6%	6.0%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Deer Lodge and Park Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions)**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Population	3,954	5,975	45,742	21,334	104,622	2,899	1,108	6,982	23,091	980	4,370
Non-labor income <sup>1</sup>	\$61.8	\$70.4	\$459.3	\$760.7	\$1,246.9	\$34.1	\$12.5	\$81.9	\$266.9	\$8.3	\$64.3
Dividends, interest, and rent	\$31.8	\$26.6	\$189.5	\$655.7	\$606.9	\$13.1	\$6.8	\$37.7	\$117.1	\$3.6	\$35.2
Personal current transfer receipts <sup>2</sup>	\$30.0	\$43.9	\$269.8	\$105.0	\$640.0	\$21.0	\$5.7	\$44.2	\$149.9	\$4.8	\$29.1
Adjustment for residence <sup>3</sup>	\$4.7	\$31.4	\$88.9	-\$13.8	\$292.3	-\$654.6	\$6.2	-\$47.5	-\$38.5	-\$1.7	-\$10.6
Contributions for government social insurance <sup>4</sup>	\$7.1	\$11.0	\$94.7	\$86.7	\$294.1	\$104.9	\$2.3	\$25.2	\$58.2	\$3.6	\$11.6
Total personal income by place of residence	\$109.9	\$172.9	\$1,203.0	\$1,362.9	\$3,626.9	\$93.3	\$38.5	\$215.3	\$725.2	\$38.9	\$142.1
Earnings by place of work <sup>5</sup>	\$50.5	\$82.0	\$749.5	\$702.7	\$2,381.9	\$818.8	\$21.9	\$206.2	\$555.0	\$35.9	\$100.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>											
Farm	-\$1.0	\$6.4	\$39.7	\$10.2	\$40.3	\$10.6	\$6.5	\$11.5	\$156.3	\$11.4	\$9.5
Forestry, fishing, & related activities <sup>8</sup>	\$3.2	(D)	(D)	\$1.6	(D)	(D)	(D)	(D)	\$12.6	(D)	(D)
Mining (including oil and gas)	(L)	(D)	(D)	\$2.0	(D)	(L)	(L)	\$26.2	\$4.0	(L)	(D)
Utilities	(D)	(D)	\$6.7	\$2.9	\$3.3	\$0.1	\$0.0	\$3.1	\$4.2	(L)	\$2.6
Construction	\$2.6	\$2.4	\$50.9	\$93.3	\$209.9	\$1.3	(D)	(D)	\$20.4	(D)	\$3.5
Manufacturing	\$2.1	\$2.6	\$126.9	\$30.4	\$101.9	\$1.5	(D)	(D)	\$60.3	(D)	\$0.3
Wholesale trade	\$0.9	\$3.2	\$84.1	\$11.7	\$265.9	(D)	(D)	\$4.4	\$21.7	(D)	\$1.0
Retail trade	\$8.2	\$7.0	\$36.5	\$58.7	\$244.2	\$2.1	(D)	\$6.9	\$43.1	(D)	\$4.5
Transportation and warehousing	(D)	(D)	\$20.3	\$9.6	\$92.8	(D)	(L)	\$3.3	\$37.2	(D)	\$0.9
Information	\$0.3	\$0.4	\$1.8	\$22.6	\$53.4	(D)	(L)	\$0.6	\$5.9	(D)	\$1.9
Finance and insurance	\$1.4	\$1.7	\$17.5	\$32.6	\$81.2	\$1.1	(D)	\$2.0	\$10.2	\$1.7	\$0.9
Real estate and rental and leasing	\$0.6	\$0.5	\$5.6	\$26.6	\$45.3	\$0.1	\$0.1	\$2.6	\$2.2	(L)	\$0.6
Professional and technical services	\$3.4	(D)	(D)	\$96.9	\$215.7	\$765.5	\$0.7	\$5.8	\$14.4	(D)	\$2.5
Management of companies and enterprises	\$0.0	\$0.0	(D)	(D)	\$4.8	(D)	(D)	(D)	(D)	\$0.0	(D)
Administrative and waste services	\$1.0	(D)	\$14.6	(D)	\$90.0	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	\$2.0	\$6.3	\$7.0	(D)	(D)	(D)	(D)	(D)	(L)

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	<b>Adams, ID</b>	<b>Bear Lake, ID</b>	<b>Bingham, ID</b>	<b>Blaine, ID</b>	<b>Bonneville, ID</b>	<b>Butte, ID</b>	<b>Camas, ID</b>	<b>Caribou, ID</b>	<b>Cassia, ID</b>	<b>Clark, ID</b>	<b>Custer, ID</b>
Health care and social assistance	(D)	(D)	\$72.5	\$50.4	\$396.3	(D)	(D)	(D)	(D)	(D)	\$2.0
Arts, entertainment, and recreation	\$3.2	\$0.6	\$1.9	\$21.0	\$11.5	(L)	(D)	\$0.3	\$2.4	(L)	\$3.5
Accommodation and food services	\$1.3	\$3.0	\$9.4	\$76.3	\$72.5	\$1.2	(D)	\$2.5	\$6.1	(D)	\$4.8
Other services, except public administration	\$2.4	\$3.9	\$33.6	\$33.2	\$107.5	(D)	(D)	\$4.4	\$17.1	\$0.3	\$1.8
Federal government	\$9.1	\$5.5	\$27.7	\$13.1	\$104.7	\$16.4	\$2.2	\$5.2	\$18.5	\$3.6	\$13.2
State government	(D)	\$1.2	\$19.4	\$2.2	\$36.1	\$0.7	(D)	\$1.3	\$9.9	(D)	\$2.5
Local government	(D)	\$24.1	\$130.6	\$71.0	\$188.4	\$5.2	(D)	\$24.4	\$48.9	(D)	\$8.9
Categories for which data were not disclosed	\$12.0	\$19.6	\$47.8	\$30.2	\$9.2	\$13.0	\$12.5	\$101.6	\$59.4	\$18.9	\$35.2

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions) (continued)**

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Population	27,080	13,248	16,669	15,500	26,215	22,461	7,957	5,214	37,602	20,082	4,294
Non-labor income <sup>2</sup>	\$262.7	\$142.0	\$216.2	\$176.3	\$207.1	\$207.1	\$138.0	\$47.8	\$273.8	\$213.2	\$46.5
Dividends, interest, and rent	\$109.8	\$63.0	\$81.2	\$77.7	\$79.5	\$82.5	\$64.6	\$16.6	\$106.2	\$86.9	\$17.6
Personal current transfer receipts <sup>3</sup>	\$152.9	\$79.0	\$135.0	\$98.6	\$127.6	\$124.6	\$73.4	\$31.3	\$167.5	\$126.4	\$28.9
Adjustment for residence <sup>4</sup>	\$16.4	\$60.2	\$119.3	\$26.9	\$191.0	\$5.1	\$1.1	\$3.3	-\$46.1	\$46.4	\$20.8
Contributions for government social insurance <sup>5</sup>	\$67.5	\$18.3	\$21.9	\$34.2	\$34.7	\$52.4	\$15.9	\$8.7	\$69.3	\$40.1	\$5.7
Total personal income by place of residence	\$909.7	\$315.3	\$462.5	\$574.3	\$687.9	\$656.2	\$244.0	\$144.4	\$701.3	\$569.8	\$114.7
Earnings by place of work <sup>6</sup>	\$698.1	\$131.4	\$148.9	\$405.4	\$324.4	\$496.4	\$120.9	\$102.0	\$543.0	\$350.3	\$53.1
<b>Total earnings by place of work by sector<sup>7,8</sup></b>											
Farm	\$46.3	-\$1.4	\$9.3	\$191.8	\$64.5	\$138.8	\$3.1	\$46.9	-\$6.1	\$84.3	\$14.7
Forestry, fishing, & related activities <sup>9</sup>	(D)	(D)	(D)	(D)	\$13.7	\$23.0	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	(L)	(L)	(D)	(L)	(D)	(D)	(D)
Utilities	\$4.5	(D)	(L)	\$3.8	\$2.3	(D)	(D)	(D)	(D)	\$5.5	(L)
Construction	\$16.2	\$14.6	\$11.6	\$9.2	\$30.6	\$23.7	\$12.1	(D)	\$26.7	\$15.9	\$1.0
Manufacturing	\$14.5	\$2.7	\$8.8	\$42.3	\$45.4	\$61.6	\$3.7	(D)	\$44.6	\$61.7	\$0.5
Wholesale trade	\$4.2	(D)	\$7.1	\$10.9	\$13.7	(D)	\$2.0	(D)	\$42.2	\$28.5	\$1.2
Retail trade	\$29.3	\$8.4	\$10.0	\$10.4	\$17.0	\$32.8	\$10.1	\$2.2	\$43.3	\$14.4	\$2.4
Transportation and warehousing	\$11.8	\$7.0	\$7.8	\$29.0	\$16.4	\$62.0	(D)	\$1.5	(D)	\$13.1	\$3.3
Information	\$3.9	(D)	\$0.3	\$0.3	\$2.2	\$4.1	\$0.7	(D)	\$2.1	\$4.6	\$0.2
Finance and insurance	\$8.5	\$2.5	\$3.5	\$3.8	\$5.7	\$4.5	\$1.9	(D)	\$13.3	\$4.4	(D)
Real estate and rental and leasing	\$2.3	\$2.7	\$1.6	\$1.9	\$6.4	\$4.7	\$1.3	(D)	\$7.6	\$2.1	(D)
Professional and technical services	\$8.5	\$2.8	\$4.8	\$9.9	(D)	\$10.5	\$6.6	(D)	\$38.8	\$6.5	(D)
Management of companies and enterprises	(L)	\$0.0	(D)	\$1.6	(D)	\$1.2	\$1.5	\$0.0	(D)	(L)	\$0.0
Administrative and waste services	\$10.1	\$2.2	(D)	\$0.4	\$3.5	\$5.4	\$2.4	(D)	(D)	\$0.7	(D)

<sup>1</sup> Fremont County includes Yellowstone Park.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	<b>Elmore, ID</b>	<b>Fremont, ID<sup>1</sup></b>	<b>Gem, ID</b>	<b>Gooding, ID</b>	<b>Jefferson, ID</b>	<b>Jerome, ID</b>	<b>Lemhi, ID</b>	<b>Lincoln, ID</b>	<b>Madison, ID</b>	<b>Minidoka, ID</b>	<b>Oneida, ID</b>
Educational services	\$4.2	(D)	(D)	\$0.1	(D)	\$1.9	\$0.2	(D)	(D)	(D)	(L)
Health care and social assistance	\$18.6	(D)	(D)	(D)	(D)	\$20.8	\$8.8	(D)	(D)	(D)	\$1.5
Arts, entertainment, and recreation	\$1.0	\$0.8	\$0.7	\$1.8	\$2.7	\$4.8	\$2.1	(D)	\$3.8	\$1.8	(D)
Accommodation and food services	\$13.3	\$5.0	\$3.5	\$3.6	\$3.3	\$5.8	\$4.5	(D)	\$15.2	\$7.8	(D)
Other services, except public administration	\$15.2	\$8.1	\$8.1	\$12.6	\$14.2	\$16.1	\$9.0	(D)	\$17.8	\$12.9	\$1.8
Federal government	\$424.4	\$9.8	\$10.3	\$8.8	\$8.4	\$8.1	\$20.7	\$8.8	\$11.6	\$8.8	\$2.4
State government	\$3.3	\$19.0	\$1.4	\$5.1	\$7.2	\$3.8	\$5.3	\$5.5	\$2.6	\$2.6	\$0.6
Local government	\$54.9	\$25.1	\$28.8	\$33.8	\$39.4	\$34.8	\$21.2	\$10.6	\$77.7	\$50.6	\$13.9
Categories for which data were not disclosed	\$3.0	\$22.1	\$31.3	\$24.5	\$28.1	\$28.0	\$3.6	\$26.6	\$201.7	\$24.2	\$9.4

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions) (continued)**

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Population	11,491	22,635	7,867	77,490	10,217	9,256	89,616	7,698	34,233
Non-labor income <sup>1</sup>	\$115.4	\$258.8	\$79.8	\$963.4	\$136.4	\$156.7	\$1,180.3	\$133.0	\$514.7
Dividends, interest, and rent	\$48.6	\$100.4	\$33.4	\$417.3	\$53.0	\$84.0	\$781.4	\$79.1	\$225.6
Personal current transfer receipts <sup>2</sup>	\$66.8	\$158.4	\$46.4	\$546.1	\$83.4	\$72.7	\$398.9	\$54.0	\$289.1
Adjustment for residence <sup>3</sup>	\$55.4	\$95.6	-\$10.6	\$1.2	\$34.7	-\$0.3	-\$15.0	-\$1.1	-\$13.0
Contributions for government social insurance <sup>4</sup>	\$15.1	\$40.9	\$20.4	\$200.8	\$17.5	\$22.7	\$299.7	\$23.4	\$114.3
Total personal income by place of residence	\$331.7	\$607.1	\$193.1	\$2,407.5	\$273.8	\$307.6	\$3,222.0	\$271.5	\$1,256.6
Earnings by place of work <sup>5</sup>	\$176.0	\$293.6	\$144.3	\$1,643.7	\$120.2	\$173.9	\$2,356.3	\$163.0	\$869.2
<b>Total earnings by place of work by sector<sup>6,7</sup></b>									
Farm	\$82.6	\$24.5	\$14.0	\$179.5	\$8.7	\$9.2	\$26.8	\$3.1	-\$0.1
Forestry, fishing, & related activities <sup>8</sup>	(D)	(D)	\$3.8	\$32.1	\$4.5	(D)	\$10.1	\$2.0	(D)
Mining (including oil and gas)	(D)	(D)	(L)	\$1.0	(L)	(D)	\$15.5	\$4.3	\$74.4
Utilities	(D)	\$9.7	(D)	\$20.6	(D)	(D)	\$11.4	\$1.1	(D)
Construction	\$9.4	\$22.8	\$2.6	\$77.3	\$5.0	\$10.7	\$256.6	\$19.7	\$35.7
Manufacturing	\$10.5	\$48.3	\$47.5	\$169.2	\$16.4	\$0.6	\$131.9	\$1.1	\$40.4
Wholesale trade	\$5.7	\$10.6	(D)	\$70.3	\$6.1	\$5.5	\$98.4	\$1.4	\$23.9
Retail trade	\$6.3	\$13.1	\$4.2	\$161.8	\$8.5	\$12.5	\$247.4	\$8.0	\$93.8
Transportation and warehousing	(D)	\$13.2	\$13.0	\$74.7	(D)	(D)	\$45.6	\$5.2	(D)
Information	\$1.0	(D)	(D)	\$27.0	\$4.7	\$1.6	\$31.9	\$0.3	\$20.4
Finance and insurance	(D)	\$8.3	\$1.9	\$63.6	\$2.4	\$9.5	\$105.2	\$5.6	\$21.9
Real estate and rental and leasing	(D)	\$3.5	\$0.6	\$17.6	\$0.9	\$11.3	\$56.8	\$9.8	\$7.8
Professional and technical services	(D)	(D)	\$1.8	\$88.6	\$4.6	\$4.6	\$269.9	(D)	\$54.1
Management of companies and enterprises	(D)	(D)	(D)	\$8.2	(D)	\$0.0	\$9.1	(D)	(D)
Administrative and waste services	\$3.9	\$8.2	(D)	\$53.0	(D)	\$2.0	\$51.5	\$4.4	(D)
Educational services	(D)	(D)	(D)	\$6.2	(D)	(D)	\$15.8	\$0.6	\$3.8

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Health care and social assistance	(D)	(D)	\$2.1	\$246.4	(D)	(D)	\$226.9	\$7.7	\$134.8
Arts, entertainment, and recreation	\$0.3	\$0.8	(D)	\$6.7	\$0.9	\$1.7	\$45.4	\$23.7	\$10.9
Accommodation and food services	\$2.3	\$3.8	(D)	\$47.9	\$2.2	\$7.6	\$119.7	\$27.0	\$35.3
Other services, except public administration	\$4.6	\$16.8	\$4.8	\$64.3	\$4.3	\$6.9	\$94.2	\$6.2	\$32.2
Federal government	\$6.3	\$6.8	\$3.3	\$51.9	\$5.9	\$19.4	\$83.1	\$6.4	\$35.3
State government	\$1.4	\$4.2	\$2.4	\$23.3	\$1.1	\$16.8	\$259.8	\$0.7	\$63.1
Local government	\$22.7	\$36.6	\$23.2	\$152.5	\$26.2	\$15.6	\$143.4	\$18.6	\$62.7
Categories for which data were not disclosed	\$18.9	\$62.4	\$19.2	\$0.0	\$17.8	\$38.6	\$0.0	\$5.9	\$118.7

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions) (continued)**

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Population	393,466	83,020	7,017	189,410	9,297	15,587
Non-labor income <sup>2</sup>	\$4,788.3	\$902.9	\$88.3	\$1,828.7	\$133.8	\$259.9
Dividends, interest, and rent	\$2,581.4	\$332.0	\$41.5	\$612.8	\$47.7	\$150.8
Personal current transfer receipts <sup>3</sup>	\$2,206.9	\$570.9	\$46.8	\$1,215.9	\$86.1	\$109.2
Adjustment for residence <sup>4</sup>	-\$616.9	\$96.9	\$111.0	\$379.8	\$20.2	\$66.8
Contributions for government social insurance <sup>5</sup>	\$1,529.0	\$213.1	\$8.8	\$334.0	\$21.3	\$34.5
Total personal income by place of residence	\$15,234.3	\$2,373.5	\$252.9	\$4,304.0	\$276.1	\$534.9
Earnings by place of work <sup>6</sup>	\$12,591.9	\$1,586.7	\$62.3	\$2,429.5	\$143.4	\$242.7
<b>Total earnings by place of work by sector<sup>7,8</sup></b>						
Farm	\$46.6	\$9.8	\$0.4	\$135.4	-\$0.5	\$2.4
Forestry, fishing, & related activities <sup>9</sup>	\$11.6	(D)	(D)	\$31.1	(D)	(D)
Mining (including oil and gas)	\$14.2	(D)	(D)	\$1.2	(D)	(D)
Utilities	\$120.9	\$11.6	(D)	\$14.4	(D)	\$4.1
Construction	\$910.3	\$110.4	\$3.1	\$175.1	\$15.8	\$20.5
Manufacturing	\$1,443.6	\$133.5	\$0.6	\$327.4	\$4.8	\$13.5
Wholesale trade	\$651.8	\$56.6	(D)	\$131.8	(D)	\$2.2
Retail trade	\$889.8	\$126.1	\$2.5	\$231.9	\$9.3	\$21.0
Transportation and warehousing	\$262.1	\$87.7	\$2.5	\$129.7	\$1.8	\$8.2
Information	\$235.9	\$21.2	(D)	\$29.6	\$0.6	\$4.0
Finance and insurance	\$714.8	\$79.7	(D)	\$64.8	\$3.3	\$10.5
Real estate and rental and leasing	\$189.5	\$16.3	(D)	\$25.4	\$1.5	\$6.7
Professional and technical services	\$1,257.3	\$73.4	(D)	\$95.8	(D)	\$11.6
Management of companies and enterprises	\$436.5	\$12.6	(D)	\$18.1	(D)	(D)
Administrative and waste services	\$757.3	\$64.0	\$2.6	\$77.4	\$9.7	(D)

<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Deer Lodge and Park Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.



	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Educational services	\$104.6	\$7.5	\$0.2	\$48.1	\$0.6	\$3.8
Health care and social assistance	\$1,694.2	\$246.1	\$1.9	\$284.5	\$25.6	\$31.1
Arts, entertainment, and recreation	\$125.1	\$7.9	\$8.0	\$7.0	\$3.2	\$4.4
Accommodation and food services	\$331.3	\$53.5	\$2.6	\$55.1	\$7.5	\$27.7
Other services, except public administration	\$409.2	\$64.3	\$2.5	\$105.3	\$5.0	\$17.5
Federal government	\$637.7	\$69.2	\$15.9	\$68.1	\$9.0	\$9.5
State government	\$635.3	\$193.5	\$0.9	\$47.5	(D)	\$2.9
Local government	\$712.4	\$140.1	\$11.4	\$324.8	(D)	\$28.3
Categories for which data were not disclosed	\$0.0	\$1.6	\$7.2	\$0.0	\$46.3	\$12.7

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Population	3,954	5,975	45,742	21,334	104,622	2,899	1,108	6,982	23,091	980	4,370
Non-labor income as a proportion of total personal income <sup>1</sup>	56.2%	40.7%	38.2%	55.8%	34.4%	36.5%	32.6%	38.0%	36.8%	21.4%	45.2%
Dividends, interest, and rent as a proportion of total personal income	28.9%	15.4%	15.8%	48.1%	16.7%	14.0%	17.7%	17.5%	16.1%	9.1%	24.8%
Personal current transfer receipts as a proportion of total personal income <sup>2</sup>	27.3%	25.4%	22.4%	7.7%	17.6%	22.5%	14.9%	20.5%	20.7%	12.3%	20.5%
Adjustment for residence as a proportion of total personal income <sup>3</sup>	4.3%	18.2%	7.4%	-1.0%	8.1%	-701.3%	16.2%	-22.1%	-5.3%	-4.4%	-7.5%
Contributions for government social insurance as a proportion of total personal income <sup>4</sup>	6.4%	6.4%	7.9%	6.4%	8.1%	112.3%	5.9%	11.7%	8.0%	9.3%	8.1%
Total personal income by place of residence (\$ millions)	\$109.9	\$172.9	\$1,203.0	\$1,362.9	\$3,626.9	\$93.3	\$38.5	\$215.3	\$725.2	\$38.9	\$142.1
Earnings by place of work (\$ millions) <sup>5</sup>	\$50.5	\$82.0	\$749.5	\$702.7	\$2,381.9	\$818.8	\$21.9	\$206.2	\$555.0	\$35.9	\$100.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>											
Farm	-2.1%	7.8%	5.3%	1.4%	1.7%	1.3%	29.5%	5.6%	28.2%	31.6%	9.5%
Forestry, fishing, & related activities <sup>8</sup>	6.4%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	2.3%	(D)	(D)
Mining (including oil and gas)	(L)	(D)	(D)	0.3%	(D)	(L)	(L)	12.7%	0.7%	(L)	(D)
Utilities	(D)	(D)	0.9%	0.4%	0.1%	0.0%	0.0%	1.5%	0.7%	(L)	2.6%
Construction	5.1%	2.9%	6.8%	13.3%	8.8%	0.2%	(D)	(D)	3.7%	(D)	3.5%
Manufacturing	4.1%	3.2%	16.9%	4.3%	4.3%	0.2%	(D)	(D)	10.9%	(D)	0.3%
Wholesale trade	1.7%	3.9%	11.2%	1.7%	11.2%	(D)	(D)	2.1%	3.9%	(D)	1.0%
Retail trade	16.2%	8.5%	4.9%	8.4%	10.3%	0.3%	(D)	3.4%	7.8%	(D)	4.5%
Transportation and warehousing	(D)	(D)	2.7%	1.4%	3.9%	(D)	(L)	1.6%	6.7%	(D)	0.9%
Information	0.6%	0.5%	0.2%	3.2%	2.2%	(D)	(L)	0.3%	1.1%	(D)	1.9%
Finance and insurance	2.7%	2.0%	2.3%	4.6%	3.4%	0.1%	(D)	1.0%	1.8%	4.8%	0.9%
Real estate and rental and leasing	1.2%	0.6%	0.8%	3.8%	1.9%	0.0%	0.5%	1.3%	0.4%	(L)	0.6%
Professional and technical services	6.6%	(D)	(D)	13.8%	9.1%	93.5%	3.1%	2.8%	2.6%	(D)	2.5%
Management of companies and enterprises	0.0%	0.0%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	0.0%	(D)

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	<b>Adams, ID</b>	<b>Bear Lake, ID</b>	<b>Bingham, ID</b>	<b>Blaine, ID</b>	<b>Bonneville, ID</b>	<b>Butte, ID</b>	<b>Camas, ID</b>	<b>Caribou, ID</b>	<b>Cassia, ID</b>	<b>Clark, ID</b>	<b>Custer, ID</b>
Administrative and waste services	1.9%	(D)	1.9%	(D)	3.8%	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	0.3%	0.9%	0.3%	(D)	(D)	(D)	(D)	(D)	(L)
Health care and social assistance	(D)	(D)	9.7%	7.2%	16.6%	(D)	(D)	(D)	(D)	(D)	2.0%
Arts, entertainment, and recreation	6.3%	0.7%	0.3%	3.0%	0.5%	(L)	(D)	0.2%	0.4%	(L)	3.5%
Accommodation and food services	2.5%	3.7%	1.3%	10.9%	3.0%	0.1%	(D)	1.2%	1.1%	(D)	4.8%
Other services, except public administration	4.8%	4.7%	4.5%	4.7%	4.5%	(D)	(D)	2.1%	3.1%	0.8%	1.8%
Federal government	17.9%	6.7%	3.7%	1.9%	4.4%	2.0%	10.1%	2.5%	3.3%	10.0%	13.2%
State government	(D)	1.4%	2.6%	0.3%	1.5%	0.1%	(D)	0.6%	1.8%	(D)	2.5%
Local government	(D)	29.4%	17.4%	10.1%	7.9%	0.6%	(D)	11.8%	8.8%	(D)	8.9%
Categories for which data were not disclosed	23.8%	23.8%	6.4%	4.3%	0.4%	1.6%	56.9%	49.3%	10.7%	52.7%	35.2%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Population	27,080	13,248	16,669	15,500	26,215	22,461	7,957	5,214	37,602	20,082	4,294
Non-labor income as a proportion of total personal income <sup>2</sup>	28.9%	45.0%	46.7%	30.7%	30.1%	31.6%	56.5%	33.1%	39.0%	37.4%	40.6%
Dividends, interest, and rent as a proportion of total personal income	12.1%	20.0%	17.6%	13.5%	11.6%	12.6%	26.5%	11.5%	15.1%	15.2%	15.3%
Personal current transfer receipts as a proportion of total personal income <sup>3</sup>	16.8%	25.1%	29.2%	17.2%	18.6%	19.0%	30.1%	21.6%	23.9%	22.2%	25.2%
Adjustment for residence as a proportion of total personal income <sup>4</sup>	1.8%	19.1%	25.8%	4.7%	27.8%	0.8%	0.4%	2.3%	-6.6%	8.1%	18.1%
Contributions for government social insurance as a proportion of total personal income <sup>5</sup>	7.4%	5.8%	4.7%	6.0%	5.0%	8.0%	6.5%	6.1%	9.9%	7.0%	5.0%
Total personal income by place of residence (\$ millions)	\$909.7	\$315.3	\$462.5	\$574.3	\$687.9	\$656.2	\$244.0	\$144.4	\$701.3	\$569.8	\$114.7
Earnings by place of work (\$ millions) <sup>6</sup>	\$698.1	\$131.4	\$148.9	\$405.4	\$324.4	\$496.4	\$120.9	\$102.0	\$543.0	\$350.3	\$53.1
<b>Total earnings by place of work by sector<sup>7,8</sup></b>											
Farm	6.6%	-1.1%	6.3%	47.3%	19.9%	28.0%	2.6%	46.0%	-1.1%	24.1%	27.8%
Forestry, fishing, & related activities <sup>9</sup>	(D)	(D)	(D)	(D)	4.2%	4.6%	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	(L)	(L)	(D)	(L)	(D)	(D)	(D)
Utilities	0.7%	(D)	(L)	0.9%	0.7%	(D)	(D)	(D)	(D)	1.6%	(L)
Construction	2.3%	11.1%	7.8%	2.3%	9.4%	4.8%	10.0%	(D)	4.9%	4.5%	2.0%
Manufacturing	2.1%	2.1%	5.9%	10.4%	14.0%	12.4%	3.1%	(D)	8.2%	17.6%	1.0%
Wholesale trade	0.6%	(D)	4.7%	2.7%	4.2%	(D)	1.7%	(D)	7.8%	8.1%	2.2%
Retail trade	4.2%	6.4%	6.7%	2.6%	5.2%	6.6%	8.3%	2.1%	8.0%	4.1%	4.6%
Transportation and warehousing	1.7%	5.4%	5.3%	7.2%	5.1%	12.5%	(D)	1.5%	(D)	3.7%	6.3%
Information	0.6%	(D)	0.2%	0.1%	0.7%	0.8%	0.6%	(D)	0.4%	1.3%	0.4%
Finance and insurance	1.2%	1.9%	2.3%	0.9%	1.8%	0.9%	1.6%	(D)	2.5%	1.3%	(D)
Real estate and rental and leasing	0.3%	2.1%	1.0%	0.5%	2.0%	0.9%	1.1%	(D)	1.4%	0.6%	(D)

<sup>1</sup> Fremont County includes Yellowstone Park.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	<b>Elmore, ID</b>	<b>Fremont, ID<sup>1</sup></b>	<b>Gem, ID</b>	<b>Gooding, ID</b>	<b>Jefferson, ID</b>	<b>Jerome, ID</b>	<b>Lemhi, ID</b>	<b>Lincoln, ID</b>	<b>Madison, ID</b>	<b>Minidoka, ID</b>	<b>Oneida, ID</b>
Professional and technical services	1.2%	2.1%	3.2%	2.4%	(D)	2.1%	5.5%	(D)	7.1%	1.9%	(D)
Management of companies and enterprises	(L)	0.0%	(D)	0.4%	(D)	0.2%	1.2%	0.0%	(D)	(L)	0.0%
Administrative and waste services	1.5%	1.6%	(D)	0.1%	1.1%	1.1%	2.0%	(D)	(D)	0.2%	(D)
Educational services	0.6%	(D)	(D)	0.0%	(D)	0.4%	0.1%	(D)	(D)	(D)	(L)
Health care and social assistance	2.7%	(D)	(D)	(D)	(D)	4.2%	7.3%	(D)	(D)	(D)	2.8%
Arts, entertainment, and recreation	0.1%	0.6%	0.4%	0.4%	0.8%	1.0%	1.7%	(D)	0.7%	0.5%	(D)
Accommodation and food services	1.9%	3.8%	2.4%	0.9%	1.0%	1.2%	3.7%	(D)	2.8%	2.2%	(D)
Other services, except public administration	2.2%	6.2%	5.4%	3.1%	4.4%	3.3%	7.4%	(D)	3.3%	3.7%	3.4%
Federal government	60.8%	7.4%	6.9%	2.2%	2.6%	1.6%	17.1%	8.6%	2.1%	2.5%	4.5%
State government	0.5%	14.5%	0.9%	1.3%	2.2%	0.8%	4.4%	5.4%	0.5%	0.7%	1.1%
Local government	7.9%	19.1%	19.4%	8.3%	12.1%	7.0%	17.5%	10.4%	14.3%	14.5%	26.2%
Categories for which data were not disclosed	0.4%	16.8%	21.0%	6.0%	8.7%	5.6%	3.0%	26.1%	37.1%	6.9%	17.8%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Population	11,491	22,635	7,867	77,490	10,217	9,256	89,616	7,698	34,233
Non-labor income as a proportion of total personal income <sup>1</sup>	34.8%	42.6%	41.3%	40.0%	49.8%	50.9%	36.6%	49.0%	41.0%
Dividends, interest, and rent as a proportion of total personal income	14.7%	16.5%	17.3%	17.3%	19.4%	27.3%	24.3%	29.1%	18.0%
Personal current transfer receipts as a proportion of total personal income <sup>2</sup>	20.1%	26.1%	24.0%	22.7%	30.5%	23.6%	12.4%	19.9%	23.0%
Adjustment for residence as a proportion of total personal income <sup>3</sup>	16.7%	15.8%	-5.5%	0.1%	12.7%	-0.1%	-0.5%	-0.4%	-1.0%
Contributions for government social insurance as a proportion of total personal income <sup>4</sup>	4.6%	6.7%	10.6%	8.3%	6.4%	7.4%	9.3%	8.6%	9.1%
Total personal income by place of residence (\$ millions)	\$331.7	\$607.1	\$193.1	\$2,407.5	\$273.8	\$307.6	\$3,222.0	\$271.5	\$1,256.6
Earnings by place of work (\$ millions) <sup>5</sup>	\$176.0	\$293.6	\$144.3	\$1,643.7	\$120.2	\$173.9	\$2,356.3	\$163.0	\$869.2
<b>Total earnings by place of work by sector<sup>6,7</sup></b>									
Farm	46.9%	8.4%	9.7%	10.9%	7.2%	5.3%	1.1%	1.9%	0.0%
Forestry, fishing, & related activities <sup>8</sup>	(D)	(D)	2.6%	2.0%	3.8%	(D)	0.4%	1.2%	(D)
Mining (including oil and gas)	(D)	(D)	(L)	0.1%	(L)	(D)	0.7%	2.7%	8.6%
Utilities	(D)	3.3%	(D)	1.3%	(D)	(D)	0.5%	0.7%	(D)
Construction	5.4%	7.8%	1.8%	4.7%	4.1%	6.1%	10.9%	12.1%	4.1%
Manufacturing	6.0%	16.4%	32.9%	10.3%	13.6%	0.4%	5.6%	0.6%	4.6%
Wholesale trade	3.2%	3.6%	(D)	4.3%	5.1%	3.2%	4.2%	0.9%	2.8%
Retail trade	3.6%	4.5%	2.9%	9.8%	7.1%	7.2%	10.5%	4.9%	10.8%
Transportation and warehousing	(D)	4.5%	9.0%	4.5%	(D)	(D)	1.9%	3.2%	(D)
Information	0.6%	(D)	(D)	1.6%	3.9%	0.9%	1.4%	0.2%	2.4%
Finance and insurance	(D)	2.8%	1.3%	3.9%	2.0%	5.5%	4.5%	3.4%	2.5%
Real estate and rental and leasing	(D)	1.2%	0.4%	1.1%	0.7%	6.5%	2.4%	6.0%	0.9%
Professional and technical services	(D)	(D)	1.3%	5.4%	3.8%	2.6%	11.5%	(D)	6.2%
Management of companies and enterprises	(D)	(D)	(D)	0.5%	(D)	0.0%	0.4%	(D)	(D)

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Gallatin, MT	Madison, MT	Silver Bow, MT
Administrative and waste services	2.2%	2.8%	(D)	3.2%	(D)	1.1%	2.2%	2.7%	(D)
Educational services	(D)	(D)	(D)	0.4%	(D)	(D)	0.7%	0.4%	0.4%
Health care and social assistance	(D)	(D)	1.5%	15.0%	(D)	(D)	9.6%	4.7%	15.5%
Arts, entertainment, and recreation	0.2%	0.3%	(D)	0.4%	0.8%	1.0%	1.9%	14.5%	1.3%
Accommodation and food services	1.3%	1.3%	(D)	2.9%	1.8%	4.4%	5.1%	16.6%	4.1%
Other services, except public administration	2.6%	5.7%	3.3%	3.9%	3.6%	4.0%	4.0%	3.8%	3.7%
Federal government	3.6%	2.3%	2.3%	3.2%	4.9%	11.1%	3.5%	3.9%	4.1%
State government	0.8%	1.4%	1.6%	1.4%	0.9%	9.6%	11.0%	0.4%	7.3%
Local government	12.9%	12.5%	16.1%	9.3%	21.8%	9.0%	6.1%	11.4%	7.2%
Categories for which data were not disclosed	10.7%	21.3%	13.3%	0.0%	14.8%	22.2%	0.0%	3.6%	13.7%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Population	393,466	83,020	7,017	189,410	9,297	15,587
Non-labor income as a proportion of total personal income <sup>2</sup>	31.4%	38.0%	34.9%	42.5%	48.5%	48.6%
Dividends, interest, and rent as a proportion of total personal income	16.9%	14.0%	16.4%	14.2%	17.3%	28.2%
Personal current transfer receipts as a proportion of total personal income <sup>3</sup>	14.5%	24.1%	18.5%	28.3%	31.2%	20.4%
Adjustment for residence as a proportion of total personal income <sup>4</sup>	-4.0%	4.1%	43.9%	8.8%	7.3%	12.5%
Contributions for government social insurance as a proportion of total personal income <sup>5</sup>	10.0%	9.0%	3.5%	7.8%	7.7%	6.4%
Total personal income by place of residence (\$ millions)	\$15,234.3	\$2,373.5	\$252.9	\$4,304.0	\$276.1	\$534.9
Earnings by place of work (\$ millions) <sup>6</sup>	\$12,591.9	\$1,586.7	\$62.3	\$2,429.5	\$143.4	\$242.7
<b>Total earnings by place of work by sector<sup>7,8</sup></b>						
Farm	0.4%	0.6%	0.7%	5.6%	-0.3%	1.0%
Forestry, fishing, & related activities <sup>9</sup>	0.1%	(D)	(D)	1.3%	(D)	(D)
Mining (including oil and gas)	0.1%	(D)	(D)	0.1%	(D)	(D)
Utilities	1.0%	0.7%	(D)	0.6%	(D)	1.7%
Construction	7.2%	7.0%	4.9%	7.2%	11.0%	8.5%
Manufacturing	11.5%	8.4%	1.0%	13.5%	3.3%	5.6%
Wholesale trade	5.2%	3.6%	(D)	5.4%	(D)	0.9%
Retail trade	7.1%	7.9%	4.0%	9.5%	6.5%	8.7%
Transportation and warehousing	2.1%	5.5%	4.0%	5.3%	1.2%	3.4%
Information	1.9%	1.3%	(D)	1.2%	0.4%	1.6%
Finance and insurance	5.7%	5.0%	(D)	2.7%	2.3%	4.3%
Real estate and rental and leasing	1.5%	1.0%	(D)	1.0%	1.0%	2.8%
Professional and technical services	10.0%	4.6%	(D)	3.9%	(D)	4.8%

<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Deer Lodge and Park Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.



	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Deer Lodge, MT	Park, MT
Management of companies and enterprises	3.5%	0.8%	(D)	0.7%	(D)	(D)
Administrative and waste services	6.0%	4.0%	4.2%	3.2%	6.7%	(D)
Educational services	0.8%	0.5%	0.2%	2.0%	0.4%	1.6%
Health care and social assistance	13.5%	15.5%	3.0%	11.7%	17.9%	12.8%
Arts, entertainment, and recreation	1.0%	0.5%	12.9%	0.3%	2.2%	1.8%
Accommodation and food services	2.6%	3.4%	4.1%	2.3%	5.2%	11.4%
Other services, except public administration	3.2%	4.1%	4.1%	4.3%	3.5%	7.2%
Federal government	5.1%	4.4%	25.5%	2.8%	6.2%	3.9%
State government	5.0%	12.2%	1.4%	2.0%	(D)	1.2%
Local government	5.7%	8.8%	18.3%	13.4%	(D)	11.7%
Categories for which data were not disclosed	0.0%	0.1%	11.5%	0.0%	32.3%	5.2%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 5. Employment Trends by Select Industry Sector and County, 2001-2009<sup>1,2</sup>**

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Mining</b>									
Adams, ID	(D)	(L)	11	10	(L)	11	16	32	30
Bear Lake, ID	12	(L)	11	(D)	(D)	(D)	(D)	(D)	30
Bingham, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Blaine, ID	139	109	(D)	99	95	112	139	104	87
Bonneville, ID	(D)	47	(D)	48	(D)	(D)	(D)	(D)	180
Butte, ID	12	(L)	12	10	(L)	11	17	36	33
Camas, ID	0	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
Caribou, ID	340	358	(D)	(D)	350	361	377	352	319
Cassia, ID	131	121	129	173	217	204	187	166	114
Clark, ID	(D)	(D)	12	10	(L)	11	17	36	33
Custer, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Elmore, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Fremont, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gem, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gooding, ID	12	(L)	12	10	(D)	(D)	(D)	(D)	(D)
Jefferson, ID	12	(L)	12	10	(L)	11	(D)	(D)	(D)
Jerome, ID	12	(L)	12	10	(L)	11	17	36	33
Lemhi, ID	(D)	(D)	25	(D)	(D)	(D)	(D)	(D)	(D)
Lincoln, ID	12	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
Madison, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Minidoka, ID	12	(L)	12	10	(D)	(D)	(D)	(D)	(D)
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Payette, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Power, ID	12	(L)	12	10	(L)	11	17	36	33
Twin Falls, ID	(D)	67	80	63	64	72	105	107	75
Washington, ID	12	(L)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Beaverhead, MT	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gallatin, MT	172	129	134	136	186	349	413	429	335
Madison, MT	59	57	51	43	59	102	114	138	114
Silver Bow, MT	(D)	202	195	(D)	(D)	481	473	466	(D)
<b>Socioeconomic Study Area</b>	<b>949</b>	<b>1,090</b>	<b>720</b>	<b>642</b>	<b>971</b>	<b>1,747</b>	<b>1,892</b>	<b>1,938</b>	<b>1,416</b>

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Farming<sup>1</sup></b>									
Adams, ID	356	355	332	309	291	269	253	253	254
Bear Lake, ID	526	516	506	499	498	490	488	492	489
Bingham, ID	2,450	2,532	2,400	2,361	2,292	2,259	2,187	2,234	2,178
Blaine, ID	463	503	444	406	361	325	284	293	284
Bonneville, ID	1,483	1,527	1,418	1,363	1,301	1,250	1,197	1,214	1,195
Butte, ID	295	290	278	276	271	269	265	270	265
Camas, ID	128	131	127	129	132	134	135	137	135
Caribou, ID	761	797	720	676	626	582	539	549	540
Cassia, ID	1,695	1,728	1,692	1,741	1,732	1,771	1,741	1,814	1,734
Clark, ID	168	162	154	152	147	143	136	142	138
Custer, ID	357	370	341	327	314	302	291	296	294
Elmore, ID	969	970	925	920	891	885	854	882	848
Fremont, ID	808	826	775	756	730	710	686	700	688
Gem, ID	989	1,022	978	944	924	895	879	875	874
Gooding, ID	2,128	2,199	2,129	2,161	2,120	2,147	2,087	2,169	2,071
Jefferson, ID	1,284	1,279	1,264	1,288	1,295	1,317	1,318	1,345	1,311
Jerome, ID	1,798	1,802	1,778	1,837	1,835	1,885	1,858	1,933	1,846
Lemhi, ID	457	464	435	425	413	404	397	400	397
Lincoln, ID	494	479	482	498	504	517	516	532	515
Madison, ID	810	811	754	735	702	683	651	668	651
Minidoka, ID	1,446	1,423	1,393	1,411	1,397	1,411	1,382	1,428	1,375
Oneida, ID	506	514	496	487	482	474	468	472	469
Owyhee, ID	1,242	1,301	1,219	1,190	1,139	1,113	1,064	1,093	1,060
Payette, ID	964	977	954	953	951	951	950	959	942
Power, ID	668	627	629	670	689	722	733	761	733
Twin Falls, ID	2,776	2,800	2,583	2,473	2,327	2,227	2,093	2,136	2,081
Washington, ID	712	694	676	677	679	683	691	693	686
Beaverhead, MT	609	595	560	555	537	533	530	544	529
Gallatin, MT	1,404	1,436	1,328	1,269	1,201	1,143	1,118	1,134	1,122
Madison, MT	686	684	651	640	623	610	613	624	615
Silver Bow, MT	165	165	155	152	149	146	150	150	151
<b>Socioeconomic Study Area</b>	<b>29,597</b>	<b>29,979</b>	<b>28,576</b>	<b>28,280</b>	<b>27,553</b>	<b>27,250</b>	<b>26,554</b>	<b>27,192</b>	<b>26,470</b>

<sup>1</sup> Farming values sum data for "Farm" and "Agriculture and forestry support activities."

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Retail trade</b>									
Adams, ID	243	221	236	360	377	377	369	284	316
Bear Lake, ID	414	408	402	408	405	432	438	481	472
Bingham, ID	1,989	1,975	1,999	2,036	2,126	2,225	2,295	2,091	2,052
Blaine, ID	1,919	1,927	1,996	2,101	2,174	2,215	2,325	2,144	1,981
Bonneville, ID	7,341	7,308	7,722	7,696	8,257	8,512	8,709	9,020	8,550
Butte, ID	152	152	146	147	142	149	167	162	160
Camas, ID	31	(D)	(D)	34	(D)	(D)	28	27	(D)
Caribou, ID	432	463	476	483	518	528	565	512	473
Cassia, ID	1,781	1,792	1,788	1,695	1,769	1,779	1,846	1,891	1,835
Clark, ID	52	(D)	(D)	48	(D)	(D)	35	68	(D)
Custer, ID	298	281	299	281	275	276	280	286	291
Elmore, ID	1,440	1,407	1,354	1,384	1,434	1,495	1,545	1,357	1,268
Fremont, ID	431	422	446	416	429	454	481	482	478
Gem, ID	649	624	661	670	727	759	788	683	631
Gooding, ID	577	577	615	640	671	694	707	627	591
Jefferson, ID	863	837	819	833	782	832	858	932	987
Jerome, ID	1,242	1,357	1,319	1,234	1,228	1,281	1,251	1,334	1,246
Lemhi, ID	567	512	535	537	550	578	594	490	460
Lincoln, ID	85	83	82	82	117	118	119	146	159
Madison, ID	1,719	1,798	1,837	1,806	1,825	1,956	2,064	2,087	1,985
Minidoka, ID	745	748	751	803	869	876	851	770	734
Oneida, ID	187	189	177	185	202	220	235	229	229
Owyhee, ID	308	308	331	365	400	412	429	381	351
Payette, ID	884	869	880	882	842	816	797	817	787
Power, ID	321	308	352	351	330	331	343	295	287
Twin Falls, ID	5,533	5,414	5,568	5,338	5,488	5,840	5,952	5,879	5,780
Washington, ID	374	368	375	371	381	410	445	459	416
Beaverhead, MT	602	586	568	548	541	537	579	640	598
Gallatin, MT	7,059	7,241	7,365	7,702	8,010	8,076	8,494	9,026	8,361
Madison, MT	356	390	371	344	362	372	366	398	420
Silver Bow, MT	2,832	2,776	2,751	2,743	2,619	2,683	2,843	2,785	2,606
<b>Socioeconomic Study Area</b>	<b>41,426</b>	<b>41,341</b>	<b>42,221</b>	<b>42,523</b>	<b>43,850</b>	<b>45,233</b>	<b>46,798</b>	<b>46,783</b>	<b>44,504</b>

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Accommodation and food services</b>									
Adams, ID	162	(D)	(D)	(D)	(D)	(D)	(D)	(D)	95
Bear Lake, ID	192	(D)	(D)	(D)	235	235	(D)	194	205
Bingham, ID	748	741	716	749	854	818	960	932	848
Blaine, ID	2,611	2,580	2,611	2,617	2,744	2,823	2,909	2,876	2,680
Bonneville, ID	3,654	3,661	3,888	4,198	3,820	3,955	4,304	4,404	4,220
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	175	(D)	153	146	151	168	144	159	187
Cassia, ID	539	(D)	570	534	550	573	510	520	477
Clark, ID	27	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Custer, ID	244	215	230	230	225	231	255	313	300
Elmore, ID	726	694	725	744	813	838	853	847	822
Fremont, ID	349	370	320	326	287	337	347	331	(D)
Gem, ID	243	244	240	(D)	256	256	255	240	253
Gooding, ID	304	295	303	279	289	269	307	286	301
Jefferson, ID	196	216	219	225	229	265	264	250	246
Jerome, ID	359	385	431	376	419	415	404	441	424
Lemhi, ID	319	310	333	343	362	378	367	332	308
Lincoln, ID	78	79	80	76	71	(D)	(D)	(D)	(D)
Madison, ID	751	802	797	820	1,003	1,036	1,116	1,213	1,098
Minidoka, ID	520	526	548	539	544	568	591	558	532
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	160	198	206	210	200
Payette, ID	(D)	(D)	(D)	(D)	341	393	(D)	392	334
Power, ID	130	122	116	98	(D)	(D)	100	(D)	(D)
Twin Falls, ID	2,692	2,686	2,557	2,476	2,543	2,617	2,660	2,863	2,773
Washington, ID	218	198	189	172	193	224	248	208	199
Beaverhead, MT	559	511	515	495	512	527	520	519	533
Gallatin, MT	5,170	5,395	5,585	5,639	5,685	5,859	5,937	6,076	5,897
Madison, MT	895	953	994	1,017	1,093	1,006	1,043	(D)	1,070
Silver Bow, MT	1,914	1,873	1,783	1,891	1,849	1,862	1,903	1,989	1,883
<b>Socioeconomic Study Area</b>	<b>23,775</b>	<b>22,856</b>	<b>23,903</b>	<b>23,990</b>	<b>25,228</b>	<b>25,851</b>	<b>26,203</b>	<b>26,153</b>	<b>25,885</b>
<b>Arts, entertainment, and recreation</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	120
Bear Lake, ID	22	(D)	(D)	(D)	32	33	(D)	59	58

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bingham, ID	197	193	214	206	189	204	211	210	193
Blaine, ID	584	667	701	718	742	781	802	780	829
Bonneville, ID	705	789	839	748	809	937	1,021	944	942
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	39	(D)	51	(D)	(D)	(D)	50	54	46
Cassia, ID	197	(D)	159	161	175	176	178	159	161
Clark, ID	0	(D)	(D)	(D)	(D)	(D)	(D)	(L)	(L)
Custer, ID	91	96	92	97	84	88	95	94	98
Elmore, ID	84	73	82	83	91	95	101	99	93
Fremont, ID	56	68	65	58	59	64	71	65	(D)
Gem, ID	59	59	66	71	65	(D)	77	82	64
Gooding, ID	(D)	(D)	131	121	127	118	112	110	114
Jefferson, ID	179	183	187	191	230	258	245	289	228
Jerome, ID	123	149	147	147	151	151	163	162	159
Lemhi, ID	120	138	131	118	127	151	142	141	111
Lincoln, ID	15	16	13	14	14	(D)	(D)	(D)	(D)
Madison, ID	197	180	183	203	218	224	201	214	213
Minidoka, ID	56	63	56	60	67	87	83	91	81
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	37	43	49	61	60
Payette, ID	(D)	(D)	(D)	(D)	66	75	(D)	92	88
Power, ID	32	38	39	40	(D)	(D)	37	(D)	(D)
Twin Falls, ID	523	524	544	526	531	575	612	567	552
Washington, ID	45	58	60	53	61	65	72	60	62
Beaverhead, MT	(D)	145	153	147	161	200	207	195	187
Gallatin, MT	1,785	1,917	1,925	2,030	2,105	2,271	2,507	2,622	2,526
Madison, MT	269	300	343	411	496	683	851	(D)	618
Silver Bow, MT	491	502	551	544	609	637	692	664	663
<b>Socioeconomic Study Area</b>	<b>5,869</b>	<b>6,158</b>	<b>6,732</b>	<b>6,747</b>	<b>7,246</b>	<b>7,916</b>	<b>8,579</b>	<b>7,814</b>	<b>8,266</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table I. Labor Earnings Trends by Select Industry Sector and County, 2001-2009, presented in 2010 dollars (thousands)<sup>1,2</sup>**

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Mining</b>									
Adams, ID	(D)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	(L)	(L)
Bear Lake, ID	\$0.1	\$0.1	\$0.1	(D)	(D)	(D)	(D)	(D)	(L)
Bingham, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Blaine, ID	\$3.3	\$3.4	(D)	\$3.2	\$3.3	\$4.4	\$3.6	\$4.5	\$2.3
Bonneville, ID	(D)	\$1.0	(D)	\$0.8	(D)	(D)	(D)	(D)	\$1.2
Butte, ID	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(L)	(L)
Camas, ID	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(L)	(L)
Caribou, ID	\$22.9	\$23.4	(D)	(D)	\$23.6	\$24.5	\$22.2	\$24.8	\$23.5
Cassia, ID	\$4.5	\$5.2	\$5.7	\$7.0	\$8.3	\$8.2	\$6.8	\$6.6	\$4.4
Clark, ID	(D)	(D)	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	(L)	(L)
Custer, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Elmore, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Fremont, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gem, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gooding, ID	\$0.1	\$0.1	\$0.1	\$0.1	(D)	(D)	(D)	(D)	(D)
Jefferson, ID	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	(D)	(D)	(D)
Jerome, ID	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(L)	(L)
Lemhi, ID	(D)	(D)	\$1.3	(D)	(D)	(D)	(D)	(D)	(D)
Lincoln, ID	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.1	(L)	(L)
Madison, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Minidoka, ID	\$0.1	\$0.1	\$0.1	\$0.2	(D)	(D)	(D)	(D)	(D)
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Payette, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Power, ID	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.1	(L)	(L)
Twin Falls, ID	(D)	\$1.3	\$1.0	\$1.3	\$1.2	\$1.5	\$2.0	\$2.7	\$1.6
Washington, ID	\$0.1	\$0.1	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Beaverhead, MT	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gallatin, MT	\$5.3	\$4.0	\$3.4	\$4.3	\$7.2	\$20.2	\$19.6	\$18.3	\$15.9
Madison, MT	\$1.0	\$1.4	\$0.7	\$0.8	\$1.4	\$5.0	\$5.1	\$6.0	\$5.9
Silver Bow, MT	(D)	\$26.5	\$20.2	(D)	(D)	\$76.3	\$73.4	\$114.3	(D)
<b>Socioeconomic Study Area</b>	<b>\$37.9</b>	<b>\$67.4</b>	<b>\$33.2</b>	<b>\$18.8</b>	<b>\$46.1</b>	<b>\$141.3</b>	<b>\$133.5</b>	<b>\$177.1</b>	<b>\$54.7</b>

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Farming<sup>1</sup></b>									
Adams, ID	\$0.3	\$1.8	\$1.4	\$2.5	\$0.7	\$0.0	-\$1.2	-\$1.8	-\$1.7
Bear Lake, ID	\$7.1	\$5.0	\$6.9	\$7.9	\$7.6	\$4.6	\$6.4	\$6.6	\$5.7
Bingham, ID	\$37.3	\$44.1	\$8.2	\$51.1	\$23.1	\$39.0	\$53.3	\$60.8	\$65.0
Blaine, ID	\$10.5	\$13.6	\$9.8	\$12.6	\$10.9	\$12.4	\$10.8	\$12.0	\$12.9
Bonneville, ID	\$14.4	\$20.9	\$4.5	\$27.1	\$22.1	\$34.2	\$36.6	\$56.4	\$49.4
Butte, ID	\$11.0	\$8.7	\$5.9	\$7.8	\$6.2	\$5.4	\$6.5	\$15.9	\$14.4
Camas, ID	\$4.9	\$5.9	\$3.9	\$3.9	\$4.0	\$4.7	\$5.3	\$8.1	\$10.1
Caribou, ID	\$11.2	\$12.3	\$6.9	\$16.8	\$14.0	\$10.9	\$9.8	\$15.6	\$19.2
Cassia, ID	\$128.6	\$125.6	\$118.1	\$145.5	\$150.5	\$123.4	\$172.7	\$204.9	\$157.0
Clark, ID	\$11.2	\$6.8	\$3.0	\$4.9	\$4.2	\$1.6	\$4.2	\$11.9	\$12.5
Custer, ID	\$7.1	\$1.8	\$1.8	\$2.9	\$2.8	\$1.5	\$4.7	\$8.8	\$15.3
Elmore, ID	\$70.0	\$66.8	\$59.1	\$59.9	\$58.5	\$55.3	\$57.7	\$65.2	\$51.0
Fremont, ID	\$11.8	\$14.2	-\$3.0	\$10.0	-\$2.1	\$0.2	-\$2.0	-\$0.8	\$8.5
Gem, ID	\$9.1	\$10.4	\$7.8	\$10.3	\$5.8	\$3.5	\$4.2	\$6.5	\$8.4
Gooding, ID	\$191.0	\$144.0	\$126.1	\$215.6	\$179.9	\$134.0	\$224.1	\$222.1	\$106.4
Jefferson, ID	\$61.4	\$56.2	\$29.8	\$55.4	\$36.3	\$35.8	\$75.9	\$92.1	\$86.5
Jerome, ID	\$171.5	\$129.9	\$119.7	\$169.9	\$156.7	\$144.8	\$198.0	\$185.0	\$130.5
Lemhi, ID	\$7.3	\$4.2	\$2.1	\$4.5	\$1.4	-\$0.2	-\$1.6	\$1.3	\$1.6
Lincoln, ID	\$22.2	\$21.0	\$17.7	\$27.0	\$25.3	\$26.0	\$44.4	\$53.0	\$37.8
Madison, ID	\$6.9	\$4.8	-\$5.1	\$4.6	-\$0.7	\$3.7	\$3.2	\$5.4	\$13.1
Minidoka, ID	\$67.2	\$85.3	\$55.6	\$79.2	\$53.7	\$65.2	\$91.6	\$114.4	\$112.2
Oneida, ID	\$5.9	\$2.5	\$5.0	\$7.3	\$6.0	\$2.9	\$9.9	\$11.5	\$13.0
Owyhee, ID	\$60.3	\$61.3	\$54.5	\$74.5	\$59.7	\$62.2	\$85.3	\$89.0	\$76.3
Payette, ID	\$41.1	\$47.5	\$47.2	\$53.0	\$50.7	\$33.6	\$29.0	\$32.4	\$15.3
Power, ID	\$21.6	\$27.0	\$11.2	\$26.3	\$14.7	\$14.2	\$25.7	\$36.3	\$30.1
Twin Falls, ID	\$134.6	\$127.5	\$109.0	\$184.4	\$167.8	\$148.7	\$215.2	\$220.0	\$170.5
Washington, ID	\$10.1	\$12.9	\$16.6	\$18.5	\$11.4	\$11.0	\$14.6	\$15.5	\$14.6
Beaverhead, MT	\$19.1	\$9.8	\$10.8	\$16.6	\$26.2	\$11.8	\$12.4	\$4.9	\$8.0
Gallatin, MT	\$30.7	\$20.5	\$21.7	\$40.0	\$38.1	\$15.4	\$27.7	\$22.4	\$31.5
Madison, MT	\$3.9	-\$2.9	-\$1.4	\$5.9	\$7.9	-\$1.7	-\$1.0	-\$1.5	\$0.9
Silver Bow, MT	\$0.5	-\$0.7	-\$0.5	\$0.3	\$0.7	\$0.0	\$0.0	-\$0.2	-\$0.1
<b>Socioeconomic Study Area</b>	<b>\$1,189.9</b>	<b>\$1,089.0</b>	<b>\$854.3</b>	<b>\$1,346.0</b>	<b>\$1,144.0</b>	<b>\$1,003.8</b>	<b>\$1,423.2</b>	<b>\$1,574.0</b>	<b>\$1,275.9</b>

<sup>1</sup> Farming values sum data for "Farm" and "Agriculture and forestry support activities."



	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Retail trade</b>									
Adams, ID	\$3.4	\$3.6	\$3.7	\$8.8	\$9.3	\$9.3	\$8.4	\$6.9	\$7.9
Bear Lake, ID	\$7.9	\$8.1	\$7.9	\$7.9	\$7.7	\$7.7	\$7.9	\$7.5	\$7.1
Bingham, ID	\$41.9	\$42.7	\$44.5	\$43.2	\$45.1	\$48.5	\$48.5	\$40.2	\$37.7
Blaine, ID	\$65.6	\$66.4	\$69.3	\$74.3	\$77.1	\$79.2	\$80.9	\$72.2	\$62.7
Bonneville, ID	\$203.3	\$212.5	\$228.8	\$230.0	\$248.1	\$258.7	\$265.5	\$247.0	\$239.3
Butte, ID	\$2.3	\$2.2	\$2.3	\$2.2	\$2.1	\$2.1	\$2.3	\$1.9	\$2.0
Camas, ID	\$0.3	(D)	(D)	\$0.3	(D)	(D)	\$0.3	\$0.2	(D)
Caribou, ID	\$9.0	\$9.4	\$9.5	\$9.4	\$9.8	\$9.8	\$9.8	\$8.5	\$7.4
Cassia, ID	\$49.6	\$50.1	\$49.3	\$48.3	\$48.4	\$51.5	\$51.2	\$46.0	\$42.0
Clark, ID	\$0.6	(D)	(D)	\$0.6	(D)	(D)	\$0.3	\$0.7	(D)
Custer, ID	\$5.4	\$5.3	\$5.6	\$5.4	\$5.2	\$5.1	\$5.3	\$4.6	\$4.5
Elmore, ID	\$31.4	\$31.3	\$31.1	\$32.1	\$34.2	\$36.6	\$36.0	\$32.1	\$30.3
Fremont, ID	\$9.3	\$9.1	\$9.4	\$9.6	\$9.9	\$10.2	\$10.2	\$9.1	\$8.5
Gem, ID	\$11.3	\$10.6	\$11.0	\$11.1	\$11.7	\$14.0	\$13.9	\$11.9	\$9.7
Gooding, ID	\$10.9	\$11.0	\$13.5	\$13.8	\$14.0	\$13.6	\$13.6	\$13.1	\$12.6
Jefferson, ID	\$15.9	\$15.9	\$16.7	\$17.7	\$16.2	\$17.0	\$17.9	\$16.2	\$15.9
Jerome, ID	\$36.4	\$43.8	\$45.7	\$45.8	\$42.5	\$43.6	\$40.3	\$36.8	\$34.0
Lemhi, ID	\$12.6	\$12.7	\$12.6	\$12.4	\$12.3	\$12.7	\$13.0	\$10.8	\$9.8
Lincoln, ID	\$1.5	\$1.4	\$1.5	\$1.6	\$2.4	\$2.3	\$2.5	\$1.9	\$2.1
Madison, ID	\$39.1	\$42.6	\$44.4	\$44.8	\$46.2	\$49.7	\$50.5	\$48.4	\$44.7
Minidoka, ID	\$15.2	\$15.8	\$16.0	\$16.7	\$17.0	\$15.9	\$14.6	\$14.5	\$14.3
Oneida, ID	\$2.5	\$2.5	\$2.6	\$2.7	\$2.8	\$3.0	\$3.0	\$2.6	\$2.4
Owyhee, ID	\$5.1	\$5.1	\$5.6	\$6.1	\$6.9	\$7.1	\$7.2	\$6.6	\$6.2
Payette, ID	\$19.6	\$19.5	\$20.3	\$21.7	\$20.0	\$21.7	\$19.1	\$15.5	\$13.8
Power, ID	\$5.7	\$5.6	\$6.0	\$6.1	\$5.7	\$5.6	\$5.6	\$5.2	\$4.2
Twin Falls, ID	\$175.0	\$193.2	\$184.7	\$175.0	\$177.6	\$190.2	\$183.2	\$161.5	\$155.8
Washington, ID	\$8.4	\$8.5	\$8.7	\$8.8	\$8.9	\$9.8	\$10.6	\$8.9	\$8.6
Beaverhead, MT	\$12.7	\$12.4	\$12.4	\$12.4	\$11.5	\$11.9	\$13.3	\$13.2	\$12.2
Gallatin, MT	\$189.3	\$205.3	\$216.8	\$232.1	\$241.3	\$247.3	\$262.8	\$256.4	\$242.7
Madison, MT	\$7.2	\$8.7	\$8.9	\$9.1	\$9.3	\$9.4	\$9.0	\$7.4	\$7.8
Silver Bow, MT	\$83.5	\$97.9	\$105.8	\$106.2	\$100.3	\$105.9	\$104.9	\$88.1	\$89.4
<b>Socioeconomic Study Area</b>	<b>\$1,082.1</b>	<b>\$1,153.1</b>	<b>\$1,194.4</b>	<b>\$1,216.1</b>	<b>\$1,243.5</b>	<b>\$1,299.3</b>	<b>\$1,311.8</b>	<b>\$1,195.8</b>	<b>\$1,135.5</b>

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Accommodation and food services</b>									
Adams, ID	\$2.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	\$1.2
Bear Lake, ID	\$2.2	(D)	(D)	(D)	\$2.7	\$2.7	(D)	\$2.5	\$2.8
Bingham, ID	\$8.3	\$8.6	\$8.9	\$9.1	\$9.7	\$9.0	\$10.3	\$10.1	\$9.4
Blaine, ID	\$67.1	\$68.5	\$69.2	\$72.5	\$75.4	\$79.2	\$82.8	\$78.3	\$73.1
Bonneville, ID	\$55.0	\$57.5	\$60.8	\$66.1	\$59.3	\$61.9	\$67.4	\$66.6	\$67.9
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	\$1.8	(D)	\$1.7	\$1.5	\$1.6	\$1.7	\$1.6	\$1.8	\$2.2
Cassia, ID	\$6.7	(D)	\$7.9	\$7.1	\$6.8	\$6.6	\$5.4	\$5.9	\$5.7
Clark, ID	\$0.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Custer, ID	\$4.1	\$3.8	\$3.8	\$4.0	\$3.9	\$3.9	\$4.3	\$4.7	\$4.5
Elmore, ID	\$11.5	\$12.0	\$11.8	\$12.5	\$14.3	\$14.5	\$13.8	\$13.7	\$12.6
Fremont, ID	\$5.1	\$5.5	\$4.9	\$4.9	\$4.5	\$4.6	\$4.8	\$4.7	(D)
Gem, ID	\$3.0	\$3.2	\$3.2	(D)	\$3.4	\$3.5	\$3.4	\$3.1	\$3.4
Gooding, ID	\$3.8	\$3.5	\$3.6	\$3.3	\$3.6	\$3.3	\$3.4	\$3.1	\$3.3
Jefferson, ID	\$1.8	\$2.0	\$2.3	\$2.5	\$2.4	\$2.9	\$2.8	\$2.5	\$2.5
Jerome, ID	\$4.5	\$5.0	\$5.7	\$5.5	\$5.5	\$5.6	\$5.4	\$5.7	\$5.7
Lemhi, ID	\$4.2	\$4.3	\$4.6	\$4.9	\$5.3	\$5.2	\$5.2	\$4.2	\$3.9
Lincoln, ID	\$1.0	\$0.9	\$0.9	\$0.9	\$0.9	(D)	(D)	(D)	(D)
Madison, ID	\$10.4	\$11.1	\$11.2	\$12.0	\$13.9	\$14.7	\$14.9	\$16.4	\$15.4
Minidoka, ID	\$7.4	\$7.8	\$8.0	\$7.8	\$7.6	\$7.8	\$8.2	\$7.5	\$7.3
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	\$2.0	\$2.2	\$2.1	\$2.2	\$2.1
Payette, ID	(D)	(D)	(D)	(D)	\$4.3	\$4.8	(D)	\$4.1	\$3.7
Power, ID	\$1.3	\$1.3	\$1.2	\$1.0	(D)	(D)	\$1.0	(D)	(D)
Twin Falls, ID	\$40.6	\$39.4	\$38.7	\$38.8	\$39.5	\$40.8	\$40.1	\$44.7	\$44.0
Washington, ID	\$2.2	\$2.2	\$2.2	\$2.1	\$2.2	\$2.4	\$2.7	\$2.3	\$2.3
Beaverhead, MT	\$6.6	\$6.5	\$6.6	\$6.8	\$6.5	\$6.7	\$6.7	\$6.9	\$7.1
Gallatin, MT	\$102.8	\$106.0	\$109.7	\$110.6	\$112.5	\$115.9	\$119.4	\$115.2	\$111.7
Madison, MT	\$19.4	\$20.1	\$21.0	\$21.0	\$22.8	\$24.5	\$28.4	(D)	\$25.7
Silver Bow, MT	\$39.9	\$36.2	\$35.3	\$37.4	\$34.9	\$34.4	\$33.1	\$33.0	\$32.6
<b>Socioeconomic Study Area</b>	<b>\$412.7</b>	<b>\$405.2</b>	<b>\$423.2</b>	<b>\$432.4</b>	<b>\$445.4</b>	<b>\$458.8</b>	<b>\$467.3</b>	<b>\$439.4</b>	<b>\$450.2</b>
<b>Arts, entertainment, and recreation</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	\$2.9
Bear Lake, ID	\$0.2	(D)	(D)	(D)	\$0.3	\$0.3	(D)	\$0.5	\$0.5

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bingham, ID	\$1.9	\$2.3	\$2.3	\$2.3	\$1.9	\$2.0	\$2.0	\$2.0	\$2.0
Blaine, ID	\$70.8	\$82.5	\$39.8	\$28.8	\$19.1	\$20.3	\$22.9	\$19.5	\$18.8
Bonneville, ID	\$18.0	\$19.0	\$18.9	\$11.8	\$11.9	\$12.4	\$13.1	\$11.2	\$11.4
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	\$0.2	(D)	\$0.2	(D)	(D)	(D)	\$0.2	\$0.3	\$0.3
Cassia, ID	\$2.0	(D)	\$2.0	\$2.1	\$1.9	\$2.0	\$1.7	\$2.0	\$2.2
Clark, ID	\$0.0	(D)	(D)	(D)	(D)	(D)	(D)	(L)	(L)
Custer, ID	\$1.8	\$3.9	\$4.8	\$4.9	\$4.0	\$3.6	\$3.4	\$3.4	\$3.4
Elmore, ID	\$1.0	\$1.3	\$0.8	\$1.0	\$0.8	\$0.8	\$0.9	\$0.8	\$1.0
Fremont, ID	\$0.6	\$0.8	\$0.7	\$0.8	\$0.5	\$0.5	\$0.4	\$0.7	(D)
Gem, ID	\$0.5	\$0.5	\$0.5	\$0.5	\$0.4	(D)	\$0.3	\$0.6	\$0.5
Gooding, ID	(D)	(D)	\$1.8	\$1.8	\$1.5	\$1.3	\$1.2	\$1.3	\$1.5
Jefferson, ID	\$2.0	\$2.9	\$2.7	\$3.0	\$2.7	\$2.7	\$2.6	\$2.5	\$2.3
Jerome, ID	\$2.6	\$3.3	\$3.1	\$3.5	\$3.1	\$3.2	\$3.2	\$4.1	\$4.1
Lemhi, ID	\$2.1	\$3.0	\$2.7	\$2.7	\$2.6	\$3.0	\$2.7	\$2.7	\$2.0
Lincoln, ID	\$0.3	\$0.3	\$0.2	\$0.2	\$0.3	(D)	(D)	(D)	(D)
Madison, ID	\$1.1	\$2.3	\$1.9	\$2.3	\$1.9	\$1.9	\$1.4	\$2.5	\$2.7
Minidoka, ID	\$1.0	\$1.3	\$1.1	\$1.3	\$1.1	\$1.2	\$0.9	\$1.4	\$1.5
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	\$0.4	\$0.4	\$0.4	\$0.3	\$0.3
Payette, ID	(D)	(D)	(D)	(D)	\$0.6	\$0.6	(D)	\$0.6	\$0.7
Power, ID	\$0.4	\$0.6	\$0.5	\$0.6	(D)	(D)	\$0.2	(D)	(D)
Twin Falls, ID	\$4.3	\$8.1	\$7.4	\$6.8	\$6.3	\$6.8	\$7.2	\$6.5	\$6.8
Washington, ID	\$1.0	\$0.9	\$0.9	\$0.8	\$1.0	\$1.0	\$1.0	\$1.0	\$0.8
Beaverhead, MT	(D)	\$1.7	\$1.4	\$1.4	\$1.4	\$1.6	\$1.7	\$1.6	\$1.7
Gallatin, MT	\$44.9	\$43.7	\$40.9	\$35.3	\$31.5	\$35.8	\$48.6	\$43.0	\$45.1
Madison, MT	\$8.2	\$8.7	\$11.6	\$14.1	\$19.5	\$25.2	\$24.2	(D)	\$19.5
Silver Bow, MT	\$6.7	\$6.0	\$7.7	\$8.1	\$9.4	\$10.0	\$11.6	\$10.1	\$10.2
<b>Socioeconomic Study Area</b>	<b>\$171.4</b>	<b>\$193.0</b>	<b>\$153.8</b>	<b>\$134.2</b>	<b>\$123.9</b>	<b>\$136.7</b>	<b>\$151.6</b>	<b>\$118.8</b>	<b>\$142.2</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

**Table 2. Annual Population by County, 2000-2010<sup>1</sup>**

<b>Geographic Area</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010<sup>2</sup></b>
Adams, ID	3,477	3,495	3,559	3,624	3,693	3,817	3,788	3,949	4,021	4,000	3,953
Bear Lake, ID	6,424	6,394	6,219	6,219	6,170	6,077	6,071	6,049	6,027	6,014	5,971
Bingham, ID	41,753	42,073	42,101	42,555	42,702	43,173	43,396	43,816	44,414	45,087	45,769
Blaine, ID	19,115	19,755	20,189	20,557	20,811	20,897	21,082	21,169	21,477	21,590	21,326
Bonneville, ID	82,968	83,907	85,060	86,846	89,514	91,709	94,756	97,890	100,811	103,016	104,592
Butte, ID	2,894	2,853	2,906	2,842	2,812	2,825	2,786	2,838	2,846	2,835	2,907
Camas, ID	968	1,000	1,025	1,029	1,022	1,069	1,073	1,103	1,120	1,133	1,109
Caribou, ID	7,281	7,326	7,161	7,105	7,106	6,963	6,886	6,873	6,840	6,922	6,977
Cassia, ID	21,393	21,557	21,504	21,466	21,323	21,372	21,281	21,568	22,134	22,476	23,088
Clark, ID	1,024	965	948	892	923	925	947	948	981	961	988
Custer, ID	4,336	4,223	4,143	4,116	4,129	4,084	4,155	4,200	4,300	4,363	4,366
Elmore, ID	28,610	27,613	27,047	25,972	26,355	25,919	25,927	26,595	26,930	26,769	27,123
Fremont, ID	11,769	11,891	12,029	12,370	12,640	12,610	12,770	13,005	13,112	13,173	13,251
Gem, ID	15,215	15,393	15,488	15,693	15,925	16,304	16,632	16,833	16,941	16,809	16,675
Gooding, ID	14,196	14,215	14,342	14,483	14,562	14,614	14,749	14,963	15,216	15,270	15,503
Jefferson, ID	19,193	19,322	19,802	20,249	20,842	21,674	22,439	23,475	24,696	25,770	26,236
Jerome, ID	18,493	18,579	18,730	18,971	19,331	19,654	20,111	20,572	21,217	22,039	22,469
Lemhi, ID	7,724	7,593	7,590	7,600	7,660	7,708	7,795	7,780	7,902	7,870	7,957
Lincoln, ID	4,051	4,159	4,242	4,372	4,441	4,694	4,762	4,938	5,041	5,151	5,211
Madison, ID	27,519	27,699	28,478	29,997	31,990	33,807	34,984	35,771	36,564	37,121	37,623
Minidoka, ID	20,103	19,603	19,542	19,389	19,167	19,013	19,046	19,184	19,393	19,884	20,112
Oneida, ID	4,135	4,176	4,125	4,089	4,086	4,137	4,146	4,167	4,201	4,248	4,298
Owyhee, ID	10,690	10,877	10,876	11,033	10,990	10,993	11,114	11,255	11,515	11,547	11,512
Payette, ID	20,624	20,796	20,966	21,133	21,139	21,484	21,916	22,437	22,618	22,665	22,621
Power, ID	7,484	7,422	7,371	7,293	7,432	7,426	7,564	7,532	7,564	7,628	7,879
Twin Falls, ID	64,360	64,556	65,473	67,092	68,309	69,833	71,974	73,738	75,143	76,271	77,517
Washington, ID	9,970	9,936	9,904	9,904	9,947	9,995	10,025	10,027	10,095	10,173	10,205
Beaverhead, MT	9,204	9,058	9,018	8,924	8,908	8,904	9,012	9,028	9,166	9,200	9,253
Gallatin, MT	68,375	70,120	71,824	74,504	77,124	80,310	83,984	86,620	88,932	89,187	89,658
Madison, MT	6,870	6,856	6,935	6,894	6,999	7,211	7,343	7,560	7,674	7,674	7,691
Silver Bow, MT	34,571	33,882	33,636	33,474	33,416	33,414	33,441	33,489	33,812	34,008	34,234
<b>Socioeconomic Study Area</b>	<b>594,789</b>	<b>597,294</b>	<b>602,233</b>	<b>610,687</b>	<b>621,468</b>	<b>632,615</b>	<b>645,955</b>	<b>659,372</b>	<b>672,703</b>	<b>680,854</b>	<b>688,074</b>

<sup>1</sup> Population values provided as of July 1 of each year.

<sup>2</sup> The values for July 1, 2010 were produced by applying estimates of change in the population between April 1 and July 1 of 2010 to the 2010 Census counts. Further details on this methodology are available at [http://www.census.gov/popest/methodology/intercensal\\_nat\\_meth.pdf](http://www.census.gov/popest/methodology/intercensal_nat_meth.pdf).

Geographic Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 <sup>2</sup>
<b>Idaho</b>	<b>1,299,430</b>	<b>1,319,962</b>	<b>1,340,372</b>	<b>1,363,380</b>	<b>1,391,802</b>	<b>1,428,241</b>	<b>1,468,669</b>	<b>1,505,105</b>	<b>1,534,320</b>	<b>1,554,439</b>	<b>1,571,450</b>
<b>Montana</b>	<b>903,773</b>	<b>906,961</b>	<b>911,667</b>	<b>919,630</b>	<b>930,009</b>	<b>940,102</b>	<b>952,692</b>	<b>964,706</b>	<b>976,415</b>	<b>983,982</b>	<b>990,898</b>
Ada, ID <sup>1</sup>	303,328	313,896	321,616	327,393	334,926	348,755	363,498	375,368	382,618	388,577	393,531
Bannock, ID	75,728	76,296	76,487	76,312	76,834	77,419	78,491	79,338	80,609	81,994	83,071
Boise, ID	6,702	6,733	6,854	6,977	7,004	6,981	7,151	7,229	7,148	7,051	7,032
Canyon, ID	133,082	139,179	145,160	151,395	157,130	163,947	172,188	179,645	184,996	187,357	189,428
Deer Lodge, MT	9,409	9,303	9,238	9,189	9,274	9,274	9,180	9,264	9,351	9,260	9,294
Park, MT	15,710	15,651	15,676	15,539	15,509	15,629	15,690	15,828	15,896	15,738	15,608

Source: U.S. Census Bureau. 2011. Population Estimates, Intercensal Estimates of the Resident Population for Counties: April 1, 2000 to July 1, 2010. Available at: <http://www.census.gov/popest/data/intercensal/county/CO-EST00INT-01.html>.

<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Deer Lodge and Park Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

## CHAPTER 3

### 3.1. SOCIAL AND ECONOMIC CONDITIONS (INCLUDING ENVIRONMENTAL JUSTICE)

Due to the nature of social, economic, and environmental justice conditions, the social and economic analysis is based on a somewhat different area for analysis than is used for other resources. Specifically, the Socioeconomic Study Area is made up of counties within the Idaho-Southwest Montana sub-region that contain greater sage-grouse habitat and within which social and economic conditions might reasonably be expected to change based on alternative management actions. In addition, BLM reviewed the need to include additional counties within a secondary study area that may not contain greater sage-grouse habitat but are closely linked from an economic and/or social perspective to counties that do contain habitat. This latter category includes what are sometimes called “service area” counties, or counties from which businesses operate that regularly provide critical economic services, such as recreational outfitting or support services for the livestock grazing sector, within the counties that contain habitat (METI Corp / Economic Insights of Colorado, 2012). Including service area counties is important because a change in economic activity in a county containing habitat may result in changes in economic activity within service area counties as well.

The Socioeconomic Study Area contains twenty-seven counties in Idaho: Adams, Bear Lake, Bingham, Blaine, Bonneville, Butte, Camas, Caribou, Cassia, Clark, Custer, Elmore, Fremont, Gem, Gooding, Jefferson, Jerome, Lemhi, Lincoln, Madison, Minidoka, Oneida, Owyhee, Payette, Power, Twin Falls, and Washington; and four counties in Montana: Beaverhead, Gallatin, Madison, and Silver Bow. Each of these counties contains sage-grouse habitat, either Preliminary Priority Habitat (PPH) or Preliminary General Habitat (PGH). A secondary study area is included that contains an additional four counties in Idaho: Ada, Bannock, Boise, and Canyon; and two counties in Montana: Deer Lodge and Park. All of these counties are included in the secondary study area because of identified links to the primary area based on commuter patterns (OMB, 2009; U.S. Census Bureau, 2012b).<sup>1</sup>

Table I shows the share of workers employed in a given county of the Primary and Secondary Socioeconomic Study Areas and that reside in the same county. It also shows other counties that provide labor to the selected primary or secondary study area.

<sup>1</sup> Other counties considered but excluded from the secondary area were: (a) Valley County, ID, which has its main commuter tie to Ada County, ID, a secondary area county; (b) Franklin County, ID, which has its main commuter tie to Cache County, UT, a county outside of the Socioeconomic Study Area; (c) Teton County, ID, which has its main commuter tie to Teton County, MT, a county outside of the Socioeconomic Study Area; (d) Jefferson and Broadwater Counties, MT, both of which have their main commuter ties to Lewis and Clark County, MT, a county outside of the Socioeconomic Study Area; (e) Ravalli County, MT, which has its main commuter tie outside the primary study area, is linked to the Salmon Challis NF or the Beaverhead Deerlodge NF, but is less likely to be affected by sage grouse habitat management alternatives because sage grouse habitat is concentrated in the southeast of Lemhi County, ID, at a distance from Ravalli County; and finally, (d) the counties of Missoula, Granite and Powell (all in MT) were not included in the secondary study area because the Beaverhead Deerlodge NF areas potentially affected by sage grouse habitat management alternatives are located considerably to the south of those counties.

1

**Table I. Commuter Patterns in the Socioeconomic Study Area, 2010**

<b>Geographic Area of Employment</b>	<b>Live in Same Area of Employment</b>	<b>Other Counties Where Considerable Share of Workers Live</b>
Primary Socioeconomic Study Area		
Adams County, ID	69.4%	Valley (7.3%), Idaho (6.7%), Washington (3.5%)
Bear Lake County, ID	77.2%	Ada (2.7%), Bannock (2.4%)
Bingham County, ID	64.3%	Bannock (10.2%), Bonneville (9.5%), Ada (2.0%)
Blaine County, ID	70.9%	Ada (6.7%), Lincoln (3.6%), Canyon (2.6%), Twin Falls (2.6%)
Bonneville County, ID	61.0%	Bingham (8.7%), Jefferson (8.3%), Bannock (6.3%), Madison (3.3%), Ada (2.5%)
Butte County, ID	21.5%	Bonneville (40.9%), Bingham (14.2%), Bannock (7.6%), Jefferson (6.5%), Custer (2.1%), Madison (2.0%)
Camas County, ID	58.5%	Gooding (10.9%), Blaine (8.3%), Twin Falls (5.7%), Jerome (3.0%), Ada (2.6%), Elmore (2.6%)
Caribou County, ID	56.8%	Bannock (11.4%), Bear Lake (9.8%), Ada (2.8%), Bonneville (2.8%), Franklin (2.8%)
Cassia County, ID	49.9%	Minidoka (23.8%), Twin Falls (6.8%), Ada (3.0%), Jerome (2.5%), Bonneville (2.1%)
Clark County, ID	51.4%	Bonneville (18.3%), Jefferson (18.3%), Bannock (2.2%), Madison (2.2%)
Custer County, ID	65.7%	Lemhi (13.6%), Butte (2.8%), Bonneville (2.7%), Ada (2.6%)
Elmore County, ID	69.7%	Ada (11.3%), Canyon (4.2%), Twin Falls (2.3%)
Fremont County, ID	70.5%	Madison (10.3%), Bonneville (6.2%), Jefferson (2.9%)
Gem County, ID	60.0%	Ada (15.4%), Canyon (10.7%), Payette (2.7%)
Gooding County, ID	48.5%	Twin Falls (17.3%), Jerome (10.7%), Lincoln (2.5%), Ada (2.3%)
Jefferson County, ID	51.6%	Bonneville (23.7%), Madison (8.4%), Bingham (2.4%)
Jerome County, ID	42.8%	Twin Falls (26.1%), Gooding (8.8%), Ada (3.3%), Cassia (2.4%), Minidoka (2.2%)
Lemhi County, ID	88.1%	Bonneville (2.1%)
Lincoln County, ID	49.7%	Twin Falls (14.2%), Gooding (12.4%), Jerome (7.0%), Minidoka (3.3%), Blaine (2.0%)
Madison County, ID	49.6%	Bonneville (12.9%), Fremont (12.2%), Jefferson (9.5%), Bannock (3.2%), Bingham (2.3%)
Minidoka County, ID	54.9%	Cassia (19.7%), Twin Falls (7.2%), Ada (2.3%), Bannock (2.2%)
Oneida County, ID	78.3%	Bannock (7.0%), Bonneville (2.5%), Box Elder, UT (2.1%)
Owyhee County, ID	42.2%	Canyon (31.5%), Ada (8.2%), Elmore (4.3%),

		Malheur, OR (2.4%),
Payette County, ID	51.3%	Canyon (14.4%), Malheur, OR (10.4%), Ada (8.0%), Washington (4.6%), Gem (3.4%)
Power County, ID	45.5%	Bannock (24.2%), Bingham (6.5%), Twin Falls (5.0%), Ada (2.7%)
Twin Falls County, ID	64.8%	Jerome (7.0%), Ada (5.2%), Gooding (2.6%), Cassia (2.6%), Canyon (2.5%), Minidoka (2.5%)
Washington County, ID	63.4%	Payette (6.3%), Ada (4.7%), Malheur, OR (4.5%), Canyon (4.5%)
Beaverhead County, MT	62.1%	Lewis and Clark (6.9%), Yellowstone (6.7%), Silver Bow (5.7%), Gallatin (3.6%), Missoula (3.2%), Cascade (2.8%)
Gallatin County, MT	77.6%	Yellowstone (3.1%), Park (2.8%), Lewis and Clark (2.9%)
Madison County, MT	67.8%	Gallatin (17.3%), Jefferson (3.0%)
Silver Bow County, MT	64.8%	Missoula (5.8%), Deer Lodge (4.4%), Lewis and Clark (4.4%), Gallatin (3.5%), Jefferson (2.3%), Cascade (2.1%), Yellowstone (2.0%)
<b>Secondary Socioeconomic Study Area</b>		
Ada County, ID	71.9%	Canyon (14.9%)
Bannock County, ID	68.6%	Bonneville (6.5%), Bingham (6.5%), Ada (2.8%), Twin Falls (2.2%)
Boise County, ID	77.0%	Ada (12.2%), Gem (3.4%), Canyon (2.5%)
Canyon County, ID	60.2%	Ada (24.7%), Owyhee (2.7%)
Deer Lodge, MT	52.6%	Silver Bow (14.9%), Lewis and Clark (5.5%), Missoula (4.9%), Powell (3.8%), Gallatin (2.5%), Jefferson (2.1%), Cascade (2.0%)
Park, MT	72.5%	Gallatin (10.7%), Yellowstone (4.1%)

Source: U.S. Census Bureau, 2012b.

Because any effects on the secondary study area would be indirect and sometimes focused on specific sectors, this chapter focuses primarily on the social and economic conditions of the Socioeconomic Study Area and provides what is necessary to convey appropriate context for the impact analysis. The impact analysis in the next chapter will document potential effects on both the primary and the secondary study areas.

Table 2 shows the planning documents that may be altered by the Idaho-Southwest Montana sub-region sage-grouse planning process and the counties containing sage-grouse habitat within the area encompassed by those plans.

**Table 2. BLM and USFS Plans, Management Units, and Counties within the Socioeconomic Study Area**

Agency	Plan or Document	Management Unit	Counties
BLM	Birds of Prey National Conservation Area RMP (2008)	Four Rivers Field Office	Ada, Canyon, Elmore, Owyhee (Idaho)
	Bruneau RMP revision	Bruneau Field Office	Owyhee (Idaho)



3. Affected Environment

Agency	Plan or Document	Management Unit	Counties
	Butte RMP (2009)	Butte Field Office	Beaverhead, Broadwater, Deer Lodge, Gallatin, Jefferson, Lewis and Clark, Park, Silver Bow (Montana)
	Challis RMP (1999)	Challis Field Office	Custer, Lemhi (Idaho)
	Craters of the Moon National Monument RMP (2006)	Shoshone Field Office	Blaine, Butte, Lincoln, Minidoka, Power (Idaho)
	Dillon RMP (2006)	Dillon Field Office	Beaverhead, Madison (Montana)
	Four Rivers RMP revision	Four Rivers Field Office	Ada, Adams, Boise, Canyon, Elmore, Gem, Payette, Valley, Washington (Idaho)
	Jarbidge RMP revision	Jarbidge Field Office	Elmore, Owyhee, Twin Falls (Idaho); Elko (Nevada)
	Lemhi RMP (1987)	Salmon Field Office	Lemhi (Idaho)
	Owyhee RMP (1999)	Owyhee Field Office	Owyhee (Idaho)
	Pocatello RMP revision	Pocatello Field Office	Bannock, Bear Lake, Bingham, Bonneville, Caribou, Cassia, Franklin, Oneida, Power (Idaho)
	Shoshone-Burley RMP revision	Shoshone Field Office, Burley Field Office	Blaine, Camas, Elmore, Jerome, Minidoka, Power (Idaho)
Upper Snake RMP revision	Upper Snake Field Office	Blaine, Bingham, Bonneville, Butte, Clark, Fremont, Jefferson, Madison, Power, Teton (Idaho)	
USFS	Beaverhead-Deerlodge National Forest Plan (2009)	Dillon, Wise River, Wisdom, Butte, Jefferson, Pintler, and Madison Ranger Districts	Granite, Powell, Jefferson, Deer Lodge, Silver Bow, Madison, Gallatin, Beaverhead (Montana)
	Boise National Forest Plan, as amended in 2010	Cascade, Lowman, Emmett, Mountain Home, and Idaho City Ranger Districts	Valley, Boise, Elmore, Gem, Ada (Idaho)
	Caribou National Forest Revised Forest Plan (2003)	Montpelier, Soda Springs, and Westside Ranger Districts	Caribou, Bonneville, Bannock, Bear Lake, Oneida, Franklin, Power (Idaho); Lincoln (Wyoming); Box Elder, Cache (Utah)
	Challis National Forest Plan (1987)	Challis, Lost River, Middle Fork, and Yankee Fork Ranger Districts	Custer, Lemhi, Butte, Valley, Blaine, Clark (Idaho)
	Curlew National Grassland Management Plan (2002)	Westside Ranger District	Oneida, Power (Idaho)

Agency	Plan or Document	Management Unit	Counties
	Salmon National Forest Plan (1988)	Cobalt, Leadore, North Fork, and Salmon Ranger Districts	Idaho, Lemhi, Valley (Idaho)
	Sawtooth National Forest Revised Forest Plan (2003)	Fairfield, Ketchum, Minidoka, and Sawtooth National Recreation Area Ranger Districts	Blaine, Boise, Cassia, Camas, Custer, Elmore, Oneida, Power, Twin Falls (Idaho); Box Elder (Utah)
	Targhee National Forest Plan (1997)	Ashton/Island Park, Dubois, Palisades, and Teton Basin Ranger Districts	Bonneville, Butte, Clark, Fremont, Jefferson, Lemhi, Madison, Teton (Idaho); Lincoln, Teton (Wyoming)

BLM Bureau of Land Management

RMP Resource Management Plan

USFS U.S. Forest Service

1 Because of the nature of the Socioeconomic Study Area, the socioeconomic  
2 resources section has a slightly different format than the other resource  
3 analyses in the EIS. Rather than proceeding by Field Office and National Forest,  
4 the section provides information for the entire Socioeconomic Study Area  
5 except where the relevant information or data is tabulated for the specific  
6 geographic area of Field Office or National Forest. In addition, the analysis  
7 presents information about existing conditions and trends within the same  
8 section, because that is the common practice for analysis of social and economic  
9 conditions.

### 10 3.1.1. Indicators

11 Many of the indicators used to characterize social and economic conditions are  
12 quantitative, including population, demographics (e.g., age and gender  
13 breakouts), local industry (e.g., recreation, mineral development), employment,  
14 personal income, and presence of minority and low-income populations. Other  
15 indicators, especially for social conditions, are qualitative.

### 16 3.1.2. Existing Conditions and Trends

#### 17 *Social Conditions*

18 Social conditions concern human communities, including towns, cities, and rural  
19 areas, and the custom, culture, and history of the area as it relates to human  
20 settlement, as well as current social values.

#### 21 Population and Demographics

22 Table 3 shows current and historic populations in the Socioeconomic Study  
23 Area.

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**Table 3. Population Growth, 1990-2010**

<b>Geographic Area</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>Percent Change (1990-2010)</b>	<b>Population as Percentage of Study Area Total (2010)</b>
Adams County, ID	3,254	3,476	3,976	22.2%	0.6%
Bear Lake County, ID	6,084	6,411	5,986	-1.6%	0.9%
Bingham County, ID	37,583	41,735	45,607	21.4%	6.6%
Blaine County, ID	13,552	18,991	21,376	57.7%	3.1%
Bonneville County, ID	72,207	82,522	104,234	44.4%	15.2%
Butte County, ID	2,918	2,899	2,891	-0.9%	0.4%
Camas County, ID	727	991	1,117	53.6%	0.2%
Caribou County, ID	6,963	7,304	6,963	0.0%	1.0%
Cassia County, ID	19,532	21,416	22,952	17.5%	3.3%
Clark County, ID	762	1,022	982	28.9%	0.1%
Custer County, ID	4,133	4,342	4,368	5.7%	0.6%
Elmore County, ID	21,205	29,130	27,038	27.5%	3.9%
Fremont County, ID	10,937	11,819	13,242	21.1%	1.9%
Gem County, ID	11,844	15,181	16,719	41.2%	2.4%
Gooding County, ID	11,633	14,155	15,464	32.9%	2.3%
Jefferson County, ID	16,543	19,155	26,140	58.0%	3.8%
Jerome County, ID	15,138	18,342	22,374	47.8%	3.3%
Lemhi County, ID	6,899	7,806	7,936	15.0%	1.2%
Lincoln County, ID	3,308	4,044	5,208	57.4%	0.8%
Madison County, ID	23,674	27,467	37,536	58.6%	5.5%
Minidoka County, ID	19,361	20,174	20,069	3.7%	2.9%
Oneida County, ID	3,492	4,125	4,286	22.7%	0.6%
Owyhee County, ID	8,392	10,644	11,526	37.3%	1.7%
Payette County, ID	16,434	20,578	22,623	37.7%	3.3%
Power County, ID	7,086	7,538	7,817	10.3%	1.1%
Twin Falls County, ID	53,580	64,284	77,230	44.1%	11.2%
Washington County, ID	8,550	9,977	10,198	19.3%	1.5%
Beaverhead County, MT	8,424	9,202	9,246	9.8%	1.3%
Gallatin County, MT	50,484	67,831	89,513	77.3%	13.0%
Madison County, MT	5,989	6,851	7,691	28.4%	1.1%
Silver Bow County, MT	33,941	34,606	34,200	0.8%	5.0%
Socioeconomic Study Area	504,629	594,018	686,508	36.0%	100.0%
Idaho	1,006,734	1,293,953	1,567,582	55.7%	-
Montana	799,065	902,195	989,415	23.8%	-
United States	248,790,925	281,421,906	308,745,538	24.1%	-

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Sources: U.S. Census Bureau, 2010a; U.S. Census Bureau, 2000; U.S. Census Bureau, 1990.

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Since 1990, the population in Idaho has increased by 55.7 percent, more than doubling the United States population growth rate (24.1 percent) during the same time period. In contrast, Montana's population has grown 23.8 percent, more similar to that of the United States as a whole. Both states experienced a higher percentage of population growth from 1990 to 2000 than they did from 2000 to 2010. The Socioeconomic Study Area population growth also outpaced the United States, growing 36 percent between 1990 and 2010.

1 Twin Falls, Idaho, with a population of 44,125 (U.S. Census Bureau, 2010b) is  
 2 the largest city in the Socioeconomic Study Area and the seventh largest city in  
 3 the State of Idaho. It is the county seat and largest city in Twin Falls County  
 4 (NACO, 2012). It is also the principal city of the Twin Falls, ID Micropolitan  
 5 Statistical Area, which includes Jerome and Twin Falls Counties. Twin Falls is the  
 6 hub community of the eight-county south-central Idaho region known as Magic  
 7 Valley (City of Twin Falls, 2012).

8 Bozeman, Montana, with a population of 37,280 (U.S. Census Bureau, 2010b), is  
 9 the largest city in the Montana portion of the Socioeconomic Study Area, and  
 10 the fourth largest city in the State of Montana. It is the county seat of Gallatin  
 11 County (NACO, 2012). Bozeman is home to Montana State University, which is  
 12 also the city's largest employer. Bozeman is served by the Bozeman Yellowstone  
 13 International Airport, and it serves as a gateway community to Yellowstone  
 14 National Park.

15 Butte, Montana, with a population of 33,525 (U.S. Census Bureau, 2010b) is the  
 16 county seat of Silver Bow County. In 1977, the city and county governments  
 17 consolidated to form the sole entity of Butte-Silver Bow. Butte has a long  
 18 history as a mining town, dating back to 1864 when prospectors first struck gold  
 19 in Silver Bow Creek (Butte Montana CVB, 2012). It is home to one of the  
 20 nation's largest National Historic Landmark Districts with over 4,000 historic  
 21 structures (Mainstreet Uptown Butte, 2012). Butte is also the location of one  
 22 of the country's largest Superfund sites, Upper Clark Fork River.

23 Rexburg, Idaho, with a population of 25,484 (U.S. Census Bureau, 2010b), is the  
 24 county seat and largest city in Madison county (NACO, 2012). It is also the  
 25 principal city of the Rexburg, ID Micropolitan Statistical Area. Rexburg is a hub  
 26 for commerce for most communities in the Upper Snake River Valley. Rexburg  
 27 is also well known as the host of the Idaho International Dance and Music  
 28 Festival and the home of Brigham Young University-Idaho (City of Rexburg,  
 29 2012).

30 The "Communities of Place" section below provides more information about  
 31 additional cities and towns in the Socioeconomic Study Area, as well as the  
 32 character and history of the counties. Table 4 shows age and gender  
 33 characteristics of the population in each county of the Socioeconomic Study  
 34 Area.

35 **Table 4. Demographic Characteristics, Share in Total Population**  
 36 **(percent), 2010**

Geographic Area	Women	20 to 64 Years of Age	Under 20 Years of Age	65 Years of Age or Older
Adams County, ID	48.7	58.2	21.0	20.8
Bear Lake County, ID	50.4	52.1	29.5	18.4
Bingham County, ID	49.8	52.8	35.8	11.4

Geographic Area	Women	20 to 64 Years of Age	Under 20 Years of Age	65 Years of Age or Older
Blaine County, ID	49.1	62.4	26.0	11.6
Bonneville County, ID	50.1	55.2	33.9	10.9
Butte County, ID	48.6	52.5	30.0	17.5
Camas County, ID	47.9	61.1	23.0	15.9
Caribou County, ID	49.6	53.3	30.9	15.8
Cassia County, ID	49.4	51.1	36.0	12.9
Clark County, ID	44.7	53.7	33.2	13.1
Custer County, ID	46.9	60.1	21.2	18.7
Elmore County, ID	48.3	58.9	31.1	10.0
Fremont County, ID	47.4	52.2	33.9	13.9
Gem County, ID	50.5	54.4	27.0	18.6
Gooding County, ID	48.3	52.6	32.3	15.1
Jefferson County, ID	49.8	52.2	38.2	9.6
Jerome County, ID	48.9	54.7	34.1	11.2
Lemhi County, ID	49	56.1	21.7	22.2
Lincoln County, ID	48.3	53.9	35.1	11.0
Madison County, ID	51.6	59.1	35.3	5.6
Minidoka County, ID	49.4	53.0	32.2	14.8
Oneida County, ID	48.9	51.1	32.2	16.7
Owyhee County, ID	48.9	54.1	31.9	14.0
Payette County, ID	50.5	53.3	31.4	15.3
Power County, ID	48.5	53.9	34.0	12.1
Twin Falls County, ID	50.6	55.7	30.4	13.9
Washington County, ID	50.8	52.4	27.1	20.5
Beaverhead County, MT	48.8	58.9	24.2	16.9
Gallatin County, MT	48.1	65.5	25.0	9.5
Madison County, MT	48	59.6	19.4	21.0
Silver Bow County, MT	49.5	59.2	24.4	16.4
Socioeconomic Study Area	49.5	56.7	30.8	12.5
Idaho	49.9	57.2	30.4	12.4
Montana	49.8	59.9	25.3	14.8
United States	50.8	60.1	26.9	13.0

Source: U.S. Census Bureau, 2010b.

The Socioeconomic Study Area, Idaho, Montana, and the United States all generally follow the same trend in gender, with approximately half of the population being female. Of the counties within the Socioeconomic Study Area, Clark County, ID (44.7 percent) and Custer County, ID (46.9) have the lowest percentages of women. And only one county, Madison County, ID (51.6 percent) has a higher percentage of women than the nation.

Idaho and the Socioeconomic Study Area have a younger population than the nation: each having 57 percent of the population between 20 and 64 years of age compared to 60 percent of the national population, and more than 30 percent

1 of the population less than 20 years of age compared to only 27 percent of the  
2 national population. In contrast, Montana has a slightly older population than the  
3 nation, having nearly 15 percent of the population being 65 years or older  
4 compared to only 13 percent of the national population. Of the counties within  
5 the Socioeconomic Study Area, Bingham County, ID, Cassia County, ID,  
6 Jefferson County, ID, Jerome County, ID, Lincoln County, ID, Madison County,  
7 ID, and Power County, ID have the highest percentages of residents under the  
8 age of 20, all at least 7 percentage points higher than the national average (60.1  
9 percent). In contrast, Adams County, ID, Lemhi County, ID, Washington  
10 County, ID, and Madison County, MT have the highest percentages of residents  
11 over the age of 65, all at least 7 percentage points higher than the national  
12 average (13 percent).

#### 13 Interest Groups and Communities of Place

14 There is a range of interest groups in the Socioeconomic Study Area, including  
15 groups that focus advocacy on resource conservation and others that focus  
16 advocacy on resource uses such as livestock grazing. There are also groups that  
17 represent coalitions of interest groups. A list of interest groups that have  
18 requested to receive a copy of the DEIS are provided in Chapter XX. The types  
19 of interest groups identified within the Socioeconomic Study Area include the  
20 following: federal agencies, state agencies, county agencies, local agencies,  
21 congressional representatives, local representatives, academic institutions, civic  
22 organizations, local chambers of commerce, environmental groups, land  
23 conservation groups, outdoors groups, local school boards, farm associations,  
24 Native American groups and Tribal Governments, and various business groups.  
25 Specific types of business interest groups identified include the following: real  
26 estate, tourism, mineral extraction, farms/ranches, textile manufacturers,  
27 livestock growers, and news media.

28  
29  
30 The Socioeconomic Study Area includes various communities of people who are  
31 bound together because of where they reside, work, visit, or otherwise spend a  
32 continuous portion of their time. Stakeholder groups currently benefitting from  
33 BLM- and FS-managed lands within the Socioeconomic Study Area include those  
34 associated with agriculture and livestock production; forest products; mining;  
35 travel, tourism, and recreation; and local residents (see, for example, BLM,  
36 2005b; BLM, 2008; BLM, 2010; USFS, 2003).

37 A common perception is that there is a dichotomy of values and attitudes  
38 between stakeholder groups in the Study Area between individuals or groups  
39 who feel that resource conservation and non-consumptive uses of public lands  
40 are more important than benefits derived from consumptive type uses, such as  
41 livestock grazing, timber harvesting, and mining. At a more nuanced scale,  
42 however, personal attitudes, interests, and values are quite complex, and these  
43 groupings are not mutually exclusive. The high value that residents and visitors  
44 place on small town character, private property rights, low population density,  
45 scenery and landscape, outdoors and open space, the rural lifestyle, fishing, and  
46 hunting are commonly held throughout the Study Area (see, for example, BLM,  
47 2005b; BLM, 2008; BLM, 2010; USFS, 2003). These values are also commonly  
48 expressed within individual county land use plans, and were also expressed by

1 attendees at both scoping meetings and the Economic Strategies Workshop that  
2 BLM and FS held in Twin Falls, ID, in June 2012.

3 A unifying theme expressed by residents of the Socioeconomic Study Area –  
4 including in previous planning processes – is the concern for the preservation of  
5 rural characteristics and values. For example, a shift toward larger, more  
6 mechanized agricultural operations, as well as the increasing diversification of  
7 local economies, have challenged traditional ways of life in many communities.  
8 These changes are evident in the declining number of mid-sized farms and the  
9 number of workers employed in agriculture and agriculture-based industries  
10 (Blaine County, 1994; Power County, 2009; Headwaters Economics, 2012; U.S.  
11 Department of Commerce, 2012a). Nevertheless, farming and ranching remain  
12 important parts of the economy, society and culture across the Socioeconomic  
13 Study Area.

14 In some areas, particularly those with scenic and recreational amenities,  
15 farmlands and ranches are being sold and used for recreation purposes or  
16 subdivided for homesites. This phenomenon is part of a larger trend in which  
17 many rural communities in the western United States have witnessed "migration  
18 turnaround," a reversal of the rural-to-urban migration that characterized much  
19 of the United States prior to the 1970s. Many rural areas are now experiencing  
20 a significant increase in population after decades of stability or decline (BLM,  
21 2005b). In response to recent commercial and industrial expansion and the  
22 associated demand for affordable, diversified housing, many counties are  
23 encouraging infill development and other strategies to prevent the loss of  
24 agricultural lands and maintain the rural character of their communities  
25 (Caribou County, 2006; Silver Bow County, 2008).

26 Despite population increases across most of the study area, some rural areas  
27 continue to lose population (Idaho Department of Labor, 2011). This is due, in  
28 part, to the out-migration of young people and aging of the population (BLM,  
29 2010; Idaho Commerce & Labor, 2005). In contrast to communities where in-  
30 migration is occurring, residents of these communities may be more concerned  
31 about the economic survival of their communities. Multiple use management of  
32 and access to public lands, which comprise a large portion of lands in many  
33 counties, are cited as paramount concerns in these areas (BLM, 2005b).  
34 Residents expressed some similar themes during public scoping and the June  
35 2012 Economic Strategies Workshop for this planning effort (BLM and USFS,  
36 2012; BLM, 2012d). Comments received from these outreach efforts came from  
37 non-profit or citizen groups; local, state and Federal governments; the  
38 commercial sector and members of the general public. These comments  
39 strongly supported maintaining or expanding access to public lands for grazing  
40 and recreational purposes. Many expressed concern that placing additional  
41 constraints on these activities might create economic hardship within their  
42 communities and alter traditional cultural values and lifestyles. Additionally,  
43 some argued that constraints on livestock grazing would exacerbate existing

1 trends of conversion of ranch lands to agricultural and residential uses, perhaps  
2 with the unintended consequence of decreasing open space and wildlife habitat.  
3 Other issues of concerns cited by residents include the management of invasive  
4 species, fire and fuels, and whether public lands should be opened to wind  
5 energy development.

6 Economic activity and land use patterns in the Socioeconomic Study Area have  
7 been strongly influenced by the region's dramatic geography. Agriculture,  
8 timber harvesting, and mining have historically defined the character and lifestyle  
9 of much of the Study Area. Within the past two decades, however, increasing  
10 urbanization and the growth of service sector industries, including retail trade,  
11 local government, and health care, have been powerful agents of change on the  
12 landscape and local cultures (Headwaters Economics, 2012; U.S. Department of  
13 Commerce, 2012a).

14 The rolling hills and valleys of the Northern Basin and Range, which stretches  
15 across much of southern Idaho, provide ample opportunities for livestock  
16 grazing with occasional croplands, and contains all or substantial parts of  
17 Caribou, Cassia, Oneida, Owyhee, Power, and Twin Falls Counties (McGrath et  
18 al., 2002). The region is still heavily dependent on agriculture and agriculture-  
19 based industries, despite stagnant or declining employment in these sectors  
20 (Headwaters Economics, 2012; U.S. Department of Commerce, 2012a). Twin  
21 Falls is the most populous city in the Socioeconomic Study Area, and serves as  
22 the major commercial and industrial hub of south-central Idaho's Magic Valley  
23 region, so named due to the transformation of the basin into productive  
24 farmland through the construction of extensive irrigation systems in the early  
25 1900s.

26 The broad Snake River Plain that arcs just north of Idaho's Basin and Range  
27 region contains all or substantial parts of Ada, Adams, Bingham, Canyon,  
28 Elmore, Gem, Gooding, Jefferson, Jerome, Lincoln, Madison, Minidoka, Payette,  
29 and Washington Counties. Potatoes, sugar beets, alfalfa, grains, and vegetables  
30 are grown in areas where irrigation and soil depth are suitable for crop  
31 production (McGrath et al., 2002). Other prominent land uses include livestock  
32 grazing, cattle feedlots, and dairy operations. The barren, lava-field landscape of  
33 Craters of the Moon National Monument is a popular visitor attraction  
34 showcasing the region's unique geologic history. Upward trends in population  
35 growth, fueled by expansion in the retail trade and small manufacturing sectors  
36 over the past decade, have left some school districts and governmental service  
37 struggling to provide maintain adequate levels of service (Jefferson County,  
38 2005).

39 Butte, Camas, Clark, Custer, and Lemhi Counties are located in Idaho's Rocky  
40 Mountain region, which rises sharply from the northern edge of the Snake River  
41 Plain. Here, timber harvesting, grazing, and recreation are the predominant land  
42 uses (McGrath et al., 2002). The counties of Bonneville, Butte, Caribou, and



1 Fremont in Idaho and Beaverhead, Silver Bow, Madison, and Gallatin in  
2 southwestern Montana also offer abundant opportunities for outdoor  
3 recreation. Popular activities include fishing, hunting, hiking, horseback riding,  
4 OHV use, skiing, and sightseeing, which attract residents, as well as visitors  
5 from all areas of the United States (BLM, 2005b; BLM, 2008). In many  
6 communities, such as Butte, MT, growth in tourism and recreation industries  
7 has largely outpaced historical land uses. The in-migration of residents who  
8 purchase smaller ranches or farms, but do not depend on the economic return  
9 from these activities as their primary source of income, has created conflict with  
10 long-time rural residents (BLM, 2008).

11 Bear Lake County, which occupies the far southeastern corner of Idaho and the  
12 Wasatch and Uinta Range, has remained largely rural, but serves also as an  
13 important destination for tourists and recreationists.

#### 14 County Land Use Plans

15 BLM/USFS-administered and other federal land in the Socioeconomic Study  
16 Area is intermingled with State and private lands. County governments have  
17 land use planning responsibility for the private lands located within their  
18 jurisdictions. County level land use plans (also referred to as Comprehensive  
19 plans or Growth Policies) were identified for twenty-eight of the thirty-one  
20 counties within the Socioeconomic Study Area (Adams County, 2006; Bingham  
21 County, 2005; Blaine County, 1994; Bonneville County, 2004; Camas County,  
22 2006; Caribou County, 2006; Cassia County, 2006; Clark County, 2010; Custer  
23 County, 2006; Elmore County, 2004; Fremont County, 2008; Gem County,  
24 2010; Gooding County, 2010; Jefferson County, 2005; Jerome County, 2006;  
25 Lemhi County, 2007; Lincoln County, 2008; Madison County, 2008; Minidoka  
26 County, 2001; Owyhee County, 2010; Payette County, 2006; Power County,  
27 2009; Twin Falls County, 2008; Washington County, 2010; Beaverhead County,  
28 2009; Gallatin County, 2005; Madison County, 2006; Silver Bow County, 2008).  
29 Of the counties with identified land use plans, all had some form of economic  
30 development component, such as promotion of specific industrial sectors and  
31 natural resource use.

#### 32 ***Economic Conditions***

33 Economic analysis is concerned with the production, distribution, and  
34 consumption of goods and services. This section provides a summary of  
35 economic information, including trends and current conditions. It also identifies  
36 and describes major economic sectors in the Socioeconomic Study Area that  
37 can be affected by management actions. Most likely affected would be those  
38 economic activities that rely or could rely on public lands, such as recreation  
39 and livestock grazing.

#### 40 Economic Sectors, Employment, and Personal Income

The distribution of employment and income by industry sector within the Socioeconomic Study Area is summarized in Table 5 and Table 6 below. See Appendix X for equivalent data by county.

**Table 5. Employment by Sector within the Socioeconomic Study Area**

Socioeconomic Study Area	Absolute			Percentage of total		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
<b>Total Employment (number of jobs)</b>	<b>352,752</b>	<b>395,236</b>	<b>42,484</b>	<b>100.0%</b>	<b>100.0%</b>	<b>12.0%</b>
<b>Non-services related</b>	<b>87,102</b>	<b>82,972</b>	<b>-4,129</b>	<b>24.7%</b>	<b>21.0%</b>	<b>-4.7%</b>
Farm	29,597	26,909	-2,688	8.4%	6.8%	-9.1%
Forestry, fishing, & related activities	4,615	4,704	89	1.3%	1.2%	1.9%
Mining (including oil and gas)	1,431	2,046	615	0.4%	0.5%	43.0%
Construction	25,636	25,897	262	7.3%	6.6%	1.0%
Manufacturing	25,822	23,416	-2,407	7.3%	5.9%	-9.3%
<b>Services related</b>	<b>200,014</b>	<b>243,372</b>	<b>43,358</b>	<b>56.7%</b>	<b>61.6%</b>	<b>21.7%</b>
Utilities	1,213	1,546	333	0.3%	0.4%	27.4%
Wholesale trade	13,480	13,871	391	3.8%	3.5%	2.9%
Retail trade	41,426	43,618	2,192	11.7%	11.0%	5.3%
Transportation and warehousing	9,619	11,215	1,596	2.7%	2.8%	16.6%
Information	4,381	5,095	714	1.2%	1.3%	16.3%
Finance and insurance	9,319	13,699	4,381	2.6%	3.5%	47.0%
Real estate and rental and leasing	11,339	18,249	6,909	3.2%	4.6%	60.9%
Professional and technical services <sup>1</sup>	23,409	27,865	4,455	6.6%	7.1%	19.0%
Management of companies and enterprises	792	778	-14	0.2%	0.2%	-1.8%
Administrative and waste services	12,976	16,229	3,253	3.7%	4.1%	25.1%
Educational services	2,217	3,618	1,401	0.6%	0.9%	63.2%
Health care and social assistance	21,187	31,292	10,105	6.0%	7.9%	47.7%
Arts, entertainment, and recreation	6,331	8,435	2,103	1.8%	2.1%	33.2%
Accommodation and food services	24,261	26,417	2,157	6.9%	6.7%	8.9%
Other services, except public administration	18,065	21,446	3,382	5.1%	5.4%	18.7%
<b>Government</b>	<b>54,242</b>	<b>57,046</b>	<b>2,804</b>	<b>15.4%</b>	<b>14.4%</b>	<b>5.2%</b>
Federal	12,456	12,265	-191	3.5%	3.1%	-1.5%
State	9,884	10,537	653	2.8%	2.7%	6.6%
Local	31,052	33,807	2,755	8.8%	8.6%	8.9%

1 Sources: Headwaters Economics, 2012; U.S. Department of Commerce, 2012a.

2 <sup>1</sup>Professional and technical services activities require a high degree of expertise and training. Example activities  
3 include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural,  
4 engineering, and specialized design services; computer services; consulting services; research services;  
5 advertising services; photographic services; translation and interpretation services; and veterinary services.

6 With respect to employment by industry sector, the services related sector  
7 accounted for the largest share (61.6 percent) of total employment in the  
8 Socioeconomic Study Area in 2010. This reflects a growth rate of 21.7 percent  
9 from 2001 (compared to an overall employment growth rate for all sectors of  
10 12.0 percent from 2001). Compared to the services related sector, the non-  
11 services related sector and the government sector represented lower levels of  
12 employment, 21.0 percent and 14.4 percent, respectively. At the industry level,  
13 retail trade (11.0 percent) accounted for the largest share of employment of all  
14 industries in the Socioeconomic Study Area in 2010, followed by local  
15 government (8.6 percent), health care and social assistance (7.9 percent), and  
16 professional and technical services (7.1 percent). Although mining contributed a  
17 relatively small share of total employment within the study area in 2010, a  
18 notable proportion of total employment within Caribou County (7.2 percent)  
19 and Clark County (4.1 percent) came from the mining industry. The industries  
20 that demonstrated the largest growth between 2001 and 2010 were educational  
21 services, with an increase of 63.2 percent; real estate rental and leasing, with an  
22 increase of 60.9 percent; and health care and social assistance, with an increase  
23 of 47.7 percent. The only industries to decrease in employment levels from  
24 2001 to 2010 were management of companies and enterprises (decrease of 51.3  
25 percent) and farming (decrease of 9.2 percent).

26 **Appendix X** provides county-level employment figures. The greatest difference  
27 in industry sector proportion between counties in 2010 was in the professional  
28 and technical services industry. Professional and technical services contributed a  
29 low 1.5 percent of total employment in Power County, Idaho but a much larger  
30 percentage in Butte County, Idaho (83.8 percent). Other industries also showed  
31 large variation in shares of employment across counties, including the farm  
32 industry (from 0.7 percent in Silver Bow County, Montana to 25.6 percent in  
33 Gooding County, Idaho) and the manufacturing industry (from 0.6 percent in  
34 Butte County, Idaho to 24.8 percent in Power County, Idaho). Other counties  
35 identified as having relatively high employment shares in the farming industry  
36 include Lincoln County, Idaho (22.5 percent), Oneida County, Idaho (22.6  
37 percent), and Owyhee County, Idaho (25.3 percent). The federal government  
38 industry also showed a high level of variation in shares across counties (from 1.0  
39 percent in Blaine County, Idaho to 35.5 percent in Elmore County, Idaho).  
40 However, in 26 of the 31 counties included in the Socioeconomic Study Area,  
41 the federal government contributed less than 5 percent of employment).  
42 Recreation-related economic activity, including the arts, entertainment and  
43 recreation; retail trade; and accommodation and food services industries, varied  
44 across the counties (by 8.4 percentage points, 12.7 percentage points, and 16.7  
45 percentage points, respectively). Note that these sectors are influenced not only

by recreation but also by many other industries. See Appendix X for individual county detail.

**Table 6. Labor Income by Sector within the Socioeconomic Study Area (2010 dollars)**

Socioeconomic Study Area	Absolute (Millions)			Percentage of total <sup>1</sup>		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
<b>Total Labor Earnings<sup>2</sup></b>	<b>\$12,847.6</b>	<b>\$15,018.5</b>	<b>\$2,171.0</b>	<b>100.0%</b>	<b>100.0%</b>	<b>16.9%</b>
<b>Non-services related</b>	<b>\$3,633.4</b>	<b>\$3,899.2</b>	<b>\$265.8</b>	<b>28.3%</b>	<b>26.0%</b>	<b>7.3%</b>
Farm	\$1,103.1	\$1,241.9	\$138.8	8.6%	8.3%	12.6%
Forestry, fishing, & related activities	\$139.3	\$136.5	-\$2.8	1.1%	0.9%	-2.0%
Mining (including oil and gas)	\$126.5	\$367.2	\$240.7	1.0%	2.4%	190.3%
Construction	\$1,147.8	\$1,007.2	-\$140.6	8.9%	6.7%	-12.2%
Manufacturing	\$1,116.7	\$1,146.5	\$29.7	8.7%	7.6%	2.7%
<b>Services related</b>	<b>\$6,793.2</b>	<b>\$8,502.3</b>	<b>\$1,709.0</b>	<b>52.9%</b>	<b>56.6%</b>	<b>25.2%</b>
Utilities	\$197.2	\$216.6	\$19.4	1.5%	1.4%	9.8%
Wholesale trade	\$617.9	\$778.1	\$160.2	4.8%	5.2%	25.9%
Retail trade	\$1,082.1	\$1,148.1	\$66.1	8.4%	7.6%	6.1%
Transportation and warehousing	\$468.5	\$542.0	\$73.5	3.6%	3.6%	15.7%
Information	\$203.6	\$228.7	\$25.1	1.6%	1.5%	12.3%
Finance and insurance	\$301.8	\$419.3	\$117.5	2.3%	2.8%	38.9%
Real estate and rental and leasing	\$307.6	\$249.0	-\$58.7	2.4%	1.7%	-19.1%
Professional and technical services	\$1,335.4	\$1,695.5	\$360.1	10.4%	11.3%	27.0%
Management of companies and enterprises	\$53.4	\$94.5	\$41.1	0.4%	0.6%	76.9%
Administrative and waste services	\$281.1	\$413.4	\$132.3	2.2%	2.8%	47.1%
Educational services	\$98.5	\$148.0	\$49.5	0.8%	1.0%	50.3%
Health care and social assistance	\$801.0	\$1,306.4	\$505.4	6.2%	8.7%	63.1%
Arts, entertainment, and recreation	\$178.3	\$204.9	\$26.6	1.4%	1.4%	14.9%
Accommodation and food services	\$416.6	\$486.8	\$70.2	3.2%	3.2%	16.8%
Other services, except public administration	\$450.0	\$570.9	\$120.9	3.5%	3.8%	26.9%
<b>Government</b>	<b>\$2,436.9</b>	<b>\$2,871.8</b>	<b>\$434.9</b>	<b>19.0%</b>	<b>19.1%</b>	<b>17.8%</b>
Federal	\$771.5	\$959.6	\$188.1	6.0%	6.4%	24.4%
State	\$412.1	\$502.4	\$90.3	3.2%	3.3%	21.9%

Socioeconomic Study Area	Absolute (Millions)			Percentage of total <sup>1</sup>		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
Local	\$1,223.5	\$1,393.9	\$170.4	9.5%	9.3%	13.9%
<b>Non-labor Income<sup>3</sup></b>	<b>\$6,007.1</b>	<b>\$8,536.4</b>	<b>\$2,529.2</b>	<b>34.0%</b>	<b>38.8%</b>	<b>42.1%</b>
Dividends, interest, and rent	\$3,473.3	\$4,332.0	\$858.7	19.7%	19.7%	24.7%
Personal current transfer receipts <sup>4</sup>	\$2,533.8	\$4,204.4	\$1,670.6	14.3%	19.1%	65.9%
Contributions to government social insurance <sup>5</sup>	\$1,414.9	\$1,822.9	\$407.9	8.0%	8.3%	28.8%
<b>Total Personal Income<sup>6</sup></b>	<b>\$17,672.2</b>	<b>\$21,980.1</b>	<b>\$4,307.9</b>	<b>100.0%</b>	<b>100.0%</b>	<b>24.4%</b>

Sources: Headwaters Economics, 2012; U.S. Department of Commerce, 2012a. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

<sup>1</sup>Industry earnings are reported as a share of total labor earnings. Dividends, interest, and rent; personal current transfer receipts; and contributions to government social insurance are reported as a share of personal income.

<sup>2</sup>Total labor earnings are reported by place of work.

<sup>3</sup>Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>4</sup>“Personal current transfer receipts” are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>5</sup>“Contributions for government social insurance” consists of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans’ life insurance; publicly-administered workers’ compensation; military medical insurance; and temporary disability insurance (U.S. Department of Commerce, 2012b).

<sup>6</sup>Total personal income is reported by place of residence.

With respect to personal earnings, the services related sector accounted for the largest share (56.6 percent) of personal earnings in the Socioeconomic Study Area in 2010, followed by the non-services related sector (26.0 percent) and the government sector (19.1 percent). In 2010, the individual industries that generated the largest shares of personal earnings included the professional and technical services industry (11.3 percent), the local government industry (9.3 percent), and the health care and social assistance industry (8.7 percent). Mining, management of companies and enterprises, and healthcare and social assistance all showed strong trends of growth since 2001 (a percent change of 190.3 percent, 76.9 percent, and 63.1 percent, respectively); these were the highest growth rates between 2001 and 2010. During the same time period, the real estate, rental and and leasing industry and the construction industry experienced the largest decline in earnings of all the industry sectors (declines of 19.1 percent and 12.2 percent, respectively).

**Appendix X** provides county-level labor earnings figures. The county-by-county patterns are similar to those for employment, with relatively more variation in income from professional and technical services than from other industries; professional and technical services contribute the most to earnings in Butte County, Idaho at 93.5 percent. At the other end of the range, professional and

1 technical services accounts for only 1.2 percent of earnings in Elmore County,  
2 Idaho and only 1.3 percent in Power County, Idaho. Of the counties for which  
3 data are provided (22 of 31), only three earn more than 10 percent of income  
4 from the professional and technical services industry. Farm income varied from  
5 a low share of -2.1 percent of total earnings in Adams County, Idaho to highs of  
6 47.3 percent in Gooding County, Idaho, followed by 46.9 percent in Owyhee  
7 County, Idaho. Manufacturing income varied in proportion across the counties,  
8 from 0.2 percent of earnings in Butte County, Idaho to 32.9 percent in Power  
9 County, Idaho. Earnings from the mining sector are left undisclosed in 15 of the  
10 31 counties included in the Socioeconomic Study Area due to confidentiality  
11 requirements. Furthermore, mining sector earnings figures are not provided for  
12 nine of the 31 counties because the earnings amounted to less than \$50,000 in  
13 those counties. For the counties for which data are available, earnings from  
14 mining range from 0.1 percent in Twin Falls County, Idaho to a share of 12.7  
15 percent of total earnings in Caribou County, Idaho. Accommodation and food  
16 services contributes 0.1 percent of total earnings in Butte County, Idaho and up  
17 to 16.6 percent in Madison County, Montana. The other recreation and travel-  
18 related industries (i.e., retail trade and arts, entertainment, and recreation)  
19 contribute between 0.1 percent (arts, entertainment, and recreation in Elmore  
20 County, Idaho) and 16.2 percent (retail trade in Adams County, Idaho).

21 In addition to industry shares of labor earnings, another metric – residence  
22 adjustment – provides information about the economic conditions in the  
23 Socioeconomic Study Area. Residence adjustment represents the net inflow of  
24 the earnings of inter-area commuters. A positive number indicates that, on  
25 balance, area residents commute outside to find jobs; a negative number  
26 indicates that, on balance, people from outside the area commute in to find jobs.  
27 Jefferson County, Idaho’s residence adjustment represented 27.8 percent of its  
28 total personal income, the highest share of all counties in the Socioeconomic  
29 Study Area. Gem County, Idaho had the second highest share (25.8 percent).  
30 Residence adjustment accounted for the most lowest share of total personal  
31 income in Butte County, Idaho (-701.3 percent), followed by Caribou County,  
32 Idaho (-22.1 percent). See Appendix X for individual county detail.

33 In addition to the 31 counties of the Socioeconomic Study Area, **Appendix X**  
34 provides employment and earnings data for Ada and Canyon Counties in Idaho,  
35 which constitute a secondary study area as discussed in the introduction. In  
36 2010, overall employment in the two-county secondary study area (339,924)  
37 was only slightly smaller than overall employment levels in the 31-county  
38 primary socioeconomic study area (395,236). Earnings in the two-county  
39 secondary study area were \$15,021.40, approximately the same as the earnings  
40 in the primary socioeconomic study area (\$15,018.50). The economies of the  
41 Ada and Canyon Counties are relatively diversified, with no industry capturing  
42 more than 12.3 percent of the workforce. In Ada County, the health care and  
43 social assistance industry dominates, contributing 12.0 percent of total  
44 employment; the next largest contributors are retail trade (11.1 percent) and

administrative and waste services (8.9 percent). In Canyon County, retail trade contributes the largest share of employment (12.3 percent), followed by healthcare and social assistance (11.2 percent) and manufacturing (10.6 percent). Besides retail trade, other industries that are directly and indirectly affected by recreation (e.g., accommodation and food services; arts, entertainment, and recreation) do not contribute significantly to secondary study area counties. The impact analysis in the next chapter will document potential effects on the economy in the secondary study area, as well as for the 31 counties within the primary socioeconomic study area.

Table 7 presents the unemployment rates for each county in the Socioeconomic Study Area, as well as the rates for the counties aggregated and the States of Idaho and Montana. The data show that unemployment in the Socioeconomic Study Area matches or approximates that of the State for each of the years listed. At the county level, in 2011, the unemployment rates in the Socioeconomic Study Area ranged from a low of 5.0 percent in Owyhee County to a high of 17.3 percent in Adams County.

**Table 7. Annual Unemployment, 2007 – 2011**

<b>Geographic Area</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Adams County, ID	5.5%	10.0%	14.0%	16.5%	17.3%
Bear Lake County, ID	2.3%	3.1%	5.0%	6.2%	5.5%
Bingham County, ID	2.6%	3.7%	5.5%	7.0%	7.3%
Blaine County, ID	2.3%	3.6%	7.1%	8.9%	8.8%
Bonneville County, ID	2.1%	3.3%	5.4%	6.6%	7.1%
Butte County, ID	2.4%	4.1%	4.8%	6.2%	7.1%
Camas County, ID	2.4%	4.3%	8.9%	11.2%	11.3%
Caribou County, ID	2.8%	3.4%	5.6%	7.6%	7.6%
Cassia County, ID	3.1%	3.7%	5.0%	6.8%	6.8%
Clark County, ID	2.2%	3.2%	5.1%	8.4%	8.4%
Custer County, ID	3.3%	4.3%	5.2%	7.1%	7.3%
Elmore County, ID	3.8%	5.3%	7.2%	8.5%	9.0%
Fremont County, ID	3.2%	4.7%	7.5%	9.2%	8.2%
Gem County, ID	3.7%	6.7%	9.9%	11.1%	11.4%
Gooding County, ID	2.1%	3.2%	5.3%	6.9%	6.6%
Jefferson County, ID	2.4%	3.6%	5.9%	7.3%	7.2%
Jerome County, ID	2.8%	4.0%	6.0%	8.1%	7.8%
Lemhi County, ID	4.4%	6.4%	7.6%	9.9%	10.9%
Lincoln County, ID	3.3%	5.3%	10.2%	13.0%	12.4%
Madison County, ID	2.1%	3.3%	5.1%	5.8%	6.2%
Minidoka County, ID	3.8%	4.3%	5.7%	7.5%	7.3%
Oneida County, ID	1.7%	3.3%	5.3%	5.0%	5.1%
Owyhee County, ID	1.9%	2.9%	3.7%	4.8%	5.0%
Payette County, ID	4.1%	5.6%	8.4%	9.2%	9.6%
Power County, ID	3.9%	5.0%	6.9%	9.3%	9.2%
Twin Falls County, ID	2.7%	3.8%	5.9%	8.1%	8.0%
Washington County, ID	4.1%	5.4%	8.4%	10.0%	10.1%
Beaverhead County, MT	2.7%	3.6%	4.4%	5.4%	5.7%
Gallatin County, MT	2.5%	3.7%	6.2%	6.7%	6.1%
Madison County, MT	2.8%	3.7%	5.6%	7.0%	6.9%

Geographic Area	2007	2008	2009	2010	2011
Silver Bow County, MT	3.5%	4.3%	5.6%	6.0%	6.3%
Socioeconomic Study Area	2.7%	4.0%	6.1%	7.4%	7.4%
Idaho	3.0%	4.7%	7.4%	8.8%	8.7%
Montana	3.4%	4.5%	6.1%	6.9%	6.8%

Source: BLS, 2012b.

### Recreation

Approximately 34,430 jobs (17.2 percent of total employment in 2010) in the Socioeconomic Study Area are related to travel and tourism, which was 2.1 percentage points higher than the national average (15.1 percent) (Headwaters Economics, 2012). This estimate is based on data from the U.S. Census Bureau County Business Patterns and includes industrial sectors that, at least in part, provide goods and services to visitors, the local economy, and the local population. This estimate includes both full- and part-time jobs. Most of these jobs are concentrated in the “accommodation and food services” and “retail trade” sectors. Jobs related to travel and tourism are more likely to be seasonal and/or part-time and more likely to have lower average annual earnings than jobs in non-travel and tourism-related sectors. The average annual wage per travel or tourism related job was \$15,152 (2010 dollars) in the Socioeconomic Study Area in 2010, compared to \$32,425 for jobs not related to travel and tourism (Headwaters Economics, 2012).

Although much of the recreation use on BLM lands is dispersed and far from counting devices (e.g., trail registers, fee stations, or vehicle traffic counters), approximations of the number of visitors to BLM-administered lands can be obtained from the BLM Recreation Management Information Service (RMIS) database, in which BLM recreation specialists provide estimated total visits and visitor days to various sites within their field office boundaries. Table 8 summarizes BLM visitation data in each field office area for fiscal year (FY) 2011 (i.e., the year ending September 30, 2011), and USFS visitation data from Round 2 of the National Visitor Use Monitoring program (NVUM).

**Table 8. Estimated Annual Visits by Planning Unit**

Field Office or National Forest	Total Individual Visits, FY 2011	Local Individual Visits <sup>1</sup>	Non-local Individual Visits <sup>1</sup>	Non Primary <sup>2</sup> Individual Visits <sup>1</sup>
Bruneau Field Office, ID	24,740	13,360	8,164	3,216
Burley Field Office, ID	642,867	347,148	212,146	83,573
Challis Field Office, ID	217,505	117,453	71,777	28,276
Four Rivers Field Office, ID	235,643	127,247	77,762	30,634
Jarbidge Field Office, ID	39,980	21,589	13,193	5,197
Owyhee Field Office, ID	288,968	156,043	95,359	37,566
Pocatello Field Office, ID	292,275	157,829	96,451	37,996
Salmon Field Office, ID	269,976	145,787	89,092	35,097
Shoshone Field Office, ID	926,637	500,384	305,790	120,463
Upper Snake Field Office, ID	1,174,536	634,249	387,597	152,690
Butte Field Office, MT	1,878,049	1,014,146	619,756	244,146



### 3. Affected Environment

Dillon Field Office, MT	1,431,825	773,186	472,502	186,137
Beaverhead-Deerlodge NF	907,830	490,228	299,584	118,018
Boise NF	1,509,436	815,095	498,114	196,227
Caribou-Targhee NF <sup>3</sup>	1,291,105	697,197	426,065	167,844
Salmon-Challis NF	236,435	127,675	78,024	30,737
Sawtooth NF	1,086,883	586,917	358,671	141,295
Total	12,454,690	6,725,533	4,110,048	1,619,110

NF National Forest

Source: BLM data from BLM (2012c); FS data from USFS (2012b).

<sup>1</sup>Based on national averages for all National Forests. White and Gooding (2012).

<sup>2</sup>Non primary means incidental visits where the primary purpose of the trip was other than visiting the National Forest being surveyed.

<sup>3</sup>Includes Curlew National Grassland

Visitor expenditures can be approximated by using the RMIS and NVUM visitation data in conjunction with data from USFS, which has constructed recreation visitor spending profiles based on years of survey data gathered through the USFS NVUM. Although the data are collected from National Forest visitors, the analysis that follows is based on the NVUM profiles because the BLM has no analogous database. The profiles break down recreation spending by type of activity, day use versus overnight use, local versus non-local visitors, and “non-primary” visits (i.e., incidental visits where the primary purpose of the trip was other than visiting public lands). Table 9 summarizes individual and party visits and expenditures by trip type and estimated direct expenditure.

**Table 9. Visitor Spending from Recreation on BLM and USFS Land in Socioeconomic Study Area, FY 2011**

Trip Type	Percent of Visits <sup>1</sup>	Estimated Number of Individual Visits	Average Party Size <sup>1</sup>	Estimated Number of Party Visits	Party Spending Per Visit (2010 \$) <sup>1</sup>	Estimated direct expenditure (Millions \$)
Non-local Day Trips	10	1,245,469	2.5	498,188	\$63.68	\$31.7
Non-local Overnight on Public Lands	9	1,120,922	2.6	431,124	\$237.27	\$102.3
Non-local Overnight off Public Lands	14	1,743,657	2.6	670,637	\$522.63	\$350.5
Local Day Trips	49	6,102,798	2.1	2,906,094	\$33.56	\$97.5
Local Overnight on Public Lands	4	498,188	2.6	191,611	\$165.14	\$31.6
Local Overnight off Public Lands	1	124,547	2.4	51,895	\$216.48	\$11.2
Non Primary Visits	13	1,619,110	2.5	647,644	\$376.62	\$243.9
Total	100	12,454,690	-	5,397,192	-	\$868.8

NA Not Applicable

<sup>1</sup>Visits on BLM land estimated using the national average distribution of trip types for all national forests, from White and Gooding (2012). Visits on USFS land by trip type are provided in NVUM (USFS, 2012b). Party spending per visit was converted from 2009 to 2010 dollars using the Consumer Price Index (BLS, 2012a).

As Table 9 shows, the estimated total visitor spending on BLM and USFS lands in the Socioeconomic Study Area was about \$868.83 million in FY 2011. It is important to note that this includes expenditures from local residents and from visitors whose use of public lands was incidental to some other primary purpose.

#### Grazing

Farming employed approximately 26,909 people in the Socioeconomic Study Area in 2010, accounting for 6.8 percent of total employment. The average annual wage for a farm job in the Study Area was \$27,448 in 2010. This was lower than the average annual wage for a non-farm job (\$29,268) (Headwaters Economics, 2012).<sup>2</sup>

Table 10 presents the proportion of personal income originating from farm earnings and the farm cash receipts from livestock received throughout the Socioeconomic Study Area and Idaho and Montana as a whole. As shown in Table 10, agricultural services are an important contribution in several counties; however, in some counties the data are not released for confidentiality reasons.

**Table 10. Farm Earnings Detail, 2010 (2010 dollars)**

Geographic Area	Farm Earnings as Share of All Earnings	Agriculture and Forestry Support Activities Earnings as Share of All Earnings <sup>1</sup>	Farm Cash Receipts (Millions)	Share of Farm Cash Receipts from Livestock	Share of Farm Cash Receipts from Crops
Adams County, ID	-2.1%	(D)	\$11.5	80.8%	19.2%
Bear Lake County, ID	7.8%	(D)	\$21.9	74.7%	25.3%
Bingham County, ID	5.3%	2.7%	\$310.0	33.5%	66.5%
Blaine County, ID	1.4%	(D)	\$34.3	39.9%	60.1%
Bonneville County, ID	1.7%	(D)	\$177.8	51.3%	48.7%
Butte County, ID	1.3%	(D)	\$41.6	23.2%	76.8%
Camas County, ID	29.5%	(D)	\$20.0	9.9%	90.1%
Caribou County, ID	5.6%	(D)	\$51.6	43.2%	56.8%
Cassia County, ID	28.2%	2.2%	\$688.7	72.1%	27.9%
Clark County, ID	31.6%	(D)	\$38.0	22.0%	78.0%
Custer County, ID	9.5%	(D)	\$22.6	65.6%	34.4%
Elmore County, ID	6.6%	0.3%	\$349.3	66.7%	33.3%
Fremont County, ID	-1.1%	(D)	\$59.8	19.5%	80.5%
Gem County, ID	6.3%	(D)	\$37.7	53.1%	46.9%
Gooding County, ID	47.3%	2.5%	\$664.4	90.0%	10.0%
Jefferson County, ID	19.9%	(D)	\$247.0	48.3%	51.7%
Jerome County, ID	28.0%	3.5%	\$516.0	75.9%	24.1%
Lemhi County, ID	2.6%	(D)	\$25.4	88.5%	11.5%
Lincoln County, ID	46.0%	(D)	\$147.2	76.2%	23.8%
Madison County, ID	-1.1	1.0%	\$63.5	10.5%	89.5%
Minidoka County, ID	24.1%	(D)	\$290.2	28.5%	71.5%
Oneida County, ID	27.8%	(D)	\$35.9	30.5%	69.5%
Owyhee County, ID	46.9%	(D)	\$263.8	63.5%	36.5%
Payette County, ID	8.4%	(D)	\$165.1	77.6%	22.4%

<sup>2</sup> All dollar values were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

Geographic Area	Farm Earnings as Share of All Earnings	Agriculture and Forestry Support Activities Earnings as Share of All Earnings <sup>1</sup>	Farm Cash Receipts (Millions)	Share of Farm Cash Receipts from Livestock	Share of Farm Cash Receipts from Crops
Power County, ID	9.7%	2.6%	\$122.2	29.2%	70.8%
Twin Falls County, ID	10.9%	(D)	\$531.5	66.6%	33.4%
Washington County, ID	7.2%	3.5%	\$49.7	54.6%	45.4%
Beaverhead County, MT	5.3%	1.1%	\$81.4	67.3%	32.7%
Gallatin County, MT	1.1%	0.4%	\$114.6	33.8%	66.2%
Madison County, MT	1.9%	1.1%	\$64.7	64.0%	36.0%
Silver Bow County, MT	0.0%	(D)	\$4.6	83.3%	16.7%
Socioeconomic Study Area	8.3%	0.6%	\$5,252.0	61.8%	38.2%
Idaho	4.5%	0.7%	\$6,128.8	59.2%	40.8%
Montana	2.5%	0.4%	3,162.6	43.8%	56.2%

Sources: Headwaters Economics, 2012; U.S. Department of Commerce, 2012a. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

<sup>1</sup>This division is the finest resolution of data provided by the U.S. Department of Commerce's Bureau of Economic Analysis that includes agricultural services.

<sup>2</sup>(D) indicates that the value is not shown to avoid disclosure of confidential information.

Table 10 shows the relative contribution of farm earnings across the counties in the Socioeconomic Study Area. Farm earnings constitute the largest share of total earnings in Camas, Cassia, Clark, Gooding, Jefferson, Jerome, Lincoln, Minidoka, Oneida, Owyhee and Twin Falls Counties. Both livestock and crops provide substantial cash receipts, with some variations across the counties. Though approximately 61.8% of farm cash receipts in the Socioeconomic Study Area come from livestock, many counties have significant percentages of farm cash receipts from crops, including Camas, Caribou, Clark, Gem, Madison, Minidoka, Oneida, Power and Silver Bow Counties.

Table 11 provides information on active and billed Animal Unit Months (AUMs) on BLM and USFS land, for each of the BLM Field Offices and National Forest areas. The estimated gross receipts in the table are calculated from data from the USDA Economic Research Service (ERS), which publishes annual budgets for cow-calf operations for different production regions across the country (USDA ERS, 2012). BLM calculated a ten-year inflation-adjusted average gross receipt per cow-calf operation from the ERS budgets, then converted that information to a per-AUM figure based on average forage requirements for a cow including other livestock (e.g., bulls and replacement heifers) that are needed to support the production from the cow (Workman, 1986). Southwest Montana falls into the Basin and Range region, whereas southern Idaho is in the ERS's Fruitful Rim region. BLM's calculations resulted in a ten-year average gross receipt in the Basin and Range region of \$50.24 per AUM (2010 dollars), and in the Fruitful Rim region of \$30.29 per AUM (2010 dollars). However, BLM used the higher value for both regions, both to err on the side of conservative analysis and because the characteristics of livestock grazing in southern Idaho seem more like those in southwest Montana (and across southeast Oregon, Nevada, and

Utah, which are also in ERS's Basin and Range region) than like those in the remainder of the Fruitful Rim (e.g., much of the California coast, western Oregon, and Washington State).

Thus, the table below reflects a gross receipt value of \$50.24 per AUM, and the last column of the table represents annual gross receipts in the region from livestock operations in 2010 dollars.

**Table 11. Active and Billed Animal Unit Months**

Geographic Area	Active (2011)	% Billed (2011)	Billed (2011)	Cattle (%)	Sheep (%)	Other (%)	Allotments	Acres per AUM	Gross Receipts (millions)
Beaverhead-Deerlodge NF	207,637	79%	163,655	96%	4%	1%	224	11.25	\$10.4
Birds of Prey NCA	47,807	71%	33,773	88%	12%	0%	23	12.3	\$2.4
Boise NF	48,275	86%	41,517	82%	18%	1%	54	25.78	\$2.4
Bruneau FO	128,394	73%	93,760	99%	0%	1%	37	10.9	\$6.5
Burley FO	141,091	73%	102,925	92%	8%	0%	201	6.1	\$7.1
Caribou-Targhee NF (includes Curlew National Grassland)	308,711	72%	221,910	73%	26%	0%	254	7.21	\$15.5
Challis FO	55,107	61%	33,605	98%	0%	2%	63	13.4	\$2.8
Craters of the Moon NM	14,956	28%	4,120	93%	7%	0%	4	7.1	\$0.8
Four Rivers FO	105,328	79%	83,092	93%	7%	0%	305	7.1	\$5.3
Jarbridge FO	182,212	81%	148,129	97%	2%	0%	92	9.0	\$9.2
Owyhee FO	121,975	92%	112,404	98%	2%	1%	145	10.2	\$6.1
Pocatello FO	86,492	86%	74,599	90%	10%	1%	328	6.6	\$4.3
Salmon FO	62,680	80%	50,096	99%	0%	1%	83	7.9	\$3.1
Salmon-Challis NF	142,213	67%	95,976	97%	2%	1%	106	15.36	\$7.1
Sawtooth NF	172,070	77%	131,789	77%	22%	0%	128	9.36	\$8.6
Shoshone FO	187,217	59%	110,342	84%	15%	0%	197	7.7	\$9.4
Upper Snake River FO	210,842	70%	148,638	80%	20%	0%	309	7.5	\$10.6
<b>Total</b>	<b>2,223,007</b>								<b>\$111.7</b>

AUM Animal Unit Month

FO Field Office

N/A Not available

NCA National Conservation Area

NF National Forest

NM National Monument

Sources: BLM, 2012a; USFS, 2012a; USFS, 2012c; Workman, 1986; USDA ERS, 2012.

Gross receipts are calculated based on active AUMs and ten-year average gross receipts, as described in the text.

The data in the table help to demonstrate the importance of livestock grazing throughout the Socioeconomic Study Area. It is important to remember, as

well, that the data are only for forage values on BLM/USFS-administered land; forage on other public lands, and private lands, contribute additional values to the Socioeconomic Study Area. The economic analysis of the alternatives, presented in Chapter 4, addresses additional indirect contributions of livestock grazing (as well as other resource uses) to the regional economy, comparing the alternatives to one another.

Forestry and Wood Products

Approximately 1,972 jobs (1.0 percent of total employment in 2010) in the Socioeconomic Study Area came from timber-related industries, which is 0.3 percentage points higher than the national average of 0.7 percent (Headwaters Economics, 2012). This estimate is based on data from the U.S. Census Bureau County Business Patterns. The proportion of employment associated with timber-related industries varied by county, with a low of zero percent in Butte, Camas, Caribou, Clark, Lincoln, Minidoka, and Power Counties and highs of 23.9 percent in Adams County, 13.7 percent in Washington County, 9.1 percent in Payette County, and 6.7 percent in Owyhee County. These estimates include both full- and part-time jobs and reflect three timber-related industries: “growing and harvesting,” “sawmills and paper mills,” and “wood products manufacturing.”

Average annual earnings for timber-related jobs tend to be higher than for non-timber jobs. The average annual wage per timber-related job in the Socioeconomic Study Area in 2010 was \$33,530 (2010 dollars), compared to \$29,105 for non-timber jobs.<sup>3</sup>

Mining and Minerals

The data in Table 12 show that within the thirty-one counties included in the Socioeconomic Study Area, mining industries employed 1,727 people in 2010 or approximately 0.8 percent of total employment, which is 0.3 percentage points higher than the national average (Headwaters Economics, 2012). Mining industries include “oil and gas extraction,” “coal mining,” “metals mining,” “nonmetallic minerals mining,” and “mining related” industries. The proportion of employment associated with mining industries varied by county, from zero percent in twelve of the counties up to 30.4 percent of total employment in Custer County and 22.7 percent of total employment in Caribou County. The average annual earnings per mining-related job in the Socioeconomic Study Area are higher than non-mining jobs. The average annual wage per job in this sector was \$69,476 (2010 dollars) in the Socioeconomic Study Area in 2010, compared to \$29,763 for non-mining jobs (Headwaters Economics, 2012).

**Table 12. Mining Sector Employment by County**

Geographic Area	Number of Jobs	Percentage of Total Employment
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<sup>3</sup> All dollar values were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

Geographic Area	Number of Jobs	Percentage of Total Employment
Adams County, ID	0	0.0%
Bear Lake County, ID	0	0.0%
Bingham County, ID	0	0.0%
Blaine County, ID	13	0.1%
Bonneville County, ID	10	0.0%
Butte County, ID	0	0.0%
Camas County, ID	0	0.0%
Caribou County, ID	643	22.7%
Cassia County, ID	44	0.7%
Clark County, ID	0	0.0%
Custer County, ID	289	30.4%
Elmore County, ID	5	0.1%
Fremont County, ID	3	0.2%
Gem County, ID	13	0.6%
Gooding County, ID	2	0.1%
Jefferson County, ID	2	0.1%
Jerome County, ID	0	0.0%
Lemhi County, ID	15	0.9%
Lincoln County, ID	0	0.0%
Madison County, ID	0	0.0%
Minidoka County, ID	0	0.0%
Oneida County, ID	13	2.3%
Owyhee County, ID	6	0.4%
Payette County, ID	7	0.2%
Power County, ID	13	0.6%
Twin Falls County, ID	31	0.1%
Washington County, ID	0	0.0%
Beaverhead County, MT	66	2.8%
Gallatin County, MT	135	0.4%
Madison County, MT	73	5.3%
Silver Bow County, MT	344	2.6%
Socioeconomic Study Area	1,727	0.8%
Idaho	2,444	0.5%
Montana	5,962	1.8%
U.S.	581,582	0.5%

Source: Headwaters Economics, 2012.

1 Phosphate mining in Caribou County for BLM-administered phosphate raw ore  
2 produced 4.2 million units for a sales total of \$167.4 million in 2011 (ONRR,  
3 2012). Although some of the richest silver-producing regions in the U.S. are in  
4 the northern Idaho panhandle (outside the Socioeconomic Study Area), the  
5 study area does produce some silver, along with industrial minerals such as  
6 molybdenum (Idaho Mining Association, 2010).

1 Other Values

2 Public lands provide a range of goods and services that benefit society in a  
3 variety of ways. Some of these goods and services, such as timber and minerals,  
4 are bought and sold in markets, and hence have a readily observed economic  
5 value (as documented in the sections above); others have a less clear connection  
6 to market activity, even though society derives benefits from them. In some  
7 cases, goods and services have both a market and a non-market component  
8 value to society. This section provides an overview of several “non-market”  
9 values described through a qualitative and quantitative economic valuation  
10 analysis.

11 The non-market values associated with public lands can be classified as values  
12 that derive from direct or indirect use (e.g., recreation) and those that do not  
13 derive from use, such as existence values held by the general public from self-  
14 sustaining populations of sage grouse. This section and the related appendix  
15 describe the use and non-use economic values associated with recreation,  
16 populations of sage-grouse, and land that is currently used for livestock grazing  
17 and ranch operations. The sections that follow discuss each of these values in  
18 turn. Appendix A provides more discussion of the concepts and measurement  
19 of use and non-use non-market values. It is important to note that these non-  
20 market values are not directly comparable to previous sections that describe  
21 output (sales or expenditures) and jobs associated with various resource uses  
22 on BLM and USFS administered lands (see Appendix A for more information).

23 *Values associated with recreation*

24 Actions that promote the conservation of sage-grouse habitat may result in  
25 changes in recreation activity, by changing opportunities or access for different  
26 recreational activities. Opportunities for some activities such as wildlife viewing  
27 may increase as the amount of habitat may increase for species that depend on  
28 public lands including sage grouse. The Environmental Consequences analysis  
29 (Chapter 4) addresses this issue for each of the management alternatives. This  
30 section documents baseline non-market values visitor receive associated with  
31 recreation activities. This is measured by what economists call consumer  
32 surplus, which refers to the additional value that visitors receive over and above  
33 the price they pay. Appendix A provides an explanation of consumer surplus.  
34 Fees to use public lands for recreation are typically very low or non-existent, so  
35 the value people place on public land recreation opportunities is not fully  
36 measured simply by the entrance fees people pay.

37 Economists estimate the consumer surplus from recreation by measuring how  
38 the variation in visitors’ travel costs corresponds to the number of visits taken.  
39 This “travel cost method” has been developed extensively in academic literature  
40 and is used by federal agencies in economic analyses; the method is explained  
41 more fully in Appendix A. Conducting original travel cost method studies can be  
42 time-consuming and expensive; for this project BLM and USFS relied on

1 estimates of consumer surplus from prior recreation studies in the same  
2 geographic region, using an established scientific method called “benefit  
3 transfer.” Based on the studies reviewed and cited in Appendix A, visitors to  
4 natural areas, such as lands managed by BLM and USFS, gain values (in excess of  
5 their direct trip cost) ranging from approximately \$32 per day for camping, to  
6 about \$175 per day for mountain biking.

7 To calculate the aggregate “consumer surplus” value of recreation in the study  
8 area, BLM multiplied this per-day value of recreation by the estimated number  
9 of visitor days associated with each activity type. Visitation estimates by activity  
10 are derived based on the BLM Recreation Management Information System  
11 (RMIS) database and the USFS National Visitor Use Monitoring program  
12 (NVUM) for the study area.

13 Accounting for the value per day and the number of days, the total non-market  
14 value of recreation on BLM and USFS lands in the study area was estimated to  
15 be about \$515 million per year (see Appendix A for details). Based on the  
16 quantity of recreational trips and the economic value of each type of activity, the  
17 largest annual non-market values are associated with hunting, camping, fishing,  
18 hiking, sightseeing, floatboating/ rafting/ canoeing, and pleasure driving. These  
19 categories omit downhill skiing, because there is little or no overlap between  
20 sage-grouse habitat and lands used for downhill skiing. The Environmental  
21 Consequences section (Chapter 4) discusses how recreational visits and total  
22 non-market value for recreation may change under the alternatives being  
23 considered.

#### 24 *Values associated with populations of sage-grouse*

25 The existence and perseverance of the Endangered Species Act and similar acts  
26 reflects the values held by the American public associated with preventing  
27 species from going extinct. Economists have long recognized that rare,  
28 threatened and endangered species have economic values beyond those  
29 associated with active “use” through viewing. This is supported by legal  
30 decisions and technical analysis (see Appendix A for details), as well as a number  
31 of conceptual and empirical publications that refine concepts and develop  
32 methods to measure these non-use or existence values.

33 The dominant method uses surveys to construct or simulate a market or  
34 referendum for protection of areas of habitat, or changes in populations of  
35 species. The survey asks the respondent to indicate whether they would pay for  
36 an increment of protection, and if so how much they would pay. Economists  
37 have developed increasingly sophisticated survey methods for non-use value  
38 over the last two decades to improve the accuracy of this method. Appendix A  
39 offers an in-depth discussion of this method of value estimation.

40 Original surveys to estimate non-use values are complex and time-consuming;  
41 rather than perform a new survey, BLM and USFS reviewed existing literature



1 to determine if there were existing non-use value studies for sage-grouse. No  
2 existing studies on valuation specific to the sage-grouse were found. However,  
3 there are several studies published in peer-reviewed scientific journals for bird  
4 species that BLM judged to have similar characteristics with sage-grouse,  
5 including being a candidate for listing as threatened or endangered and being a  
6 hunted species. These studies find average stated willingness to pay of between  
7 \$15 and \$58 per household per year in order to restore a self-sustaining  
8 population or prevent regional extinction (see Appendix A for details). These  
9 values represent a mix of use and non-use values, but the non-use components  
10 of value are likely to be the majority share, since the studies primarily address  
11 species that are not hunted. Since sage-grouse protection is a public good  
12 available to all households throughout the intermountain west, if similar per-  
13 household values apply to the species the aggregate regional existence value  
14 could be substantial.

15 *Values associated with grazing land*

16 Public land managed for livestock grazing provides both market values (e.g.,  
17 forage for livestock) and non-market values, including open space and western  
18 ranch scenery, which provide value to some residents and outside visitors, and  
19 may also provide some value to the non-using public (e.g., the cultural icon of  
20 the American cowboy). Many people who ranch for a living or who otherwise  
21 choose to live on ranches value the ranching lifestyle in excess of the income  
22 generated by the ranching operations. This could be seen as a non-market value  
23 associated with livestock grazing. On the other hand, some residents and  
24 visitors perceive non-market opportunity costs associated with livestock  
25 grazing. Although some scholars and policy makers have discussed non-market  
26 values associated with livestock grazing, the process for incorporating these  
27 values into analyses of net public benefits remains uncertain, and BLM and USFS  
28 did not attempt to quantify these values for the present study.

29 Furthermore, some of the lifestyle value of ranching is likely to be captured in  
30 markets, such as through the property values of ranches adjacent to public lands  
31 with historic leases or permits for grazing on public land. Economists typically  
32 use a method called the hedonic price method to estimate values associated  
33 with particular amenities; this method may be used to explain the factors that  
34 influence the observed sale prices of ranch land. **Appendix A** provides more  
35 information about this method, as well as additional information to address  
36 potential non-market values associated with grazing.

37 **Fiscal**

38 Most of Idaho's tax revenue comes from three sources: income, sales and use,  
39 and property taxes (U.S. Census Bureau, 2010d). The Idaho State Tax  
40 Commission collects income tax and sales and use tax, while property taxes  
41 fund local governments and are imposed and collected by the county where the  
42 property is located. Idaho imposes a sales and use tax of 6 percent, a corporate

1 net income tax of 7.6 percent, and an individual income tax rate that ranges  
 2 from 1.6 percent to 7.8 percent. In addition, Idaho imposes a severance tax  
 3 rate of two percent of the market value of oil and gas produced or sold in the  
 4 state. It also imposes a mine license tax of one percent of the value of ores  
 5 mined or extracted, which accounted for approximately \$2.5 million in tax  
 6 revenue in 2011 (Idaho State Tax Commission, 2011).

7 Idaho's counties receive most of their revenue from property taxes, charges for  
 8 local services and redistribution of State and Federal sources. In 2009/2010,  
 9 Idaho counties received approximately 25% of their revenues from property  
 10 taxes, 25% from charges and 40% from State government intergovernmental  
 11 transfers (U.S. Census Bureau, 2010e). Major sources of state funds received by  
 12 counties include state liquor revenues, highway user taxes and fees, sales taxes  
 13 and education funds and endowments (Idaho Association of Counties, 2011).  
 14 Public elementary and secondary schools received, in 2008-09, approximately  
 15 67% of their resources from State sources, 10% from Federal funds and 23%  
 16 from local funds, mostly property taxes (National Center for Education  
 17 Statistics, 2012).

18 The largest source of revenue in Montana is the individual income tax. The  
 19 second largest source is severance and other taxes (U.S. Census Bureau,  
 20 2010d), although most of the mineral production in Montana is outside the  
 21 Socioeconomic Study Area for this sub-region. Two-thirds of the severance and  
 22 other taxes category is made up of an oil and gas production tax, with the  
 23 remainder of the category being composed of mining taxes and other  
 24 miscellaneous taxes. While it is collected at the state level, about half of the oil  
 25 and gas tax is distributed to local governments and school districts. Montana  
 26 does not have a general sales tax, but selective sales taxes account for about  
 27 14% of state tax revenue (Montana Department of Revenue, 2010).

28 In Montana, local government and school district tax collections come almost  
 29 entirely from property taxes. Local jurisdictions also collect a coal gross  
 30 proceeds tax, a local severance tax that imposes a flat tax on the value of  
 31 production so that all mines pay the same rate (Montana Department of  
 32 Revenue, 2010).

33 The primary government revenues that are directly linked to BLM and USFS  
 34 lands are Payments in Lieu of Taxes (PILT), which are federal government  
 35 payments based on the presence of all federal lands (not just BLM lands) within  
 36 each county. Table 13 shows the PILT payments each county received in 2010.  
 37 The non-taxable status of federal lands is of interest to local governments,  
 38 which must provide public safety and other services to county residents. BLM  
 39 revenue-sharing programs provide resources to local governments in lieu of  
 40 property taxes because local governments cannot tax federally owned lands the  
 41 way they would if the land were privately owned.

42 **Table 13. Payments in Lieu of Taxes Received in the Socioeconomic**  
 43 **Study Area by County in 2010**

Geographic Area	PILT (thousands of dollars)
Adams County, ID	\$179
Bear Lake County, ID	\$373
Bingham County, ID	\$679
Blaine County, ID	\$1,807

<b>Geographic Area</b>	<b>PILT (thousands of dollars)</b>
Bonneville County, ID	\$1,065
Butte County, ID	\$295
Camas County, ID	\$147
Caribou County, ID	\$507
Cassia County, ID	\$1,874
Clark County, ID	\$153
Custer County, ID	\$684
Elmore County, ID	\$2,338
Fremont County, ID	\$591
Gem County, ID	\$220
Gooding County, ID	\$603
Jefferson County, ID	\$452
Jerome County, ID	\$232
Lemhi County, ID	\$874
Lincoln County, ID	\$749
Madison County, ID	\$21
Minidoka County, ID	\$430
Oneida County, ID	\$532
Owyhee County, ID	\$1,209
Payette County, ID	\$153
Power County, ID	\$704
Twin Falls County, ID	\$1,530
Washington County, ID	\$770
Beaverhead County, MT	\$674
Gallatin County, MT	\$1,334
Madison County, MT	\$443
Silver Bow County, MT	\$448
Socioeconomic Study Area	\$22,070

Sources: DOI, 2012.

PILT Payment in Lieu of Taxes

Includes payments received from BLM, USFS, Bureau of Reclamation, National Park Service, and Fish and Wildlife Service.

Other Federal payments to States, counties and public schools associated to the presence of Federal lands include Forest Service revenue transfers and Federal mineral royalties. Since 2008, the Forest Service pays 25% of its receipts to staets for use on roads and schools in the counties where national forests are located. The decline in the sale of timber from Federal lands over time has led to the decline in these payments. However, Secrue Rural Schools and Community Self-Determination Act of 2000 has attempted to limit this decline (Congressional Research Service, 2012). Idaho and Montana also receive Federal mineral royalties from mining activities on federal land. In Idaho, 90% of these receipts are distributed to the Public School Income Fund and the other 10% are distributed to the general fund of the counties where the revenue was generated. In Montana, 25% of Federal mineral royalties are distributed to counties (Headwaters Economics, 2011). Other revenues from Federal lands includes fees for grazing, recreation and rents of rights-of way.

BLM Expenditures and Employment

BLM offices provide a direct contribution to the economy of the local and surrounding area. BLM operations and management make direct contributions

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to area economic activity by employing people who reside within the area and by spending on project related goods and services. Contracts for facilities maintenance, shuttling vehicles, and projects contribute directly to the area economy and social stability as well. Table 14 provides available information on the BLM expenditures from each field office, including both labor and non-labor expenditures.

**Table 14. BLM and FS Employment and Related Expenditures in the Socioeconomic Study Area**

Agency	State	Field Office	Employment, 2011 (FTEs)	Non-labor Expenditures, 2011 (2010 dollars)
BLM	ID	Bruneau	14.2	\$189,214
	ID	Burley	23.9	\$1,776,536
	ID	Challis	21.9	\$472,283
	ID	Four Rivers	20.8	\$810,326
	ID	Jarbridge	23.5	\$6,072,960
	ID	Owyhee	20.0	\$594,148
	ID	Pocatello	30.9	\$699,083
	ID	Salmon	24.8	\$670,559
	ID	Shoshone	24.1	\$1,902,984
	ID	Upper Snake	30.1	\$1,104,839
	MT	Butte	33.0	\$2,872,889
	MT	Dillon	44.9	\$1,107,213
	FS	ID	Boise NF	234
ID, WY, & UT		Caribou-Targhee NF	177	\$8,918,490
ID		Salmon-Challis NF	159	\$10,828,200
ID & UT		Sawtooth NF	129	\$6,568,660
MT		Beaverhead-Deerlodge NF	150	\$6,942,850

Sources: BLM, 2012b - values reported in 2001 dollars (BLM) or 2011 dollars (USFS) were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a); USFS, 2013a; USFS, 2013b.

FTE Full-time equivalent employees (hours worked in relation to hours in a full-time schedule)

NF National Forest

### **Environmental Justice**

Environmental justice pertains to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the adverse environmental consequences resulting

1 from industrial, municipal, and commercial operations or the execution of  
2 federal, state, local, and Tribal programs and policies (BLM, 2005a; USDA,  
3 1997). BLM and USFS incorporate environmental justice into its planning  
4 process, both as a consideration in the environmental effects analysis and by  
5 ensuring a meaningful role in the decision-making process for minority and low-  
6 income populations.

7 Executive Order 12898 requires federal agencies to “identify and address the  
8 disproportionately high and adverse human health or environmental effects of  
9 its programs, policies, and activities on minority populations and low-income  
10 populations.” The BLM Land Use Planning Handbook (BLM, 2005a) reiterates  
11 BLM’s commitment to environmental justice – both in providing meaningful  
12 opportunities for low-income, minority, and Tribal populations to participate in  
13 decision-making, and to identify and minimize any disproportionately high or  
14 adverse impacts on these populations. Similarly, the U.S. Department of  
15 Agriculture’s Departmental Regulation on Environmental Justice (USDA, 1997)  
16 provides direction to agencies for integrating environmental justice  
17 considerations into USDA programs and activities, including those of USFS.  
18 Specifically, the Departmental Regulation on Environmental Justice calls for the  
19 identification, prevention, and/or mitigation of disproportionately high and  
20 adverse human health or environmental effects of USDA programs and activities  
21 on minority and low-income populations and provision for the opportunity for  
22 minority and low-income populations to participate in planning, analysis, and  
23 decision making that affects their health or environment.

24 According to the Council on Environmental Quality (CEQ) Environmental  
25 Justice Guidance Under the National Environmental Policy Act (CEQ, 1997),  
26 “minority populations should be identified where either: (a) the minority  
27 population of the affected region exceeds 50 percent or (b) the minority  
28 population percentage of the affected region is meaningfully greater than the  
29 minority population percentage in the general population or other appropriate  
30 unit of geographic analysis.” The same document states that “In identifying low-  
31 income populations, agencies may consider as a community either a group of  
32 individuals living in geographic proximity to one another, or a set of individuals  
33 (such as migrant workers or Native Americans), where either type of group  
34 experiences common conditions of environmental exposure or effect.”

35 Additionally, the same guidance (CEQ, 1997) advises that “In order to  
36 determine whether a proposed action is likely to have disproportionately high  
37 and adverse human health or environmental effects on low-income populations,  
38 minority populations, or Indian tribes, agencies should identify a geographic  
39 scale, obtain demographic information on the potential impact area, and  
40 determine if there is a disproportionately high and adverse effect to these  
41 populations. Agencies may use demographic data available from the Bureau of  
42 the Census to identify the composition of the potentially affected population.

1 Geographic distribution by race, ethnicity, and income, as well as a delineation  
2 of tribal lands and resources, should be examined.”

3 Minority Populations

4 Table 15 summarizes the percentage of the population made up of ethnic  
5 minority groups in each county of the Socioeconomic Study Area and in the  
6 State of Idaho, the State of Montana, and the United States as a whole.

7 **Table 15. Population Race and Ethnicity, 2010**

Geographic Unit Analyzed	Total Population	Percent of Total Population								
		White	Black or African American	Alaska Native or American Indian	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino <sup>1</sup>	Total Minorities <sup>2</sup>
Adams County, ID	3,976	96.1	0.1	1.0	0.4	0.1	0.7	1.7	2.4	5.3
Bear Lake County, ID	5,986	96.3	0.1	0.5	0.4	0.0	1.6	1.1	3.6	5.2
Bingham County, ID	45,607	80.6	0.2	6.5	0.6	0.1	9.8	2.1	17.2	24.9
Blaine County, ID	21,376	84.9	0.2	0.6	0.9	0.1	11.8	1.5	20.0	22.0
Bonneville County, ID	104,234	90.6	0.6	0.8	0.8	0.1	5.1	2.1	11.4	14.6
Butte County, ID	2,891	95.5	0.2	0.4	0.2	0.2	2.0	1.5	4.1	6.2
Camas County, ID	1,117	94.1	0.3	0.5	0.1	0.0	1.8	3.2	6.7	9.7
Caribou County, ID	6,963	95.3	0.1	0.3	0.2	0.2	2.3	1.5	4.8	6.9
Cassia County, ID	22,952	81.8	0.3	0.8	0.5	0.1	14.2	2.3	24.9	27.1
Clark County, ID	982	72.4	0.7	1.0	0.5	0.0	23.8	1.5	40.5	42.9
Custer County, ID	4,368	96.4	0.2	0.6	0.2	0.1	1.5	1.0	4.0	5.9
Elmore County, ID	27,038	82.2	2.7	1.0	2.8	0.4	6.8	4.1	15.2	24.7
Fremont County, ID	13,242	89.5	0.3	0.7	0.2	0.1	7.6	1.5	12.8	14.8
Gem County, ID	16,719	93.4	0.1	0.6	0.5	0.1	3.1	2.2	8.0	10.9
Gooding County, ID	15,464	80.7	0.2	0.8	0.5	0.1	15.3	2.4	28.1	30.5
Jefferson County, ID	26,140	91.2	0.2	0.8	0.4	0.1	5.8	1.5	10.1	12.3
Jerome County, ID	22,374	80.0	0.3	1.3	0.3	0.1	15.8	2.1	31.0	33.2
Lemhi County, ID	7,936	96.4	0.2	0.7	0.4	0.0	0.6	1.6	2.3	4.9
Lincoln County, ID	5,208	80.1	0.4	0.7	0.4	0.1	16.2	2.2	28.3	30.6
Madison County, ID	37,536	93.9	0.5	0.3	0.9	0.1	2.8	1.5	5.9	8.7
Minidoka County, ID	20,069	80.2	0.4	1.2	0.4	0.0	15.3	2.4	32.4	34.6
Oneida County, ID	4,286	96.7	0.2	0.5	0.5	0.0	1.1	1.0	2.9	4.9
Owyhee County, ID	11,526	76.0	0.2	4.3	0.5	0.0	16.6	2.4	25.8	31.6
Payette County, ID	22,623	88.6	0.2	1.1	0.8	0.1	6.3	2.8	14.9	18.7
Power County, ID	7,817	75.1	0.3	2.3	0.4	0.1	19.5	2.4	29.8	34.0
Twin Falls County, ID	77,230	88.9	0.4	0.8	1.2	0.1	6.3	2.3	13.7	17.4
Washington	10,198	86.6	0.2	1.0	0.9	0.0	9.1	2.2	16.8	19.7

### 3. Affected Environment

Geographic Unit Analyzed	Total Population	Percent of Total Population								
		White	Black or African American	Alaska Native or American Indian	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino <sup>1</sup>	Total Minorities <sup>2</sup>
County, ID										
Beaverhead County, MT	9,246	94.8	0.2	1.4	0.4	0.4	1.2	1.6	3.7	7.3
Gallatin County, MT	89,513	95.1	0.3	0.9	1.1	0.1	0.7	1.9	2.8	6.6
Madison County, MT	7,691	96.8	0.2	0.5	0.3	0.0	0.8	1.4	2.4	4.6
Silver Bow County, MT	34,200	94.4	0.3	1.9	0.5	0.1	0.7	2.1	3.7	7.9
Socioeconomic Study Area	686,508	88.9	0.4	1.3	0.8	0.1	6.4	2.1	12.8	16.5
Idaho	1,567,582	89.1	0.6	1.4	1.2	0.1	5.1	2.5	11.2	15.9
Montana	989,415	89.4	0.4	6.3	0.6	0.1	0.6	2.5	2.9	12.3
United States	308,745,538	72.4	12.6	0.9	4.8	0.2	6.2	2.9	16.3	36.0

Source: U.S. Census Bureau, 2010b.

<sup>1</sup> Individuals who identify themselves as Hispanic or Latino might be of any race; the sum of the other percentages under the “Percent of Total Population” columns plus the “Hispanic or Latino” column therefore does not equal 100 percent, and the sum of the percentages for each racial and ethnic category does not equal the percentage of “total minorities”.

<sup>2</sup> The total minority population, for the purposes of this analysis, is the total population for the geographic unit analyzed minus the non-Latino /Hispanic white population.

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Of the 27 Idaho counties in the Socioeconomic Study Area, 14 have a higher minority population than Idaho as a whole, while none of the four Montana counties in the Socioeconomic Study Area have a higher minority population than Montana as a whole. The percentage of minorities among counties ranges from a low of 4.6 percent in Madison County, Montana, to a high of 42.9 percent in Clark County, Idaho. Several Idaho counties have a Hispanic or Latino population greater than 25 percent, with the highest being Clark County (41 percent). Additionally, Montana as a whole has a high percentage of Alaska Native or American Indian residents (6.3 percent), though none of the Montana counties included in the study area have higher than two percent of its population in this minority group.

#### Low-income Populations

Table 16 summarizes the percentage of the population below the poverty line in each county of the Socioeconomic Study Area and in Montana, Idaho, and the United States as a whole. Following the Office of Management and Budget’s Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to detect what part of the population is considered to be in poverty (U.S. Census Bureau, 2012a).

**Table 16. Low-Income Populations, 2006-2010 Average**

Geographic Area	Percent Population Below Poverty Level
Adams County, ID	12.4

<b>Geographic Area</b>	<b>Percent Population Below Poverty Level</b>
Bear Lake County, ID	13.9
Bingham County, ID	14.7
Blaine County, ID	9.3
Bonneville County, ID	11.0
Butte County, ID	13.8
Camas County, ID	16.3
Caribou County, ID	8.4
Cassia County, ID	15.4
Clark County, ID	11.3
Custer County, ID	13.8
Elmore County, ID	12.0
Fremont County, ID	8.5
Gem County, ID	14.7
Gooding County, ID	16.5
Jefferson County, ID	10.2
Jerome County, ID	15.5
Lemhi County, ID	20.0
Lincoln County, ID	15.3
Madison County, ID	32.2
Minidoka County, ID	13.1
Oneida County, ID	13.4
Owyhee County, ID	22.2
Payette County, ID	15.7
Power County, ID	11.1
Twin Falls County, ID	13.0
Washington County, ID	13.2
Beaverhead County, MT	15.0
Gallatin County, MT	13.5
Madison County, MT	11.6
Silver Bow County, MT	17.8
Socioeconomic Study Area	14.4
Idaho	13.6
Montana	14.5
United States	13.8

Source: U. S. Census Bureau, 2010c.

Of the 27 Idaho counties in the Socioeconomic Study Area, 14 have a higher percentage of residents below the poverty line than Idaho overall (13.6 percent), and two of the four Montana counties have a higher percentage of residents below the poverty line than Montana as a whole (14.5 percent). Both Idaho and Montana have a higher percentage of residents above the poverty line than the United States as a whole (13.8 percent). The percentage of residents



1 below the poverty line range from a low of 8.4 percent in Caribou County,  
2 Idaho to a high of 32.2 percent in Madison County, Idaho.

3 Tribal Populations

4  
5 Five Indian reservations in the State of Idaho are home to federally recognized  
6 tribes. These reservations comprise almost two million acres in trust. The  
7 Shoshone-Bannock Tribe of the Fort Hall Indian Reservation (Bannock, Bingham,  
8 Caribou, and Power Counties) and Shoshone-Paiute Tribe of the Duck Valley  
9 Indian Reservation (Owyhee County) are located within the Socioeconomic  
10 Study Area. Other tribes outside the Socioeconomic Study Area include Coeur  
11 d'Alene in Benewah and Kootenai Counties; Kootenai in Boundary County; and  
12 Nez Perce in Clearwater, Idaho, Latah, Lewis, and Nez Perce Counties  
13 (Rodríguez, 2011).

14 Several major tribes live in Montana: the Blackfeet nation, the Confederated  
15 Salish, the Pend d'Oreille, the Kootenai, the Assiniboine, the Sioux, the  
16 Northern Cheyenne, the Crow Nation, the Gros Ventre, and the Little Shell  
17 Chippewa (Montana Office of Indian Affairs, 2011). However, none of these  
18 tribes' reservations are located in or near the Socioeconomic Study Area.

## 1 REFERENCE TABLE

Reference Number	Reference	Internal (text) Citation
	Adams County. 2006. Adams County Comprehensive Plan. Available at: <a href="http://www.co.adams.id.us/adams-county-comp-plan.pdf">http://www.co.adams.id.us/adams-county-comp-plan.pdf</a>	Adams County, 2006
	Beaverhead County. 2005. Beaverhead County Growth Policy. Available at: <a href="http://www.beaverheadcounty.org/Growth_Policy.pdf">http://www.beaverheadcounty.org/Growth_Policy.pdf</a>	Beaverhead County, 2009
	Bingham County. 2005. Bingham County Comprehensive Plan. Available at: <a href="http://www.co.bingham.id.us/planning_zoning/planning_zoning_pdf/March_2005CompPlanfinal.pdf">http://www.co.bingham.id.us/planning_zoning/planning_zoning_pdf/March_2005CompPlanfinal.pdf</a>	Bingham County, 2005
	Blaine County. 1994. Comprehensive Plan. Available at: <a href="http://sterlingcodifiers.com/codebook/index.php?book_id=450&amp;chapter_id=19590">http://sterlingcodifiers.com/codebook/index.php?book_id=450&amp;chapter_id=19590</a>	Blaine County, 1994
	Bonneville County. 2004. Bonneville County Comprehensive Plan. Available at: <a href="http://www.co.bonneville.id.us/index.php/planning-and-zoning">http://www.co.bonneville.id.us/index.php/planning-and-zoning</a>	Bonneville County, 2004.
	BLM and USFS. 2012. National Greater Sage-Grouse Planning Strategy: Land Use Plan Amendments and Environmental Impact Statements, Scoping Summary Report. May.	BLM and USFS, 2012
	BLM. 2005a. BLM Handbook H-1601-1, Land Use Planning Handbook. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. Available at: <a href="http://www.blm.gov/wo/st/en/info/regulations.html">http://www.blm.gov/wo/st/en/info/regulations.html</a> .	BLM, 2005a
	BLM. 2005b. Proposed Dillon Resource Management Plan and Final Environmental Impact Statement. Bureau of Land Management. Dillon Field Office. Dillon, Montana.	BLM, 2005b
	BLM. 2008. Jarbidge Draft Resource Management Plan and Environmental Impact Statement. Bureau of Land Management. Idaho State Office. Boise, Idaho.	BLM, 2008
	BLM. 2010. Proposed Butte Resource Management Plan and Final Environmental Impact Statement. Bureau of Land Management. Butte Field Office. Butte, Montana.	BLM, 2010
	BLM. 2012a. Data from BLM Rangeland Administration System.	BLM, 2012a
	BLM. 2012b. FY2011 BLM Expenditures: FY2011 BLM Labor Summary and FY2011 BLM Non-Labor Summary.	BLM, 2012b
	BLM. 2012c. Recreation Management Information System.	BLM, 2012c
	BLM. 2012d. Summary of Idaho and Southwest Montana Sub-Region Economic Strategies Workshop: Twin Falls, Idaho, June 19, 2012.	BLM, 2012d
	Butte Montana CVB. 2012. History. Available at: <a href="http://www.buttecvb.com/history/">http://www.buttecvb.com/history/</a>	Butte Montana CVB, 2012
	Camas County. 2006. Camas County Comprehensive Plan. Available at: <a href="http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Camascounty_2006.pdf">http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Camascounty_2006.pdf</a>	Camas County, 2006
	Caribou County. 2006. 2006 Comprehensive Plan. Available at: <a href="http://www.co.caribou.id.us/Content/site102/Articles/01_01_2008/323Comprehensiv_0000000817.pdf">http://www.co.caribou.id.us/Content/site102/Articles/01_01_2008/323Comprehensiv_0000000817.pdf</a>	Caribou County, 2006
	Cassia County. 2006. Comprehensive Plan. Available at: <a href="http://www.cassiacyounty.org/county-code/publications/title8/Title8_CompPlan.pdf">http://www.cassiacyounty.org/county-code/publications/title8/Title8_CompPlan.pdf</a>	Cassia County, 2006
	CEQ. 1997. CEQ Environmental Justice: Guidance Under the National	CEQ, 1997

### 3. Affected Environment

Reference Number	Reference	Internal (text) Citation
	Environmental Policy Act. U.S. Council on Environmental Quality. Washington, DC. Available at: <a href="http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_c_eq1297.pdf">http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_c_eq1297.pdf</a> .	
	City of Rexburg. 2012. History from the 1900s to the Present. Available at: <a href="http://www.rexburg.org/index.aspx?NID=336">http://www.rexburg.org/index.aspx?NID=336</a>	City of Rexburg, 2012
	City of Twin Falls. 2012. Demographics. Available at: <a href="http://www.tfid.org/index.aspx?NID=101">http://www.tfid.org/index.aspx?NID=101</a>	City of Twin Falls, 2012
	Clark County. 2010. Comprehensive Plan. Available at: <a href="http://www.clark-co.id.gov/ClarkCountyComprehensivePlan.pdf">http://www.clark-co.id.gov/ClarkCountyComprehensivePlan.pdf</a>	Clark County, 2010
	Congressional Research Service. 2012. Forest Service Payments to Counties – Title I of the Federal Forests County Revenue, Schools, and Jobs Act of 2012: Issues for Congress. R42452. Available at: <a href="http://www.nationalaglawcenter.org/assets/crs/R42452.pdf">http://www.nationalaglawcenter.org/assets/crs/R42452.pdf</a>	Congressional Research Service, 2012
	Custer County. 2006. Custer County Comprehensive Plan. Available at: <a href="http://www.co.custer.id.us/files/file/Feb%2009%20comp%20plan%20with%20updates.doc">http://www.co.custer.id.us/files/file/Feb%2009%20comp%20plan%20with%20updates.doc</a>	Custer County, 2006
	Elmore County. 2004. 2004 Comprehensive Growth and Development Plan. Available at: <a href="http://www.elmorecounty.org/pdfs/Elmore%20Co.%20Comprehensive%20Plan.pdf">http://www.elmorecounty.org/pdfs/Elmore%20Co.%20Comprehensive%20Plan.pdf</a>	Elmore County, 2004
	Fremont County. 2008. Fremont County Comprehensive Plan. Available at: <a href="http://www.co.fremont.id.us/departments/planning_building/Comp_Plan/Fremont_Comp_Plan_09.pdf">http://www.co.fremont.id.us/departments/planning_building/Comp_Plan/Fremont_Comp_Plan_09.pdf</a>	Fremont County, 2008
	Gallatin County. 2005. Gallatin County Growth Policy. Available at: <a href="http://www.gallatin.mt.gov/public_documents/gallatincomt_plandept/Plans&amp;Policies/GrowthPolicyComplete05.pdf">http://www.gallatin.mt.gov/public_documents/gallatincomt_plandept/Plans&amp;Policies/GrowthPolicyComplete05.pdf</a>	Gallatin County, 2005
	Gem County. 2010. Gem Community Joint Comprehensive Plan. Available at: <a href="http://www.co.gem.id.us/development-services/comprehensive-plan/GemCompPlan.pdf">http://www.co.gem.id.us/development-services/comprehensive-plan/GemCompPlan.pdf</a>	Gem County, 2010
	Gooding County. 2010. Gooding County Comprehensive Plan. Available at: <a href="http://www.goodingcounty.org/P&amp;Z/Comprehensive%20Plan%20May%203%202010.pdf">http://www.goodingcounty.org/P&amp;Z/Comprehensive%20Plan%20May%203%202010.pdf</a>	Gooding County, 2010
	Headwaters Economics. 2011. Federal, State, and Local Government Financial Data Methods and Resources. Available at: <a href="http://headwaterseconomics.org/wphw/wp-content/uploads/EPS-HDT_Federal_Land_Payments_Documentation_1-30-2011.pdf">http://headwaterseconomics.org/wphw/wp-content/uploads/EPS-HDT_Federal_Land_Payments_Documentation_1-30-2011.pdf</a>	Headwaters Economics, 2011
	Headwaters Economics. 2012. Economic Profile System-Human Dimensions Toolkit (EPS-HDT). Available at: <a href="http://headwaterseconomics.org/tools/eps-hdt">http://headwaterseconomics.org/tools/eps-hdt</a> .	Headwaters Economics, 2012
	Idaho Association of Counties. 2011. County Financing and Budgeting. CEO Handbook-2011. Available at: <a href="http://idcounties.org/DocumentCenter/Home/">http://idcounties.org/DocumentCenter/Home/</a>	Idaho Association of Counties, 2011
	Idaho Commerce & Labor, 2005. Profile of Rural Idaho. A look at economic and social trends affecting rural Idaho. Available at: <a href="http://lmi.idaho.gov/Portals/13/PDF/population/Profile%20of%20Rural%20Idaho.pdf">http://lmi.idaho.gov/Portals/13/PDF/population/Profile%20of%20Rural%20Idaho.pdf</a>	Idaho Commerce & Labor, 2005
	Idaho Department of Labor. 2011. Labor Market Information. Available at: <a href="http://lmi.idaho.gov/PopulationCensus.aspx">http://lmi.idaho.gov/PopulationCensus.aspx</a>	Idaho Department of Labor, 2011

Reference Number	Reference	Internal (text) Citation
	Idaho Mining Association. 2010. Idaho Mining Industry. Available at: <a href="http://www.idahomining.org/ima/idmining.html">http://www.idahomining.org/ima/idmining.html</a> .	Idaho Mining Association, 2010
	Idaho State Tax Commission. 2011. 2011 Annual Report. Available at: <a href="http://tax.idaho.gov/reports/EPB00033_11-30-2011.pdf">http://tax.idaho.gov/reports/EPB00033_11-30-2011.pdf</a>	Idaho State Tax Commission, 2011
	Jefferson County. 2005. Jefferson County Comprehensive Plan. Available at: <a href="http://www.co.jefferson.id.us/use_images/planning_zoning/JeffersonCoCompPlan.pdf">http://www.co.jefferson.id.us/use_images/planning_zoning/JeffersonCoCompPlan.pdf</a>	Jefferson County, 2005
	Jerome County. 2006. Jerome County Comprehensive Plan. Available at: <a href="http://www.jeromecountyid.us/vertical/sites/%7B2423A997-F66F-4BAE-9896-858E67909C93%7D/uploads/%7B63A4D57D-AF09-42A7-9A5A-7329B9301771%7D.PDF">http://www.jeromecountyid.us/vertical/sites/%7B2423A997-F66F-4BAE-9896-858E67909C93%7D/uploads/%7B63A4D57D-AF09-42A7-9A5A-7329B9301771%7D.PDF</a>	Jerome County, 2006
	Lemhi County. 2007. Lemhi County Comprehensive Plan. Available at: <a href="http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Lemhicounty_2007.pdf">http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Lemhicounty_2007.pdf</a>	Lemhi County, 2007
	Lincoln County. 2008. Lincoln County Comprehensive Plan. Available at: <a href="http://lincolncountyid.us/comprehensiveplan2008-56.pdf">http://lincolncountyid.us/comprehensiveplan2008-56.pdf</a>	Lincoln County, 2008
	Madison County. 2006. Madison County Growth Policy. Available at: <a href="http://madison.mt.gov/departments/plan/publications/MCGrowthPolicy0906.pdf">http://madison.mt.gov/departments/plan/publications/MCGrowthPolicy0906.pdf</a>	Madison County, 2006
	Madison County. 2008. Madison County "2020" Madison County Comprehensive Plan. Available at: <a href="http://www.co.madison.id.us/attachments/article/62/compplan.pdf">http://www.co.madison.id.us/attachments/article/62/compplan.pdf</a>	Madison County, 2008
	Mainstreet Uptown Butte, Inc. 2012. Mainstreet Uptown Butte. Available at <a href="http://www.mainstreetbutte.org/">http://www.mainstreetbutte.org/</a>	Mainstreet Uptown Butte, 2012
	McGrath C.L., Woods A.J., Omernik, J.M., Bryce, S.A., Edmondson, M., Nesser, J.A., Shelden, J., Crawford, R.C., Comstock, J.A., and Plocher, M.D., 2002, Ecoregions of Idaho (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,350,000).	McGrath et al., 2002
	METI Corp / Economic Insights of Colorado, 2012. USDA Forest Service Protocols for Delineation of Economic Impact Analysis Areas.	METI Corp / Economic Insights of Colorado, 2012
	Minidoka County. 2001. County/City Comprehensive Plan. Available at: <a href="http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Minidokacounty_2001.pdf">http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Minidokacounty_2001.pdf</a>	Minidoka County, 2001
	Montana Department of Revenue. 2010. Biennial Report, July 1,2008-June 30, 2010.	Montana Department of Revenue, 2010
	Montana Office of Indian Affairs. 2011. Tribal relations Report 2011. Available at: <a href="http://tribalnations.mt.gov/docs/2011_Tribal_Relations_Report.pdf">http://tribalnations.mt.gov/docs/2011_Tribal_Relations_Report.pdf</a>	Montana Office of Indian Affairs, 2011
	National Association of Counties. 2012. Find a County. Available at: <a href="http://www.naco.org/counties/pages/findacounty.aspx">http://www.naco.org/counties/pages/findacounty.aspx</a>	NACO, 2012
	National Center for Education Statistics. 2012. Public School Revenue Sources. Available at: <a href="http://nces.ed.gov/programs/coe/indicator_sft.asp">http://nces.ed.gov/programs/coe/indicator_sft.asp</a>	National Center for Education Statistics, 2012
	Office of Management and Budget. 2009. Update of Statistical Area Definitions and Guidance on Their Uses. OMB Bulletin N. 10-02. Available at:	OMB, 2009

### 3. Affected Environment

Reference Number	Reference	Internal (text) Citation
	<a href="http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf">http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf</a>	
	Office of Natural Resources Revenue. 2012. Data from Office of Natural Resources Revenue.	ONRR, 2012
	Owyhee County. 2010. Owyhee County Comprehensive Plan. Available at: <a href="http://owyheecounty.net/docs/adminforms/Owyhee%20County%20Comp%20Plan080910.pdf">http://owyheecounty.net/docs/adminforms/Owyhee%20County%20Comp%20Plan080910.pdf</a>	Owyhee County, 2010
	Payette County. 2006. Payette County Comprehensive Plan. Available at: <a href="http://www.payettecounty.org/pnz/Docs/FinalCompPlan.pdf">http://www.payettecounty.org/pnz/Docs/FinalCompPlan.pdf</a>	Payette County, 2006
	Power County. 2009. Power County Comprehensive Plan. Available at: <a href="http://gis.whispermountain.net/download/PowerCountyCompPlan/CompPlan.pdf">http://gis.whispermountain.net/download/PowerCountyCompPlan/CompPlan.pdf</a>	Power County, 2009
	Rodríguez, Abelardo. 2011. Indian Tribes in Idaho: Opportunities and Challenges In the Times of Self-Determination. University of Idaho. Available at: <a href="http://www.cals.uidaho.edu/edcomm/pdf/BUL/BUL0873.pdf">http://www.cals.uidaho.edu/edcomm/pdf/BUL/BUL0873.pdf</a>	Rodriguez, 2011
	Silver Bow County. 2008. Silver Bow Growth Policy. Available at: <a href="http://www.co.silverbow.mt.us/departments/documents/Butte-SilverBowGrowthPolicy2008Update-Final.pdf">http://www.co.silverbow.mt.us/departments/documents/Butte-SilverBowGrowthPolicy2008Update-Final.pdf</a>	Silver Bow County, 2008
	Twin Falls County. 2008. Twin Falls County Comprehensive Plan. Available at: <a href="http://twinfallscounty.org/pdf/commiss/Final_comp_plan_with_map.pdf">http://twinfallscounty.org/pdf/commiss/Final_comp_plan_with_map.pdf</a>	Twin Falls County, 2008
	U.S. Bureau of Labor Statistics. 2012. Consumer Price Index History Table. Available at: <a href="http://www.bls.gov/cpi/#data">http://www.bls.gov/cpi/#data</a> .	BLS, 2012a
	U.S. Bureau of Labor Statistics. 2012. Local Area Unemployment Statistics. Available at: <a href="http://www.bls.gov/lau/data.htm">http://www.bls.gov/lau/data.htm</a> .	BLS, 2012b
	U.S. Census Bureau. 1990 Census of Population. Available at <a href="http://www.census.gov/popest/data/intercensal/st-co/index.html">http://www.census.gov/popest/data/intercensal/st-co/index.html</a> .	U.S. Census Bureau, 1990
	U.S. Census Bureau. 2000 Census of Population. Available at <a href="http://www.census.gov/popest/data/intercensal/st-co/index.html">http://www.census.gov/popest/data/intercensal/st-co/index.html</a> .	U.S. Census Bureau, 2000
	U.S. Census Bureau. 2010a. 2010 Census of Population. Available at <a href="http://2010.census.gov/2010census/data/">http://2010.census.gov/2010census/data/</a> .	U.S. Census Bureau, 2010a
	U.S. Census Bureau. 2010b. Profile of General Population and Housing Characteristics: 2010.	U.S. Census Bureau, 2010b
	U.S. Census Bureau. 2010c. American Community Survey, 5-Year Estimates, 2006-2010.	U.S. Census Bureau, 2010c
	U.S. Census Bureau. 2010d. State Government Tax Collections Summary Report: 2010. Available at <a href="http://www.census.gov/prod/2011pubs/g10-stc.pdf">http://www.census.gov/prod/2011pubs/g10-stc.pdf</a>	U.S. Census Bureau, 2010d
	U.S. Census Bureau. 2010e. State and Local Government Finances by Level of Government and by State: 2009-10. State and Local Government Finances. Available at: <a href="http://www.census.gov/govs/estimate/">http://www.census.gov/govs/estimate/</a>	U.S. Census Bureau, 2010e
	U.S. Census Bureau. 2012a. How the Census Bureau Measures Poverty. Available at: <a href="http://www.census.gov/hhes/www/poverty/about/overview/measure.html">http://www.census.gov/hhes/www/poverty/about/overview/measure.html</a> .	U.S. Census Bureau, 2012a
	U.S. Census Bureau. 2012b. OnTheMap. Available at: <a href="http://onthemap.ces.census.gov/">http://onthemap.ces.census.gov/</a> .	U.S. Census Bureau, 2012b

Reference Number	Reference	Internal (text) Citation
	U.S. Department of Agriculture. 1997. Departmental Regulation on Environmental Justice (5600-2). Available at: <a href="http://www.dm.usda.gov/5600-2.pdf">http://www.dm.usda.gov/5600-2.pdf</a> .	USDA, 1997
	U.S. Department of Agriculture Economic Research Service. 2012. Commodity Costs and Returns. Online at <a href="http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx">http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx</a> , accessed August 2012.	USDA ERS, 2012
	U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <a href="http://www.bea.gov/regional/index.htm">http://www.bea.gov/regional/index.htm</a> .	U.S. Department of Commerce, 2012a
	U.S. Department of Commerce. 2012. Local Area Personal Income and Employment Methodology. Available at: <a href="http://www.bea.gov/regional/pdf/lapi2010.pdf">http://www.bea.gov/regional/pdf/lapi2010.pdf</a> .	U.S. Department of Commerce, 2012b
	U.S. Department of Interior. 2012. Payments in Lieu of Taxes FY 2010. Available at <a href="http://www.nbc.gov/pilt/search.cfm#search">http://www.nbc.gov/pilt/search.cfm#search</a> .	DOI, 2012
	USFS, 2003. Final Environmental Impact Statement for the Boise, Payette and Sawtooth National Forest Plans, FEIS Vol. 1 – 3 and Appendices Vol. 1 – 3.	USFS, 2003
	USFS, 2012a. Data from Chris Miller, USFS, sent by email to Rob Fetter, ICF International, August 2012.	USFS, 2012a
	USFS. 2012b. National Visitor Use Monitoring, Round 2 Results.	USFS, 2012b
	USFS, 2012c. Data from Robert Mickelson, USFS, sent by email through Brent Ralston, October 2012	USFS, 2012c
	USFS, 2013a. FY2011 Exepnditures (no fire), Idaho Forests. Data provided by Susan Winter (USFS) in email to Alex Uriarte, February 2013	USFS, 2013a
	USFS, 2013b. FTE calculations based on “Active Position Organizational Listings.” Data provided by Chris Miller (USFS) in email to Alex Uriarte, March 2013	USFS, 2013b
	Washington County. 2010. Washington County Comprehensive Plan. Available at: <a href="http://zoning.co.washington.id.us/files/2012/06/Comp-Plan-Final-2010.pdf">http://zoning.co.washington.id.us/files/2012/06/Comp-Plan-Final-2010.pdf</a>	Washington County, 2010
	White, Eric M., and Darren Gooding. 2012. Estimation of National Forest Visitor Spending Averages from National Visitor Use Monitoring Round 2. Gen. Tech. Rep. PNW-GTR-XXX. Portland, OR: U.S. Department of Agriculture, Forest Service. Pacific Northwest Research Station. 98 pages.	White and Gooding, 2012
	Workman, J.P. 1986. Range Economics. New York: Macmillan.	Workman, 1986

## Soil Resources

Many resources and resource uses, including livestock grazing, wildlife habitat, riparian habitat, special status species, fisheries, recreation, water quality and forestry, depend on suitable soils. Consequently, soil attributes and conditions are important to BLM management decisions.

Soils are defined by the processes that form them. Through time, these processes form unique soil types and influence what plants may grow upon them. Soil surveys indicate that climate and topography are the primary influences on soil formation (NRCS 2000). Soil development processes, such as rock weathering, decomposition of plant materials, accumulation of organic matter, and nutrient cycling, are controlled largely by climate. Soil moisture and temperature strongly affect the rates of addition, removal, translocation, and transformation of material within the soil. Topography influences site conditions, such as precipitation amounts and effectiveness, drainage, runoff, erosion potential, and temperature.

Soils play an integral part in vegetation community development. Plants use soil as an anchor, a means to provide water for growth, and a storehouse for the nutrients needed for growth. Plant communities are most noticeably influenced where soil texture and thickness of soil horizons change, depth to restrictive layers including abrupt soil horizon boundaries exist, and by soil drainage, moisture holding capacity, or depth to water table. Native plant communities require management considerations that include the ability of the soil to produce a healthy ecosystem over the long term. Reducing the risk of erosion from water and air processes, limiting compaction from traffic source or grazing, and allowing the water to infiltrate at a normal rate for the given soil texture will allow vegetative communities to thrive and further protects the soil resources.

The Natural Resources Conservation Service (NRCS) provides soil mapping for individual counties across the United States. Soil information and mapping from the NRCS are provided below under existing conditions to describe soil resources.

## Indicators

Indicators vary by resource and include measureable factors that are used to describe resource conditions. The indicators used to describe current conditions are the same indicators that are used to forecast the potential effects that could result from implementation of any of the proposed alternatives described in Chapter 2. The following indicators for soil resources will be used to characterize soil resources and determine the relative effects on soil resources from management actions proposed by the different alternatives:

- Declining soil surface health, with soils either unable to support vegetation and rusts or not up to the potential for a particular ecological site (e.g., vegetation type, diversity, density, and vigor); and
- The inability to meet Standards for Public Land Health.

Land uses strive to conform to Standards for Public Land Health, which describe conditions needed to sustain public land health and relate to all uses of the public lands.

## Existing Conditions

### Conditions of the Planning area

#### Soil Productivity

Soil productivity within the planning area varies widely due to the diversity of soils and site characteristics, specifically differences in elevation and slope gradient. The soil types in the planning area occur from \_\_\_\_\_ feet above mean sea level in the area of \_\_\_\_ to \_\_\_\_ feet above mean sea level in the higher elevations. The planning area landscape varies greatly from broad valleys to mountains.

The average annual precipitation and temperature in the project area vary greatly by elevation and aspect. Some of the most productive soils are found in well drained valley bottoms, toe-slopes, benches, and broad ridge tops. On uplands where rainfall is moderate to low, medium textured soils may produce favorable conditions, depending on land uses such as livestock grazing. Soils that feature shallow clay pans, hardpans, or salts pose substantial constraints to land use and management

Management practices affect the ability of soils to maintain productivity by influencing disturbances such as displacement, compaction, erosion, and alteration of organic matter and soil organism levels. When soil degradation occurs in semiarid, high desert regions, natural processes are slow to return site productivity. Prevention of soil degradation is far more cost-effective and time effective than remediation or waiting for natural processes. Management practices, such as proper stocking rates for livestock, rotation of grazing, periodic rest from grazing, improved design, construction and maintenance of roads, selective logging, rehabilitation of unneeded surface disturbance, restricting vehicles to roads and trails, rehabilitating mined areas, and control of concentrated recreational activities, have reduced erosion effects and improved soil conditions.

#### Soil Erosion

Erosion is a continuing natural process that can be accelerated by human disturbances. Factors that influence soil erosion include soil texture, structure, length and percent of slope, vegetative cover, and rainfall or wind intensity. Soils most susceptible to erosion by wind or water are typified by bare or sparse vegetative cover, non-cohesive soil particles with slow infiltration rates, and moderate to steep slopes. Wind erosion processes are less affected by slope angle but are highly influenced by wind intensity.

The semi-arid planning area has between \_\_\_\_ and \_\_\_\_ percent natural plant community ground cover, allowing the soils to erode naturally in wind and during infrequent rain events. In addition, management actions affect the rate at which soil erodes. Activities that remove vegetative cover increase the erosion rate. Some soils are particularly vulnerable to soil erosion.

The potential for soil erosion increases with increasing slope. Approximately \_\_\_\_ acres exceed 40 percent slope within the planning area. Steep slopes are concentrated in the areas of \_\_\_\_ within the planning area.



NRCS soil map unit descriptions rate soils in the planning area according to their susceptibility to water and wind erosion. Wind erosion is particularly a hazard when surface litter and vegetation are removed by fire or other disturbances. Soils in the planning area were screened based on several relevant characteristics that indicate potentially fragile soils or high erosion hazards. These characteristics include:

- Soils rated as highly or severely erodible by wind or water, as described in NRCS soil survey reports;
- Landslide areas as identified in NRCS soil survey reports; and
- Soils on slopes greater than 35 percent

Within the planning area, \_\_\_ acres were mapped as fragile soils. Most fragile soils occur in the areas of \_\_\_ within the planning area.

### Soil Types

When making land management decisions based on soil related hazards or limitations, the BLM evaluates soil surveys available from the NRCS. Soils mapped according to the boundaries of major land resource areas, which are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses. Each soil survey describes the specific properties of soils in the area surveyed and shows the location of each kind of soil on detailed maps. BLM evaluates soil map units to make management decisions that would likely affect soils. Each soil survey applicable to the planning area describes soil map units by the individual soil or soils that make up the unit. These descriptions indicate the limitations and hazards inherent in each unit. Descriptions include soil depth, range of elevation, origin, climate, physical properties, runoff capabilities, erosion hazard, associated native vegetation, wildlife habitat use, and capability for community development and other uses.

Third order soil surveys, provided by the NRCS, cover most of the planning area. The NRCS maps over \_\_\_ soil map units in the planning area, making summarization complex.

Soil can be classified in many ways according to a whole host of parameters. For the generalization of soils in the planning area, the taxonomy of soil order is a convenient starting place. Most of the soils in the planning area are part of the largest soil order, Mollisols. This order encompasses approximately \_\_\_ percent of the Greater Sage-Grouse core habitat acres. The Aridisols correspond to \_\_\_ and the Alfisols \_\_\_ percent of the area. The remaining areas are composed of similar young developmental soils in the Inceptisol, Entisol, and Andisol orders with a very small amount of Histisols and Vertisols that have particular properties that may be of importance.

Soil properties can provide information why certain plants may grow in one area and not another, or why erosion occurs by wind and not water. The NRCS provides a suite of risk rating, interpretations, and basic soil data that describes soils resources. The soil texture for most soils across the planning area is a loam as composed of the representative percent of sand, silt and clay. Some greater or lesser amounts of these percentages produce clayey loams and silty loams for the most part. The soils have very low amounts of organic matter (2%), low available moisture contents in the top 10 inches (3.3 inches) and are conserved well drained. The risk to

erosion from water is slight, except in those very steep canyons and exposed bedrock ridges that have a severe to very severe rating. The overall majority of the planning area is considered to be of slight risk for \_\_\_\_\_. The soils are prone to degradation when soil is removed in excess of the ability to rebuild it. In this area of the state, the amount of loss can be significant with wind exposure or increased erosion from water. Only 1 to 2 tons of soil per acre per year needs to be removed in approximately half of the planning area to have a loss of long term productivity. A quarter of the area has the highest level of soil that can be removed (5 tons/acre/year) with the remaining quarter in the middle groups.

When it comes to infiltration of water into the soil surfaces, these soils will take in water very well. The silty and clay nature of the soils cause them to percolate water more slowly than a sandy soil or rocky soil would. But for most of the planning area, percolation rates do not cause standing water to form. The majority of the soils convey water at rates greater than 1 inch per hour. Of particular note are those soils in the low wetland areas in the northwest part of the planning area. They allow infiltration to equal or exceed 2 inches per hour. This is correlated to those same soils that have the highest wind erosion rates across the planning area. Others within the planning area have a very low rate of loss per acre and, therefore, are at low risk to wind erosion.

Hydric (wet) soils, unique biological soil crusts, and prime agriculture land are key soil resources in the planning area.

**Hydric Soils.** Hydric soils constitute only a small portion of the planning area. Hydric soils are associated with riparian areas and wetlands. Riparian-wetland soils are found throughout the planning area along water courses, near springs, seeps, playas, and adjacent to reservoirs. Because of the presence of water, riparian-wetland soils have properties that differ from upland areas. For example, most upland soils are derived from in-place weathering processes and relatively little soil is derived from offsite sources. In contrast, riparian-wetland soils are constantly changing because of the influx of new material being deposited by different storm events and overland flow. As a result, great variability in soil types can occur in short distances. An inventory of these soils has not been completed. Due to the dynamic nature of these soils, they require intensive monitoring and management.

**Biologic Soil Crusts.** Biologic soil crusts (BSC) are made up of tiny living plants and bacteria that grow together on the soil surface. They help keep the soil from washing or blowing away, fix nitrogen from the atmosphere into the soil, help keep out weeds, and promote the health of plant communities. In areas where BSC have been lost, native vascular plants have been replaced by invasive species such as cheat grass or medusa head.

Based on research throughout the west, parameters for the ecology and management of biological soil crusts have been developed by the Department of the Interior. Factors found affecting presence, density, cover, and species diversity of macrobiotic crusts include elevation, soils, and topography, disturbances, timing of precipitation, vascular plant community, ecological gradients and microhabitats.

## Trends

Soil resources change slowly unless catastrophic or larger scale disturbance events such as landslides, floods, volcanoes, or wildfires occur. Then, erosion or deposition would change the ground cover at one point or many. Thus, the degree of change in the planning area would be considered low or insignificant, with the direction of change being the most likely to occur naturally over time. There have been larger wildfire events and to some degree restoration activities that have altered the vegetation communities where juniper has been invading sagebrush communities.

The overall trend for soil resources is to maintain or improve the ability of the soil to support vegetation and allow water and nutrients to be cycled by either macro or microorganisms, all of which promote and improve the health of the land. Degradation by excessive grazing, erosion or land developments will cause a reduction in soil function as one or perhaps many of the soil properties are changed thereby affecting the functions necessary for healthy soils. In the planning area, impacts on soil resources have resulted from energy development, grazing recreation, natural processes, and other activities. The potential for maintaining or restoring these communities and conserving the soil resource depends on the specific soil types and how resource programs are managed.

## Visual Resources

Visual quality of western landscapes is an increasingly sensitive issue. Impacts to visual resources are identified as a significant issue to address in Resource Management Plans, Forest Plans and major EISs such as the renewable energy and transmission programmatic environmental impact statements (PEIS). The general public's increasing awareness of the vertical scale, footprint, character and visible prominence associated with utility scale renewable energy and transmission line development has increasing the need for Visual Resource Management (VRM).

### Bureau of Land Management

BLM manages scenic values using the visual resource management (VRM) program. VRM policy was initially launched in 1976 in response to both NEPA requirements placed on Federal land management, and FLPMA requirements for scenery resource inventory and management. The BLM developed the current VRM policy manual (M-8400) and handbooks (H-8410-1, H-8431-1) in the mid-1980's to guide the Field Offices through an objective and systematic program for managing scenery resources.

Visual resource management requires that BLM Field Offices complete a visual resource inventory of the lands under their management control. The visual resource inventory is a systematic process for determining the visual values on the public lands. The inventory process has three parts: scenic quality evaluation, sensitivity level analysis and delineation of distance zones. Based on the combinations of the three, BLM lands can then be categorized as Class I (most valued and highest quality of scenery) down to Class IV (areas of low scenic quality and sensitivity at most or all distance zones). These inventory classes represent the existing visual resources.

VRM provides a way to inventory and classify visual resources, describe characteristic landscapes, determine contrasts from proposed actions, and potential mitigation from impacts to visual resources.

BLM Handbook 8410 describes the three basic landscape characteristics used to indicate visual resources in VRM: 1) scenic quality; 2) sensitivity levels; and 3) distance zones. Scenic quality is a measure of the visual appeal of a tract of land. Areas can be sub-divided into Scenic Quality Rating Units (SQRU) of similar visual character on the basis of like physiographic characteristics, similar visual patterns, texture, color, variety, etc.; and areas which have similar impacts from man-made modifications. The size of the SQRU may vary from several thousand acres to 100 or less, depending on landscape feature similarities, and the desired inventory detail. Seven key factors determine the scenic quality of a unit: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Resource specialists consider these factors when ranking units for scenic quality (A = high, B = medium, C = low).

Visual sensitivity is a measure of public concern for scenic quality. Public lands are assigned high, medium, or low sensitivity levels by analyzing various indicators of public concern, such as: type of user, amount of use, public interest, adjacent land uses, and special areas.

Sensitivity level rankings are not available for the Planning Area.

Landscapes can be divided into three distance zones based on relative visibility from travel routes or observation points. They are foreground-middleground, background, and seldom seen. The foreground-middleground zone includes areas seen from highways, rivers, or other viewing locations that are less than five miles away. The background zone is generally between five and 15 miles away. The seldom-seen zone includes areas usually hidden from view.

During the resource management planning process, BLM determines how the visual landscape will be managed in the future. The VRM decisions that are made in the planning process result in areas being assigned a VRM management class. VRM management classes determine how much change will be allowed in the landscape. VRM Class I areas are managed to preserve the existing character of the landscape and allow for limited management activity. Class II allows for low levels of landscape change that do not attract attention of the casual observer. Class III allows for moderate changes to the landscape that may attract attention but are not dominant and Class IV areas allow for high levels of landscape change.

The BLM uses a VRM contrast rating system that addresses form, line, color and texture of the landscape to determine if proposed projects are in compliance with the designated visual resource management class.

These management classes are separate from the visual resource inventory classes and guide management irrespective of the underlying visual resource i.e. areas that have an inventory class II could be designated and managed as a VRM management class IV to allow for major changes in the landscape.

In the past, especially in older management framework plans, BLM Field Offices would often adopt the VRM inventory classes as the management class. In some plans, BLM did not make any decisions regarding the VRM management classes. In such cases, the VRM inventory class has generally been used as the management class. A majority of the BLM managed lands within the planning area do not have a current visual resource inventory.

BLM Visual Resource Management Class Acres  
(approximate for offices with designated VRM classes)

VRM Class	Class I	Class II	Class III	Class IV
Acres	510,924	2,058,432	3,983,572	2,052,936

#### US Forest Service Visual Management System

Forest Service Manual 2380.3 requires the agency to “inventory, evaluate, manage, and, where necessary, restore scenery as a fully integrated part of the ecosystems of National Forest System lands through the land and resource management and planning process. Scenery must be treated equally with other resources. The US Forest Service (Forest Service) developed a visual management system to provide a mechanism for inventory and analysis of landscape resources and the effects of land management activities on those resources.

The Forest Service established the VMS in 1974 to inventory, evaluate, and manage scenic resources. The VMS is described in Agriculture Handbook No. 462, National Forest Landscape Management (USFS 1974). Using an established physiographic character type as a frame of reference, the VMS determines the inherent scenic quality based on the different degrees of landscape variety within an area.

Inherent scenic quality is a measure of the natural landscape's scenic beauty based on attributes, such as landform, vegetation, water features, and rock formations. The basic assumption of the VMS is that all landscapes have some inherent value, but those with the most variety or diversity have the greatest potential for "high scenic value." Three variety classes, designated "A", "B," and "C", represent inherent scenic quality.

Sensitivity levels are identified in the VMS and are defined as the measure of people's concern for the scenic quality of the landscape. Basically, all viewed landscape is rated for a level of sensitivity. Sensitivity levels are overlaid with distance zones to identify all the viewed and unseen landscape within a given area. The VMS defines distance zones—that is, the distance from which a landscape is viewed—as foreground, middleground, and background. Distance zones are important in evaluating how change is perceived in the landscape because the closer the features in the landscape are to the viewer, the more pronounced they appear and the more detail is observed.

Visual quality objectives (VQOs) are determined in the VMS by combining the sensitivity levels and scenic quality. VQOs are assigned to the landscape to describe the degree of acceptable alteration of the natural landscape. The VQO classifications are Preservation, Retention, Partial Retention, Modification, and Maximum Modification. Preservation allows for ecological changes only, while Maximum Modification allows for landscape changes that may dominate the natural landscape character.

#### Scenery Management System

The VMS process has been updated as the Scenery Management System (SMS), which is being incorporated into respective Forest Management Plans. SMS is described in Landscape Aesthetics: A Handbook for Scenery Management (USFS 1995). Adoption of the SMS is to occur as each National Forest revises its land management plan and RMP. For National Forests not currently undergoing the forest-plan revision process, or for those requiring extensive time for revision, application of the SMS will occur at the subforest or Project level.

In general, the SMS differs from the VMS in that it is integrated with ecosystem management and addresses landscape character, constituent preferences, scenic integrity, and landscape visibility as key aesthetic considerations. Landscape character describes the visual patterns of form, line, color, texture, dominance, scale, and diversity of elements in the landscape and the cultural attributes that make the landscape identifiable and give it a "sense of place." Constituent preferences convey the aesthetic experience of forest visitors, communities, and tourists and the significance of scenic quality to these user groups.

Scenic management criteria are described below.

The SMS entails identifying the landscape character, visual sensitivity, and scenic integrity. The SMS provides an overall framework for the orderly inventory, analysis, and management of

scenery. It is a tool for integrating the benefits, values, desires, and preferences regarding aesthetics and scenery for all levels of land management planning. The SMS also considers Concern Levels, which are a categorization of the importance of scenic resources to forest visitors.

Three concepts of the SMS are of key importance: (1) Scenic Attractiveness, (2) Landscape Character, and (3) Scenic Integrity. These concepts and landscape character are defined below:

Scenic Attractiveness is the primary indicator of the scenic importance of a landscape based on human perceptions of the intrinsic beauty of landforms, rock outcrops and forms, waterforms, vegetation patterns, and cultural features. It reflects varying visual perception attributes of variety, unity, vividness, intactness, coherence, uniqueness, harmony, balance, and pattern. The frame of reference for scenic attractiveness (generally at the section scale) is landscape character. Three levels of scenic attractiveness are identified during the scenery inventory process: (A) Distinctive, (B) Common or Typical, and (C) Undistinguished (Forest Service Manual [FSM] 2380 – Landscape Management).

Landscape Character is a combination of physical, biological, and cultural images that gives an area its visual and cultural identity and helps to define a "sense of place." Landscape character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity (FSM 2380 – Landscape Management).

Scenic Integrity Objectives, referred to as SIOs, define the degrees of deviation from the landscape character that occur at any given time by using the process described in Agriculture Handbook 701, Landscape Aesthetics: A Handbook for Scenery Management (FSM 2380 – Landscape Management). When discussing SIOs, the degree of alteration is measured in terms of visual contrast with the surrounding natural landscape. The objectives of each SIO classification are included below:

- Very High – Management activities, except for very low visual-impact recreation facilities, are prohibited. Allows for ecological changes only. The existing landscape character and sense of place is expressed at the highest possible level.
- High – Management activities are not visually evident to the casual observer. The landscape character appears intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident. Changes in the qualities of size, amount, intensity, direction, pattern, etc., should not be evident.
- Moderate – Management activities remain visually subordinate to the characteristic landscape being viewed. Activities may repeat form, line, color, or texture common to the characteristic landscape but may not change in their qualities of size, amount, intensity, direction, pattern, etc.

- Low – Management activities begin to visually dominate the original characteristic landscape. However, activities of vegetative and landform alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Structures must remain visually subordinate to the proposed composition.

- Very Low – Management activities of vegetative and landform alterations may dominate the characteristic landscape. While alterations may not borrow from attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles within or outside the landscape being viewed, they must be shaped and blended with the natural terrain so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

Forest Service Acres of Scenic Management


Visual Management Classes

For both BLM and USFS, where management decisions have been made to preserve and protect the visual characteristics of the landscape, these areas are likely to provide better habitat and protection for sage grouse.

References:

BLM Manual 8400 - Visual Resource Management

Agriculture Handbook No. 462, National Forest Landscape Management (USFS 1974)

Landscape Aesthetics: A Handbook for Scenery Management (USFS 1995)



## Water Resources

Water on public lands is regulated by the Clean Water Act, Safe Drinking Water Act, Public Land Health Standards, and other laws, regulations, and policy guidance at the federal, state, and local levels. Water resources in Idaho are regulated by the US Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality (DEQ).

The Idaho DEQ has granted designated management agency status to the BLM. As a designated management agency, the BLM must: (1) implement and enforce natural resource management programs for the protection of water quality on Federal lands under its jurisdiction; (2) protect and maintain water quality where it meets or exceeds applicable state and Tribal water quality standards; (3) monitor activities to assure that they meet standards and report the results to the State of Idaho; and (4) meet periodically to recertify water quality best management practices (BMPs). BMPs include methods, measures, or practices to prevent or reduce water pollution, including but not limited to structural and nonstructural controls, operations, and maintenance procedures. BMPs are applied as needed to projects.

## Indicators

Indicators vary by resource and include measurable factors that are used to describe resource conditions. The indicators used to describe current conditions are the same indicators that are used to forecast the potential effects that could result from implementation of any of the proposed alternatives described in Chapter 2. The following indicators for water resources will be used to characterize water resources and determine the relative effects on water resources from management actions proposed by the different alternatives:

- Alter the physical characteristics of water sources that influence Greater Sage-Grouse to a point in which these resources are not properly functioning or sustainable.
- Meet state and federal water quality standards for surface waters.
- Impair water quality to a degree that could affect the survival of Greater Sage-Grouse or aquatic/riparian species.
- Alter water resources habitat for mosquitoes

## Existing Conditions

The discussion of existing conditions includes a description of water resources for the planning area, regardless of land ownership. Where appropriate, it also includes a more detailed description of water resources for just BLM administered lands within the planning area. For this, the description is limited to describing water resources associated with Great Sage-Grouse and their habitat. Wetlands and livestock water developments are important sources of water that can influence Greater-Sage Grouse and their habitat.

## Conditions of the Planning Area

The BLM is the overwhelming land manager in the planning area. The Forest Service, US Fish and Wildlife Service, Bureau of Indian Affairs, and State of Idaho all have lands within the planning area that also contain a suite of water resources.

The average yearly precipitation for this area ranges from \_\_\_ to \_\_\_ inches. Within the planning area, the major water features, are streams, lakes, wetlands, playas, and dry lakes. Streams can be ephemeral, intermittent, or perennial. Ephemeral streams do not flow during an average water year, but do flow in response to large precipitation events. Intermittent streams flow during spring runoff for an average water year, but generally dry up later in the summer. Perennial streams contain some water all year for an average water year. Lakes can be permanent or temporary. Wetlands and floodplains vary in extent and depth throughout the year. Permanent waters can also be in the form of ponds and reservoirs developed for human or livestock consumption.

Stream channels and floodplains are important because their shape and condition affect how rapidly water flows through a river system, how much water is stored within the basins, the quality of the water, and how much erosion occurs. These functions, in turn, affect fish and wildlife habitat, agriculture, recreation, and the susceptibility of local communities and landowners to floods.

As early land management reduced vegetation in the watershed, overland flow of water increased and stream channels deepened to match the increased supply of water and sediment. Major flood events in the late 1800s were the likely immediate cause of the deepening channels. Channel incisions eventually lead to bank failures and subsequent channel widening. As channel widening and bank failures continued, new low flow channels began to form in the debris from bank failure. Many of the stream channels in the planning area were in the process of this initial buildup in the 1980s. The result of this process is that new channels are usually lower than pre-disturbance channels, and the old floodplain now functions primarily as a terrace. Some terraces may be the result of climatic variations and associated changes in flow and sediment supply. The final stage of channel evolution results in a new bankfull channel and active floodplain at a new, lower elevation. Many stream channels in the planning area have new, lower elevation channels and floodplains.

#### Surface Water

The United States is divided and sub-divided into successively smaller hydrologic units called regions, sub-regions, accounting units (basins), and cataloging units (sub-basins). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to eight digits. The fourth level of classification (sub-basin) is represented by an 8 digit HUC.

Sub-basin Name	8 digit HUC	Sub-basin Size (acres)	Sub-basin size within planning area (acres)	BLM administered lands in sub-basin within planning area (acres)	Length of streams in sub-basin within planning area (miles)	Length of streams crossing BLM lands in sub-basin within planning area (miles)

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The historic scarcity of stream flow in the planning area has led to increased flow regulation by the state of Idaho. Projects for irrigation, livestock, human use, and flood control have significantly altered natural flow regimes. This has changed habitat conditions, channel stability and timing of sediment and organic material transport. Stream flow has been altered by management activities such as water impoundments, water withdrawals, road construction, vegetation manipulation, grazing, fire suppression, and timber harvesting.

Most surface runoff in the planning area is from snowmelt or rainfall producing peak discharges in the spring and early summer. Many of the streams in the lower elevation semi-arid areas are either intermittent, with segments of perennial flow near springs, or ephemeral, with flow only during spring runoff and intense summer storms.

Water developments are also influential sources of water for Greater Sage Grouse. Water developments can function for multiple uses. They provide additional and alternative sources of water for wildlife and livestock, and can decrease use of riparian areas. Within the planning area, the BLM maintains \_\_\_ water developments, \_\_\_ of which are for Greater Sage Grouse.

#### Riparian Areas and Wetlands

Riparian areas are ecosystems that occur along rivers, streams or water bodies. These areas exhibit vegetation or physical characteristics reflective of a permanent surface or subsurface water influence. Typical riparian areas are land along, adjacent to, or contiguous with perennially and intermittently flowing rivers, streams, and shores of lakes and reservoirs with stable water levels. Excluded are such sites as ephemeral streams, or washes that do not exhibit vegetation dependent on free water in the soil. Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and which under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, swamps, lake shores, lakeshores, sloughs, bogs, wet meadows, and riparian areas. Even though riparian and wetlands areas occupy only a small percentage of the planning area, these areas provide a wide range of functions critical to many different wildlife species, improve water quality, provide scenery, and recreational opportunities.

The BLM uses proper functioning condition (PFC) assessments for evaluating riparian-wetland areas and uses it to supplement existing stream channel and riparian area evaluations and assessments. Each riparian-wetland has to be judged against its capability and potential. The capability and potential of natural riparian-wetland areas are characterized by the interaction of hydrology, vegetation, and erosion/deposition. PFC is defined separately for lotic (moving water systems, such as rivers, streams, and spring and lentic (standing water systems, such as lakes, ponds, seeps, and wet meadows). If a riparian or wetland area is not in PFC, it is placed into one of three other categories; functional at risk, non-functional, or unknown.

The majority of BLM stream channels and floodplains within the planning area are not meeting the BLM standard of PFC. However relatively few stream channels are non-functioning. More

intermittent stream channels are in non-functioning condition than perennial streams but they also have more miles of stream at potential and PFC.

## Water Quality

Water quality as defined by the CWA, includes all the physical, biological, and chemical characteristics which affect existing and designated beneficial uses. The state of Idaho is required to identify which beneficial uses a water body currently supports or could support in the future. Water quality standards are established to protect the beneficial uses of the State's waters. Beneficial uses in planning area are public and private domestic water supplies, industrial water supply, irrigation, livestock watering, fish and aquatic life, and recreation.

The State of Idaho is required by section 303(d) of the CWA to identify waters which are water quality impaired because of failing to meet their designated beneficial uses. Section 303(d) requires that each state develop a list of water bodies that fail to meet water quality standards and delineate stream segments and listing criteria for all streams. The 303(d) list of impaired waters is updated biannually, and the State is required to develop a total maximum daily load allocation for each pollutant of concern.

Water quality is evaluated based on the ability of a water body to support beneficial uses of the water. Generally, key water qualities are those that support native fish and wildlife and support human uses such as agriculture, recreation, and domestic water supply.

The major water quality concern for streams in the planning area has been water temperature. These water temperature concerns correlate to the beneficial use of fish spawning and rearing habitat. Conditions that affect stream temperature can be summarized as amount of near stream vegetation, channel shape, and hydrology. Many of these conditions are interrelated and many vary considerably across the landscape. For example, channel width measurements can change greatly over even small distances along a stream. Some conditions vary daily and or seasonally. Stream orientation from a north-south to an east-west can change solar heating considerably when stream width and vegetation type remain the same.

Removal of riparian vegetation and the shade it provides contributes to elevated stream temperatures. Channel widening can similarly increase solar loading. The principal source of heat energy delivered to the water column is solar energy striking the stream surface directly. Exposure to solar radiation can cause an increase in stream temperature. The ability of riparian vegetation to shade the stream throughout the day depends on aspect and vegetation height, width, density, and position relative to the stream, as well as aspect the stream flows.

Causes of stream degradation are removal of riparian vegetation and destabilization of streambanks. The land use most commonly associated with these problems in the planning area is livestock grazing. Other land uses associated with degraded streams include roads, trails, water withdraw, reservoir storage and release, altered physical characteristics of the stream and wetlands alteration.

## Groundwater

Groundwater is used for irrigation, domestic use, and livestock use. The quality of the groundwater is a function of the chemical makeup of the underground formation containing the water. Most of the planning area contains good quality water but the water is usually hard and contains moderate amounts of dissolved minerals.

The BLM maintains \_\_\_ potable water wells in the planning area. These wells are monitored to ensure the State of Idaho requirements for public water systems are met.

Springs and seeps occur in areas where water from aquifers reaches the surface. Many springs begin in stream channels others flow into small ponds or marshy areas that drain into channels. Some springs and seep area form their own channels. That reach flowing streams, but other springs lose their surface expression and recharge alluvial fill material or permeable stratum.

Springs and seeps are important to aquatic habitats because of the perennial base flow they provide to a stream. The outflow from springs in summer usually helps to maintain lower water temperatures. In winter, especially in small streams, base flow helps to maintain an aquatic habitat in an otherwise frozen environment.

#### Water Quantity

Water balance across the United States is approximately 30% runoff and 70% evaporation. This may be different across the planning area due to higher temperatures and lower relative humidity in some areas.

There are numerous gauging stations within the planning area and the highest volumes of water are produced in \_\_\_\_\_. The peak flows are connected with the spring runoff and snow melt with a decrease to near base flow during the month of July. Stream flow is measured in cubic feet per second (cfs) or amount of flow required to pass one cubic foot of water in one second. The average annual flow across the planning area is \_\_\_\_\_. Seasons and years of low water yield are particularly crucial periods for most of the planning area's beneficial uses.

The annual flow patterns may have changed since the 19<sup>th</sup> century. Historical descriptions indicate that streams were relatively stable with good summer streamflow and good water quality and heavy riparian cover. Stream banks were covered with dense growths of aspen, poplar, and willow; cottonwood galleries were thick and wide; and beaver were abundant. Now peak flows are greater and late season flows are diminished. This may be the normal condition of larger flowing streams in the planning area. It is suspected that these effects are due to reduced rates of soil infiltration, reduced capacity for groundwater/riparian storage and loss of in channel storage in beaver ponds.

#### Trends

Demands on water resources have increased over the past few decades. Although most early water rights were established for irrigation and mining, today's demand includes municipal water supplies, commercial and industrial supplies, and maintenance of adequate streamflow for fish, recreation, and water quality.

The availability of water in much of the planning area is limited and may hamper additional developments that depend on water. Future water development for wildlife, recreation, and livestock would require a State of Idaho water right before project implementation could occur.

## Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

*It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes. (Wild & Scenic Rivers Act, October 2, 1968)*

Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. For federally administered rivers, the designated boundaries generally average one-quarter mile on either bank in the lower 48 states and one-half mile on rivers outside national parks in Alaska in order to protect river-related values.

### River Classification

Rivers are classified as *wild*, *scenic*, or *recreational*.

**Wild River Areas** – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

**Scenic River Areas** – Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

**Recreational River Areas** – Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. Protection of the river is provided through voluntary stewardship by landowners and river users and through

regulation and programs of federal, state, local, or tribal governments. In most cases not all land within boundaries is, or will be, publicly owned, and the Act limits how much land the federal government is allowed to acquire from willing sellers. Visitors to these rivers are cautioned to be aware of and respect private property rights.

The Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding resource values. However, designation does not affect existing water rights or the existing jurisdiction of states and the federal government over waters as determined by established principles of law.

The Forest Service manages two designated rivers within the planning boundary. The Middle Fork of the Salmon is wholly within the planning boundary whereas only a portion of the Salmon River is within the planning boundary.

The BLM manages 16 designated rivers that are wholly within the planning boundary. All of the 16 rivers are within wilderness areas. Where the wilderness policy is more restrictive than the Wild and Scenic Rivers policy regarding actions within wilderness, the wilderness policy takes precedence.

#### FS Managed Wild and Scenic Rivers

<b>Name</b>	<b>Classification</b>	<b>River Miles</b>
Salmon River	Wild	Xx
	Recreational	xx
Middle Fork of the Salmon River	Wild	103
	Scenic	1

#### BLM Managed Wild and Scenic Rivers

<b>Name</b>	<b>Classification</b>	<b>River Miles</b>
Battle Creek	Wild	23.4
Big Jacks Creek	Wild	35
Bruneau River	Recreational	0.6
	Wild	39.3
West Fork Bruneau River	Wild	0.35
Cottonwood Creek	Wild	2.6
Deep Creek	Wild	13.1
Dickshooter Creek	Wild	9.25
Duncan Creek	Wild	0.9
Jarbidge River	Wild	28.8
Little Jacks Creek	Wild	12.4
North Fork Owyhee River	Recreational	5.7



	Wild	15.1
Owyhee River	Wild	67.3
South Fork Of The Owyhee River	Recreational	1.2
	Wild	31.4
Red Canyon	Wild	4.6
Sheep Creek	Wild	25.6
Wickahoney Creek	Wild	1.5

References:

BLM Manual 6400 Wild and Scenic Rivers- Policy and Program Direction for Identification, Evaluation, Planning and Management 2012

Interagency Wild and Scenic River Council website ([www.rivers.gov](http://www.rivers.gov))

## Wilderness

In 1964, the Wilderness Act (the Act) established the National Wilderness Preservation System to be managed by the U.S. Forest Service, National Park Service, and U.S. Fish and Wildlife Service. In 1976, with the passage of the Federal Land Policy and Management Act (FLPMA), Congress made the Bureau of Land Management (BLM) the fourth agency with wilderness management authority under the Wilderness Act. Section 603(c) of FLPMA directed that for BLM lands “designated [by Congress] for preservation as wilderness, the provisions of the Wilderness Act that apply to national forest wilderness areas shall apply with respect to the administration and use of such designated area.”

Section 4(b) of the Act further sets forth the agencies’ responsibilities in administering wilderness areas and states that the preservation of wilderness character is the primary management mandate. In the relevant part, the Act states: “Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area.”

As set forth in Section 2(c) (“Definition of Wilderness”) of the Wilderness Act, wilderness character is composed of four mandatory qualities and a fifth, optional, quality. These are:

- i. *Untrammeled*. The Wilderness Act states that wilderness is “an area where the earth and its community of life are untrammeled by man.” A “trammel” is literally a net, snare, hobble, or other device that impedes the free movement of an animal. Here, used metaphorically, “untrammeled” refers to wilderness as essentially unhindered and free from modern human control or manipulation. This quality is impaired by human activities or actions that control or manipulate the components or processes of ecological systems inside wilderness.
- ii. *Natural*. The Wilderness Act states that wilderness is “protected and managed so as to preserve its natural conditions.” In short, wilderness ecological systems should be as free as possible from the effects of modern civilization. Management must foster a natural distribution of native wildlife, fish, and plants by ensuring that ecosystems and ecological processes continue to function naturally. Watersheds, water bodies, water quality, and soils are maintained in a natural condition; associated ecological processes previously altered by human influences will be allowed to return to their natural condition. Fire, insects, and diseases are allowed to play their natural role in the wilderness ecosystem except where these activities threaten human life, property, or high value resources on adjacent non-wilderness lands. Additional guidance on this is provided in section 1.6.C of this manual, which addresses the management of specific activities in wilderness. This quality may be affected by intended or unintended effects of human activities on the ecological systems inside the wilderness.
- iii. *Undeveloped*. The Wilderness Act states that wilderness is an area “of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation,” “where man himself is a visitor who does not remain,” and “with the imprint of man’s work substantially unnoticeable.” Wilderness has minimal evidence of modern human occupation or modification. This quality is impaired by the presence of structures or installations, and by the use of motor vehicles, motorized equipment, or mechanical transport that increases people’s ability to

occupy or modify the environment. More detail on the activities that impair this quality is found in Section 1.6.B of this policy.

iv. *Solitude or Primitive and Unconfined Recreation.* The Wilderness Act states that wilderness has “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” Wilderness provides opportunities for people to experience: natural sights and sounds; remote, isolated, unfrequented, or secluded places; and freedom, risk, and the physical and emotional challenges of self-discovery and self-reliance. Any one wilderness does not have to provide all these opportunities, nor is it necessary that they be present on every acre of a given wilderness. Where present, however, the preservation of these opportunities is important to the preservation of wilderness character as a whole. This quality is impaired by settings that reduce these opportunities, such as visitor encounters, signs of modern civilization, recreation facilities, and management restrictions on visitor behavior.

v. *Unique, Supplemental, or Other Features.* The Wilderness Act states that wilderness areas “may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” Though these values are not required of any wilderness, where they are present they are part of that area’s wilderness character, and must be protected as rigorously as any of the four required qualities. They may include historical, cultural, paleontological, or other resources not necessarily considered a part of any of the other qualities. These values are identified in a number of ways: in the area’s designating legislation, through its legislative history, by the original wilderness inventory, in a wilderness management plan, or at some other time after designation.

Section 4(b) of the Wilderness Act states that: “Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.” In most cases the public purposes reflect one or more qualities of wilderness character and are administered so as to preserve the wilderness character of the area.

Section 4(c) of the Wilderness Act lists uses and activities that are specifically prohibited in wilderness: “Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.”

The BLM Wilderness Manual 6340 states: Wildlife management within wilderness is guided by all relevant laws, including the Wilderness Act, acts designating specific wilderness areas, the Endangered Species Act, the Migratory Bird Treaty Act, Native American treaty rights, 43 CFR 6300 (Management of Designated Wilderness Areas), 43 CFR 24 (Department of the Interior Fish and Wildlife Policy: State-Federal Relationships), and applicable State laws and policies regarding wildlife.

Many wilderness areas provide important habitat for federally listed threatened or endangered wildlife species. The BLM will manage wilderness areas to protect and recover known populations of federally listed threatened or endangered species and to aid in their recovery in previously occupied habitat.

To protect or recover threatened, endangered, or candidate species necessary actions, including habitat manipulation and special protection measures, may be implemented in wilderness to a degree greater than for unlisted species. Nevertheless, any wilderness-impairing actions must be necessary for the protection or recovery of the species and it must be demonstrated that the actions cannot be done as effectively outside wilderness. In coordination with the U.S. Fish and Wildlife Service and applicable State wildlife agencies, the BLM will use the Minimum Requirements Decision Guide to determine the actions that least impair wilderness character.

Threatened and endangered species may be transplanted into previously occupied habitat within wilderness. By policy, all transplants will require approval by the BLM in coordination with the applicable State wildlife agencies through the use of the Minimum Requirements Decision Guide and subsequent NEPA analysis. The BLM’s NEPA analysis will evaluate the impacts of the activity on wilderness character.

When alternative areas outside of wilderness offer equal or better opportunities for habitat improvement for species protection, recovery actions will be taken outside of wilderness first, in cooperation, as applicable, with the U.S. Fish and Wildlife Service and State wildlife agencies.

BLM has six wilderness areas within the planning boundary. These six areas are all within Owyhee County and were designated by Congress in 2009 through the Omnibus Public Lands Management Act.

<b><u>BLM Wilderness Name</u></b>	<b><u>Wilderness Acres</u></b>
Big Jacks Creek Wilderness	52,826
Bruneau-Jarbidge Rivers Wilderness	89,966
Little Jacks Creek Wilderness	50,929
North Fork Owyhee Wilderness	43,413
Owyhee River Wilderness	267,328
Pole Creek Wilderness	12,533
<i>Total BLM Wilderness</i>	<i>516,995</i>

A wilderness management plan for the six BLM wilderness areas will be released in draft in February 2013. A final plan should be completed by mid to late 2013.

#### US Forest Service

The Forest Service, National Park Service and BLM manage wilderness areas under the same legislation; the 1964 Wilderness Act. The agencies have similar objectives and policies related to wilderness. Below is text from the Forest Service wilderness manual.

Wilderness is a unique and vital resource. In addition to offering primitive recreation opportunities, it is valuable for its scientific and educational uses, as a benchmark for ecological studies, and for the preservation of historical and natural features.

Manage the wilderness resource to ensure its character and values are dominant and enduring. Its management must be consistent over time and between areas to ensure its present and future availability and enjoyment as wilderness. Manage wilderness to ensure that human influence does not impede the free play of natural forces or interfere with natural successions in the ecosystems and to ensure that each wilderness offers outstanding opportunities for solitude or a primitive and unconfined type of recreation. Manage wilderness as one resource rather than a series of separate resources (FSM 2300 sec. 2320.6).

## **Objectives**

1. Maintain and perpetuate the enduring resource of wilderness as one of the multiple uses of National Forest System land.
2. Maintain wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces.
3. Minimize the impact of those kinds of uses and activities generally prohibited by the Wilderness Act, but specifically excepted by the Act or subsequent legislation.
4. Protect and perpetuate wilderness character and public values including, but not limited to, opportunities for scientific study, education, solitude, physical and mental challenge and stimulation, inspiration, and primitive recreation experiences.
5. Gather information and carry out research in a manner compatible with preserving the wilderness environment to increase understanding of wilderness ecology, wilderness uses, management opportunities, and visitor behavior.

## **Policy**

1. Where there are alternatives among management decisions, wilderness values shall dominate over all other considerations except where limited by the Wilderness Act, subsequent legislation, or regulations.
2. Manage the use of other resources in wilderness in a manner compatible with wilderness resource management objectives.
3. In wildernesses where the establishing legislation permits resource uses and activities that are nonconforming exceptions to the definition of wilderness as described in the Wilderness Act, manage these nonconforming uses and activities in such a manner as to minimize their effect on the wilderness resource.

4. Cease uses and activities and remove existing structures not essential to the administration, protection, or management of wilderness for wilderness purposes or not provided for in the establishing legislation.

5. Because wilderness does not exist in a vacuum, consider activities on both sides of wilderness boundaries during planning and articulate management goals and the blending of diverse resources in forest plans. Do not maintain buffer strips of undeveloped wildland to provide an informal extension of wilderness. Do not maintain internal buffer zones that degrade wilderness values. Use the Recreation Opportunity Spectrum (FSM 2310) as a tool to plan adjacent land management.

6. Manage each wilderness as a total unit and coordinate management direction when they cross other administrative boundaries.

7. Use interdisciplinary skills in planning for wilderness use and administration.

8. Gather necessary information and carry out research programs in a manner that is compatible with the preservation of the wilderness environment.

9. Whenever and wherever possible, acquire non-Federal lands located within wildernesses, as well as non-Federal lands within those areas recommended for inclusion in the system.

The Forest Service manages eight wilderness areas that are either all or portions of within the planning area.

<u>FS Wilderness Name</u>	<u>Wilderness Acres</u>
Sawtooth	217,088 acres
Frank Church River of No Return	
Anaconda Pintler	
Gates of the Mountains	28,562 acres
Lee Metcalf	254,635 acres
Red Rock Lakes	32,350 acres
Absaroka Beartooth	

#### National Park Service

The following is from the National Park Service Wilderness Management Policy 2006: The National Park Service will manage wilderness areas for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness. Management will include the protection of these areas, the preservation of their

wilderness character, and the gathering and dissemination of information regarding their use and enjoyment as wilderness. The purpose of wilderness in the national parks includes the preservation of wilderness character and wilderness resources in an unimpaired condition and, in accordance with the Wilderness Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

Craters of the Moon National Monument manages one wilderness area within the planning boundary.

NPS Wilderness Name	Wilderness Acres
Craters of the Moon National Wilderness	43,243 acres

#### References

BLM Manual 6340—Management of BLM Wilderness 2012

FS Manual 2300 Recreation, Wilderness, and Related Resource Management Chapter 2320

Wilderness Management

NPS Wilderness Preservation and Management 2006

Wilderness.net

## Wilderness Study Areas (WSAs)

Section 603 of FLPMA directed the BLM to carry out a wilderness review of the public lands. The wilderness inventory was conducted from 1978 to 1980, and excluded Alaska and Oregon and California Grant Lands Act of 1937 (O&C Act) lands managed primarily for timber production. The original inventory focused on roadless areas of public lands of 5,000 acres or more and on roadless islands, but also included areas of less than 5,000 acres that had wilderness characteristics in association with contiguous roadless lands managed by another agency, and areas of less than 5,000 acres that had wilderness characteristics and could practicably be managed to keep those characteristics in an unimpaired condition. Additional WSAs were designated through the BLM land use planning process under the authority of Sections 201,202, and 302 of FLPMA after the reports to Congress were completed in 1993

The inventory phase identified areas that were found to have the characteristics of wilderness enumerated by Congress in Section 2 (c) of the Wilderness Act of 1964:

"A wilderness... (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." When these characteristics were found within a defined boundary, the presence of the wilderness resource was documented and the area was classified as a WSA.

During the study phase, all values, resources, and uses occurring within each WSA were analyzed, pursuant to the National Environmental Policy Act (NEPA), through legislative environmental impact statements. When the study was completed, recommendations as to the suitability or unsuitability of each WSA for designation as wilderness were submitted to the President through the Secretary of the Interior, and then from the President to Congress.

The BLM's management policy is to continue resource uses on lands designated as WSAs in a manner that maintains the area's suitability for preservation as wilderness. The BLM's policy will protect the wilderness characteristics of all WSAs in the same or better condition than they were on October 21, 1976 until Congress determines whether or not they should be designated as wilderness. When managers are in doubt as to a course of action in a WSA, this should serve as a guiding principle.

To keep WSAs suitable for wilderness designation, BLM manages them under the "non-impairment" standard. The non-impairment standard requires the BLM to review all proposals for uses and/or facilities within WSAs to ascertain whether the proposal would impair the suitability of the WSA for preservation as wilderness. While there are some exceptions, in



general, all uses and/or facilities must meet the non-impairment standard (i.e. must be both temporary and not create surface disturbance), as described in the following detailed criteria:

a. The use or facility is temporary. The use or facility is needed for a defined time period to respond to a temporary need, and would be terminated and removed prior to or upon wilderness designation. A chronic, repeated short-term use does not meet this definition of “temporary.” Uses, activities, or facilities that create a demand for uses that would be incompatible with wilderness management also do not meet the definition of temporary.

b. The use or facility will not create new surface disturbance. There is no new disruption of the rock, soil, or vegetation, including vegetative trampling, that would necessitate reclamation, rehabilitation, or restoration in order for the site to appear and function as it did prior to the disturbance. Uses or facilities that would require only passive natural restoration may still be considered surface disturbing. For example, cross-country vehicle use off boundary roads or existing primitive routes is surface disturbing because the tracks created by the vehicle leave depressions or ruts, compact the soils, and trample or compress vegetation. Landing fixed wing aircraft is considered surface disturbing unless it is on an existing airstrip or primitive route open to other motorized use (i.e. identified and documented to exist prior to passage of FLPMA). Certain activities allowed in wilderness areas, such as recreational hiking, use of pack stock, or domestic livestock grazing, are recognized as acceptable within a WSA, although, in the literal sense, they cause surface disturbance.

BLM currently manages approximately 770,000 acres of WSAs within the planning boundary. This includes 10 WSAs in the Dillon Field Office and 34 WSAs in the Idaho Field Offices.

There are XXX,000 acres of WSA within PPH.

Reference:

BLM Manual 6330 Management of Wilderness Study Areas (2012)

## West Nile Virus Synopsis for NEPA Analyses

### Affected Environment:

West Nile virus (WNV) is a mosquito-borne flavivirus that can cause fatal disease in sage-grouse (Naugle et al. 2004) and many other bird species in North America (Kramer et al. 2008). Individual sage-grouse that do not die as a result of direct mortality may suffer persistent symptoms that reduce subsequent survival, reproduction, or both. The virus is replicated generally in a mosquito-bird-mosquito infection cycle. Local and regional population declines have been observed in sage-grouse and other bird species susceptible to the virus in North America.

WNV has acted as an important source of mortality for sage-grouse and the virus was an important relatively new source of mortality in low and mid-elevation sage-grouse populations range-wide from 2003–2007 (Naugle et al. 2004, 2005; Walker et al. 2004, 2007b; Aldridge 2005; Kaczor 2008; Walker 2008). The highest confirmed elevation at which sage-grouse have been infected with WNV is ~2,300 m (7,500 feet) in the Lyon-Mono population of eastern California (Naugle et al. 2005). Individual sage-grouse in populations exposed to the virus during July-August 2003 were 3.3 times more likely to die than birds in uninfected populations (Naugle et al. 2004). WNV mortality of sage-grouse has been documented as ranging from 5 to 44 percent with most mortality occurring in July and August (Walker and Naugle 2011). In Idaho, WNV has been documented in sage-grouse in Owyhee and Twin Falls counties in 2006 (USGS 2006). The sage-grouse hunting season was closed in western Owyhee County due to concerns of WNV impacts (Idaho Sage-grouse Advisory Committee 2008).

The long-term response of different sage-grouse populations to WNV is expected to vary markedly depending on factors that influence susceptibility including: (1) annual and seasonal temperature-precipitation profiles, (2) land uses that influence the distribution of surface water, (3) population size, (4) genetic diversity, and (5) connectivity with other populations. Small, isolated, or genetically depauperate populations and those on the fringe of the species' range as in eastern California, Washington, North and South Dakota, Alberta, and Saskatchewan, are likely at higher risk. WNV outbreaks in small populations are more likely to reduce population size below a threshold from which recovery is unlikely and the likelihood of demographic or genetic rescue by adjacent populations is low (Morris and Doak 2002). Large, intact, low- to mid-elevation populations affected annually by WNV in northern Nevada, southeastern Idaho, central Montana, may absorb impacts of WNV if the quality and extent of available habitat still supports positive population growth (Walker and Naugle 2011).

WNV infection has been documented in several genera of mosquitoes (*Culex*, *Aedes*, *Ochlerotatus*, *Culiseta*; (Goddard et al. 2002, Doherty 2007) and at least one other biting midge (*Culicoides sonorensis*) (Naugle et al. 2004), in sagebrush habitats of western North America. However, *Culex tarsalis* is the dominant vector of WNV in sagebrush habitats (Goddard et al. 2002, Naugle et al. 2004, Doherty 2007). This species of mosquito prefers sites with submerged vegetation on which to deposit eggs and warm, standing water that promotes rapid larval development, including ephemeral puddles, vegetated pond edges, and water-filled hoof prints

(Milby and Meyer 1986, Buth et al. 1990, Doherty 2007). Dense stands of emergent plants physically obstruct access to mosquitoes (larvae and pupae) by predators and hinder mosquito control efforts (Knight et al. 2003). Open water areas provide unsuitable habitats for mosquito larvae and pupae due to increased wave action and increased vulnerability to predation by native predators of mosquitoes (Laird 1988).

Mosquito larvae and pupae are subject to greater loss by direct solar radiation where there is little cover in water, resulting in fluctuating water temperatures. Larvae and pupae have been shown to be more sensitive to temperature fluctuations, so a habitat that provides a shady resting place from the heat of the day is more likely to have a higher survival rate of larvae/pupae than a habitat with little vegetation or little water. Open water environments without cover also provide increased availability of mosquito larvae to aquatic predators such as backskimmers (Laird 1988). Vegetation or debris provides shelter from predators, leading to a greater survival of mosquito larvae and a greater population of adults. These invertebrate predators can substantially impact mosquito populations by consuming high numbers of mosquito larvae, as well as reducing egg laying by adult female mosquitoes (Laird 1988).

Sage-grouse congregate in mesic habitats in mid- to late summer (Connelly et al. 2000) and often use ponds, springs, and other standing water sources during hot weather (Dalke et al. 1963, Connelly and Doughty 1989). *Culex tarsalis* uses these same habitats for breeding (Goddard et al. 2002, Doherty 2007) and the risk of exposure to WNV may be elevated at this time.

WNV transmission is also regulated by environmental factors, including temperature, precipitation, and distribution of anthropogenic water sources that support breeding mosquito vectors (Brust 1991, Dohm et al. 2002, Reisen et al. 2006a, Zou et al. 2006a, b). It has been suggested in ecosystems other than sagebrush that high temperatures associated with drought conditions increases West Nile virus transmission (Epstein and DeFilippo 2001, Shaman et al. 2005). Higher temperatures facilitate greater nocturnal host-seeking activity by mosquitoes, more rapid larval development, and shorter extrinsic incubation periods for the virus—the time it takes for the virus to replicate inside the mosquito and invade its salivary glands (Reisen et al. 2006a). Man-made water sources may also facilitate the spread of WNV within sage-grouse habitats (Zou et al. 2006b, Doherty 2007, Walker et al. 2007). All documented WNV-related mortality to sage-grouse has occurred from mid-May to through mid-September (Walker et al. 2007b, Walker 2008, Walker and Naugle 2011).

The addition of artificial water sources that increase the distribution and abundance of *Culex tarsalis* may contribute to the spread of WNV if they have attributes beneficial to *Culex tarsalis*. Man-made water sources known to support breeding *Culex tarsalis* in sage-grouse habitat include overflowing stock tanks, stock ponds, seep and overflow areas below earthen dams, irrigated agricultural fields, and ponds constructed for coal-bed natural gas development (Zou et al. 2006b, Doherty 2007). Also, habitat or range improvement projects that create mesic zones around stock tanks or ponds may inadvertently contribute to the WNV problem, because *Culex tarsalis* readily takes advantage of water-filled hoof prints around tanks and ponds for breeding (Doherty 2007).

## LITERATURE CITED

- Aldridge, C. L. 2005. Identifying habitats for persistence of greater sage-grouse (*Centrocercus urophasianus*) in Alberta, Canada. Ph.D. dissertation, University of Alberta, Edmonton, AB.
- Brust, R. A. 1991. Environmental regulation of autogeny in *Culex tarsalis* (Diptera Culicidae) from Manitoba, Canada. *Journal of Medical Entomology* 28:847–853.
- Buth, J. L., R. A. Brust, and R. A. Ellis. 1990. Development time, oviposition activity and onset of diapause in *Culex tarsalis*, *Culex restuans* and *Culiseta inornata* in southern Manitoba. *Journal of the American Mosquito Control Association* 6:55–63.
- Connelly, J. W., and L. A. Doughty. 1989. Sage grouse use of wildlife water developments in southeastern Idaho. Pp. 167–172 in G. K. Tsukamoto, and S. J. Stiver (editors). *Wildlife water development: a proceedings of the wildlife water development symposium*. Nevada Department of Fish and Game, Reno, NV.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967–985.
- Dalke, P. D., D. B. Pyrah, D. C. Stanton, J. E. Crawford, and E. F. Schlatterer. 1963. Ecology, productivity, and management of sage grouse in Idaho. *Journal of Wildlife Management* 27:811–841.
- Doherty, M. K. 2007. Mosquito populations in the Powder River Basin, Wyoming: a comparison of natural, agricultural and effluent coal-bed natural gas aquatic habitats. M.S. thesis, Montana State University, Bozeman, MT.
- Dohm, D. J., M. L. O’Guinn, and M. J. Turell. 2002. Effect of environmental temperature on the ability of *Culex pipiens* (Diptera: Culicidae) to transmit West Nile virus. *Journal of Medical Entomology* 39:221–225.
- Epstein, P. R., and C. Defilippo. 2001. West Nile virus and drought. *Global Change and Human Health* 2:105–107.
- Goddard, L. B., A. E. Roth, W. K. Reisen, and T. W. Scott. 2002. Vector competence of California mosquitoes for West Nile virus. *Emerging Infectious Disease* 8:1385–1391.
- Idaho Sage-Grouse Advisory Committee. 2008. Idaho Sage-grouse Local Working Groups Annual Report. Unpublished report. Idaho Department of Fish and Game.
- Knight, R.L., W.E. Walton, G.F. O’Meara, W.K. Reisen, and R. Wass. 2003. Strategies for effective mosquito control in constructed treatment wetlands. *Ecological Engineering* 21:211-232.

- Kaczor, N. W. 2008. Nesting and brood-rearing success and resource selection of Greater Sage-Grouse in northwestern South Dakota. M.S. thesis, South Dakota State University, Brookings, SD.
- Kramer L. D., L. M. Styer, and G. D. Ebel. 2008. A global perspective on the epidemiology of West Nile virus. *Annual Review of Entomology* 53:61–81.
- Laird, M. 1988. The natural history of larval mosquito habitats. Academic, San Diego, CA.
- Milby, M.M., and R. P. Meyer. 1986. The influence of constant versus fluctuating water temperatures on the preimaginal development of *Culex tarsalis*. *Journal of the American Mosquito Control Association* 2:7–10.
- Naugle, D. E., C. L. Aldridge, B. L. Walker, K. E. Doherty, M. R. Matchett, J. McIntosh, T. E. Cornish, and M. S. Boyce. 2005. West Nile virus and sage-grouse: what more have we learned? *Wildlife Society Bulletin*: 33:1–8.
- Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, B. J. Moynahan, M. J. Holloran, K. Brown, G. D. Johnson, E. T. Schmidtman, R. T. Mayer, C. Y. Kato, M. R. Matchett, T. J. Christiansen, W. E. Cook, T. Creekmore, R. D. Falise, E. T. Rinkes, and M. S. Boyce. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters*: 7:704–713.
- Reisen, W. K., Y. Fang, and V. M. Martinez. 2006. Effects of temperature on the transmission of West Nile virus by *Culex tarsalis* (Diptera: Culicidae). *Journal of Medical Entomology* 43:309–317.
- Shaman, J., J. F. Day, and M. Stieglitz. 2005. Drought-induced amplification and epidemic transmission of West Nile virus in southern Florida. *Journal of Medical Entomology* 42:134–141.
- US Geological Survey. 2006. West Nile virus in greater sage-grouse. *Wildlife Health Bulletin* 06-08.  
<[http://www.nwhc.usgs.gov/publications/wildlife\\_health\\_bulletins/WHB\\_06\\_08.jsp](http://www.nwhc.usgs.gov/publications/wildlife_health_bulletins/WHB_06_08.jsp)> (15 October 2008).
- Walker, B. L. 2008. Greater sage-grouse response to coal-bed natural gas development and West Nile virus in the Powder River Basin, Montana and Wyoming, USA. Ph.D. dissertation, University of Montana, Missoula, MT.
- Walker, B. L., D. E. Naugle, K. E. Doherty, and T. E. Cornish. 2004. From the field: outbreak of West Nile virus in Greater Sage-Grouse and guidelines for monitoring, handling, and submitting dead birds. *Wildlife Society Bulletin* 32:1000–1006.
- Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007a. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71:2644–2654.

Walker, B. L., D. E. Naugle, K. E. Doherty, and T. E. Cornish. 2007b. West Nile virus and greater sage-grouse: estimating infection rate in a wild bird population. *Avian Diseases* 51:691–696.

Walker, B. L., and D. E. Naugle. 2011. West Nile virus ecology in sagebrush habitat and impacts on greater sage-grouse populations. Pp. 127-142 *in* S.T. Knick and J.W. Connelly (editors). *Greater sage-grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biology (vol. 38), University of California Press, Berkley, CA.

Zou, L., S. N. Miller, and E. T. Schmidtman. 2006a. A GIS tool to estimate West Nile virus risk based on a degree-day model. *Environmental Modeling and Assessment* (on-line): DOI 10.1007/s10661-006-9373-8

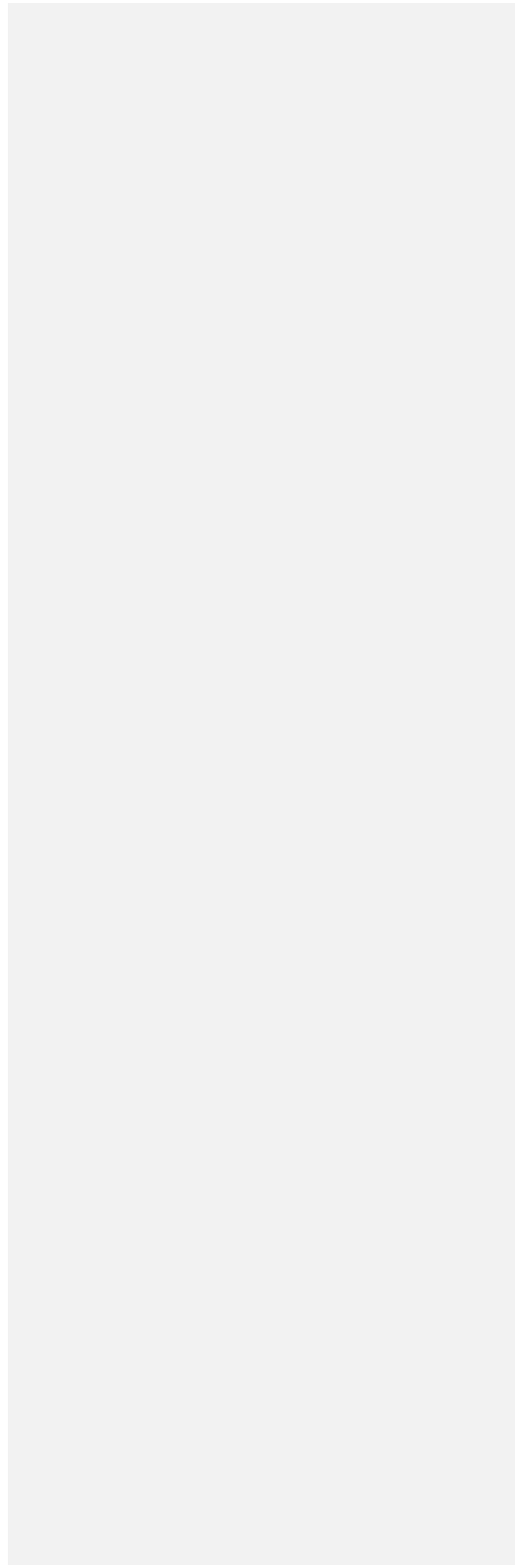
Zou, L., S. N. Miller, and E. T. Schmidtman. 2006b. Mosquito larval habitat mapping using remote sensing and GIS: implications of coalbed methane development and West Nile virus. *Journal of Medical Entomology* 43:1034–1041.

# Chapter 3

## Affected Environment



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## Chapter 3. Affected Environment

### 3.1 Introduction

This chapter documents the existing conditions and trends of resources in the planning area that may be affected by implementing any of the proposed alternatives described in **Chapter 2, Alternatives**. The affected environment provides the context for assessing potential impacts, which are described in **Chapter 4, Environmental Consequences**.

For this LUPA/EIS, the planning area is the entire sub-region within Idaho, southwestern Montana, and the portion of the Sawtooth National Forest within Utah. Specifically, the planning area is the sum of the GRSG population areas within this sub-region, regardless of landownership. **Table 3-1, Acres of GRSG Habitat by Surface Management**, provides a detailed breakdown of landownership status in the planning area. A map of the planning area is provided in **Chapter 1, Figure 1-3, Planning Area**.

The decision area includes the portions of the planning area that are composed of BLM, Forest Service, and Bankhead Jones surface estates, as well as the mineral estates administered by the BLM or Forest Service. Though the planning area includes private lands, ~~decisions made~~ direction provided in this LUPA only applies to BLM and Forest Service surface and minerals. Management direction and actions outlined in this EIS apply only to these BLM-administered and Forest Service-administered lands in the planning area and to federal mineral estate under BLM jurisdiction that may lie beneath other surface ownership. The federal government does not always own every type of mineral in a given acre of federal mineral estate. For example, in some areas, the federal government will only own the coal rights, while a private or state entity might own the oil and gas rights. For this reason, the federal mineral estate for any specific mineral type in the decision area is different than that for all other mineral types in the decision area.

While not a part of the planning area in the Idaho and Southwestern Montana GRSG Sub-Region, the Jarbidge and Bruneau Field Offices in Idaho will implement GRSG decisions on 77,800 acres of BLM-administered lands in Elko County, Nevada, located north of the Humboldt-Toiyabe National Forest and south of the Idaho-Nevada state line adjacent to the Bruneau and Jarbidge Field Offices in Idaho. For purposes of the GRSG plan amendments in Idaho and in Nevada, planning for these lands will occur through the Nevada and Northeastern California GRSG LUPA, and the regulatory measures and decisions that are put in place for the GRSG through the ROD will be implemented and administered by the Jarbidge and Bruneau Field Offices in Idaho. Due to their remoteness from other BLM-administered lands in Nevada, and because they are contiguous with major blocks of BLM-administered lands in Idaho, a Memorandum of Understanding (MOU) between BLM Nevada and BLM Idaho transfers administration of those lands to BLM Idaho.

To augment this planning document at a biologically meaningful scale for GRSG, the BER was produced by the USGS for the BLM and Forest Service (Manier et al. 2013). The BER is a science support document that provides information to put planning units and issues

**Table 3-1**  
**Acres of GRSG Habitat by Surface Management**

Surface Land Management	Acres PPH	Acres PGH	Acres Outside Habitat	Total Acres
<b>BLM Total</b>	<b>7,266,502</b>	<b>1,993,711</b>	<b>3,469,923</b>	<b>12,730,136</b>
<b>BLM – Idaho</b>	6,811,269	1,749,965	2,982,419	11,543,653
Bruneau Field Office	1,000,975	184,738	262,883	1,448,596
Burley Field Office	422,038	206,232	206,665	834,935
Challis Field Office	635,561	84,386	72,920	792,867
Four Rivers Field Office	162,179	190,816	901,410	1,254,405
Jarbridge Field Office	765,096	251,971	305,140	1,322,207
Owyhee Field Office	794,635	242,740	222,505	1,259,880
Pocatello Field Office	233,651	87,506	278,785	599,942
Salmon Field Office	311,068	51,666	131,220	493,954
Shoshone Field Office	1,092,382	262,015	368,782	1,723,179
Upper Snake Field Office	1,393,684	187,895	232,109	1,813,688
<b>BLM – Montana</b>	455,233	243,746	487,504	1,186,483
Butte Field Office <sup>1</sup>	0	25,497	274,062	299,559
Dillon Field Office	455,233	218,249	213,442	886,924
<b>Forest Service Total</b>	963,016	897,476	12,027,664	13,887,758
<b>Forest Service - Idaho</b>	800,412	661,830	9,631,958	11,094,200
Sawtooth National Forest	281,887	212,366	1,605,803	2,100,056
Boise National Forest	21,371	53,728	2,131,461	2,206,560
Caribou-Targhee National Forest	148,636	187,053	2,223,553	2,559,242
Salmon-Challis National Forest	348,518	208,683	3,671,141	4,228,342
<b>Forest Service - Montana</b>	162,604	235,646	2,395,706	2,793,558
Beaverhead-Deerlodge National Forest	162,604	235,646	2,395,706	2,793,558
<b>US Fish and Wildlife Service</b>	35,244	3,648	21,433	60,325
<b>National Park Service</b>	27,334	222,701	420,379	670,414
<b>Department of Energy</b>	378,042	182,455	1,672	562,169
<b>Department of Defense</b>	11,148	37,714	81,014	129,876
<b>Bureau of Reclamation</b>	3,171	22,729	217,720	243,620
<b>Bureau of Indian Affairs</b>	60,635	29,161	273,926	363,722
<b>Indian Tribe</b>	143,949	10,672	188,991	343,612
<b>Idaho State</b>	642,411	368,186	802,820	1,813,417
<b>Montana State</b>	221,665	167,455	431,995	821,115
<b>Private</b>	2,137,373	2,235,327	12,762,174	17,134,874
<b>Other</b>	55,621	29,564	280,985	366,170
<b>Total Acres:</b>	<b>11,946,111</b>	<b>6,200,799</b>	<b>30,980,696</b>	<b>49,127,208</b>

Source: BLM 2013a; Forest Service 2013a

<sup>1</sup> Butte Field Office-administered lands are not included as part of the analysis in this LUPA/EIS except as required in the cumulative effects analysis.

into the context of the larger WAFWA management zones. The BER examines each threat identified in USFWS' listing decision published on March 15, 2010. For each threat, the report summarizes the current scientific understanding of various impacts on GRSG populations and habitats. When available, patterns, thresholds, indicators, metrics, and measured responses that quantify the impacts of each specific threat are reported. Data from the BER are presented throughout this chapter to illuminate the location (e.g., PPH and PGH), magnitude, and extent of the threats within each WAFWA management zone that comprises the planning area.

Because the BER focuses on threats to GRSG at the WAFWA management zone (or range-wide) scale, it provides biologically meaningful data for larger-scale analyses, such as the cumulative effects analysis for GRSG in **Chapter 4**.

**Chapter 3** also presents data that are available at a finer scale than used in the BER's larger-scale, WAFWA management zone focus. These fine-scale, local data are incorporated into the affected environment discussion to complement the BER's biologically meaningful data, characterize the relative contributions of threats in the planning area versus the WAFWA management zones, and to set the stage for the cumulative effects analysis for GRSG (**Chapter 4**). However, it should be noted that the tables presented in the Regional Context discussions of each Chapter 3 resource and resource use discussion are from the BER (Manier et al. 2013) and extend outside of the planning area to WAFWA management zone boundaries. Those tables present information for the WAFWA management zones that would be affected by the [decisions made/direction provided](#) in this sub-regional EIS.

### 3.1.1 Organization of Chapter 3

Certain types of resources that may be present in the LUPA planning area, such as cave and karst resources, are not addressed in this LUPA because issues relating to the management of these resources were not identified during scoping by the public, or by the BLM or Forest Service as relevant to GRSG, or they are not included in the planning area (e.g., coal). Information from broad-scale assessments was used to help set the context for the planning area. The information and direction for BLM and Forest Service resources and resource uses has been further broken down into fine-scale assessments and information. The level of information presented in this chapter is commensurate with and sufficient to assess potential effects discussed in **Chapter 4**, based on the alternatives presented in **Chapter 2**.

The following resources and resource uses are specifically addressed in **Chapter 3** and **Chapter 4**, of the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS.

- Greater Sage-Grouse
- Vegetation (including noxious weeds; riparian and wetlands)
- Fish and wildlife
- Other special status species
- Wild horse and burro management

- Wildland fire ecology and management
- Livestock grazing
- Recreation
- Travel management
- Lands and realty
- Minerals
  - Leasable minerals
  - Locatable minerals
  - Salable minerals
  - Nonenergy leasable minerals
- Special Designations
  - Designated Wilderness/Wilderness Study Areas
  - Areas of Critical Environmental Concern
  - Research Natural Areas
  - Other special designations
- Soil resources
- Water resources
- Cultural resources and tribal interests
- Visual resources
- Lands with wilderness characteristics
- Air quality and climate change
- Social and economic conditions (including environmental justice)

Each resource section in this chapter contains a discussion of existing conditions, including trends.

- Existing conditions describe the location, extent, and current condition of the resource in the planning area in general, on BLM-administered and Forest Service-administered lands. Conditions for a resource can vary, depending on the resource. The Idaho and Southwestern Montana Sub-Region planning area contains 18,147,500 acres, regardless of land status. Within the Idaho and Southwestern Montana Sub-Region planning area, there are 15,260,200 acres of BLM-administered lands and 1,861,100 acres of Forest Service-administered lands that are managed according to the BLM and Forest Service plans being

amended by this LUPA/EIS. For each resource, a general description of the existing conditions is provided for the Idaho and Southwestern Montana Sub-Region planning area, regardless of land status. This is done to provide a regional context for the resource. More detailed discussion of the existing conditions on various scales may be provided depending on the resource topic. This is done to provide an area-specific description of the existing conditions for the resource. When possible, greater emphasis is placed on describing the existing conditions of the resource as it pertains to GRSG and their habitat.

- **Trends** identify the degree and direction of resource change between the present and some point in the past. Not all resource topics will have trends. For example, soil resources may not undergo notable resource change. If there is change, the degree and direction of resource change is characterized as moving toward or away from the current desired conditions, and the reasons for the change are identified. Trends can also be described in quantitative or qualitative terms. Identifying the trends is done to provide an understanding of how BLM and Forest Service management influences the desired condition of the resource over time. It can be difficult to analyze trends for certain resources, because changes to the resource often occur due to factors beyond the control of the BLM and Forest Service. For those resource topics that can be affected by climate change, a discussion of the effects from climate change on the resource is provided.

The BLM and Forest Service reviewed the LUPs being amended under this LUPA/EIS and other relevant information sources (such as other LUPAs, maps, and state GRSG conservation assessments) for existing conditions and trends for the resources listed above with respect to GRSG and their habitat. This affected environment information is summarized below and, where appropriate, noted when the information is incorporated by reference.

Acreage figures and other numbers used are approximate projections; readers should not infer that they reflect exact measurements or precise calculations. Acreages were calculated using Geographic Information Systems (GIS) technology, and there may be slight variations in total acres between resources.

## 3.2 Special Status Species – Greater Sage-Grouse

### 3.2.1 Conditions within the Planning Area

In 2006, the WAFWA used floristic characteristics to organize the diverse sagebrush habitat areas into seven GRSG management zones within the species' distribution (Stiver et al. 2006). The Idaho and Southwestern Montana Sub-Region contains portions of 2 of the 7 zones (MZs II and IV) (**Figure 3-1, ~~Western United States WAFWA Zones~~Western United States WAFWA Zones**). The vast majority of the Idaho and Southwestern Montana Sub-Region lies within WAFWA's GRSG MZ IV (Stiver et al. 2006); a small portion of southeastern Idaho occurs within MZ II and is associated with the Wyoming Basin population. Populations of GRSG in MZ IV are projected to decline by 55 percent from

Idaho and Southwestern Montana  
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2007 to 2037 and by 66 percent in MZ II if current trends in populations and habitat activities continue (USFWS 2010a; Garton et al. 2011).

*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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Figure 3-1 Western United States WAFWA Zones



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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Within the sub-region, GRSG occupy all or portions of ten populations and eight subpopulations described in Connelly et al. (2004). Two large populations (Great Basin Core and Wyoming Basin) encompass portions of Oregon, Nevada, Utah, and Wyoming that extend beyond the sub-regional boundary.

Population estimates are not available for all GRSG populations due to limited data in some areas; however, Garton et al. (2011) estimated a minimum male GRSG population in 2007 of 9,114 for the Northern Great Basin population (analogous to the Great Basin Core population and inclusive of habitats in Idaho and associated portions of Nevada, Oregon, and Utah), and 5,457 for the Snake-Salmon-Beaverhead population. Estimates for the Bannack and Red Rocks Montana populations were 304 and 448 males, respectively. GRSG in southwestern Montana are migratory, moving between separate summer and winter areas. Migratory movements of GRSG also have been documented between eastern Idaho and southwestern Montana from the Bannack and Red Rock populations. Telemetry data from 1999 to 2012 show that seasonal movements (including both distance and duration) vary significantly between groups of GRSG.

***Availability of Sagebrush Habitat (Mid-Scale Indicator)***

The distribution of GRSG is closely aligned with the distribution of sagebrush-dominated landscapes (Schroeder et al. 2004). Occupancy by GRSG is strongly associated with measures of sagebrush abundance and distribution. Sagebrush area was the single best discriminator between occupied and extirpated ranges among 22 variables evaluated by Wisdom et al. (2011). In the sub-region, large expanses of sagebrush still occur in portions of southwestern and south-central Idaho, in association with the Northern Great Basin population shared with Nevada, Oregon, and Utah, as well as in portions of the Snake-Salmon-Beaverhead population north of the Snake River.

In 2012, the BLM completed the range-wide delineation of PPH and PGH in cooperation with respective state wildlife agencies (see **Figure 1-4**). The BLM national office Instruction Memorandum 2012-043 defined PPH as GRSG habitat having the highest conservation value to maintaining sustainable GRSG populations. PGH includes areas of occupied seasonal or year-round habitat outside of priority habitat.

At finer scales, PPH and PGH encompass areas of intact sagebrush suitable for GRSG habitat needs as well as areas of conifer encroachment and perennial grass-dominated areas, generally occupied by GRSG or potentially suitable for future restoration.

In Idaho, PPH and PGH were identified by the BLM and Forest Service based on a model incorporating GRSG breeding bird density and lek connectivity models, informed with additional ancillary broad-scale habitat data, seasonal habitat maps, connectivity information/expert opinion, population persistence model, local priority areas, and agriculture/conifer filters (Makela and Major 2012).

In general, GRSG habitats in Idaho and the portion of the Sawtooth National Forest in northern Utah are composed of a variety of species and subspecies of sagebrush, including mountain big sagebrush, Wyoming big sagebrush, Great Basin big sagebrush, low sagebrush,



black sagebrush, three-tip sagebrush, and early sagebrush. Conifer encroachment into GRSG habitats, mainly from Utah juniper and western juniper, occurs primarily in south-central and southwestern Idaho and in northern Utah, although encroachment of Douglas-fir and other conifers also occurs at higher elevations. Large areas of native, introduced, or mixed native/introduced perennial grasslands as well as annual grasslands are also present in portions of the Snake River Plain in southern Idaho as a result of recent wildfires and associated rehabilitative efforts or from other rangeland seeding efforts during the 20<sup>th</sup> century.

In Montana, PPH was delineated based on MFWP prior modeling of GRSG Core Areas using a lek-centric model based on male lek attendance and refined with seasonal habitat, telemetry, connectivity information, and field review. Documentation for the Montana Core area analysis is summarized at:

[http://www.mt.nrcs.usda.gov/technical/ecs/biology/sagegrouse/sagegrouse\\_attachments/appendix1.html](http://www.mt.nrcs.usda.gov/technical/ecs/biology/sagegrouse/sagegrouse_strategy_attachments/appendix1.html).

Montana PGH was mapped based on the Schroeder et al. (2004) GRSG distribution map.

Sagebrush steppe habitat across southwest Montana consists of diverse species and multiple successional stages, providing for all life stages. Species or subspecies composition consists primarily of mountain big sagebrush, Wyoming big sagebrush, three-tip sagebrush, basin big sagebrush, and low sagebrush, as well as multiple other species at lower densities. These occur in mixed as well as pure stands throughout southwestern Montana. Tilling and aerial spraying over 12,000 acres in the 1960s and early 1970s (about 1 percent of BLM-administered lands in the Dillon Field Office) reduced sagebrush canopy on large areas of BLM-administered, mostly in the area inhabited by the Bannack Population. These areas were reseeded with nonnative herbaceous species that further altered natural communities. Sagebrush canopy has recovered, but the herbaceous understory composition is a mix of native species and nonnative wheat grasses. Large areas of sagebrush in the Dillon Field Office appear to provide suitable habitat for GRSG but are unoccupied.

To facilitate analysis for the Idaho and Southwestern Montana LUPA/EIS, the GRSG population areas were clipped to the Idaho and Southwestern Montana Sub-regional boundary to eliminate portions occurring outside the sub-region. Boundaries were then adjusted to encompass associated PPH and PGH. Small populations within southwestern Montana were combined into a single analysis area and, in portions of Idaho, some subpopulations were delineated separately or grouped due to similarities in threats or geography. The resulting population areas, used in the analysis below, reflect discrete geographic portions of the sub-region.

Based on GIS analysis, there are approximately 18,114,000 acres of PPH and PGH, inclusive of all landownerships, in the sub-regional analysis area (**Table 3-2, [Acres of GRSG Habitat by Population Area within the Idaho and Southwestern Montana Planning Area](#)**~~Acres of GRSG Habitat by Population Area within the Idaho and Southwestern Montana Planning Area~~). This is inclusive of habitats in Idaho, southwestern Montana, and a small portion of

northern

Utah

**Table 3-2**  
**Acres of GRSG Habitat by Population Area within the Idaho and Southwestern Montana Planning Area**

GRSG Population Area and Landownership	Acres of Habitat		
	PPH Acres	PGH Acres	Total Acres
<b>East-Central Idaho</b>	<b>141,500</b>	<b>448,400</b>	<b>589,900</b>
All Other	129,200	380,800	510,100
BLM	12,300	23,500	35,800
Forest Service	0	44,100	44,100
<b>Mountain Valleys</b>	<b>3,170,600</b>	<b>853,700</b>	<b>4,024,300</b>
All Other	814,900	315,100	1,130,000
BLM	1,876,900	197,900	2,074,800
Forest Service	478,800	340,600	819,500
<b>SW Montana</b>	<b>1,368,700</b>	<b>1,667,600</b>	<b>3,036,300</b>
All Other	739,200	1,181,400	1,920,600
BLM	458,700	243,800	702,500
Forest Service	170,800	242,400	413,200
<b>North Side Snake</b>	<b>2,494,500</b>	<b>1,314,700</b>	<b>3,809,200</b>
All Other	787,900	738,200	1,526,100
BLM	1,677,800	493,800	2,171,600
Forest Service	28,800	82,700	111,500
<b>Southwest Idaho</b>	<b>2,294,500</b>	<b>550,100</b>	<b>2,844,600</b>
All Other	498,400	122,500	620,900
BLM	1,796,100	427,700	2,223,700
Forest Service	0	0	0
<b>South Side Snake</b>	<b>2,081,000</b>	<b>921,100</b>	<b>3,002,100</b>
All Other	443,000	285,000	728,000
BLM	1,323,700	466,400	1,790,100
Forest Service	314,300	169,700	483,900
<b>Sawtooth</b>	<b>0</b>	<b>37,600</b>	<b>37,600</b>
All Other	0	16,200	16,200
Forest Service	0	21,400	21,400
<b>Bear Lake</b>	<b>118,700</b>	<b>41,300</b>	<b>160,000</b>
All Other	73,500	36,000	109,500
BLM	43,500	4,690	48,200
Forest Service	1,620	610	2,240
<b>Weiser</b>	<b>262,200</b>	<b>347,900</b>	<b>610,100</b>
All Other	184,900	211,900	396,900
BLM	77,200	135,000	212,200
Forest Service	0	970	970
<b>Total Acres</b>	<b>11,931,700</b>	<b>6,182,300</b>	<b>18,114,000</b>

**Table 3-2**  
**Acres of GRSG Habitat by Population Area within the Idaho and Southwestern Montana Planning Area**

Acres of Habitat by Ownership Totals	Habitat		
	Priority	General	Total Acres of Habitat
<b>All Other</b>	<b>3,671,100</b>	<b>3,288,300</b>	<b>6,959,400</b>
<b>BLM</b>	<b>7,266,500</b>	<b>1,993,600</b>	<b>9,260,100</b>
<b>Forest Service</b>	<b>994,400</b>	<b>904,500</b>	<b>1,898,900</b>
<b>Total Acres of Habitat</b>	<b>11,931,900</b>	<b>6,186,400</b>	<b>18,118,300</b>

Source: BLM 2013a; Forest Service 2013a

administered by the Sawtooth National Forest. The BLM administers approximately 61 percent of PPH and 32 percent of PGH within the decision area. The Forest Service administers approximately 8 percent of PPH and 15 percent of PGH.

In addition, the USFWS has identified PACs in their 2013 COT report (USFWS 2013). The overlap between the USFWS PACs and the GRSG Population Areas presented in **Table 3-2** is shown in **Table 3-3**, Acres of GRSG Population Areas within PACs.

**Table 3-3**  
**Acres of GRSG Population Areas within PACs**

GRSG Population Area	Within PAC (acres) <sup>1</sup>	Outside PAC (acres) <sup>1</sup>
<b>East-Central Idaho</b>	<b>0</b>	<b>80,200</b>
BLM	0	35,800
Forest Service	0	44,400
<b>Mountain Valleys</b>	<b>2,343,000</b>	<b>577,100</b>
BLM	1,893,900	191,500
Forest Service	449,100	385,600
<b>SW Montana</b>	<b>629,800</b>	<b>485,900</b>
BLM	458,700	243,800
Forest Service	171,100	242,100
<b>North Side Snake</b>	<b>1,295,400</b>	<b>1,011,800</b>
BLM	1,267,100	928,500
Forest Service	28,300	83,300
<b>Southwest Idaho</b>	<b>1,859,900</b>	<b>521,300</b>
BLM	1,589,900	521,300
Forest Service	0	0
<b>South Side Snake</b>	<b>1,458,400</b>	<b>859,700</b>
BLM	1,193,000	655,500
Forest Service	295,200	220,700
<b>Sawtooth</b>	<b>0</b>	<b>21,400</b>
BLM	0	0
Forest Service	0	21,400

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**Table 3-3  
Acres of GRSG Population Areas within PACs**

GRSG Population Area	Within PAC (acres) <sup>1</sup>	Outside PAC (acres) <sup>1</sup>
<b>Bear Lake</b>	<b>42,600</b>	<b>7,810</b>
BLM	41,300	6,870
Forest Service	1,300	940
<b>Weiser</b>	<b>0</b>	<b>216,900</b>
BLM	0	215,900
Forest Service	0	970
<b>Outside Population Area</b>	<b>25,700</b>	<b>18,759,200</b>
BLM	19,800	3,187,900
Forest Service	5,880	15,573,800
<b>Total</b>	<b>7,414,600</b>	<b>22,560,300</b>
BLM	6,463,700	5,987,100
Forest Service	950,900	16,573,200

Source: BLM 2013a; Forest Service 2013a

<sup>1</sup>Totals may not add up exactly due to rounding convention

### **Predation**

The GRSG is potential prey to a variety of predator species, such as the golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), common raven (*Corvus corax*), American badger (*Taxidea taxus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), weasels (*Mustela* spp.), and others (Schroeder et al. 1999; Coates 2007), but none of these species prey especially upon GRSG (Hagen 2011). Adults are susceptible to predation while on leks or nests, and eggs are vulnerable as well (Schroeder et al. 1999; Coates 2007; Hagen 2011). Predation is the most commonly identified cause of direct mortality for GRSG during all life stages (Connelly et al. 2011; USFWS 2010a citing others), but studies suggest that predation is not limiting populations (Hagen 2011). As a result, there is little scientific support for predator management over broad geographic or temporal scales (Hagen 2011).

Information on the numbers of GRSG taken by specific predators is not readily available; however, some studies report overall predation rates on age-classes, sex, and nests. Connelly et al. (2000), in a review of long-term data, reported 83 percent of male GRSG deaths and 52 percent of female deaths were attributed to predation. Gregg et al. (2007), cited in USFWS (2010a), reported mortality of GRSG chicks from predation during the first few weeks after hatching was 82 percent. Coates and Delehanty (2010) monitored 87 GRSG nests, and 42.5 percent were preyed upon. Of these nests, an increase of 1 raven per 10 km (3.86 mi) of survey transect monitored was associated with a 7.5 percent increase in the odds of nest failure. Coates (2007) documented predation at 17 GRSG nests; ravens accounted for 10 nests (59 percent) and badgers 7 nests (41 percent).

In areas where habitat is not limited and of good quality, predation is not a threat to the persistence of the species (USFWS 2010a). However, predation may limit population growth in fragmented habitats or areas where predator populations have supplemental food sources,



such as where landfills or other human factors attract and concentrate scavengers (Coates 2007), or where electrical transmission or other human-made structures facilitate nesting and perching by avian predators such as ravens (Howe 2012; Hagen 2011).

As land-management agencies, the primary role of the BLM and Forest Service is the management of habitats, land uses, and associated authorizations. Therefore, the reduction of predator effects on GRSG in this conservation strategy is best accomplished through the appropriate management, improvement, or restoration of sagebrush habitats and the siting and design of human-made structures in a way that eliminates or reduces risk from predators that may utilize them to their advantage. Direct predator control would occur under the purview of the states of Idaho and Montana and the USDA APHIS Wildlife Services, in cooperation with the USFWS.

### 3.2.2 Habitat Conditions and Trends

The general condition and trend of habitats on BLM- and Forest Service-administered lands varies by geographic area within the sub-region and is a result of various threats that are currently occurring or that have occurred historically.

In Idaho, threats to GRSG were ranked by an independent science panel and addressed in the *Conservation Plan for the Greater Sage-grouse in Idaho* (Idaho Sage-grouse Advisory Committee 2006). Highest ranking threats, in order of relative score, included wildfire, infrastructure, annual grasslands, livestock impacts, human disturbance, and West Nile virus. Additional habitat-associated threats of concern in portions of southern Idaho included conifer encroachment, seeded perennial grasslands, sagebrush control, urban and exurban development, and mines, landfills and gravel pits. In 2012, the Idaho Governor's Sage-Grouse Task force reiterated concerns about wildfire, invasive species and infrastructure, as well as recreation, improper livestock grazing and West Nile virus (Idaho Governor's Sage-grouse Task Force 2012). Landscape conditions and trend of BLM-administered and Forest Service-administered lands in the sub-region are summarized in **Table 3-4, [Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area](#)**~~Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area.~~

### 3.2.3 Regional Context

As stated above, the majority of the Idaho and Southwestern Montana planning area is within Management Zone IV; a small portion in the southeast is within MZ II.

#### ***Management Zone IV (Snake River Plain Management Zone)***

Management Zone IV covers nearly all of Idaho's GRSG habitat, with the majority of occupied habitat within the Northern Great Basin (South Side Snake) and Snake River Plain population areas (Mountain Valleys, North Side Snake, and Southwest Idaho), as well as southwestern Montana, on both BLM-administered and Forest Service-administered lands. MZ IV also includes eastern Oregon and northern Nevada, and the Box Elder population in Utah, outside the planning area. This area supports the largest population of GRSG outside

**Table 3-4**  
**Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
<b>East-Central Idaho</b>	<p>96% of habitat overall is 10 to 30% sagebrush cover.</p> <p>Habitat proportion in the 10 to 30% cover range by species or subspecies is as follows:</p> <p>Low Sagebrush 0%</p> <p>Mountain Big Sagebrush 97%</p> <p>Wyoming Big Sagebrush 92%</p>	<p>The BLM administers a small portion of the lands, which are isolated/patchy areas of sagebrush associated with mountain sides or valleys.</p>	<p>Primarily dominated by Wyoming sagebrush with mountain sagebrush in some of the higher elevations; bulbous bluegrass and crested wheatgrass present in understory at many of the lower elevation sites; many of the higher elevation sites have more native understory. Disturbance to the sagebrush canopy varies by site, with some sites having mature sagebrush and others having been burned in the last 10 years. In these burned areas, there is little sagebrush cover present.</p>	<p>Conversion of Conservation Reserve Program lands on private lands</p> <p>Human disturbance</p> <p>Infrastructure</p> <p>Isolated populations</p> <p>Lack of (or limited) information and data on GRSG</p> <p>Urban expansion and development.</p>
<b>Mountain Valleys (Idaho)</b>	<p>Northern valleys portion (e.g., Big Lost/, Little Lost/Pahsimeroi, Birch/Lemhi):</p> <p>99% of habitat overall is 10 to 30% sagebrush cover, of mixed species or subspecies.</p>	<p>Sagebrush habitats at both lower and higher elevations are generally intact and at lower risk of invasive species and wildfire. In the northern portion (e.g., Challis, Salmon Field Offices), understories of</p>	<p>Higher elevation lands are typically more resilient, and generally intact.</p> <p>Sagebrush habitats are generally composed of mountain big sagebrush and low sagebrush. Understories</p>	<p>Infrastructure development, mainly transmission, poses as risk. Habitats in the Challis/Salmon portion also tend to be more linear in configuration due to the orientation of associated mountain ranges and</p>

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
	<p>Sand Creek portion: 93% of habitat overall is 10 to 30% sagebrush cover, of mixed species or subspecies.</p>	<p>Wyoming big sagebrush habitats have shifted in some areas to predominance by Sandberg's bluegrass in past decades. Population growth is static in the absence of restoration seeding efforts. Higher elevation areas are generally intact, though these areas may be at risk of encroachment by Douglas-fir.</p> <p>In the eastern portion (Upper Snake area), mountain big sagebrush may be exceeding desired densities in some areas, although there is also concern to retain sagebrush due to losses elsewhere.</p> <p>In the western portion (Weiser area), there is a relatively isolated GRSG population facing threats from rapid exurban expansion, interest in gas</p>	<p>are generally intact and include native grasses and forbs. These areas are resilient following to disturbance and resistant to annual grass invasion. Fire is less frequent than southern Idaho and is not a significant threat at this time.</p>	<p>valleys. Impacts from infrastructure development, roads, and other surface disturbing activities could be more concentrated as a result.</p>

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRS Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
<p><b>SW Montana</b> (BLM Dillon Field Office and Beaverhead National Forest)</p>	<p>98% of habitat overall is 10 to 30% sagebrush cover of mixed species or subspecies.</p>	<p>and geothermal development, and wildfire.</p> <p>High and low elevation sagebrush habitats are largely intact and at low risk of wildfire and invasive species. Diverse habitat conditions are present and are widely interspersed across various ownerships. In the southwest portion of the field office, Wyoming big and mountain big sagebrush habitats were tilled, sprayed, and or seeded with nonnative wheat grasses in the 1960s and 1970s. Sagebrush canopy has recovered but the herbaceous understory composition is a mix of native species and nonnative wheat grasses.</p> <p>There has been little disturbance in sagebrush canopy cover in the last 40 years within the field office.</p>	<p>High and low elevation sagebrush habitats are largely intact and at low risk of wildfire and invasive species. Some habitat conversion has occurred on Forest Service-administered lands but on a smaller scale. Likewise sagebrush canopy cover has recovered but the herbaceous understory composition is a mix of native species and nonnative wheat grasses.</p> <p>There has been little disturbance in sagebrush canopy cover in the last 40 years. Some loss of high elevation mountain big sagebrush habitat due to Douglas-Fir colonization occurring across all federal ownerships in southwestern Montana.</p>	<p>Wildfire (Acres lost to wildfire in the past 50 years has been minimal, but the threat is ever present.)</p> <p>Invasive plant species such as spotted knapweed, leafy spurge, hounds tongue, and some cheatgrass present a risk primarily along travel corridors.</p> <p>Conifer colonization in to sagebrush steppe habitat (primarily Douglas-fir) is a threat.</p> <p>Infrastructure/ human disturbances (fences, roads, power lines, pipelines) as well as improper grazing, habitat conversion for agricultural needs on private lands, and energy/mineral exploration and development also pose a</p>



**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSB Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
		<p>Some loss of high elevation mountain big sagebrush habitat due to Douglas-fir colonization.</p> <p>Prescribed fire treatments in the past ten years have targeted Douglas-fir colonization to restore high elevation mountain big sagebrush habitats and create a mosaic of seral conditions.</p> <p>Overall riparian and upland habitat conditions are improving due to changes in livestock management in the past ten years.</p>	<p>Reduction in livestock over the last 10 to 15 years has also improved habitat conditions.</p>	<p>threat to habitat.</p>
<p><b>North Side Snake</b></p>	<p>74% of habitat overall is 10-30% sagebrush cover.</p> <p>Habitat proportion in the 10-30% cover range by species or subspecies is as follows: Low Sagebrush 100%</p>	<p>Substantial portions of the Big Desert and Minidoka Desert areas have burned in the past two decades due to large scale, fast-moving wildfires. Some large areas of sagebrush still exist in the western and northern portions but are at risk of</p>	<p>N/A. Minimal Forest Service-administered lands involved.</p>	<p>Wildfire poses a significant risk to all habitats in the area.</p> <p>Cheatgrass in lower elevation habitats is at risk of advancing or proliferating following wildfire.</p>

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
	Mountain Big Sagebrush 86%  Wyoming Big Sagebrush 59%	wildfire.  Most Wyoming big sagebrush habitats are at risk of cheatgrass expansion.  The trend is for continued rapid loss of large acreages of sagebrush and recent restoration efforts due to continuing wildfires.		Infrastructure development, mainly from proposed transmission lines poses a risk, generally near the fringe of PPH and PGH.  There is some potential for geothermal development in portions of the Shoshone Field Office.
<b>Southwest Idaho</b>	56% of habitat overall is 10-30% sagebrush cover.  Habitat proportion in the 10-30% cover range by species or subspecies is as follows: Low Sagebrush 84%  Mountain Big Sagebrush 64%  Wyoming Big Sagebrush 44%	Large, intact areas of native sagebrush are present, and contiguous with Nevada and Oregon  Relatively low level of infrastructure development constitutes the largest remaining intact sagebrush area in the sub-region.  Trend is that wildfires continue to impact sagebrush acreage but at a smaller scale and frequency than other areas. Juniper	N/A	Wildfire  Juniper encroachment in the western portion  Invasive species (cheatgrass, mainly)  Infrastructure associated with proposed new transmission lines.  Potential for wind energy development in higher elevations such as the Owyhee Mountains.

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**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSB Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
		control efforts by BLM and others likely are not keeping pace with expansion.		Potential for geothermal energy development in the Bruneau Field Office.
<p><b>South Side Snake</b> (Includes the Sawtooth National Forest portion in Utah)</p>	<p>55% habitat overall is 10 to 30% sagebrush cover.</p> <p>Habitat proportion in the 10 to 30% cover range by species/ subspecies is as follows:</p> <p>Low Sagebrush 64%</p> <p>Mountain Big Sagebrush 55%</p> <p>Wyoming Big Sagebrush 55%</p>	<p>Lower elevation, drier Wyoming big sagebrush habitats are fragmented heavily in many areas due to frequent large wildfires.</p> <p>Cheatgrass poses a risk in the lowest elevations.</p> <p>Higher elevation, mountain big sagebrush sites are generally in good condition.</p> <p>Portions contain large perennial grasslands pending recovery of sagebrush.</p> <p>Trend is toward continuing, rapid loss of sagebrush at relatively large scales in the western portion due to wildfire.</p>	<p>Habitats are higher elevation mountain big sagebrush, in relatively good condition; however, they are smaller, fragmented fringes of sagebrush with steeper slopes interspersed between other habitat types.</p> <p>High to moderate risk of near term infrastructure development due to interest in wind energy.</p> <p>Trend in habitat condition (sagebrush) is relatively stable due to lower frequency and smaller scales of wildfires. Conifer encroachment (Utah juniper, mainly) in portions of southern Idaho and northern Utah.</p>	<p>Wildfire poses a substantial threat. Significant acreages within the Jarbidge Field Office, in particular, have burned in the past two decades.</p> <p>High interest in wind development on higher elevation BLM-administered and Forest Service-administered lands (e.g., Cotterel, South Hills, S. Twin Falls County, and Pocatello/American Falls).</p> <p>Urban expansion; potential for oil/gas development in the Bear Lake Plateau.</p> <p>Conifer encroachment, mainly Utah juniper, in the Burley Field Office and Utah portion of Sawtooth</p>

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
		Conifer encroachment (primarily Utah juniper) into sagebrush communities is of concern in the southern portion.		National Forest.  Cheatgrass expansion in lower elevations (i.e., Wyoming big sagebrush).
<b>Sawtooth</b>	98% of habitat overall is 10 to 30% sagebrush cover of mixed species or subspecies.	N/A	Habitat is primarily higher elevation mountain big sagebrush, generally relatively good condition in the Sawtooth Valley/ headwaters of the Salmon River. Includes smaller areas of noxious weeds and/or low diversity of native forbs diversity. Long term trend in areas is downward due to encroachment by Douglas-fir and lodgepole pine.  Sawtooth National Forest personnel occasionally observe GRSG. Last documented observation in fall 2010.	Little recent information available on the population, which is apparently isolated from other populations. Last documentation of lek attendance was of 2 male GRSG in 1993 at 1 of the 3 known leks.  Conifer encroachment (Douglas-fir, lodgepole pine).  Potential concerns with domestic sheep grazing and native forb diversity.  Noxious and invasive weeds.

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
<b>Bear Lake (Idaho portion)</b>	99% of habitat overall is 10 to 30% sagebrush cover, of mixed species or subspecies.	Relatively small area of southeastern Idaho; Sagebrush is largely intact in many areas. Patchy landownership.	The Forest Service administers a limited amount of sagebrush habitat in the Idaho portion of the Bear Lake population area, totaling about 1,391 acres. The majority (1,037 acres) is over 30% canopy cover; the remainder is 10 to 30%.  Wyoming sagebrush transitions to mountain big sagebrush at higher elevations. Sagebrush communities are largely intact with little to moderate amounts of cheatgrass in understory.	Some potential for oil/gas development; urban expansion, infrastructure
<b>Weiser</b>	72% of habitat overall is 10 to 30% sagebrush cover.  Habitat proportion in the 10 to 30% cover range by species or subspecies is as follows:  Low Sagebrush 78%	Sagebrush is largely intact in portions. There are some annual and perennial grasslands in the periphery due to wildfires. Landownership is patchy.	N/A	Exurban development, infrastructure, wildfire; invasive annual grasses

**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSB Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
	Mountain Big Sagebrush 71%			
	Wyoming Big Sagebrush 71%			
<b>Butte Field Office</b> This area of BLM-administered land is within the sub-regional boundary but Land Use Plans are not being amended.	Not modeled	Historically, the species was present but breeding has not been documented since 1992. Habitat (sagebrush stands) is widely dispersed and separated, lacking the expansiveness or landscape extent needed for GRSB.  The Big Belts are an isolated mountain range on the east side of the Missouri River adjacent to Canyon Ferry reservoir. Foothills are drier with scattered Rocky Mountain juniper and limber pine and a variety of shrubs on some sites. At the lowest elevations the habitat is dominated by grasslands and scattered big sagebrush.	Timber harvest has occurred throughout this area, particularly on the north end. There are high road densities in some locations.  Fire suppression has led to an increase in forest density and high insect populations as well as colonization of shrublands by juniper and Douglas-fir.  The area is dominated by livestock grazing.  Many private ranches have sold and subdivided their land.	Habitat fragmentation from urban development and roads.  Wildfire  Douglas-fir and juniper colonization of sagebrush stands.  Invasive species (mainly Dalmatian toadflax, spotted knapweed, and leafy spurge)  Livestock grazing  Fences  Potential oil and gas development from Birch Creek to Deep Creek, in the Mount Baldy area and the

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**Table 3-4  
Habitat Conditions, Trends and Primary Threats to GRSG Habitat in the Idaho and Southwestern Montana Planning Area**

Population Area	Existing Condition Based on Modeled Vegetation <sup>a</sup>	Landscape Conditions and Trends on BLM-Administered Lands	Landscape Conditions and Trends on Forest Service-Administered Lands	Primary Threats <sup>a</sup>
		Many of these habitats have been converted to dry land grain production and irrigated cropland		Horseshoe Hills.

Source: Idaho Sage-grouse Advisory Committee 2006; Idaho Governor's Sage-grouse Task Force 2012; Montana Sage-Grouse Work Group 2005; BLM 2006

of the Wyoming Basin and has high connectivity between populations, though small populations such as Weiser and East-Central Idaho are at risk of fragmentation (USFWS 2013). This MZ population is moderately vulnerable, with a 10.5 percent chance of falling below 200 males by 2037 (Garton et al. 2011). The area has a long history of agricultural land use, which has left the residual sagebrush ecosystem drier than the historical condition (Manier et al. 2013). Across this MZ, 63 percent of land is federally managed. Primary threats include wildfire, infrastructure development, and invasive weeds (USFWS 2013). Fire risk is high across 81 percent of the region, and cheatgrass high risk areas are widespread (Manier et al. 2013). Though oil and gas development potential is low, geothermal energy potential is high along with development of utility infrastructure in designated corridors, such as Gateway West (Manier et al. 2013).

#### ***Management Zone II (Wyoming Basin Management Zone)***

Management Zone II in Idaho is located in the southeastern part of the state. It covers the portion of the Wyoming Basin (Bear Lake) population area within Idaho. The Wyoming Basin population area stretches into Colorado and Utah and has the highest abundance of GRSG relative to other management zones across GRSG range (more than 20,000 males), one of the largest areas of habitat, and the most highly connected GRSG lek network (USFWS 2013). Although long-term trends are slightly downward, populations in the Wyoming Basin are considered stable, with a 0.3 percent chance of declining below 200 males by 2037 (Garton et al. 2011). The northern portion of this MZ, including the Idaho portion, has high connectivity between habitats across the Wyoming Basin (Knick and Hanser 2011). Federal land comprises 54 percent of sagebrush habitat. The major threat to GRSG in this MZ is energy development, primarily oil and gas, in Wyoming (USFWS 2013). Impacts from infrastructure development, fire, cheatgrass spread, and improper grazing also pose threats in this region (Manier et al. 2013).

#### ***Population Metrics***

Several metrics are available that provide a relative index to GRSG populations (**Table 3-5, Occupied<sup>a</sup> Lek Metrics for GRSG Population Areas within the Idaho and Southwestern Montana Sub-Region**~~Occupied<sup>a</sup> Lek Metrics for GRSG Population Areas within the Idaho and Southwestern Montana Sub-Region~~). While population estimates for the sub-region or population areas are not currently available, the Idaho Department of Fish and Game, the Montana Department of Fish, Wildlife, and Parks, and the Utah Division of Wildlife Resources do compile monitoring data annually for hundreds of leks. Not all population areas are monitored or surveyed with the same intensity due to logistical, financial, meteorological, physical, or staffing constraints. Even so, the leks that are surveyed do provide useful information that can help provide additional context to the description of the environment. While **Table 3-5** provides a means of comparing the population areas, in some areas, lek data are very limited, and the information shown may be more a function of lower survey effort than of actual low numbers of males. Therefore, available habitat information and population indices must be considered in conservation planning for GRSG.

Two metrics that can be used to compare geographic areas are the number of occupied leks and the total maximum annual counts of males. Quantitative data are not available for





females across the analysis area as monitoring is confounded by their coloration and cryptic

**Table 3-5  
Occupied<sup>a</sup> Lek Metrics for GRSG Population Areas within the Idaho and Southwestern  
Montana Sub-Region**

Population Area	Number of Occupied Leaks	Proportion of Occupied Leaks Within the Sub-region	Average Number of Males Per Occupied Lek	Maximum Annual Total Count of Males and Proportion Relative to the Sub-Region
East-Central Idaho	12	1.3 %	6.7	92 (0.5%)
Mountain Valleys	169	18.7 %	18.6	5,125 (27.5%)
SW Montana (BLM Dillon Field Office and Beaverhead National Forest)	21	2.3 %	1.4	57 (0.3%)
North Side Snake	260	28.7 %	13.5	5,493 (29.4%)
Southwest Idaho	177	19.6 %	14.1	3,930 (21.1%)
South Side Snake (Includes the Sawtooth National Forest in Utah)	234	25.8 %	8.8	3,424 (18.3%)
Sawtooth	0	0 %	0	0 (0%)
Bear Lake	17	1.9 %	15.9	343 (1.8%)
Weiser	15	1.7 %	8.7	205 (1.1%)
<b>TOTAL</b>	<b>905</b>	<b>100%</b>	<b>12.9</b>	<b>18,884 (100%)</b>

<sup>a</sup>Occupied lek is defined as exhibiting at least 2 displaying males during at least one year during the 2007-2011 baseline period. Inclusive of all landownerships.

behavior. Occupied leks in this analysis are defined as those at which at least two male GRSG have been documented displaying in at least one breeding season from 2007 to 2011. A five-year timeframe was used since not all leks are surveyed each year due to logistical constraints; therefore, using a range of several years ensures a greater proportion of leks are considered in the analysis. IDFG also uses a five-year window in defining lek occupancy (IDFG 2012). However, population areas vary greatly in size, with some, such as the Southwest Idaho, South Snake, and North Snake, being quite large, while others, such as the Weiser, Sawtooth, and Bear Lake areas, are considerably smaller. Large areas may inherently harbor a larger number of leks and males by virtue of their scale, and smaller areas may have fewer leks or males.

Within the sub-region's population area, there were 905 occupied GRSG leks in 2011, inclusive of all landownerships, based on IDFG, MFWP, Utah Department of Wildlife

Resources (UDWR) and Wyoming Game and Fish Department data. Of the nine population areas in the sub-region, the Southwest Idaho, South Side Snake, and North Side Snake population areas encompassed the largest number of occupied leks, about 74 percent, in the sub-region. The total maximum annual count of males across all occupied leks within the nine population areas was 18,669. Population areas with the highest proportion of males at occupied leks, relative to the sub-region's total male count as a whole, included the North Side Snake (29.4 percent), Mountain Valleys (27.5 percent), and Southwest Idaho (21.1 percent). The Sawtooth (0.0 percent), Southwest Montana (0.3 percent), East-Central Idaho (0.5 percent), Weiser (1.1 percent), and Bear Lake (1.8 percent) harbored small proportions of the sub-region's total male count.

Another metric for comparing population areas is to calculate the average number of males per occupied lek. Average annual maximum number of males per occupied lek in the sub-region between 2007 and 2011 was 12.9. Population areas with the highest average maximum male attendance per lek were the Mountain Valleys (18.6), Bear Lake (15.9), and Southwest Idaho (14.1) population areas. The lowest average number of males per lek occurred in the Sawtooth (0.0), Southwest Montana (1.4), and East-Central Idaho (6.7) population areas. In the relatively isolated Sawtooth population area, GRSG have been observed by Forest Service personnel as recently as fall 2010 (Garwood 2013), but the last documented lek activity (2 males) at any of the three known leks was in 1993 (Idaho Department of Fish and Game 2012).

From both a regional and rangewide perspective, the South Side Snake and Southwest Idaho population areas are especially important to long-term conservation of GRSG in Management Zone IV. This is because they comprise a substantial portion of the Great Basin core population (Connelly et al. 2004), shared with Nevada, Utah, and Oregon, this is one of the two remaining major population strongholds in the range of the species. The North Side Snake and Mountain Valleys provide additional and substantial population contributions within Idaho. The latter also provides known connectivity with the Southwest Montana population area.

Several other population areas, albeit relatively less substantial in terms of certain population metrics, are nonetheless important to conservation. The Bear Lake, Southwest Montana, and Weiser population areas provide known or potential connectivity with GRSG in the adjacent states of Wyoming, Utah, Idaho, and Oregon. GRSG in these three population areas, as well as in East-Central Idaho and the Sawtooth, may also be somewhat more vulnerable to human disturbances or habitat loss due to comparatively smaller population indices or smaller geographic extent. The Sawtooth and East-Central Idaho population areas are also limited in terms of available lek data; therefore, the associated population metrics shown in **Table 3-5** may be conservative.

### 3.3 Vegetation

The composition and distribution of plant communities in the planning area are influenced by many factors, including climate, elevation, topography, soils, drought, insects, fire, cultivation, invasive plants, and livestock grazing. As a result, a wide variety of plant



communities occur, many of which play a role in providing seasonal or year-round habitat for GRSG. The major plant communities providing GRSG habitat are further detailed below. These plant communities vary greatly in their relative ecological health as a result of stressors that influence the distribution and abundance of the plant components within the general community. GRSG are a sagebrush obligate species and rely on a variety of sagebrush dominated communities to meet various needs throughout their lifecycle (Miller et al. 2011). In winter, GRSG feed almost exclusively on sagebrush leaves (Patterson 1952; Wallestad et al. 1975). A healthy vegetative understory complete with perennial grasses and a variety of forbs provide important components of nesting and brood rearing habitat (Barnett and Crawford 1994; Gregg et al. 1994). These vegetative communities also support a wide variety of insects which provide additional food sources for rearing habitat. Some plant communities play a role in seasonal habitat such as riparian areas, or in the case of annual grasses, or conifer stands, may influence the quality and abundance of habitat over time.

### 3.3.1 Conditions within the Planning Area

#### *Northern Sagebrush-Steppe*

Two major sagebrush communities that provide GRSG habitat occur within the planning area: the Snake River Plain and Wyoming Basin. The Snake River Plain sagebrush community makes up the vast majority of the habitat with a small portion of the Wyoming Basin community on the eastern side of the planning area. These communities are considered part of the northern sagebrush-steppe where sagebrush typically co-dominates with perennial bunchgrasses (Miller et al. 2011). Human alterations, uses, and impacts coupled with natural stressors (e.g., drought and fire) have changed the extent, condition, and distribution of sagebrush-steppe and the ecosystem services these communities provide (Meinke et al. 2009); current GRSG range is estimated to be 56 percent of distribution prior to Euro-American contact (Schroeder et al. 2004). Three of the fundamental characteristics of the sagebrush community that have been altered from prior to European contact conditions include: (1) the total area of sagebrush shrublands has been reduced; (2) the composition and structure of sagebrush communities has been changed, with increased abundance and vigor of invasive species and decreased abundance and vigor of native species; and (3) fragmentation created by roads, power-lines, fences, energy developments, urbanization, and other anthropogenic features (Connelly et al. 2004). Much of the sagebrush-steppe occurring on private lands with deeper soils has been converted to agricultural croplands (Connelly et al. 2004). Intense, historic land use in the late 19th and early 20th centuries reduced the dominance of native grasses, trampled microbiotic crusts, and encouraged expansion of Eurasian grasses (Anderson and Inouye 2001; Ponzetti et al. 2007; Root and McCune 2012). These changes are most intense at low elevations near valley floors and may have disproportionate effects on GRSG populations reliant on these habitats during critical portions of the year (Leu and Hanser 2011).

Some portions of the planning area contain relatively intact sagebrush-steppe communities. Plant communities such as these are in good to excellent ecological condition and maintain adequate forb and perennial grass in the understory to supply habitat requirements for GRSG.

Data available for analysis in this effort are limited to general overstory vegetation classes of tall shrub (e.g., basin big sagebrush, Wyoming big sagebrush, and mountain big sagebrush) and low shrub (e.g., black sagebrush and low sagebrush). This information can be further stratified based upon landscape characteristics to approximate the relative proportion of the various types of sagebrush plant communities. Data are not widely available concerning the relative ecological health of the plant communities within the project area.

#### ***Riparian and Wetlands***

Riparian vegetation includes plants that require higher amounts of available water supply than those found in adjacent upland areas and are generally associated with water courses and wet meadow areas. Riparian areas, wetlands, and wet meadows provide valuable GRSG late summer brood rearing habitat because these areas provide succulent forbs and insects later in the summer when most forbs in upland habitats have dried out and are senescent. These communities make up a small percentage of the vegetation in relation to other types but are quite important in providing the seasonal habitat mentioned.

#### ***Forest and Woodland***

The conversion of sagebrush-steppe communities into conifer woodlands is a factor contributing to GRSG habitat decline in portions of the planning area. Trees increase raptor perch and nest sites, potentially making GRSG more vulnerable to predation. Conifer expansion is generally attributed to fire suppression reducing fire frequency and allowing conifers to expand into riparian areas, shrublands, and grasslands. This conversion is mostly an issue in the mountain big sagebrush types where reduced fire frequency has allowed the invasion of juniper (Utah, Rocky Mountain, or Western) and in some areas Douglas-fir and pine may be expanding into shrub habitats.

#### ***Noxious Weeds and Invasive Species***

Noxious weeds and invasive species include plants listed as “noxious” by state laws and also those plants known to be altering the dynamics of native plant communities by replacing native plants through competition or altering some ecological process to the detriment of the native plant community such as in the case of annual bromes increasing fire frequency.

Specific noxious weeds causing localized impacts within the planning area include rush skeletonweed, leafy spurge, diffuse knapweed, and spotted knapweed. Although not yet well established in the planning area, yellow starthistle is known to have a similar range as cheatgrass, and many of the areas currently supporting annual grass communities could support this noxious weed. Other weeds listed as noxious occur within the planning area but are not as widespread or detrimental as those listed.

Invasion by exotic annual grass species has resulted in dramatic increases in number and frequency of fires with widespread, detrimental effects on habitat conditions (Young and Evans 1978; West and Young 2000; West and Yorks 2002; Connelly et al. 2004). Increased fire frequency typically results in removal of the sagebrush canopy in affected areas with replacement by annual species that provide little to no habitat value (Knapp 1996; Epanchin-Niell et al. 2009; Rowland et al. 2010; Baker 2011; Condon et al. 2011). Invasive annuals include numerous species of annual bromes, most notably cheatgrass (*Bromus tectorum*) as well



as medusahead rye (*Taeniatherum caput-medusae*). An annual species that may be a threat in higher elevation communities providing GRSG habitat is ventenata (*Ventenata dubia*). Wyoming sagebrush plant communities are particularly susceptible to conversion to annual grasslands after fire when the understory contains higher densities of annual grass.

Once converted to exotic annual grasses, these plant communities have crossed a threshold that precludes their returning to traditional plant community composition through normal plant succession processes. These areas are essentially lost in their ability to provide GRSG habitat unless significant investment in restoration inputs are undertaken. Even then, these projects may fail if conditions do not exist for successful establishment of desired species. The potential for cheatgrass occurrence has been modeled, which can help discern locations and habitats that have the greatest risk of cheatgrass dominance after disturbance events such as fire.

#### ***Modified Grasslands***

Some portions of the planning area formerly composed of sagebrush plant communities currently support introduced perennial bunchgrasses or in some cases a mixture of introduced and native bunch grasses. These communities can include common native forbs and over time may develop a sagebrush overstory. Introduced bunchgrasses that may inhabit these areas include a numerous crested wheatgrass varieties (e.g., Fairway, Ephraim, Douglas, Nordan, and Hycrest) as well as Siberian wheatgrass and, in the case of higher precipitation zones, pubescent or intermediate wheatgrass. In some cases, nonnative grasses were seeded to increase livestock forage, but were also be better adapted in competing with and suppressing invasive annual grasses. These plant communities also provide habitat for GRSG once the overstory of sagebrush is re-established.

#### ***Permanent Conversion***

Within the planning area, portions have been permanently converted to uses that preclude them from providing GRSG habitat. This includes conversion to agricultural lands as well as development or urbanization. In much of the Snake River Plain, these lands were at one time supporting sagebrush plant communities.

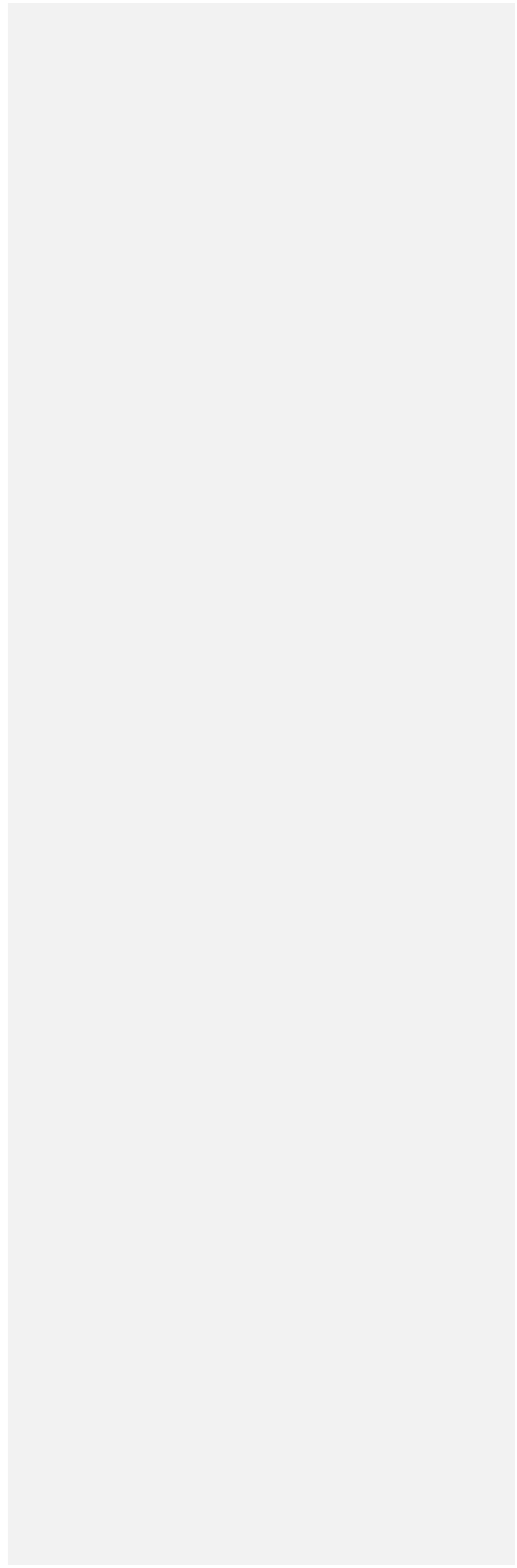
#### **3.3.2 Conditions on BLM-Administered Lands**

The habitat most important to BLM-administered lands in this planning effort is the overstory vegetation component. As described above, GRSG are a sagebrush obligate species, so an overstory component of sagebrush is a good indicator of potential habitat. Perennial grasslands are also an important component to track as they are still capable of providing habitat if the overstory of sagebrush is returned. Tracking the relative expansion or reduction in annual grass dominated lands is also a potential indicator of our success in protecting GRSG habitat. These broad-scale vegetation types are currently being tracked through various efforts.

**Table 3-6, [Acres of Vegetation Communities within PPH and PGH on BLM-Administered and Forest Service-Administered Lands within the Planning Area](#)**~~Acres of Vegetation Communities within PPH and PGH on BLM-Administered and Forest Service-Administered Lands within the Planning Area~~, details the acreages in each cover type for

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**Table 3-6**  
**Acres of Vegetation Communities within PPH and PGH on BLM-Administered and Forest Service-Administered Lands within the Planning Area**

Vegetation Type	PGH (Forest Service)	PGH (BLM)	PGH (Total)	PPH (Forest Service)	PPH (BLM)	PPH (Total)
Sagebrush	440,400	968,600	1,409,000	657,000	5,559,900	6,216,900
Low Sagebrush	6,680	55,200	61,880	15,500	751,700	767,200
Mixed Sagebrush	301,000	307,200	608,200	454,300	1,869,300	2,323,600
Tall Sagebrush	132,700	606,200	738,900	187,200	2,938,900	3,126,100
Perennial Grass	17,400	421,300	438,700	22,100	855,900	878,000
Annual Grass	190	21,100	21,290	310	51,400	51,710
Conifer Encroachment	15,100	117,900	133,000	41,100	178,600	219,700
Crested Wheatgrass	2,580	63,300	65,900	2,580	65,200	222,300

Source: BLM 2013a; Forest Service 2013a

planning area. In addition, **Table 3-6, [Acres of Vegetation Communities within PPH and PGH on BLM-Administered and Forest Service-Administered Lands within the Planning Area](#)**, **Acres of Vegetation Communities within PPH and PGH on BLM Administered and Forest Service Administered Lands within the Planning Area**, through **Table 3-13, [Acres of Conifer Encroachment within PPH and PGH on BLM- and Forest Service-Administered lands within the Planning Area by GRSG Analysis Area](#)**, **Acres of Conifer Encroachment within PPH and PGH on BLM- and Forest Service-Administered lands within the Planning Area by GRSG Analysis Area**, show the acres of vegetation communities by GRSG analysis area; these numbers were used to support the vegetation modeling effort (**Section 4.2 and Appendix L**).

**Table 3-7  
Acres of Low Sagebrush within PPH and PGH on BLM-  
and Forest Service-Administered lands within the Planning  
Area by GRSG Analysis Area**

<b>GRSG Analysis Area</b>	<b>PGH</b>	<b>PPH</b>
<b>East-Central Idaho</b>	<b>30</b>	<b>10</b>
BLM	30	10
Forest Service	0	0
<b>North Side Snake</b>	<b>3,750</b>	<b>66,000</b>
BLM	740	65,700
Forest Service	3,010	270
<b>Southwest Idaho</b>	<b>33,600</b>	<b>354,200</b>
BLM	33,600	354,200
Forest Service	0	0
<b>South Side Snake</b>	<b>1,920</b>	<b>45,100</b>
BLM	1,590	43,400
Forest Service	330	1,600
<b>Southwest Montana</b>	<b>1,740</b>	<b>4,230</b>
BLM	1,580	4,130
Forest Service	160	100
<b>Bear Lake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Mountain Valleys</b>	<b>7,910</b>	<b>280,200</b>
BLM	4,730	266,700
Forest Service	3,180	13,500
<b>Weiser</b>	<b>12,900</b>	<b>17,500</b>
BLM	12,900	17,500
Forest Service	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Total</b>	<b>61,900</b>	<b>767,100</b>
BLM	55,200	751,600
Forest Service	6,680	15,500

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**Table 3-7**  
**Acres of Low Sagebrush within PPH and PGH on BLM-**  
**and Forest Service-Administered lands within the Planning**  
**Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
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Source: BLM 2013a; Forest Service 2013a

**Table 3-8**  
**Acres of Mixed Sagebrush within PPH and PGH on BLM-**  
**and Forest Service-Administered lands within the Planning**  
**Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>North Side Snake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Southwest Idaho</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>South Side Snake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Southwest Montana</b>	<b>270,900</b>	<b>493,500</b>
BLM	172,000	401,700
Forest Service	98,900	91,800
<b>Bear Lake</b>	<b>4,420</b>	<b>41,200</b>
BLM	4,060	40,000
Forest Service	360	1,200
<b>Mountain Valleys</b>	<b>318,500</b>	<b>1,788,900</b>
BLM	131,100	1,427,600
Forest Service	187,400	361,300
<b>Weiser</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Sawtooth</b>	<b>14,400</b>	<b>0</b>
BLM	0	0
Forest Service	14,400	0
<b>Total</b>	<b>608,300</b>	<b>2,323,600</b>
BLM	307,200	1,869,300
Forest Service	301,100	454,300

Source: BLM 2013a; Forest Service 2013a

**Table 3-9**  
**Acres of Tall Sagebrush within PPH and PGH on BLM-**  
**and Forest Service-Administered lands within the Planning**  
**Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>28,000</b>	<b>8,660</b>
BLM	13,500	8,660
Forest Service	14,500	0
<b>North Side Snake</b>	<b>267,800</b>	<b>1,135,500</b>
BLM	212,300	1,114,100
Forest Service	55,500	21,400
<b>Southwest Idaho</b>	<b>159,900</b>	<b>1,146,500</b>
BLM	159,900	1,146,500
Forest Service	0	0
<b>South Side Snake</b>	<b>226,600</b>	<b>794,700</b>
BLM	163,900	628,900
Forest Service	62,700	165,800
<b>Southwest Montana</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Weiser</b>	<b>56,600</b>	<b>40,700</b>
BLM	56,600	40,700
Forest Service	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Total</b>	<b>738,900</b>	<b>3,126,100</b>
BLM	606,200	2,938,900
Forest Service	132,700	187,200

Source: BLM 2013a; Forest Service 2013a

**Table 3-10**  
**Acres of Annual Grass within PPH and PGH on BLM- and**  
**Forest Service-Administered lands within the Planning**  
**Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>80</b>	<b>30</b>
BLM	80	30
Forest Service	0	0

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**Table 3-10**  
**Acres of Annual Grass within PPH and PGH on BLM- and Forest Service-Administered lands within the Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>North Side Snake</b>	<b>7,150</b>	<b>6,860</b>
BLM	7,070	6,860
Forest Service	80	0
<b>Southwest Idaho</b>	<b>6,540</b>	<b>19,200</b>
BLM	6,540	19,200
Forest Service	0	0
<b>South Side Snake</b>	<b>4,830</b>	<b>24,600</b>
BLM	4,720	24,300
Forest Service	110	310
<b>Southwest Montana</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Weiser</b>	<b>2,720</b>	<b>1,050</b>
BLM	2,720	1,050
Forest Service	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Total</b>	<b>12,300</b>	<b>51,700</b>
BLM	12,100	51,400
Forest Service	190	310

Source: BLM 2013a; Forest Service 2013a

**Table 3-11**  
**Acres of Perennial Grass within PPH and PGH on BLM- and Forest Service-Administered lands within the Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>480</b>	<b>10</b>
BLM	430	10
Forest Service	50	0
<b>North Side Snake</b>	<b>158,900</b>	<b>346,000</b>
BLM	156,900	344,100
Forest Service	1,980	1,930
<b>Southwest Idaho</b>	<b>53,100</b>	<b>78,900</b>

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**Table 3-11**  
**Acres of Perennial Grass within PPH and PGH on BLM-**  
**and Forest Service-Administered lands within the Planning**  
**Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
BLM	53,100	78,900
Forest Service	0	0
<b>South Side Snake</b>	<b>191,400</b>	<b>418,000</b>
BLM	178,700	400,200
Forest Service	12,700	17,800
<b>Southwest Montana</b>	<b>4,170</b>	<b>600</b>
BLM	2,450	540
Forest Service	1,720	60
<b>Bear Lake</b>	<b>0</b>	<b>520</b>
BLM	0	520
Forest Service	0	0
<b>Mountain Valleys</b>	<b>2,380</b>	<b>29,600</b>
BLM	1,390	27,300
Forest Service	990	2,340
<b>Weiser</b>	<b>28,300</b>	<b>4,460</b>
BLM	28,300	4,460
Forest Service	0	0
<b>Sawtooth</b>	<b>20</b>	<b>0</b>
BLM	0	0
Forest Service	20	0
<b>Total</b>	<b>438,800</b>	<b>878,100</b>
BLM	421,300	856,000
Forest Service	17,500	22,100

Source: BLM 2013a; Forest Service 2013a

**Table 3-12**  
**Acres of Crested Wheatgrass within PPH and PGH on**  
**BLM- and Forest Service-Administered lands within the**  
**Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>190</b>	<b>10</b>
BLM	30	10
Forest Service	160	0
<b>North Side Snake</b>	<b>42,800</b>	<b>37,000</b>
BLM	40,750	36,900
Forest Service	2,010	90
<b>Southwest Idaho</b>	<b>2,540</b>	<b>950</b>
BLM	2,540	950
Forest Service	0	0
<b>South Side Snake</b>	<b>15,900</b>	<b>28,000</b>

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**Table 3-12**  
**Acres of Crested Wheatgrass within PPH and PGH on**  
**BLM- and Forest Service-Administered lands within the**  
**Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
BLM	15,500	25,400
Forest Service	410	2,500
<b>Southwest Montana</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Weiser</b>	<b>4,480</b>	<b>2,020</b>
BLM	4,480	2,020
Forest Service	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>
BLM	0	0
Forest Service	0	0
<b>Total</b>	<b>65,900</b>	<b>67,900</b>
BLM	63,300	65,300
Forest Service	2,580	2,590

Source: BLM 2013a; Forest Service 2013a

**Table 3-13**  
**Acres of Conifer Encroachment within PPH and PGH on**  
**BLM- and Forest Service-Administered lands within the**  
**Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
<b>East-Central Idaho</b>	<b>270</b>	<b>10</b>
BLM	170	10
Forest Service	100	0
<b>North Side Snake</b>	<b>1,260</b>	<b>2,120</b>
BLM	510	1,860
Forest Service	750	260
<b>Southwest Idaho</b>	<b>99,100</b>	<b>108,400</b>
BLM	99,100	108,400
Forest Service	0	0
<b>South Side Snake</b>	<b>28,100</b>	<b>105,300</b>
BLM	16,200	65,700
Forest Service	11,900	39,600
<b>Southwest Montana</b>	<b>910</b>	<b>430</b>

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**Table 3-13**  
**Acres of Conifer Encroachment within PPH and PGH on**  
**BLM- and Forest Service-Administered lands within the**  
**Planning Area by GRSG Analysis Area**

GRSG Analysis Area	PGH	PPH
BLM	410	210
Forest Service	500	220
<b>Bear Lake</b>	<b>0</b>	<b>10</b>
BLM	0	10
Forest Service	0	0
<b>Mountain Valleys</b>	<b>2,380</b>	<b>3,370</b>
BLM	840	2,380
Forest Service	1,540	990
<b>Weiser</b>	<b>740</b>	<b>110</b>
BLM	740	110
Forest Service	0	0
<b>Sawtooth</b>	<b>320</b>	<b>0</b>
BLM	0	0
Forest Service	320	0
<b>Total</b>	<b>133,100</b>	<b>219,800</b>
BLM	118,000	178,700
Forest Service	15,100	41,100

Source: BLM 2013a; Forest Service 2013a

### 3.3.3 Conditions on Forest Service-Administered Lands

In general the plant communities and disturbance factors that influence them are the same on Forest Service-administered lands as on BLM-administered lands. As a general rule, the Forest Service-administered lands with GRSG habitat in the planning area tend to be on the higher end of the precipitation and elevational gradient. Therefore, the relative proportion of sagebrush plant communities on Forest Service-administered lands would be higher for the mountain big sagebrush plant communities, at the higher elevation and precipitation gradient, and lower for Wyoming big sagebrush plant communities which occur at the lower end of the precipitation range for big sagebrush. Due to the more resilient nature of mountain big sagebrush communities after disturbance, it is less likely they will be impacted by invasive annual grass and convert to annual grass plant communities.

### 3.3.4 Trends

The main disturbance factors with the potential to alter vegetation providing GRSG habitat over a majority of the planning area include conversion to annual grassland following fire disturbance, modification of plant communities due to livestock grazing, and the potential impacts of climate change. To a lesser extent, some permanent conversion to agriculture or urbanization may occur, but typically these areas are already highly disturbed and not likely to be providing high-quality GRSG habitat.

### 3.4 Fish and Wildlife

#### 3.4.1 Terrestrial Wildlife

##### *Conditions within the Planning Area*

The BLM and Forest Service manage wildlife habitat, and the state wildlife management agencies manage wildlife populations. These habitats reflect the influence of a variety of past and ongoing human activities and disturbances, resulting in increases in some species populations, declines in others, and the modification of large blocks of habitat. These habitats and the wildlife species that rely on them rarely exist solely on BLM-administered or Forest Service-administered lands, and often extend across administrative boundaries to other federal, state, and private lands. Further information regarding wildlife on Forest Service-administered lands is provided in **Appendix M** and **Appendix N**.

#### 3.4.2 Regional Context

**Table 3-14**, Acres of Conifer and Pinyon-Juniper Land Cover within GRSG Habitat, through ~~Table 3-16~~ **Table 3-16**, Acres of Cropland within GRSG Habitat, ~~Acres of Cropland within GRSG Habitat~~, display acreages for different kinds of vegetative cover in the planning area (Manier et al. 2013).

**Table 3-14**  
**Acres of Conifer and Pinyon-Juniper Land Cover within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	174,700	595,500	311,300	397,300	499,700	938,700
Forest Service	191,200	62,300	228,100	150,900	18,200	248,200
Tribal and Other Federal	10,400	88,400	11,100	7,700	77,100	10,000
Private	143,700	545,800	295,200	157,400	373,000	427,500
State	40,700	97,800	69,600	56,100	106,600	67,700
Other	2,900	700	2,900	6,400	1,700	6,400

Source: Manier et al. 2013

<sup>1</sup>Includes acres of pinyon-juniper or conifer land cover within 120 meters of GRSG habitat.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-15**  
**Acres of Cheatgrass Potential within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	3,053,600	6,325,000	6,234,900	8,022,500	7,091,200	13,995,500
Forest Service	885,700	407,400	1,086,900	927,100	124,100	1,521,600
Tribal and Other Federal	687,800	1,252,100	740,200	946,800	701,900	974,100
Private	2,003,400	6,202,500	4,257,400	2,045,100	5,631,600	5,643,800

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**Table 3-15**  
**Acres of Cheatgrass Potential within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
State	645,800	861,400	945,500	853,200	1,135,900	1,022,900
Other	54,900	6,000	54,900	93,700	30,100	93,800

Source: Manier et al. 2013

<sup>1</sup>Acres comprised of areas with a high potential for cheatgrass occurrence.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-16**  
**Acres of Cropland within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	14,200	3,200	14,500	11,800	2,100	14,800
Forest Service	1,800	300	1,800	600	0	900
Tribal and Other Federal	1,700	5,200	1,800	500	1,400	500
Private	165,500	385,900	233,600	19,400	106,100	55,200
State	2,700	7,700	4,400	700	3,300	800
Other	1,300	0	1,300	200	100	200

Source: Manier et al. 2013

<sup>1</sup>Based on data provided by the National Agricultural Statistics Service

<sup>2</sup> Note: BER combined acres for MZs II and VII

The BLM-administered and Forest Service-administered lands in the Idaho and Southwestern Montana planning area provide a variety of habitats. Landownership ranges from mostly sagebrush habitats in Owyhee County, Idaho, to scattered BLM-administered and Forest Service-administered lands with intermingled private and state lands composed of sagebrush habitats in southwestern Montana. On BLM-administered and Forest Service-administered lands, these habitats can be segregated into four major habitats groups: sagebrush steppe, riparian/wetlands, nonnative grasslands, and conifer woodlands/forests. These habitats serve as a basis, to the extent practical, for describing existing conditions, and for developing and comparing management alternatives throughout the planning effort.

*Sagebrush Steppe Habitats*

Sagebrush steppe habitats in the planning area are found in the Snake River Plain and minor portions in the Wyoming Basins floristic provinces identified by West (1983). These sagebrush habitats are the dominant habitat within the planning area. Riparian and wetland habitats, nonnative grasslands, and conifer/woodland forest habitats are interspersed within and adjacent to sagebrush habitats.



Sagebrush habitats occur from lower elevation (2,500 feet) drier salt desert shrub communities to mountain shrub communities at 10,100 feet in elevation. Sagebrush habitats support a wide diversity of generalist wildlife species, as well as sagebrush-dependent wildlife species.

At mid- to lower elevations, Wyoming big and basin sagebrush are the dominant habitat types that provide important winter habitat for wildlife species such as mule deer, pronghorn, and GRSG, and localized yearlong habitat by sagebrush-obligate species such as pygmy rabbit. Much of the basin big sagebrush habitats are limited to deeper soils near ephemeral drainages. Intermingled occurrences of basin big sagebrush, mountain big sagebrush, tall three-tip sagebrush, and several low sagebrush's such as low (little) and black sagebrush add to the diversity of vegetation and habitat structure. At higher elevations, moist mountain big sagebrush communities provide elk calving and GRSG brood-rearing habitat along with dispersed spring, summer, and fall habitat for numerous other species, often in association with conifer woodland/forested habitat. Mixed sagebrush communities and localized dominance by other sagebrush species on specific sites within the broader sagebrush types often support uniquely dependent wildlife uses, such as pygmy rabbits.

Many sagebrush steppe habitats have been modified or disturbed throughout the planning area during the past 150 years; therefore the species dependent upon them have usually been negatively affected. Primary factors causing change in sagebrush steppe habitats are wildfire and changes in fire regimes, invasive species, anthropogenic development, and livestock grazing (Miller et al. 2011, Knick et al. 2011). Wildfire and changes in fire regimes effects xeric sagebrush steppe and is highly influenced by the spread of invasive species, especially exotic annual grasses such as cheatgrass or medusahead. In these lower elevation habitats, fire return intervals are greatly shortened and prevent the reestablishment of sagebrush. Large areas of the Snake River Plain in southern Idaho have undergone these habitat changes, thus making habitats less suitable for wildlife.

Past management activities that reduce sagebrush habitats include herbicide application, plowing, or other techniques followed by seeding of nonnative perennial grasses. These land treatments or burned areas following wildfire have historically been seeded to highly competitive introduced species such as crested wheatgrass, desert wheatgrass, and Siberian wheatgrass. The characteristics that made these introduced species effective for seeding establishment also created communities dominated by near monocultures, which resulted in poor quality habitats for wildlife lacking sagebrush or forbs (Pyke 2011). Recent policies have encouraged native seed mixes, but many times native seed supplies are limited or not affordable within current budgets. Seed in some seed mixes used in these treatments may have been selected for other wildlife species and not specifically for GRSG (Knick et al. 2011).

In higher elevations of sagebrush steppe, conifer woodlands/forests have encroached into sagebrush habitats. Miller and Rose (1999) identified that the encroachment of conifer woodlands/forests was the result of longer fire return intervals that permitted woodland expansion to occur into sagebrush steppe. Conifers greater than 50 years old on productive sites and greater than 90 years on nonproductive sites results in reduced fire frequency,

permitting the establishment of conifers on the site (Burkhardt and Tisdale 1976; Bunting 1984; Miller and Rose 1999). A number of studies identified a widespread decline in fires at the sagebrush/conifer interface with the coincidence of large numbers of livestock in the late 1800s (Miller and Rose 1999; Heyerdahl et al. 2006; Swetnam et al. 2001). These large numbers of cattle may have reduced the current year's fuel loads and changed the structure and abundance of fuels, thus reducing the frequency of wildfires (Miller et al. 2011). Increased tree dominance by conifers results in a decline of cover by sagebrush and other shrubs.

Anthropogenic development has reduced the amount and quality of sagebrush steppe habitat across much of the planning area. The activities have occurred on private lands but infrastructure to support urbanization and agriculture along the Snake River Plain and other waterways has occurred on BLM-administered and Forest Service-administered lands. Many of these types of facilities or uses include railroads, roads, power lines, pipelines, irrigation canals, communication towers, military training, and off-highway vehicle use (Knick et al. 2011).

Livestock grazing is the most widespread land use across sagebrush steppe habitats from the 1880s to present. Livestock numbers and use of these habitats was greatest from the late 1880s through the 1930s. During this period the greatest change occurred to these habitats as a result of heavy livestock use and drought that resulted in loss of soil and depleted native vegetation communities that greatly impacted these habitats (Knick et al. 2011). From the 1940s until the 1980s, plowing, herbicides, and burning followed by seeding nonnative perennial grasses to increase forage for livestock production occurred, thus impacting many sagebrush habitats in southern Idaho.

In recent decades, management emphasis has shifted towards maintaining healthy, functioning native ecosystems and reducing the spread of nonnative species. Grazing regulations enacted in 1995 mandated that public land grazing allotments conform to the Fundamentals of Rangeland Health, as well as subsequent Standards and Guidelines (S&Gs), and that changes to grazing management be made if livestock management is determined to be a significant causal factor in failing to meet Fundamentals of Rangeland Health or S&Gs. Since that time, the BLM has been reviewing rangeland health conditions and modifying livestock grazing management as necessary to conform with the Fundamentals of Rangeland Health and S&Gs. In addition, vegetation treatments have occurred on many allotments in an effort to restore functionality of impacted sagebrush steppe habitats. For more information about livestock grazing, see **Section 3.8**, Livestock Grazing.

#### *Riparian/Wetland Habitats*

Riparian habitats are regarded as one of the most important habitats for wildlife due to the availability of water and the structural diversity of the vegetation communities. Approximately 75 percent of all wildlife species utilize riparian habitats for at least some portion of their annual life cycle (USEPA 1990). Riparian habitats are estimated to make up approximately 1 percent of all habitats in the planning area. The riparian habitats in the planning area are composed of lotic systems that are associated with running water or lentic/wetland habitats associated with standing water.



Riparian habitats in the planning area have been subject to many activities that have affected their functionality and their ability to support wildlife. These activities include dewatering for irrigation, domestic cattle grazing, road construction, dam construction, and land treatments. The impacts from these activities include changes in plant species composition and structure, vegetative cover, sedimentation, changes in water quality and temperature, streambank alteration, and duration of available water.

Wildlife habitat values are degraded on riparian habitats with functional-at-risk or nonfunctional conditions. Information on proper functioning condition is not available at the sub-regional planning scale.

#### *Big Game*

The planning area hosts a wide variety of big game species including mule deer, pronghorn, and elk that use habitats associated with sagebrush steppe and riparian habitats. Other big game species that are found in these habitats but in lesser amounts include bighorn sheep, moose, and white-tailed deer. The planning area provides habitat for all seasonal use periods for mule deer, pronghorn, elk, bighorn sheep, and other species. These species are generally widespread across the entire planning area.

Mule deer are the most abundant and widely distributed big game animal. Mule deer populations and mule deer habitat have changed greatly during the past 100 years. Loss of shrub-steppe habitats, conversion of native landscapes to agriculture or residential development, and past and current grazing management are key management issues for mule deer populations throughout the planning area (Cox et al. 2009).

Within the planning area mule deer populations vary greatly from current population objectives. In southeast Idaho populations have undergone declines following the winters of 1992-1993 and have been slow to respond to changes in management activities (IDFG 2011a). This has resulted in IDFG developing an initiative to target this area of the state to modify management strategies and improve habitat conditions for mule deer. In other portions of the planning area, including south-central Idaho and southwestern Montana, populations appear to be stable or increasing but are below levels observed in the late 1980s and early 1990s (IDFG 2011a; MFWP 2012).

Mule deer are primarily browsers and their diet is composed mostly of leaves and twigs of shrubs, especially during the winter. Grasses and forbs are also crucial components of their diet in the spring and summer. The quality and quantity of nutritious forage in spring (April through July) has major implications on the production and survival of fawns. Summer and fall ranges are important because this is where deer produce fat reserves that will allow survival through winter. The quality of summer-fall forage also directly influences pregnancy and ovulation rates and, therefore, fawn production (Cook et al. 2001; Tollefson et al. 2010; Vavra 1992). Much of Idaho's historic mule deer winter range has been developed for other uses and is now occupied by man. Residential, commercial, and industrial developments located in the foothills and at lower elevations have eliminated winter range (IDFG 2011a).

Pronghorn distribution has changed relatively little since the early 1980s but numbers have trended downward since the winters of 1993-1994 (IDFG 2011b). Pronghorn are typically associated with sagebrush habitats but readily use grasslands if there are adequate amounts of forbs (Yoakum 2004a). In sagebrush habitats, pronghorn diets consist of sagebrush and other shrubs during all seasons, but particularly in the fall and winter (Yoakum 2004a). Forbs are preferred by pronghorn when available (Yoakum 2004b). The availability of forbs in sagebrush habitats may have important implications for pronghorn because they are rich in nutritional values required for reproduction (Pyrah 1987; Yoakum 2004b). Large landscape level fires have reduced the availability of sagebrush in parts of their range. In portions of the planning area, extensive fencing has contributed to the inability of some populations to access otherwise suitable habitats. Noxious weeds, livestock grazing, and drought has also impacted current pronghorn populations and their habitat.

Elk are found throughout the planning area in sagebrush steppe and associated conifer/forested woodlands. Elk are considered generalists and are not totally dependent upon sagebrush steppe, but they do require food, water, and where hunted, hiding cover and security areas. The combination of the resources determines the distribution and number of elk within sagebrush steppe. Elk populations in the planning area are generally at or above state wildlife management agencies objectives (IDFG 2011c; MFWP 2004).

Other big game species, such as moose, bighorn sheep, and white-tailed deer are also found in the planning area. Moose and white-tailed deer are generally associated with riparian/wetland habitats. Bighorn sheep usually are found near escape terrain composed of steep rugged slopes and make use of sagebrush steppe year round in southwest Idaho. In east-central Idaho and southwestern Montana, bighorn sheep generally make use of sagebrush steppe near escape terrain during the winter and spring.

#### *Migratory Birds*

There are numerous species of migratory birds that use the planning area during part of the year, including over 40 species of greatest conservation need in Idaho and in Montana (IDFG 2005; BLM 2006). These birds are as diverse as the Calliope hummingbird, green-tailed towhee, Brewer's sparrow, ferruginous hawk, mallard, and sandhill crane. Most of these birds are summer residents that use habitats ranging from low elevation wetlands to high elevation forests for breeding and raising young. Some species such as American robin and mallard are migratory, but small populations may be present yearlong depending on seasonal conditions. Winter residents such as the rough-legged hawk, snow buntings, and rosy-crowned gray finches arrive from arctic breeding grounds, or high elevation alpine areas to utilize winter habitats in sagebrush steppe, seasonally replacing summer residents.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS to "identify species, sub species, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." Birds of Conservation Concern 2008 (USFWS 2008) is the most recent effort to carry out that mandate and identifies those species in greatest need of conservation action in specific geographic bird conservation regions. The planning area overlaps three bird conservation regions. These regions include the Great Basin, Northern



Rockies, and a very small portion of the Southern Rockies/Colorado Plateau. The list of species likely to inhabit sagebrush steppe and riparian/wetlands of this planning area for these three conservation regions can be found in **Appendix O**. This mandate was emphasized with the issuance of Executive Order 13186, which directs federal land management agencies to develop cooperative plans to protect and manage habitat for all migratory birds. Expansion of funding opportunities under the North American Wetlands Conservation Act and other partnership opportunities through the North American Bird Conservation Initiative will support increased management consideration for these species.

#### *Furbearers/Upland Game/Non-Game*

A large variety of other wildlife species use both sagebrush steppe, riparian/wetland habitats, and nonnative grasslands and conifer woodland/forests habitats within and adjacent to sagebrush steppe in the planning area. Furbearers commonly found in these habitats include red fox, bobcat, muskrat, beaver, and mink. River otter may be present, but the species is generally associated with larger river riparian systems. Cottontail and pygmy rabbits are found throughout the planning area and their numbers are variable as populations are cyclic (USFWS 2010b). Pygmy rabbits, a species of greatest conservation need in Idaho and southwestern Montana, are found in sagebrush habitats with relatively deep, loose soils that provide food and shelter. Upland game birds common or locally abundant in the planning area include Columbian sharp-tailed grouse, pheasant, mourning dove, chukar, gray partridge, California quail, dusky (blue) grouse, and ruffed grouse.

Many other species of nongame wildlife have limited information on their distribution or life history requirements. Information on these species is maintained by the Idaho, Montana, Utah, and Nevada Natural History Programs within each state. Site-specific inventories have not been conducted for many of the species but information about species distribution and relative abundance continues to be modified as funding becomes available. **Appendix O** identifies wildlife species likely to occur in sagebrush steppe and riparian/wetland habitats in the planning area.

#### *Amphibians/Reptiles*

Amphibians, specifically frogs and toads, have been recognized as important indicators of ecosystem health, as many populations are declining in the western US. Amphibians are generally found near some form of water. There are eight species of salamanders, frogs, and toads found in the planning area, including three species of greatest conservation need in Idaho; there are three amphibian species on the BLM special status species list in Montana (IDFG 2005; Montana Natural Heritage Program 2013). **Appendix O** identifies the species that are likely to occur in or adjacent to sagebrush habitats and riparian/wetland habitats.

There are 16 species of reptiles occurring in sagebrush habitats and riparian/wetland habitat in the planning area. These include seven lizard species, one turtle species, and eight snake species. The sagebrush lizard and short-horned lizard are two of the most common species associated with sagebrush habitats. Two snake and two reptile species found in the planning area are species of greatest conservation need in Idaho (IDFG 2005). There are no BLM special status reptile species in the southwestern Montana portion of the sub-region

(Montana Natural Heritage Program 2013). **Appendix O** identifies the species that are likely to occur in or adjacent to sagebrush habitats.

#### *Insects*

Insect occurrence and distribution are not generally specifically considered in land management activities. Three species of insects that are identified as sensitive species due to their limited distribution occur in or immediately adjacent to sagebrush habitats. These species include Idaho pointheaded grasshopper, St. Anthony Sand Dunes tiger beetle, and Bruneau Dunes tiger beetle (See **Section 3.5**, Other Special Status Species).

Insects provide important food sources for many species of wildlife including adult and juvenile GRSG. Although there are thousands of species of insects occurring in sagebrush and riparian and wetland habitats, species in the *Scarabaeidae* and *Tenebrionidae* (beetle) families, *Formicidae* (thatch ants) family, and *Orthoptera* (grasshopper) family play a crucial role in the diet of many wildlife species (including GRSG) as a high protein food source (Klebenow and Gray 1968; Peterson 1970; Johnson and Boyce 1990; Pyle 1993; Fischer 1994; Drut et al. 1994).

### **3.4.3 Aquatic Wildlife**

#### ***Conditions within the Planning Area***

Fish of interest within the planning area consist primarily of cold-water species. The condition of aquatic habitat is influenced by upland and riparian processes. Uplands influence aquatic habitat primarily through hydrologic processes. For example, the arid nature of the planning area makes the influence of groundwater on surface water particularly important. Therefore, impacts on uplands, such as compaction, that reduce water infiltration have the potential to reduce the amount of groundwater being released into streams. Water in compacted areas can pond on the surface and be lost into the atmosphere through evaporation or be delivered rapidly to channels during high flows. The amount of water and whether it enters stream channels via surface flow or subsurface flow have a significant effect on sediment delivery and deposition, streamside vegetation, and water quality. Riparian areas influence aquatic habitat more directly due to their proximity to water. For example, riparian vegetation shades streams from solar radiation which reduces increases in water temperature, and provides organic material to streams which act as a food source for aquatic macroinvertebrates. Well-vegetated floodplains dissipate energy of flood flows, provide velocity refugia for juvenile and adult fish during flood events, filter sediment during floods, and store water for release during lower flows. Fine sediment deposition within the substrate; and water quality, including, temperature, turbidity, and dissolved oxygen affect fish and fish habitat.

Aquatic habitat within the planning area includes perennial and intermittent streams, springs, lakes, and reservoirs that support fish during at least a portion of the year.

The majority of the planning area within Idaho is within the Snake River basin, while the portion of the planning area within Montana is within the Missouri River basin. The portion



of the southeast corner of Idaho is located within the Bear River basin which flows into the Great Salt Lake.

The climate throughout the planning area is generally arid, with runoff being dominated by spring snowmelt. Summer flows are provided by snowmelt, subsurface storage, and thunderstorm events. Native fish species consist primarily of salmonids, sculpin, and minnows, and suckers.

**Conditions on BLM-Administered and Forest Service-Administered Lands**

Fish-bearing streams, and lakes, ponds, and reservoirs within the planning area provide habitat for a variety of native and nonnative game and nongame fish species. **Table 3-17**, Native and Nonnative Fish Species Found within the Planning Area and their Status, displays the various fish species that occur within the planning area.

**Table 3-17  
Native and Nonnative Fish Species Found within the Planning Area and their Status**

Common Name	Scientific Name	Status
<b>Native Fish Species</b>		
Sockeye salmon	<i>Oncorhynchus nerka</i>	ESA Endangered
Chinook salmon	<i>O. tshawytscha</i>	ESA Threatened
Steelhead	<i>O. mykiss</i>	ESA Threatened
Bull trout	<i>Salvelinus confluentus</i>	ESA Threatened
Redband trout	<i>O. mykiss gairdneri</i>	BLM Sensitive
Westslope cutthroat	<i>O. clarki lewisi</i>	BLM Sensitive
Yellowstone cutthroat	<i>O. clarki bouvieri</i>	BLM & Forest Service Sensitive
Bonneville cutthroat	<i>O. clarki utah</i>	BLM Sensitive
Bear Lake whitefish	<i>Prosopium abyssicola</i>	BLM Sensitive
Bonneville whitefish	<i>P. silynotus</i>	BLM Sensitive
Bonneville cisco	<i>P. gemmiferum</i>	BLM Sensitive
Big Lost River whitefish	<i>P. williamsoni</i>	Forest Service Sensitive
Mountain whitefish	<i>P. williamsoni</i>	No status
White sturgeon	<i>Acipenser transmontanus</i>	BLM Sensitive
Bear Lake sculpin	<i>Cottus extensus</i>	BLM Sensitive
Shoshone sculpin	<i>C. greeni</i>	BLM Sensitive
Wood River sculpin	<i>C. leiopomus</i>	BLM Sensitive
Paiute sculpin	<i>C. beldingii</i>	No status
Shorthead sculpin	<i>C. confusus</i>	No status
Mottled sculpin	<i>C. bairdii</i>	No status
Northern leatherside chub	<i>Lepidomeda copei</i>	BLM & Forest Service Sensitive
Utah chub	<i>Gila atraria</i>	No status
Chiselmouth	<i>Acrocheilus alutaceus</i>	No status
Redside shiner	<i>Richardsonius balteatus</i>	No status
Speckled dace	<i>Rhinichthys osculus</i>	No status
Utah sucker	<i>C. ardens</i>	No status
Bluehead sucker	<i>Catostomus discobulus</i>	No status
Bridgclip sucker	<i>C. columbianus</i>	No status
Largescale sucker	<i>C. macrocheilus</i>	No status

**Table 3-17**  
**Native and Nonnative Fish Species Found within the Planning Area and their Status**

Common Name	Scientific Name	Status
Mountain sucker	<i>C. platyrhynchus</i>	No status
<b>Nonnative Fish Species</b>		
Brook trout	<i>S. fontinalis</i>	No status
Brown trout	<i>Salmo trutta</i>	No status
Tadpole madtom	<i>Noturus gyrinus</i>	No status
Black bullhead	<i>Ameiurus melas</i>	No status
Brown bullhead	<i>A. nebulosus</i>	No status
Blue catfish	<i>Ictalurus furcatus</i>	No status
Channel catfish	<i>I. punctatus</i>	No status
Flathead catfish	<i>Pylodictis olivaris</i>	No status
Common carp	<i>Cyprinus carpio</i>	No status
Grass carp	<i>Ctenopharyngodon idella</i>	No status
Goldfish	<i>Carassius auratus</i>	No status
Eastern mosquitofish	<i>Gambusia holbrooki</i>	No status
Western mosquitofish	<i>G. affinis</i>	No status
Fathead minnow	<i>Pimephales promelas</i>	No status
Spottail shiner	<i>Notropis hudsonius</i>	No status
Green swordtail	<i>Xiphophorus hellerii</i>	No status
Guppy	<i>Poecilia reticulata</i>	No status
Black crappie	<i>Pomoxis nigromaculatus</i>	No status
White crappie	<i>P. annularis</i>	No status
Yellow perch	<i>Perca flavescens</i>	No status
Bluegill	<i>Lepomis macrochirus</i>	No status
Green sunfish	<i>L. cyanellus</i>	No status
Pumpkinseed	<i>L. gibbosus</i>	No status
Largemouth bass	<i>Micropterus salmoides</i>	No status
Smallmouth bass	<i>M. dolomieu</i>	No status
Walleye	<i>Sander vitreus</i>	No status
Muskellunge	<i>Esox masquinongy</i>	No status
Northern pike	<i>E. lucius</i>	No status
Tiger musky	<i>E. masquinongy</i> × <i>E. lucius</i>	No status
Convict cichlid	<i>Arcobocentrus nigrofasciatus</i>	No status
Mozambique tilapia	<i>Tilapia mossambica</i>	No status
Redbelly tilapia	<i>T. zilli</i>	No status
Oriental weatherfish	<i>Misgurnus anguillicaudatus</i>	No status

**Status of Aquatic Species in the Planning Area**

The following discussion on status of aquatic species focuses on native species and particularly special status species. Twelve of the seventeen special status species are salmonids, three are sculpin, one is the white sturgeon, and one is the northern leatherside chub. None of the special status species are ubiquitous across the planning area. Each



species is found in a particular portion of the planning area with some of the species being endemic to a particular water body or portion of a water body.

Three of the 12 salmonids are anadromous fish found in the BLM Challis and Salmon field offices and the Payette, Salmon-Challis, and Sawtooth national forests, and each is listed under the ESA. Snake River Basin steelhead and Snake River spring/summer-run Chinook salmon are listed as threatened under the ESA and Snake River sockeye salmon are listed as endangered under the ESA. Adults passing Lower Granite dam on the Snake River are counted for all three of these species (Columbia Basin Research 2013). The 10-year average number of adults passing Lower Granite dam from 2003 through 2012 for steelhead is 190,535, for spring/summer-run Chinook salmon is 67,241, and for sockeye salmon is 610.

Bull trout within the planning area are found in the BLM Salmon, Challis, Jarbidge, and Upper Snake field offices and the Boise, Payette, Salmon-Challis, and Sawtooth national forests, and are listed as threatened under the ESA. Bull trout in the planning area largely occupy higher elevation areas with cold water temperatures.

The native range of redband trout within the planning area is the Snake River and its tributaries up to Shoshone Falls and the upper Salmon River basin. The current distribution of redband trout has been significantly reduced relative to the historical distribution, and it is likely that across its range slightly more than 44 percent of the occupied stream miles contain redband that have been genetically altered due to extensive stocking of hatchery fish (Wild Trout Enterprises 2012). Conditions for occupied redband trout habitat across its range was rated as part of the 2012 redband trout status assessment (Wild Trout Enterprises 2012). Approximately 5 percent of habitats were judged to be in excellent condition, 27 percent were judged to be in good condition, 34 percent in fair condition, 18 percent in poor condition, and 16 percent of the occupied habitats were not rated.

Three cutthroat trout species occur within the planning area: Westslope cutthroat, Yellowstone cutthroat, and Bonneville cutthroat. In Idaho, Westslope cutthroat only occur in the Salmon River portion of the planning area, while they occur in the entire portion of the planning area within Montana. Wild Trout Enterprises (2009) estimated that Westslope cutthroat currently occupy 58 percent of the stream miles they historically occupied across their range. Conditions for occupied Westslope cutthroat habitat across its range were rated as part of the 2009 Westslope cutthroat status assessment (Wild Trout Enterprises 2009). Approximately 18 percent of habitats were judged to be in excellent condition, 41 percent were judged to be in good condition, 24 percent in fair condition, 4 percent in poor condition, and 13 percent of the occupied habitats had an unknown condition. Within the planning area, Yellowstone cutthroat occur in the Snake River system above Shoshone Falls and within the Yellowstone River system. May et al. (2007) determined that Yellowstone cutthroat currently occupy 43 percent of the stream miles they historically occupied. Conditions for occupied Yellowstone cutthroat habitat across its range were rated as part of the 2006 Westslope cutthroat status assessment (May et al. 2007). Approximately 14 percent of habitats were judged to be in excellent condition, 52 percent were judged to be in good condition, 20 percent in fair condition, 5 percent in poor condition, and 9 percent of the occupied habitats had an unknown condition. In the planning area, Bonneville cutthroat

trout only occur within the Bear River drainage in southeast Idaho. An adfluvial population occurs in Bear Lake. The range-wide status of Bonneville cutthroat improved considerably from 1980 to 2000 (Lentsch et al. 2000).

Seven of the remaining nine special status fish species are endemics. Four species, Bear Lake whitefish, Bonneville whitefish, Bonneville cisco, and Bear Lake sculpin are endemic to Bear Lake. While the Big Lost River whitefish is endemic to the Big Lost River system, the Shoshone sculpin is endemic to springs and spring creeks in the Hagerman Valley, and the Wood River sculpin is endemic to the Wood River system.

The white sturgeon occurs in the Snake River below Shoshone Falls. Their numbers have been greatly reduced largely due to the lack of passage at dams and reduced spawning habitat due to the reservoirs behind the dams. The sturgeon fishery in the Snake River is popular, but no harvest of white sturgeon is allowed.

The northern leatherside chub has a patchy distribution within the planning area. The species occupies habitat within the Goose Creek and Salt River systems. They are generally found sporadically, in low numbers, and in the presence of other minnow species, such as redbelly shiners and speckled dace. The USFWS completed a status review for the species in 2011, and found that they were not warranted for listing under the ESA.

In general, the remaining fish in **Table 3-17** are more broadly distributed within the planning area. Special status aquatic mollusks are discussed in the Special Status Species section of the EIS.

### 3.5 Other Special Status Species

#### 3.5.1 Conditions within the Planning Area

The list of special status species for BLM-administered lands in Idaho and the Western Montana District; the Beaverhead-Deerlodge, Boise, Caribou, Challis, Payette, Salmon, Sawtooth, and Targhee National Forests; and the Curlew National Grassland includes mammals, birds, reptiles, amphibians, fish, invertebrates, and plants (**Appendix P**). There are 383 special status species. Of these, 28 species are mammals, 51 are birds, 4 are reptiles, 8 are amphibians, 25 are fish, 21 are invertebrates, and 246 are plants.

The BLM's objectives for special status species are to conserve and recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species, and to initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing of these species under the ESA. The BLM 6840 Manual, Special Status Species Management, sets policy for the management of candidate species and their habitat. The 6840 manual directs the BLM to undertake conservation actions for such species before listing is warranted and also to "work cooperatively with other agencies, organizations, governments, and interested parties for the conservation of sensitive species and their habitats to meet agreed on species and habitat management goals."

The BLM 6840 Manual requires the BLM to identify strategies, restrictions, management actions, and provisions necessary to conserve or recover ESA-listed species and conserve BLM sensitive species. The 6840 Manual also requires managers to determine to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluate the significance of actions in conserving those species.

Similarly, Forest Service direction for threatened and endangered species is to manage habitats and activities to achieve recovery of these species so that special protection measures provided under ESA are no longer necessary. Direction for sensitive species is to develop and implement management practices to ensure that these species do not become threatened or endangered because of management actions. Additionally, the Forest Service Manual 2670 directs the Forest Service to maintain viable populations of all native and desired nonnative wildlife, fish, and plant species.

Activities within the planning area are likely to primarily affect sagebrush habitat. Areas of conifer encroachment (primarily western or Utah juniper; Douglas-fir in some limited areas) targeted for sagebrush restoration to benefit GRSG will also be affected to varying degrees depending on time and scale. Therefore, only those species that depend on sagebrush habitat or that are strongly associated with juniper will be analyzed. **Table 3-18**, Special Status Species, identifies these species, their status, and where the designations apply. There are a total of 215 special status species that depend on sagebrush habitat. Of these, 16 species are mammals, 20 are birds, 4 are reptiles, 3 are amphibians, 3 are invertebrates, and 169 are plants.

**Table 3-18**  
**Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
<b>Mammals</b>			
Grizzly Bear ( <i>Ursus arctos</i> )	ESA Threatened	X	X
Canada Lynx ( <i>Lynx canadensis</i> )	ESA Threatened	X	X
Southern Idaho Ground Squirrel ( <i>Spermophilus brunneus endemicus</i> )	ESA Candidate	X	X
Gray wolf ( <i>Canis lupus</i> )	BLM & Forest Service Sensitive	X	X
Pygmy rabbit ( <i>Brachylagus idahoensis</i> )	BLM & Forest Service Sensitive	X	X
Piute ground squirrel ( <i>Spermophilus mollis artemisiae</i> )	BLM Sensitive	X	
California bighorn sheep ( <i>Ovis canadensis californiana</i> )	BLM Sensitive	X	
Rocky Mountain bighorn sheep ( <i>Ovis canadensis</i> )	Forest Service Sensitive		X
Cliff chipmunk ( <i>Tamias dorsalis</i> )	BLM Sensitive	X	
Uinta Chipmunk ( <i>Tamias umbrinus</i> )	BLM Sensitive	X	
Merriam's ground squirrel ( <i>Spermophilus canus vigilis</i> )	BLM Sensitive	X	
Wyoming ground squirrel ( <i>Spermophilus elegans nevadensis</i> )	BLM Sensitive	X	

**Table 3-18  
Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Great Basin pocket mouse ( <i>Perognathus parvus</i> )	BLM Sensitive	X	
Little pocket mouse ( <i>Perognathus longimembris</i> )	BLM Sensitive	X	
Dark kangaroo mouse ( <i>Microdipodops megacephalus</i> )	BLM Sensitive	X	
Kit fox ( <i>Vulpes velox</i> )	BLM Sensitive	X	
<b>Birds</b>			
Greater Sage-Grouse ( <i>Centrocercus urophasianus</i> )	ESA Candidate	X	X
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	BLM & Forest Service Sensitive	X	X
Golden eagle ( <i>Aquila chrysaetos</i> )	BLM Sensitive	X	
Upland sandpiper ( <i>Bartramia longicauda</i> )	BLM Sensitive	X	
Long-billed curlew ( <i>Numenius americanus</i> )	BLM Sensitive	X	
Peregrine falcon ( <i>Falco peregrinus anatum</i> )	BLM & Forest Service Sensitive	X	X
Prairie falcon ( <i>Falco mexicanus</i> )	BLM Sensitive	X	
Ferruginous hawk ( <i>Buteo regalis</i> )	BLM Sensitive	X	
Swainson's hawk ( <i>Buteo swainsoni</i> )	BLM Sensitive	X	
Columbia sharp-tailed grouse ( <i>Tympanuchus phasianellus columbianus</i> )	BLM & Forest Service Sensitive	X	
Mountain quail ( <i>Oreortyx pictus</i> )	BLM & Forest Service Sensitive	X	X
Calliope hummingbird ( <i>Stellula calliope</i> )	BLM Sensitive	X	
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	BLM Sensitive	X	
McCown's longspur ( <i>Calcarius mccownii</i> )	BLM Sensitive	X	
Sage sparrow ( <i>Amphispiza belli</i> )	BLM Sensitive	X	
Brewer's sparrow ( <i>Spizella breweri</i> )	BLM Sensitive	X	
Sage thrasher ( <i>Oreoscoptes montanus</i> )	BLM Sensitive	X	
Black-throated sparrow ( <i>Amphispiza bilineata</i> )	BLM Sensitive	X	
Bobolink ( <i>Dolichonyx oryzivorus</i> )	BLM Sensitive	X	
Burrowing owl ( <i>Athene cunicularia</i> )	BLM Sensitive	X	
<b>Reptiles</b>			
Mojave black-collared lizard ( <i>Crotaphytus bicinctores</i> )	BLM Sensitive	X	
Longnose snake ( <i>Rhinocheilus lecontei</i> )	BLM Sensitive	X	
Western ground snake ( <i>Sonora semiannulata</i> )	BLM Sensitive	X	
Common garter snake ( <i>Thamnophis sirtalis</i> )	BLM Sensitive	X	
<b>Amphibians</b>			
Western toad ( <i>Bufo boreas</i> )	BLM Sensitive	X	
Woodhouse toad ( <i>Bufo woodhousii</i> )	BLM Sensitive	X	
Plains spadefoot ( <i>Spea bombifrons</i> )	BLM Sensitive	X	
Columbia spotted frog ( <i>Rana luteiventris</i> )	BLM & Forest Service Sensitive	X	X

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**Table 3-18**  
**Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
<b>Invertebrates</b>			
Idaho point-headed grasshopper ( <i>Acrolophitus pulchellus</i> )	BLM Sensitive	X	
St. Anthony sand dunes tiger beetle ( <i>Cicindela arenicola</i> )	BLM Sensitive	X	X
Bruneau Dunes tiger beetle ( <i>Cicindela waynei waynei</i> )	BLM Sensitive	X	X
<b>Plants</b>			
Goose Creek milkvetch ( <i>Astragalus anserinus</i> )	ESA Candidate	X	X
Packard's milkvetch ( <i>Astragalus cusickii</i> var. <i>packardiae</i> )	ESA Candidate	X	
Christ's Indian Paintbrush ( <i>Castilleja christii</i> )	ESA Candidate		X
Slickspot peppergrass ( <i>Lepidium papilliferum</i> )	ESA Proposed	X	X
Cusick's horse-mint ( <i>Agastache cusickii</i> )	BLM & Forest Service Sensitive	X	X
Western boneset ( <i>Ageratina occidentalis</i> = <i>Eupatorium occidentale</i> )	BLM & Forest Service Sensitive	X	X
Pink agoseris, Mill Creek agoseris ( <i>Agoseris lackschewitzii</i> )	BLM Sensitive	X	
Aase's onion ( <i>Allium aaseae</i> )	BLM Sensitive	X	
Tapertip onion ( <i>Allium acuminatum</i> )	BLM & Forest Service Sensitive	X	X
Two-headed onion ( <i>Allium anceps</i> )	BLM Sensitive	X	
King's angelica, Great Basin angelica ( <i>Angelica kingii</i> )	BLM & Forest Service Sensitive	X	X
Coral lichen ( <i>Aspicilia rogerii</i> )	BLM Sensitive	X	
Challis milkvetch ( <i>Astragalus amblytropis</i> )	BLM Sensitive	X	
Lost River milkvetch ( <i>Astragalus amnis-amissi</i> )	BLM Sensitive	X	
Lemhi milkvetch ( <i>Astragalus aquilonius</i> )	BLM & Forest Service Sensitive	X	X
Sweetwater milkvetch ( <i>Astragalus aretioides</i> = <i>Orophaca aretioides</i> )	BLM Sensitive	X	
Mourning milkvetch ( <i>Astragalus astratus</i> var. <i>inseptus</i> )	BLM Sensitive	X	
Barr's milkvetch ( <i>Astragalus barrii</i> )	BLM & Forest Service Sensitive	X	X
Painted milkvetch ( <i>Astragalus ceramicus</i> var. <i>apus</i> )	BLM Sensitive	X	
Stiff milkvetch, Idaho milkvetch ( <i>Astragalus conjunctus</i> )	BLM Sensitive	X	
Lesser rushy milkvetch ( <i>Astragalus convallarius</i> var. <i>convallarius</i> = <i>A. junciformis</i> )	BLM Sensitive	X	
Barren milkvetch ( <i>Astragalus cusickii</i> var. <i>sterilis</i> )	BLM & Forest Service Sensitive	X	X
Meadow milkvetch ( <i>Astragalus diversifolius</i> )	BLM Sensitive	X	
Geyer's milkvetch ( <i>Astragalus geyeri</i> )	BLM Sensitive	X	
Tufted milkvetch, Plains milkvetch ( <i>Astragalus gilviflorus</i> )	BLM Sensitive	X	
Starveling milkvetch ( <i>Astragalus jejunus</i> var. <i>jejunus</i> )	BLM & Forest Service Sensitive	X	X

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**Table 3-18**  
**Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Mulford's milkvetch ( <i>Astragalus mulfordiae</i> )	BLM & Forest Service Sensitive	X	X
Newberry's milkvetch ( <i>Astragalus newberry</i> var. <i>castoreus</i> )	BLM Sensitive	X	
Picabo milkvetch ( <i>Astragalus oniciiformis</i> )	BLM Sensitive	X	
Wind River Astragalus ( <i>Astragalus oregonus</i> )	BLM Sensitive	X	
Payson's milkvetch ( <i>Astragalus paysonii</i> )	BLM & Forest Service Sensitive	X	X
Snake River milkvetch ( <i>Astragalus purshii</i> var. <i>ophiogenes</i> = <i>A. ophiogenes</i> )	BLM Sensitive	X	
Bitterroot milkvetch ( <i>Astragalus scapoides</i> )	BLM & Forest Service Sensitive	X	X
Railhead milkvetch ( <i>Astragalus terminalis</i> )	BLM Sensitive	X	X
Four-wing milkvetch ( <i>Astragalus tetrapterus</i> = <i>A. cinerascens</i> )	BLM Sensitive	X	
Mudflat milkvetch ( <i>Astragalus yoder-williamsii</i> )	BLM Sensitive	X	
Large-leaved balsamroot ( <i>Balsamorhiza macrophylla</i> )	BLM & Forest Service Sensitive	X	X
King's desert grass ( <i>Blepharidachne kingii</i> )	BLM & Forest Service Sensitive	X	X
Daggett rock cress ( <i>Boechea demissa</i> = <i>Arabis demissa</i> var. <i>languida</i> )	BLM Sensitive	X	
Sapphire rockcress ( <i>Boechea fecunda</i> = <i>Arabis fecunda</i> )	BLM & Forest Service Sensitive	X	X
Peculiar moonwort ( <i>Botrychium paradoxum</i> )	BLM & Forest Service Sensitive	X	X
Blue gramma ( <i>Bouteloua gracilis</i> )	BLM Sensitive	X	
Mohave brickellbush ( <i>Brickellia oblongifolia</i> )	BLM Sensitive	X	
Beautiful bryum ( <i>Bryum calobryoides</i> )	BLM Sensitive	X	
Fringed redmaids ( <i>Calandrinia ciliata</i> )	BLM Sensitive	X	
Cusick's camas ( <i>Camassia cusickii</i> )	BLM Sensitive	X	
Obscure evening primrose ( <i>Camissonia andina</i> = <i>Oenothera andina</i> )	BLM Sensitive	X	
Small camissonia ( <i>Camissonia parvula</i> = <i>Oenothera parvula</i> )	BLM Sensitive	X	
Winged-seed evening primrose ( <i>Camissonia pterosperma</i> = <i>Oenothera pterosperma</i> )	BLM & Forest Service Sensitive	X	X
Idaho sedge ( <i>Carex idaho</i> = <i>C. parryana</i> ssp. <i>Idaho</i> )	BLM & Forest Service Sensitive	X	X
Earth lichen ( <i>Catapyrenium congestum</i> = <i>Heteroplacidium congestum</i> )	BLM Sensitive	X	
Mahala mat ( <i>Ceanothus prostratus</i> )	BLM Sensitive	X	
Cusick's false yarrow ( <i>Chaenactis cusickii</i> )	BLM Sensitive	X	
Desert pincushion ( <i>Chaenactis stevioides</i> )	BLM Sensitive	X	
Birchleaf mountain-mahogany ( <i>Cercocarpus montanus</i> )	BLM Sensitive	X	

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**Table 3-18  
Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Lanceleaf springbeauty ( <i>Claytonia multiscapa</i> var. <i>flava</i> = <i>C. lanceolata</i> var. <i>multiscapa</i> )	BLM Sensitive	X	
Yellow bee plant ( <i>Cleome lutea</i> )	BLM Sensitive	X	
Twisted/Alkali cleomella ( <i>Cleomella plocasperma</i> )	BLM Sensitive	X	
Short-spored jelly lichen ( <i>Collema curtisporum</i> )	BLM Sensitive	X	
Uinta Basin cryptantha ( <i>Cryptantha breviflora</i> )	BLM Sensitive	X	
Tufted cryptantha ( <i>Cryptantha caespitosa</i> )	BLM Sensitive	X	
Malheur cryptantha ( <i>Cryptantha propria</i> = <i>Oreocarya propria</i> )	BLM Sensitive	X	
Miner's candle ( <i>Cryptantha scoparia</i> )	BLM Sensitive	X	
Silky cryptantha ( <i>Cryptantha sericea</i> = <i>Oreocarya sericea</i> )	BLM Sensitive	X	
Sepal-tooth dodder ( <i>Cuscuta denticulata</i> )	BLM Sensitive	X	
Greeley's wavewing ( <i>Cymopterus acaulis</i> , var. <i>greeleyorum</i> )	BLM Sensitive	X	
Ibapah springparsley ( <i>Cymopterus ibapensis</i> = <i>Epallageiton ibapensis</i> )	BLM Sensitive	X	
California damasonium ( <i>Damasonium californicum</i> = <i>Machaerocarpus californicus</i> )	BLM Sensitive	X	
Silver-skin lichen ( <i>Dermatocarpon lorenzianum</i> )	BLM Sensitive	X	
Doublet ( <i>Dimeresia howellii</i> )	BLM & Forest Service Sensitive	X	X
Bacigalupi's downingia ( <i>Downingia bacigalupii</i> )	BLM Sensitive	X	
Harlequin calicoflower, Parti-color Downingia ( <i>Downingia insignis</i> )	BLM Sensitive	X	
Pointed draba, Beavertip draba, Rockcress draba ( <i>Draba globosa</i> = <i>D. apiculata</i> )	BLM Sensitive	X	
White false tickhead ( <i>Eatonella nivea</i> )	BLM Sensitive	X	
Swamp willow-herb ( <i>Epilobium palustre</i> )	BLM Sensitive	X	
Rabbitbrush goldenweed, Bloomer's goldenweed ( <i>Ericameria bloomeri</i> = <i>Haplopappus bloomeri</i> )	BLM Sensitive	X	
Windward's goldenbush ( <i>Ericameria discoidea</i> var. <i>winnardii</i> = <i>Ericameria winnardii</i> )	BLM Sensitive	X	
Linearleaf fleabane ( <i>Erigeron linearis</i> )	BLM Sensitive	X	
Matted buckwheat ( <i>Eriogonum caespitosum</i> )	BLM Sensitive	X	
Welsh's buckwheat ( <i>Eriogonum capistratum</i> var. <i>welshii</i> )	BLM Sensitive	X	
Great Basin desert buckwheat ( <i>Eriogonum desertorum</i> )	BLM Sensitive	X	
Hooker's buckwheat ( <i>Eriogonum hookeri</i> )	BLM & Forest Service Sensitive	X	X
Calcareous buckwheat ( <i>Eriogonum ochrocephalum</i> var. <i>calcareum</i> )	BLM Sensitive	X	
Packard's buckwheat ( <i>Eriogonum shockleyi</i> var. <i>packardiae</i> )	BLM Sensitive	X	
Shockley's matted buckwheat ( <i>Eriogonum shockleyi</i> var. <i>shockleyi</i> )	BLM Sensitive	X	

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**Table 3-18  
Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Railroad Canyon wild buckwheat ( <i>Eriogonum soliceps</i> )	BLM Sensitive	X	
Cushion cactus/spinystar ( <i>Escobaria vivipara</i> var. <i>vivipara</i> = <i>Coryphantha vivipara</i> )	BLM Sensitive	X	
White-margined wax plant ( <i>Glyptopleura marginata</i> )	BLM Sensitive	X	
Spiny hopsage ( <i>Grayia spinosa</i> )	BLM Sensitive	X	
Cronquist's forget-me-not ( <i>Hackelia cronquistii</i> = <i>H. patens</i> )	BLM Sensitive	X	
Bug-leg goldenweed ( <i>Haplopappus insectivorus</i> = <i>H. integrifolius</i> )	BLM Sensitive	X	
Prostate huchensia ( <i>Hornungia procumbens</i> = <i>Hutchinsia procumbens</i> )	BLM Sensitive	X	
Cooper's rubber-plant ( <i>Hymenoxys cooperi</i> var. <i>canescens</i> = <i>Actinea canescens</i> )	BLM Sensitive	X	
Large Canadian St. John's wort ( <i>Hypericum majus</i> = <i>H. canadense</i> var. <i>majus</i> )	BLM Sensitive	X	
Ballhead ipomopsis ( <i>Ipomopsis congesta</i> ssp. <i>crebrifolia</i> )	BLM Sensitive	X	
Spreading gilia ( <i>Ipomopsis polycladon</i> = <i>Gilia polycladon</i> )	BLM & Forest Service Sensitive	X	X
Davis' peppergrass ( <i>Lepidium davisii</i> = <i>L. montanum</i> )	BLM Sensitive	X	
Thick-leaf pepperweed ( <i>Lepidium integrifolium</i> )	BLM Sensitive	X	
Pryor Mountain bladderpod ( <i>Lesquerella lesicii</i> )	BLM Sensitive	X	
Middle Butte bladderpod ( <i>Lesquerella obdeltata</i> )	BLM Sensitive	X	
Sacajawea's bitterroot ( <i>Lewisia sacajaweanae</i> )	BLM & Forest Service Sensitive	X	X
Nuttall desert-parsley ( <i>Lomatium nuttallii</i> )	BLM Sensitive	X	
Packard's desert parsley ( <i>Lomatium packardiae</i> )	BLM Sensitive	X	
Inch-high lupine ( <i>Lupinus uncialis</i> )	BLM & Forest Service Sensitive	X	X
Torrey's desert dandelion ( <i>Malacothrix torreyi</i> = <i>M. sonchoides</i> var. <i>torreyi</i> )	BLM Sensitive	X	
United blazingstar ( <i>Mentzelia congesta</i> )	BLM Sensitive	X	
Smooth stickleaf ( <i>Mentzelia mollis</i> )	BLM Sensitive	X	
Leafy nama ( <i>Nama densum</i> )	BLM Sensitive	X	
Green needlegrass ( <i>Nassella viridula</i> = <i>Stipa viridula</i> )	BLM Sensitive	X	
Rigid threadbush ( <i>Nemacladus rigidus</i> )	BLM Sensitive	X	
Saint Anthony evening-primrose ( <i>Oenothera psammophila</i> )	BLM Sensitive	X	
Challis crazyweed ( <i>Oxytropis besseyi</i> var. <i>salmonensis</i> = <i>O. nana</i> var. <i>salmonensis</i> )	BLM Sensitive	X	
Creeping nailwort ( <i>Paronychia sessiliflora</i> )	BLM & Forest Service Sensitive	X	X
Simpson's hedgehog cactus ( <i>Pediocactus simpsonii</i> )	BLM Sensitive	X	
Idaho penstemon ( <i>Penstemon idahoensis</i> )	BLM Sensitive	X	

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**Table 3-18**  
**Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Janish's penstemon ( <i>Penstemon janishiae</i> )	BLM & Forest Service Sensitive	X	X
Lemhi beardtongue ( <i>Penstemon lembiensis</i> )	BLM & Forest Service Sensitive	X	X
Short-lobed penstemon ( <i>Penstemon seorsus</i> )	BLM Sensitive	X	
Indian apple, Wild Crab apple ( <i>Peraphyllum ramosissimum</i> )	BLM Sensitive	X	
Spine-noded milkvetch ( <i>Peteria thompsoniae</i> = <i>P. nevadensis</i> )	BLM Sensitive	X	
Obscure Phacelia ( <i>Phacelia inconspicua</i> )	BLM Sensitive	X	
Malheur Yellow Phacelia ( <i>Phacelia lutea</i> var. <i>calva</i> )	BLM Sensitive	X	
Least phacelia, Small-flower phacelia ( <i>Phacelia minutissima</i> )	BLM Sensitive	X	
Idaho twinpod, Salmon Twin bladderpod ( <i>Physaria didymocarpa</i> var. <i>lyrata</i> )	BLM Sensitive	X	
Small-flowered ricegrass ( <i>Piptatherum micranthum</i> = <i>Oryzopsis micrantha</i> )	BLM & Forest Service Sensitive	X	X
Thorn skeleton weed ( <i>Pleiaranthus spinosa</i> = <i>Stephanomeria spinosa</i> = <i>Lygodesmia spinosa</i> )	BLM Sensitive	X	
Platte cinquefoil ( <i>Potentilla platensis</i> )	BLM Sensitive	X	
Alkali primrose ( <i>Primula alkalina</i> )	BLM Sensitive	X	
Cusick's primrose ( <i>Primula cusickiana</i> )	BLM Sensitive	X	
Turtleback, Annual Brittlebrush ( <i>Psathyrotes annua</i> = <i>Bulbostylis annua</i> )	BLM Sensitive	X	
Dwarf wooly-heads ( <i>Psilocarphus brevissimus</i> )	BLM & Forest Service Sensitive	X	X
Beartooth large-flowered goldenweed ( <i>Pyrrocomma carthamoides</i> var. <i>subsquarrosa</i> = <i>Haplopappus carthamoides</i> var. <i>subsquarrosus</i> )	BLM & Forest Service Sensitive	X	X
Thinleaf goldenhead ( <i>Pyrrocomma linearis</i> = <i>Haplopappus uniflorus</i> var. <i>howellii</i> )	BLM Sensitive	X	
Snake River goldenweed, Radiate goldenweed ( <i>Pyrrocomma radiata</i> = <i>Haplopappus raidatus</i> )	BLM Sensitive	X	
White grouse pellet lichen ( <i>Rhizoplaca idahoensis</i> )	BLM & Forest Service Sensitive	X	X
Least snapdragon ( <i>Sairocarpus kingii</i> )	BLM Sensitive	X	
Silver chicken sage ( <i>Sphaeromeria argentea</i> )	BLM Sensitive	X	
Lost River silene ( <i>Silene scaposa</i> var. <i>lobata</i> )	BLM Sensitive	X	
Basin goldenrod ( <i>Solidago spectabilis</i> )	BLM Sensitive	X	
Few-flowered goldenrod ( <i>Solidago velutina</i> = <i>S. sparsifolia</i> )	BLM Sensitive	X	
White-stemmed globe-mallow ( <i>Sphaeralcea munroana</i> )	BLM Sensitive	X	
Tall dropseed ( <i>Sporobolus compositus</i> var. <i>compositus</i> = <i>Sporobolus asper</i> )	BLM Sensitive	X	

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**Table 3-18**  
**Special Status Species within the Planning Area**

Common Name ( <i>Scientific Name</i> )	Status*	Federal Land	
		BLM	Forest Service
Malheur princesplume ( <i>Stanleya confertiflora</i> = <i>S. annua</i> , <i>S. rara</i> , <i>S. viridiflora</i> )	BLM Sensitive	X	
Smooth buckwheat ( <i>Stenogonum salsuginosum</i> = <i>Eriogonum salsuginosum</i> )	BLM Sensitive	X	
Rush aster ( <i>Symphotrichum boreale</i> = <i>Aster junciformis</i> )	BLM Sensitive	X	
American wood sage ( <i>Teucrium canadense</i> var. <i>occidentale</i> )	BLM Sensitive	X	
Woven-spore lichen ( <i>Texosporium sancti-jacobi</i> = <i>Cyphellium sancti-jacobi</i> )	BLM Sensitive	X	
Wavy-leaf thelypody ( <i>Thelypodium repandum</i> )	BLM Sensitive	X	
Meadow pennycress ( <i>Thlaspi parviflorum</i> )	BLM Sensitive	X	
Showy townsendia ( <i>Townsendia florifera</i> )	BLM Sensitive	X	
Scapose townsendia ( <i>Townsendia scapigera</i> )	BLM Sensitive	X	
Douglas's clover ( <i>Trifolium douglasii</i> )	BLM Sensitive	X	
Owyhee clover ( <i>Trifolium owyheense</i> )	BLM Sensitive	X	
Plumed clover ( <i>Trifolium plumosum</i> var. <i>amplifolium</i> )	BLM & Forest Service Sensitive	X	X
Idaho range lichen ( <i>Xanthoparmelia idahoensis</i> )	BLM Sensitive	X	
Sitka columbine ( <i>Aquilegia formosa</i> )	Forest Service Sensitive		X
Lost River milvetch ( <i>Astragalus ammis-amisii</i> )	Forest Service Sensitive		X
White Cloud milkvetch ( <i>Astragalus vexilliflexus</i> var. <i>nubilus</i> )	Forest Service Sensitive		X
Beautiful Bryum ( <i>Bryum calobryoides</i> )	Forest Service Sensitive		X
Centennial rabbitbrush ( <i>Chrysothamnus parryi</i> ssp. <i>montanus</i> )	Forest Service Sensitive		X
Davis' wavewing ( <i>Cymopterus davisii</i> )	Forest Service Sensitive		X
Douglas' biscuitroot ( <i>Cymopterus douglasii</i> )	Forest Service Sensitive		X
Serpentine draba ( <i>Draba oreibata</i> var. <i>serpentine</i> )	Forest Service Sensitive		X
Payson bladderpod ( <i>Lesquerella paysonii</i> )	Forest Service Sensitive		X
Idaho pennycress, Stanley thlaspi ( <i>Noccaea idahoensis</i> var. <i>aileeniae</i> )	Forest Service Sensitive		X
Cache beardtongue ( <i>Penstemon compactus</i> )	Forest Service Sensitive		X
Marsh's bluegrass ( <i>Poa abbreviate</i> ssp. <i>marshii</i> )	Forest Service Sensitive		X
Tobias' saxifrage ( <i>Saxifraga bryophora</i> var. <i>tobiasiae</i> )	Forest Service Sensitive		X
Tolmie's saxifrage ( <i>Saxifraga tomiei</i> var. <i>ledifolia</i> )	Forest Service Sensitive		X

### 3.6 Wild Horse and Burro Management

The Wild Free-Roaming Horses and Burros Act of 1971, as amended by FLPMA and the Public Rangeland Improvement Act of 1978, directs the protection and management of wild horses and burros on BLM-administered and Forest Service-administered lands. Both the



BLM and Forest Service have responsibility for managing Wild and Free Roaming Horses and Burros. Under the Act, the BLM identified herd areas as places used as habitat by a herd of wild horses at the time the Act was passed. To carry out its duties under the 1971 law, the BLM periodically evaluates each herd area to determine if it has adequate food, water, cover, and space to sustain healthy and diverse wild horse and burro populations over the long-term. The areas that meet these criteria are then designated as HMAs, where horses or burros can be viably managed as a component of the BLM-administered lands. The BLM designates an appropriate management level (AML) and specifies an allowable range in horse numbers for each HMA based upon available forage and other resources necessary to sustain the horse or burro populations, as well as resource objectives and other designated uses of the BLM-administered lands.

Wild horse and burro management areas on Forest Service-administered lands are called territories. However, no active territories exist within the planning area. There are two inactive territories in Idaho on the Challis National Forest which no longer have any wild horses.

### 3.6.1 Conditions on BLM-Administered Lands

Within the planning area, the BLM manages six HMAs, all in the state of Idaho: four in the Boise District, one in the Twin Falls District, and one in the Idaho Falls District. Additionally, there are nine herd areas within the planning area, five of which are in southwestern Montana, and four of which are in Idaho (see **Figure 3-2**, Wild Horse and Burro Herd Management Areas and Herd Areas). The HMAs encompass approximately 361,900 acres of BLM-administered lands, and support between 424 and 617 head of horses when populations are within AML. Approximately 551 horses are on BLM-administered lands within these HMAs based upon current population estimates (**Table 3-19**, [HMAs within the Planning Area](#)).

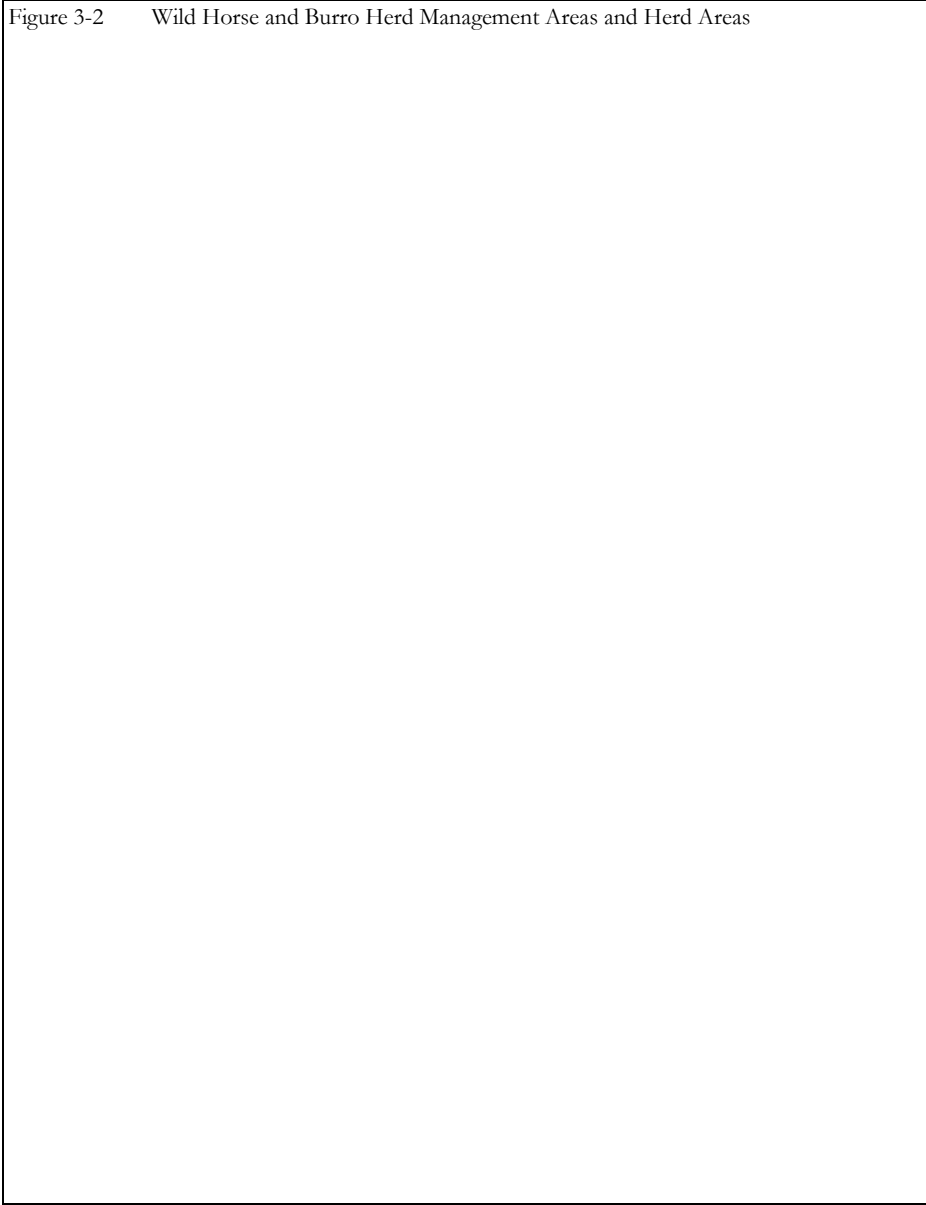
### 3.6.2 Conditions on Forest Service-Administered Lands

The Forest Service does not manage any wild horses or burros within the planning area.

### 3.6.3 Regional Context

**Table 3-20**, [Acres of Wild Horse and Burro Areas within GRSG Habitat in the Planning Area](#), displays acres of wild horse and burro territories in GRSG habitat (Manier et al. 2013). In the table, data are presented by surface management agency and their occurrence within occupied habitat in the planning area.

Figure 3-2 Wild Horse and Burro Herd Management Areas and Herd Areas



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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**Table 3-19**  
**HMA's within the Planning Area**

HMA	AML Range	Population Estimate <sup>1</sup>	Acres of BLM-Administered Lands within Planning Area
Black Mountain	30-60	55	38,900
Challis	185-253	185	154,300
Fourmile	60 <sup>2</sup>	65	13,000
Hardtrigger	66-130	141	57,200
Sands Basin	33-64	65	9,500
Saylor Creek	50 <sup>3</sup>	40	89,000

Source: Manier et al. 2013

<sup>1</sup>Population estimates current as of November 2012

<sup>2</sup>An AML target, rather than a range, was specified for this herd by the existing LUP

<sup>3</sup>AML not established, but is currently managed for 50 horses in accordance with the 1987 Jarbidge Resource Management Plan.

**Table 3-20**  
**Acres of Wild Horse and Burro Areas within GRSG Habitat in the Planning Area**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	41,300	2,007,200	601,400	228,500	1,792,900	1,177,200
Forest Service	0	0	0	0	0	0
Tribal and Other Federal	0	50,700	7,200	0	69,800	0
Private	2,300	602,400	29,100	4,400	271,200	51,900
State	3,500	74,300	4,800	14,200	83,200	15,000
Other	0	0	0	0	0	0

Source: Manier et al. 2013

<sup>1</sup>Includes number of acres where BLM and Forest Service Wild Horse and Burro areas overlap GRSG habitat.

<sup>2</sup>Note: BER combined acres for MZs II and VII

### 3.7 Wildland Fire Management

The Federal Wildland Fire Management Policy was developed by the Secretaries of the Departments of the Interior and Agriculture in 1995 in response to dramatic increases in the frequency, size, and catastrophic nature of wildland fires in the US. The 2001 review and update of the 1995 Federal Wildland Fire Management Policy consists of findings, guiding principles, policy statements, and implementation actions, and replaces the 1995 Federal Wildland Fire Management Policy. Known as the 2001 Federal Wildland Fire Management Policy (DOI et al. 2001), this update recommends that federal fire management activities and programs include the following:

- Provide for firefighter and public safety
- Protect and enhance land management objectives and human welfare
- Integrate programs and disciplines
- Require interagency collaboration
- Emphasize the natural ecological role of fire
- Contribute to ecosystem sustainability

The Federal Wildland Fire Management Policy provides nine guiding principles fundamental to the success of the federal wildland fire management program and the implementation of review recommendations. These umbrella principles compel each agency to review its policies to ensure compatibility.

The wildland fire management program encompasses the full range of hazardous fuels, management of wildfire, and the rehabilitation of lands affected by wildfire.

The wildfire suppression program utilizes a coordinated effort to respond to all unplanned ignitions (wildfire) with a preplanned, appropriate response. Each response is guided by LUP and fire management plan direction. As the severity and number of wildfires escalates, the further response and prioritization of fire suppression resources becomes a collaborative effort with all management levels within BLM and Forest Service working closely with interagency partners.

Trend analysis of fire starts and acres burned in the sage steppe ecosystem is very general and dependent predominately upon weather and fuels conditions. The relative fuel conditions of live fuel moistures and fine fuel loadings coupled with weather conditions such as relative humidity, wind speed, and days since last rainfall drive large fire growth in the grass fuel type.

Fire occurrence is weighed towards human causes, especially around urban centers and along major highway corridors. However, lightning is the major contributor to multiple large fire days and high numbers of acres burned. Lightning storms generally track from southwestern towards eastern Idaho, leaving successive lightning starts across all three southern districts, often times in remote or difficult to reach areas. These lightning events are commonly associated with strong winds, which contribute to rapid large fire growth. Summer storms commonly lack significant rainfall. It should be reasonably expected that the majority of large fire days correspond to high percentile Burning Index days. Burning Index is a number related to the contribution of fire behavior to the effort of containing a fire. The Burning Index rates fire danger related to potential flame length over a fire danger rating area.

Since 2006, emphasis upon the protection of GRSG habitat during suppression actions has taken center stage in planning and operational discussions. High numbers of PPH and PGH acres were burned in 2007 and 2012. The majority of these acres were burned during



corresponding high Burning Index days or periods. Fire season generally extends from early June thru October, and large fires can be expected during that time.

*Fire Regime Condition Class*

Natural Fire Regime: A natural fire regime is a general classification of the role fire would play across a landscape without modern human mechanical intervention (Agee 1993; Brown 1995). The five natural fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity of the fire on the dominant overstory vegetation (amount of vegetation replacement). These five regimes include:

- I – 0 to 35 year frequency and low (surface fires most common) to mixed (less than 75 percent of the dominant overstory vegetation replaced) severity
- II – 0 to 35 year frequency and high severity (greater than 75 percent of the dominant overstory vegetation replaced)
- III – 35 to 100+ year frequency and mixed severity (less than 75 percent of the dominant overstory vegetation replaced)
- IV – 35 to 100+ year frequency and high severity (greater than 75 percent of the dominant overstory vegetation replaced)
- V – 200+ year frequency and high severity (greater than 75 percent of the dominant overstory vegetation replaced)

Fire regime condition class (FRCC) is a classification of the amount of change in fire frequency and severity from the natural fire regime (Hann and Bunnell 2001). The three classes are based on low (FRCC 1), moderate (FRCC 2), and high (FRCC 3) change from the natural fire regime (Hardy et al. 2001; Schmidt et al. 2002). The change in natural fire regime results from changes to one or more of the following fire regime attributes: vegetation characteristics (e.g., species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g., insect and disease mortality, grazing, and drought).

Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural fire regime. Uncharacteristic conditions are considered to be those that did not occur within the natural fire regime. Examples of uncharacteristic conditions include invasive species (e.g., weeds, insects, and diseases) or excessive vegetation removal. The amount of change is based on comparison of the fire regime attributes as identified above to the natural fire regime. The amount of change is then classified to determine the FRCC.

**3.7.1 Conditions within the Planning Area**

The Hazardous Fuels Reduction Program (HFR) involves a variety of treatments to accomplish the following:

- Modify vegetation to provide for firefighter safety
- Reduce the potential of wildfire spread
- Reduce the detrimental effects of wildfire on a landscape
- Restore ecosystem resiliency
- Allow the natural role of fire on the landscape
- Protect private holdings and infrastructure
- Decrease the costs of rehabilitation efforts after a wildfire has occurred

Depending on the specifics of the overall project, multiple treatment types may be involved over several years to obtain the specifications for the project. One example of this would be: For an annual grass dominated area, prescribed fire will be used to remove existing layers of the annual grass and reduce the seed source. Chemical applications would be utilized to further reduce the seed source and the resulting new annual grass plants. Mechanical seedings of perennial (native or nonnative, grass/shrub/forb) mixtures would occur, pending the most successful time of year for applications.

Examples of treatment types include:

- **Prescribed Fire (Treatment)** – An HFR Treatment Category for any fire ignited by management actions to meet specific objectives and to achieve Fire Management objectives.
- **Mechanical (Treatment)** – An HFR Treatment Category that describes work that manually or mechanically removes or modifies fuel load structures to achieve Fire Management objectives.
- **Other (Treatment)** – An HFR Treatment Category that describes work involving the use of chemicals and biological methods to achieve Fire Management objectives.

In Idaho, the HFR Program has been in place since the start of the 2000 National Fire Plan identified the need and funding source to develop and maintain the program. Within the last 5 years, which would represent the most current treatments on the existing landscape, the following acreage and types of treatments are shown below. The prescribed fire acreages have decreased from historical levels due to multiple large scale wildfires accomplishing the removal of undesirable vegetation in areas planned for future projects. Mechanical treatments have increased in, both, seeding and mechanical reductions of conifer encroachment throughout PPH and PGH areas. The use of chemical or “Other” types of treatments has grown to increase the probability of success of seeding(s) of perennial (native or nonnative, grass/shrub/forb) mixtures by removing the dominance and competitiveness of the undesirable annual grass and weed species. Biological or “Other” treatments (insects, goat, and specific pathogens) have recently been of interest in very specific areas due to the



“high risk” in areas that may have significant values should accidents occur during implementation of mechanical treatments (e.g., rocks and windows).

### 3.7.2 Trends

**Table 3-21, BLM Treatment Types and Acreages Over the Past Five Years**, presents fuel treatment types and acreages over the past 5 years.

**Table 3-21  
BLM Treatment Types and Acreages Over the Past Five Years**

Treatment Type	2008	2009	2010	2011	2012
Prescribed Fire	11,199 acres	8,647 acres	7,189 acres	6,398 acres	3,021 acres
Mechanical	46,073 acres	38,992 acres	33,975 acres	30,987 acres	30,725 acres
Other	59,003 acres	47,991 acres	36,500 acres	39,895 acres	71,666 acres

Source: BLM 2013a

Over the past few years, the focus of the HFR program was to treat acreages within the WUI. This was specific to protecting private in-holdings in the attempt to decrease the detrimental effects of wildfire to human structures and the associated infra-structure for the communities.

#### ***Emergency Stabilization and Rehabilitation (ESR)***

Alteration to the historic fire regime has substantially reduced the sagebrush steppe communities of the Sub Unit and the larger Great Basin. The exclusion of wildfire within the upper elevations shrub steppe communities (primarily mountain big sagebrush) has converted GRSG habitat into juniper woodland.

The greatest loss of GRSG habitat however has been from cheatgrass proliferation and wildfire within the lower elevation sagebrush communities (primarily Wyoming big sagebrush). Historically, wildfire was not a common occurrence within the Wyoming big sagebrush sites. Current literature estimates the fire interval at approximately 100 years. When these sites did burn, the discontinuous fuels of the scattered native bunch grasses likely resulted in small, discontinuous fires. Conversely, cheatgrass is highly flammable due to its uniform fine fuels which dry out early in the growing season. Each recurring fire set the stage for further cheatgrass expansion, resulting in an ever increasing cheatgrass/fire cycle and loss of GRSG habitat. On many of these sites, fire-return intervals have been shortened to between 2 and 4 years (Whisenant 1990).

Lower elevation shrub steppe communities within the subunit (even those containing minimal cheatgrass understories) will cross a threshold into fire maintained cheatgrass dominated communities unless they are successfully rehabilitated within the first couple years following wildfire. Such areas are also highly susceptible to noxious weed invasions. Therefore, successfully reestablishing perennial vegetation within this narrow time frame is essential for reducing the loss of low elevation GRSG habitat.

Fire rehabilitation consists of mitigating damaging effects from wildfire and in restoring vegetative structure and function to recently burned fire damaged areas which cannot recover on their own. These efforts consist of seeding perennial grasses, shrubs, and forbs. The seeding technique is based largely on seed size. Most grasses (which have relatively large seeds) are drill seeded to effectively cover the seed, whereas sagebrush and many forbs (which consist of small seeds) are most successful broadcast seeded.

Drought and invasive annual grass competition are the two biggest challenges to reestablishing perennial vegetation following wildfire on the low elevation sites. Seedings are most successful during years of adequate precipitation and on sites where cheatgrass competition is minimal such as recently burned sagebrush stands in good condition, or sagebrush stands with cheatgrass in the understory which burned hot enough consume cheatgrass seed lying on the soil surface underneath the sagebrush canopy. Accordingly, the higher the density of sagebrush cover prior to the burn, the greater the likelihood for seedings success. Because sagebrush fires burn hotter and slower than grassland fires, the cheatgrass seed lying on the soil surface underneath the sagebrush canopy is usually consumed, whereas the seed laying outside of the sagebrush canopy or other shrub free areas (such as previously burned cheatgrass-dominated sites) is not consumed and remains viable. Accordingly, the areas underneath the burned sagebrush canopy create a cheatgrass free “clean” seedbed which allows seeded species to establish relatively free of cheatgrass competition. Although the areas outside of the canopies will remain dominated by cheatgrass, the established plants underneath the former sagebrush canopy will usually outcompete the adjacent cheatgrass over time. However, strong wind-driven fires often prevent consumption of cheatgrass seed, thereby require cheatgrass control. Seeding previously burned cheatgrass-dominated sites devoid of a brush overstory, is not usually successful because these rapid cheatgrass driven fires do not provide enough heat to consume cheatgrass seed lying on the soil surface.

Herbicides have proven to be the most effective and noninvasive method for controlling annual grasses prior to seeding. Before 1991, the use of herbicides to control invasive annual grasses was prohibited on public land. Therefore, various tilling methods such as plowing and disking were the only available options. Unfortunately, these treatments damaged remaining native vegetation and biologic soil crusts, increased site susceptibility to wind erosion and often resulted in seed being drilled too deeply, thereby opening the site for total cheatgrass domination when seedings were unsuccessful. Prescribed fire was used in attempts to kill cheatgrass seed while still on the plant. Although such fires kill some seed still on the plant, they do not burn hot enough to kill cheatgrass seed on the soil surface.

Intensive livestock grazing is often suggested for controlling cheatgrass competition. Although targeted grazing may have some applications for fuels management, it is not effective in reducing cheatgrass competition (Hempy-Mayer and Pyke 2008). During the short time when cheatgrass is highly palatable in the spring, a sufficient number of livestock cannot be concentrated on a small enough area to reduce the cheatgrass seed significantly or reduce cheatgrass seed lying on the soil surface. In addition, this type of grazing can be

detrimental to remaining perennial grasses, opening the site up for further cheatgrass expansion in the future.

The BLM and Forest Service are authorized to use various approved contact and pre-emergent herbicides for controlling invasive annual grasses. Both types of herbicides have their advantages and shortcomings.

Contact herbicides such as Glyphosate have been widely and successfully used within the Boise, Twin Falls, and Idaho Falls Districts in Idaho. These herbicides must be applied during the short period that cheatgrass is actively growing, and before seed development occurs. When numerous cheatgrass crops occur on a given year, repeated applications are required. Additionally, application rates must be tuned to minimize damage to existing perennial plants while effectively controlling the invasive annuals. Glyphosate binds quickly to soil particles and is inactivated. Unbound glyphosate is degraded by soil bacteria.

Pre-emergent herbicides such as imazapic and sulfometuron methyl are highly effective in controlling invasive annual grasses while having minimal impacts on most established perennial species. They are also classified as nontoxic to fish and wildlife. These herbicides do not require the specific application timing needed with glyphosate, and their residual action in the soil controls annual grasses whenever they happen to germinate. The residual action lasts from 1 to 3 years, depending on soil moisture, pH, and temperature. In addition to controlling invasive annual grasses prior to seeding, these herbicides could be used to help maintain and protect existing native plant communities which have been invaded with annual grasses. Such treatments would allow the natives to gain a competitive advantage over the exotic annuals, and the associated reduction in annual grass fuels would reduce the site's risk to wildfire. A limitation of these herbicides is their potential to damage crops at extremely low concentrations. Accordingly, these herbicides must be used in accordance to the label and/or other appropriate restrictions in such situations.

Recent research on naturally occurring fungi and bacteria for controlling cheatgrass is encouraging and may prove to be an effective future control method. Examples include Dooley and Beckstead's (2010) *Characterizing the interaction between a fungal seed pathogen and a deleterious rhizobacterium for biological control of cheatgrass*; Stewart's (2009) *The grass seed pathogen *Pyrenophora semeniperda* as a biological agent for annual Bromo grasses*; and Meyer et al.'s (2008). *Cheatgrass (*Bromus tectorum*) biocontrol using indigenous fungal pathogens*.

Selecting plant materials which can establish and persist in these arid cheatgrass competitive environments is essential for restoring GRSG habitat lost through wildfire. Prior to the mid-1980s, fire rehabilitation funds could not be used for sagebrush seeding. Since that time, sagebrush is included in most fire rehabilitation seedings on its respective ecological sites. Occasionally, during busy fire years, sagebrush seed shortages restrict its use to priority burned GRSG habitat.

Native grasses and forbs are preferred over introduced species when they can meet the above requirements. Historically, few adapted native grass seed was available which could persist in these desert environments, thereby requiring the use of durable introduced species

such as crested wheatgrass. Over time, selections of native blue bunch wheatgrass, basin wildrye, Snake River wheatgrass, squirreltail, Indian ricegrass, and Sandberg bluegrass have become increasingly available and are now used extensively in fire rehabilitation seedings for areas that receive at least 10 inches of annual precipitation in recently burned sagebrush communities. For the past ten years, the BLM has been funding the interagency Great Basin Native Plant Selection and Increase Project for increasing native seed availability, especially native forbs important to GRSG, and to improve the success of land managers in establishing native plants (Forest Service 2013b).

However, some important native grasses (such as Thurber's needlegrass) are still not widely available and or effective in competing with cheatgrass in the harshest environments. In these areas, durable introduced species as Siberian wheatgrass and Russian wild rye are still the only viable option. Even those species are often unsuccessful on those sites. Additionally, restoring native plant communities in repeatedly burned annual dominated grasslands has proven largely unsuccessful. Considerable speculation and research has attempted to understand why. A lack of mycorrhiza, soil nutrients, and other changes to the soil environment from years of invasive annual grass domination is believed to be at least partially responsible.

The theory of "assisted succession" is suggested as a method for ultimately restoring these areas by first vegetating with resilient introduced species to break the fire cycle, removing annual grass dominance and deplete annuals' seed source, and restore soil characteristics which may in time make the site more hospitable to restoring the native community, followed by eventual seeding with natives. Accordingly, this is a long term costly process which cannot begin to be implemented until the fire cycle has been broken. Until the majority of annual grass dominated landscapes can be rehabilitated to less fire prone species in the long-term, these short fire cycles will result in a continual loss of these investments, and in the remaining native sagebrush steppe communities.

Seeded areas require rest from livestock use to become fully established, followed by livestock management which will maintain plant health and vigor. BLM policy traditionally prescribes a minimum of two growing seasons rest from livestock grazing, and until plant establishment objectives are met. Depending on moisture and other site conditions, longer rest is often needed before grazing can be resumed. However, a true native restoration could require years of rest from grazing to become successfully established (depending on plant materials used and site characteristics). Such large-scale treatments could have significant repercussions to grazing permittees, and may also necessitate more restrictive management to maintain the native seeded species over the long term.

The ability to protect these areas from recurring wildfire is crucial to maintaining the reestablished sagebrush component. Successful fire rehabilitation seeding can contribute to this goal by changing the fuels from highly flammable annual grasses with high fuel continuity, into less-fire-prone perennial bunch grasses, which stay greener longer and which provide much less fuel continuity (Pellant 1992). Accordingly, when fire does return to these rehabilitated areas, the fires are often spotty and leave substantial unburned sagebrush



islands and a seed source for naturally reestablishing sagebrush. Additionally, the burned perennial grasses quickly re-sprout and compete effectively with annual weeds.

Also warranted is a system of effectively managed fuel breaks consisting of durable, fire-resistant vegetation, such as forage kochia, placed primarily along roads or other appropriate, strategic features. In general, vegetative fuel breaks have characteristics that disrupt fuel continuity, harbor lower fuel loads, and have lower volatile compounds and increased moisture content (Pellant 1992). Fuel breaks help provide defensible anchor points for facilitating fire suppression activities and can allow fires to be compartmentalized, ultimately reducing potential fire size.

#### ***Burned Area Emergency Response***

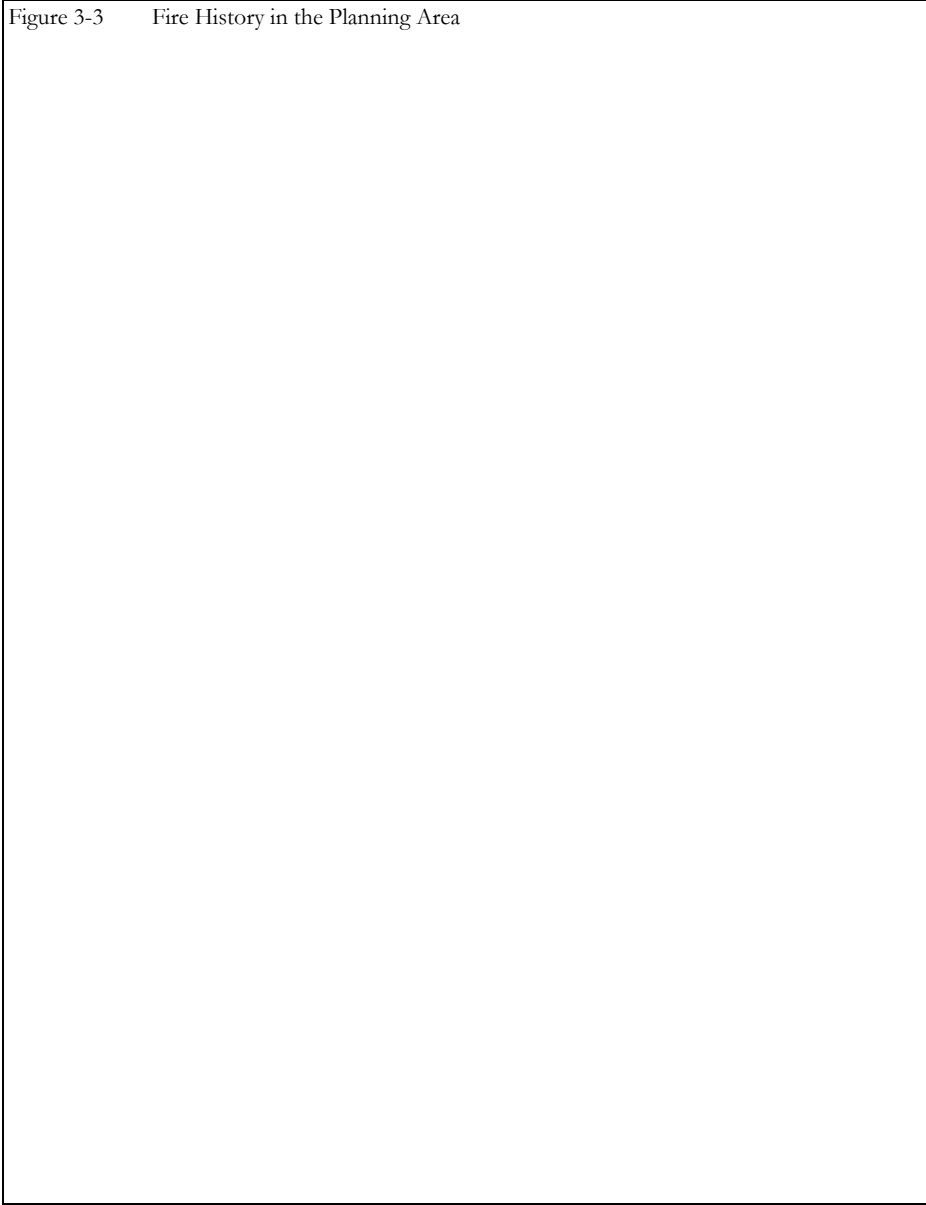
The Forest Service's Burned Area Emergency Response (BAER) program is designed to address emergency situations through its key goals of protecting life, property, and critical natural and cultural resources. The objective of the program is to determine the need for and to prescribe and implement emergency treatments on federal lands to minimize threats to life or property resulting from the effects of a fire or to stabilize and prevent unacceptable degradation to natural and cultural resources. Loss of vegetation exposes soil to erosion; runoff may increase and cause flooding, sediments may move downstream and damage houses or fill reservoirs, and put endangered species and community water supplies at risk.

BAER teams are staffed by specially trained professionals, and BAER assessments usually begin before a wildfire has been fully contained. There are a variety of emergency stabilization techniques that the BAER team might recommend. Reseeding of ground cover with quick-growing or native species, mulching with straw or chipped wood, construction of straw, rock or log dams in small tributaries, and placement of logs to catch sediment on hill slopes are the primary stabilization techniques used. The team also assesses the need to modify road and trail drainage mechanisms by installing debris traps, modifying or removing culverts to allow drainage to flow freely, adding additional drainage dips and constructing emergency spillways to keep roads and bridges from washing out during floods.

### **3.7.3 Regional Context**

**Table 3-22**, Acres of Wildland Fire within GRSG Habitat, and **Table 3-23**, Acres with High Probability for Wildland Fire within GRSG Habitat, display wildland fire data for GRSG habitat in the planning area (Manier et al. 2013). **Table 3-23** also uses data from the Forest Service's fire simulator, FSim. FSim generates burn probabilities by simulating fires using historical weather data and current landcover data. **Figure 3-3**, Fire History in the Planning Area, and **Figure 3-4**, Fire Frequency in the Planning Area, illustrate fire issues in the sub-region.

Figure 3-3 Fire History in the Planning Area



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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Figure 3-4 Fire Frequency in the Planning Area



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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**Table 3-22**  
**Acres of Wildland Fire within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	400,000	39,300	965,900	836,500	30,100	1,809,400
Forest Service	36,700	8,700	161,500	2,800	12,600	33,900
Tribal and Other Federal	80,200	127,000	82,400	58,100	17,100	58,100
Private	47,200	73,300	190,300	72,400	13,800	417,400
State	28,300	9,800	30,900	38,600	11,100	53,100
Other	100	0	100	600	0	700

Source: Manier et al. 2013

<sup>1</sup>Acres calculated from wildland fires occurring between 2000 and 2012; represents total acres burned.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-23**  
**Acres with High Probability for Wildland Fire within GRSG Habitat<sup>1</sup>**

Surface Management Agency	Acres <sup>2</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II	MZ IV	Planning Area	MZ II/VII <sup>3</sup>	MZ IV
BLM	1,801,400	402,600	4,438,100	6,035,000	862,000	11,904,200
Forest Service	428,900	182,700	621,400	601,200	31,100	1,163,200
Tribal and Other Federal	270,100	435,900	301,900	461,500	180,100	487,200
Private	890,300	593,300	2,268,400	1,338,600	871,200	4,068,100
State	363,900	62,700	649,700	600,300	151,600	738,700
Other	26,300	1,300	26,300	61,900	8,400	62,000

Source: Manier et al. 2013

<sup>1</sup> High burn probability is based on a national burn probability dataset generated for the 2012 Fire Program Analysis System and provided by the National Interagency Fire Center. Areas were classified in several categories: non-burnable; low probability, and high probability.

<sup>2</sup> Derived from Forest Service FSim Burn data

<sup>3</sup> Note: BER combined acres for MZs II and VII

### 3.8 Livestock Grazing

The foremost authority that provides for grazing of BLM-administered lands is the Taylor Grazing Act which was passed on June 28, 1934, to protect public rangelands and their resources from degradation, to provide for orderly use to improve and develop public rangelands, and to stabilize the livestock industry. Following various homestead acts, the Taylor Grazing Act established a system for allotting grazing privileges. The FLPMA and the Public Rangeland Improvement Act (1978) also provide authority for managing grazing on public rangelands managed by the BLM. BLM grazing administration, excluding of Alaska, is governed by 43 CFR Part 4100.



The primary laws that govern grazing on Forest Service-administered lands are the Organic Administration Act of 1897, Granger-Thye Act of 1950, Multiple Sustained Yield Act of 1960, FLPMA, Forest Rangeland Renewable Resources and Planning Act of 1974, National Forest Management Act of 1976, and Public Rangelands Improvement Act of 1978. The Forest Service manages livestock grazing under direction in 36 CFR Part 222, Forest Service Manual 2200, and Forest Service Handbook 2209.13. In addition, LUPs identify the suitability of land on Forest Service-administered units to produce forage for grazing animals and establish programmatic direction for grazing activities, including goals, objectives, desired conditions, standards, guidelines, and monitoring requirements. Although an area may be deemed suitable for use by livestock in a LUP, a project-level analysis evaluating the site-specific impacts of the grazing activity, in conformance with NEPA, is required in order to authorize livestock grazing on specific allotments.

The BLM grazing administration regulations were revised in 1995 to include Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration (43 CFR 4180). In accordance with 43 CFR 4180.2, both the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM for Montana and the Dakotas were placed in effect on August 12, 1997, and subsequently apply to grazed BLM-administered lands in the planning area. Standards are integrated into the BLM's land management through incorporation into grazing permits and LUPs, as a basis for environmental assessments and through NEPA analysis, and as a basis for monitoring. Guidelines are integrated into land management by incorporating them into livestock grazing authorizations and management practices. The standards and guidelines provide a clear statement of agency policy and direction for those who use BLM-administered lands for livestock grazing and for those who are responsible for their management and accountable for their conditions. In accordance with 43 CFR Part 4180, if it is determined that grazing management practices or levels of grazing are significant factors in failing to achieve the standards and conform with the guidelines, appropriate action shall be taken prior to the next grazing season to make progress towards Standards and conform to the Guidelines.

### **3.8.1 Conditions within the Planning Area**

Grazing permits and leases are the documents that authorize livestock grazing on BLM-administered lands (43 CFR 4100.0-5). The kind and number of livestock, the period of use (seasonal), the allotment to be used, and the amount of use in animal unit months (AUMs) are mandatory terms and conditions of every grazing permit or lease (43 CFR 4130.3). An AUM is the amount of forage necessary for the sustenance of one cow or its equivalent for one month and an allotment is an area of land designated and managed for grazing of livestock (43 CFR 4100.0-5). Livestock graze on approximately 12,129,800 acres of BLM-administered land within 2,654 allotments in the planning area.

Grazing on Forest Service-administered lands is permitted through term grazing permits that authorize grazing on Forest Service-administered lands. The term grazing permit authorizes the number, kind, and class of livestock as well as the period of use and grazing allotment on

which livestock are permitted to graze. Permit holders may not assign or transfer grazing privileges in whole or part (36 CFR 222.1-4). There are 319 allotments on 9,646,900 acres on Forest Service-administered land in the planning area.

**Table 3-24, Idaho and Southwestern Montana Sub-Region Planning Area – Allotments** provides information on the allotments managed in the planning area.

**Table 3-24  
Idaho and Southwestern Montana Sub-Region Planning Area – Allotments**

District or Forest	Allotments	Acres in Planning Area	Active AUMs	Non Habitat	PGH	PPH
<b>BLM</b>						
BLM Boise District	529	3,813,100	349,000	1,306,700	578,000	1,928,400
BLM Idaho Falls District	902	3,508,500	324,900	556,200	370,600	2,581,700
BLM Twin Falls District	533	3,694,400	496,000	832,400	681,600	2,180,500
BLM Western Montana District	690	1,113,800	90,300	380,400	281,100	452,300
<b>Total</b>	<b>2,654</b>	<b>12,129,800</b>	<b>1,260,200</b>	<b>3,075,700</b>	<b>1,911,300</b>	<b>7, 142,900</b>
<b>Forest Service</b>						
Beaverhead-Deerlodge	83	2,334,900	207,600	2,008,700	177,200	149,000
Boise	16	1,244,500	48,300	1,168,400	56,500	19,600
Caribou-Targhee	64	2,224,600	308,700	2,002,100	164,500	105,800
Curlew	2	47,800	27,900	1,800	6,800	39,200
Salmon-Challis	82	2,184,100	142,200	1,639,500	201,800	342,900
Sawtooth	72	1,611,000	172,100	1,135,300	202,800	273,000
<b>Total</b>	<b>319</b>	<b>9,646,900</b>	<b>906,800</b>	<b>7,955,800</b>	<b>809,600</b>	<b>929,500</b>

Source: BLM 2013a; Forest Service 2013a; Forest Service 2013c

Facilities for livestock management on BLM-administered and Forest Service-administered lands in the planning area occur at varying densities based upon management needs, landownership patterns and other factors. These facilities include, but are not limited to fences, cattle guards, corrals, pipelines, water troughs, wells and reservoirs. Fences are used to delineate allotment boundaries, pastures within allotments, landownerships, and to exclude the impact of ungulate grazing from certain resources. Corrals are smaller fenced areas that are occasionally located on BLM-administered and Forest Service-administered lands for the purposes of gathering, sorting and handling livestock. Watering facilities are



used to improve livestock distribution in areas where naturally occurring surface water is not available, and to reduce livestock use of naturally occurring springs and streams. In addition, supplemental salt, mineral, and protein may be provided for livestock grazing on BLM-administered and Forest Service-administered lands, to aid with distribution of authorized livestock.

Since 1999, an assessment of rangeland health standards and guidelines has been made on 2,219 of the 2,736 BLM allotments comprising 9,978,899 acres within the planning area. Of the allotments which have been assessed, 1,403 allotments comprising 3,509,733 acres are meeting all applicable standards and guidelines. An additional 451 allotments comprising 4,581,851 acres are not achieving one or more of the applicable standards and guidelines due to livestock grazing management, but management actions have been implemented to correct the identified issues. On 61 allotments comprising 660,901 acres, standards are not being achieved due to livestock grazing management, but management actions have not yet been taken to make progress towards meeting standards. On 293 allotments comprising 1,226,179 acres, one or more applicable standards was not met due to factors other than livestock grazing management. Standards and guidelines assessments have not been completed on 528 allotments comprising 2,406,238 acres within the planning area. The Forest Service does not have an equivalent assessment to the BLM's rangeland health standards and guidelines, nor are similar assessment data available for Forest Service-administered lands.

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### 3.8.2 Regional Context

**Table 3-25**, Acres of Grazing Allotments within GRSG Habitat, through **Table 3-27**, Miles of Fences within GRSG Habitat, display grazing data for GRSG habitat in the planning area (Manier et al. 2013). In each table, data are presented by surface management agency and their occurrence within occupied habitat in the planning area. It should be noted that for **Table 3-26**, Acres of BLM Allotments Not Meeting Land Health Standards within GRSG Habitat, data were assembled in 2008 from available records, and progress has been made towards meeting standards and guidelines since this time. In addition, this table reflects only those allotments not meeting Idaho Standards for Rangeland Health and Guidelines, Standard 8 (Threatened and Endangered Plants and Animals).

**Table 3-25**  
**Acres of Grazing Allotments within GRSG Habitat**

Surface Management Agency	Acres within PGH			Acres within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
BLM	1,976,900	8,916,400	4,670,700	7,256,900	8,946,000	13,408,800
Forest Service	865,700	416,700	1,050,800	954,000	146,500	1,566,700
Tribal and Other Federal	128,700	148,500	153,800	262,900	156,400	266,200
Private	465,400	4,524,200	1,201,300	1,101,900	3,957,300	3,044,600
State	214,000	771,600	257,900	629,000	1,032,700	693,600
Other	400	4,200	400	1,400	17,700	1,500

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**Table 3-25**  
**Acres of Grazing Allotments within GRSG Habitat**

Surface Management Agency	Acres within PGH			Acres within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV

Source: Manier et al. 2013

<sup>1</sup> Note: BER combined acres for MZs II and VII

**Table 3-26**  
**Acres of BLM Allotments Not Meeting Land Health Standards within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM (Idaho)	440,700	366,000	968,900	1,397,800	286,900	2,617,200

Source: Manier et al. 2013

<sup>1</sup>Only includes allotments not meeting Land Health Standards with grazing as the causal factor

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-27**  
**Miles of Fences within GRSG Habitat**

Surface Management Agency	Miles within PGH <sup>1</sup>			Miles within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	4,600	8,800	7,200	10,600	9,300	16,100
Forest Service	1,600	1,100	1,900	2,000	500	2,800

Source: Manier et al. 2013

<sup>1</sup>Derived from a dataset that identifies pasture and allotment borders on BLM-administered and Forest Service-administered land as potential fences

<sup>2</sup> Note: BER combined acres for MZs II and VII

### 3.9 Recreation

The diverse planning area offers multiple settings for a wide range of opportunities for recreation requiring no permits and no or minimal fees on BLM- and Forest Service-administered land.

#### 3.9.1 Conditions within the Planning Area

##### ***BLM Recreation***

Objectives of the BLM recreation program are to: (1) provide broad spectrum of resource dependent recreation opportunities to meet the needs and demands of public land visitors, (2) foster agency-wide efforts to improve service to the visiting public, (3) maintain high quality recreation facilities to meet public needs and enhance the image of the agency, and (4) improve public understanding and support of the BLM by effectively communicating the

agency's multiple use management programs to the recreation visitor. The BLM accomplishes these objectives by focusing on visitor services, information and interpretation, resource enhancement and protection, facility maintenance and development, tourism programs, improved accessibility, and essential administrative functions. In meeting these objectives, the BLM also considers the presence of other federal, state and local, and private recreation opportunities; the need to assist states and local communities served by the agency to broaden and improve their economic base; and the need to continually monitor recreation trends, customer preferences, and technological advances to improve short, medium and long range strategic planning efforts.

BLM recreation planning and management is based on the establishment of Recreation Management Areas. Recreation management areas fall into two categories: 1) Special Recreation Management Areas (SRMA) and 2) Extensive Recreation Management Areas (ERMA). The BLM Recreation Planning Manual 8320 was released in 2011. Manual 8320 made policy changes to how BLM addresses planning for recreation management areas. Because the policy changes are recent, there are currently no LUPs that have recreation decisions based on the new policy. Consequently, the management decisions described here are done so in the context of the previous recreation policy.

Recreation management areas are administrative sub-units that serve as the basic land unit for recreation management. Each area is identified and managed as a unit based on similar or interdependent recreation values, homogenous or interrelated recreation use, land tenure and use patterns, or administrative efficiency.

SRMAs are established to direct recreation program priorities, including the allocation of funding and personnel, to those BLM-administered lands where a commitment has been made to provide specific recreation activity and experience opportunities on a sustainable basis. This includes a long term commitment to manage the physical, social, and administrative settings to sustain these activities and experience opportunities. Delineation is based on administrative/management criteria, including the existence of congressional designations, similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, public concerns, or interagency considerations. These areas usually require a high level of recreation investment and/or management. They include recreation sites, but recreation sites alone do not constitute a SRMA. SRMAs established to reflect a congressional designation may be larger than the designation boundary when significant recreation issues or management concerns occur outside the designated area.

ERMAs are where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured type of recreation activities. They may contain recreation sites. The areas consist of the remainder of land areas not included in SRMAs within a field office.

The number of SRMAs and ERMAs are listed in **Table 3-28**, Recreation Management Areas, and are mapped in **Figure 3-5**, Special Recreation Management Areas.

**Table 3-28**  
**Recreation Management Areas**

SRMAs	48
ERMAs	18

Source: BLM 2013a

Figure 3-5 Special Recreation Management Areas



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Within the recreation management area, there are approximately 400 recreation sites. These sites range in size and intensity of use from intensely used OHV areas (e.g., St Anthony Sand Dunes), boat ramps, and campgrounds to lightly used overlooks, trailheads and interpretive wayside exhibits.

BLM-administered lands received over 6 million visits in 2012. The BLM estimates that 20 to 25 percent of recreation visits were related to OHV use (e.g., motorcycles, all-terrain vehicles, and trucks). OHV use on BLM-administered lands has seasonal variations. In early spring when the forests often still have snow, BLM-administered lands will get recreational OHV use. As the temperatures rise and the lower elevation areas get hotter, OHV users will migrate to higher elevations where temperatures are cooler (often making more use of national forests). Use on BLM-administered lands in the fall will increase as temperatures cool and hunting season starts. There are BLM-administered lands that see little recreation use except during hunting season. OHV use is low during the cold winter months.

Depending on the OHV designation, use will be on routes in limited areas or possibly off routes where the area is designated as open (see **Section 3.10**, Travel Management, for OHV designations).

Other types of recreation activity that occur include bicycling, camping, hiking, horseback riding, skiing, snowmobiling, rafting/floating, power boating, fishing, swimming, photography, wildlife viewing, and hunting.

#### ***Forest Service Recreation***

The Forest Service provides and manages a myriad of recreation opportunities for the visiting public. The National Forests and Grasslands provide the greatest diversity of outdoor recreation opportunities in the world, connecting visitors with nature in an unmatched variety of settings and activities. Visitors can hike, bike, ride horses, and drive OHVs; picnic, camp, hunt, fish, and navigate waterways; view wildlife and scenery; and explore historic places. Visitors glide through powder at world class alpine resorts and challenge themselves on primitive cross-country ski or snowmobile routes. With many partners, the recreation program strives to promote healthy lifestyles, support local economies, and connect citizens to their public lands. The Intermountain Region of the Forest Service manages over 34 million acres of forests and grasslands (5.8 million in Wilderness), with almost all of it open for public use and enjoyment. In 2012, over 11.5 million visitors came to enjoy the resources provided within the region.

#### ***BLM Special Recreation Permits***

The BLM manages organized, commercial, and competitive recreation activities on BLM-administered lands and related waters with special recreation permits (SRPs). As a management tool, SRPs reduce user and resource conflicts, mitigate adverse impacts on resources, provide opportunities for monitoring activities, enhance visitor experience opportunities, and, with user fee requirements, allow for a fair return for these types of land uses. Issuance of an SRP is discretionary, with proposed activities subject to NEPA compliance and mitigation requirements specific to the proposed activity. The BLM may deny a permit request if assessment indicates unacceptable impacts; if an approved





moratorium or restricted allocation system exists for the proposed activity, location, or time-frame; if there are serious health and safety concerns; or if past performance by an applicant has been deemed unacceptable and problematic. The BLM may require an applicant to possess appropriate insurance, bonding, certifications of training, and state permits/licenses to protect resource values, the served public, and the federal government.

In 2012, the BLM had 341 active SRPs. Of those SRPs, 241 were commercial river permits and 24 are commercial big game hunting permits. The remaining SRPs are for organized groups, competitive events, or other types of commercial recreation outfitters (e.g., bike tours).

#### ***Forest Service Special Use Permits***

The Forest Service manages trail, river, and similar recreation opportunities and their access and supports facilities under the principles enumerated in FSM 2303. Special Use Permits are issued for specific types of recreation activities on Forest Service managed land and may be required when extra measures are needed to protect natural or cultural resources. The following are recreation special uses that involve facilities:

- Recreation special use permits involving privately owned facilities include resorts, marinas, ski areas, target ranges, organization camps, recreation residences, and other facilities. These permits are typically authorized under term permits and users pay a land use fee based on a percent of revenue or appraised value of the land.
- Recreation special uses involving government-owned facilities are concession campgrounds, resorts, organization camps, and some other facilities.
- Recreation special uses involving commercial public services are outfitting and guiding for a broad range of activities, groomed cross-country ski trails, and recreation events (including competitive races, eco-challenges, dog trails, adventure games, and endurance races). These uses are usually authorized under the Recreation Enhancement Act, which allows fees to be retained by the administrative unit that collected them.

Additionally, noncommercial group use permits are required for groups of 75 or more people. These users do not pay fees.

The Forest Service has 910 active recreation special use permits within the planning area (197 at Boise National Forest, 258 at Sawtooth National Forest, 114 at Salmon-Challis National Forest, 29 at Payette National Forest, and 312 at Caribou-Targhee National Forest).

No permits are required for private, non-commercial use of public lands for camping, fishing, hiking, hunting, horseback riding, or similar activities.

In 2012, the Intermountain Region of the Forest Service had 2335 recreation special use permits and 267 recreation special use permits for group activities and recreation events. Of the total recreation special use permits about 1400 were for recreation residences, 796 were

for outfitter and guiding services, 53 were for organizational camps, 42 were for resort and marina permits, 28 were for concessionaires, and 16 were for ski areas.

### 3.9.1 Trends

Recreation use is expected to continue to grow throughout the planning area. The proximity of many recreation opportunities to the area surrounding Boise has dramatically increased recreational visitation within portions of the planning area and is expected to continue to do so.

Five key drivers are causing changes to recreation in the planning area:

1. Increased urbanization as a result of population growth and changing demographics
2. Changing public expectations and demand for outdoor recreation opportunities, especially for dispersed recreation
3. Increased energy development in portions of the planning area
4. Close proximity of BLM-administered lands to private property, and the growing use of BLM-administered lands as a community-based recreation asset
5. Technological advances, such as all-terrain or utility vehicles and mountain bikes, affordable global positioning system (GPS) units, as well as better outdoor equipment and clothing

These drivers will impact the activity opportunities that can be offered and the recreation experience and benefit opportunities that can be produced by land managers and partners.

#### *Hunting*

Although hunting licenses issued have dropped over the last decade, hunting remains a popular recreation activity within the region. While deer and elk are the most popular game in the planning area, of more relevance to this analysis are falconry and upland bird hunting.

#### *Falconry*

Falconry permit holders were surveyed after the Fall 2010-Spring 2011 hunting season (Table 3-29, Falconry Permits).

**Table 3-29  
Falconry Permits (Fall 2010-Spring 2011)**

	#Hunters	#Days	#Harvest	Birds/ Hunter	Days/ Hunter	Birds/ Day
Species	#	#	#			
Forest Grouse	1	3	0	0.00	2.0	0.00
Chukar	8	95	4	0.49	12.3	0.04
California Quail	5	46	4	0.76	8.8	0.09
Gray Partridge (Huns)	42	1,261	86	2.04	30.0	0.07

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**Table 3-29  
Falconry Permits (Fall 2010-Spring 2011)**

	#Hunters	#Days	#Harvest	Birds/ Hunter	Days/ Hunter	Birds/ Day
<b>Pheasant</b>	27	850	117	4.35	31.7	0.14
<b>Rabbit</b>	15	467	83	5.69	32.1	0.18
<b>Sage-Grouse</b>	25	551	58	2.28	21.8	0.10
<b>Sharp-tailed Grouse</b>	8	149	13	1.67	19.8	0.08
<b>Mourning Doves</b>	6	173	8	1.16	26.6	0.04
<b>Ducks</b>	42	1,173	340	8.05	27.8	0.29
<b>Geese</b>	1	3	0	0.00	2.0	0.00
	<b>180</b>	<b>4,770</b>	<b>711</b>	<b>3.94</b>	<b>26.4</b>	<b>0.15</b>

159 hunters purchased Idaho falconry permits which would allow hunting in Fall 2010-Spring 2011.

### *Upland Birds*

Idaho offers a multitude of upland game bird hunting opportunities on millions of acres of BLM- and Forest Service-administered land.

Hunters can pursue three species of forest grouse – dusky, ruffed, and spruce – and two species of prairie grouse – Columbian sharp-tailed grouse and GRSG – all native to Idaho. Forest grouse hunting opportunities exist across the state, while Columbian sharp-tailed grouse and GRSG hunting is limited to certain areas only.

While GRSG are widely distributed in areas with large blocks of sagebrush, the hunting season is generally short (1 week during 2012) and opportunities are limited to areas of southern Idaho.

Idaho also offers chukar and gray partridge hunting, and has robust populations of California quail. Chukar and gray partridge (huns) thrive on large tracts of public ground and are available to everyone willing to make the effort to hunt them.

Chukar are typically found in rocky, arid areas covered with cheatgrass and sagebrush. Gray partridge (huns) are often found in close proximity to chukar and adjacent to cultivated land across the state. Expect to find the best populations of chukar and gray partridge in the Clearwater, Magic Valley, and Southwest regions.

California quail occur from south-central Idaho, west to the Oregon border and north to the Palouse Prairie. Good populations live along rivers and streams with brushy cover below 3,500 feet in elevation.

Historically, Idaho was a destination pheasant hunting location, but populations have declined because of changes in farming practices and the resultant loss of habitat.

Upland game population trends are monitored through harvest surveys, August roadside counts, August helicopter flush counts, mourning dove coo counts, hunter check stations,

and wing barrel harvest data. Each region collects data using various methods based on regional bird densities and sampling constraints. Statewide, telephone surveys assess overall hunter activity and harvest of upland game species. From 1996-2000, telephone surveys estimated statewide rather than regional trends (except turkey) due to budget constraints. A separate telephone survey has been conducted since 2000 for GRSG and sharp-tailed grouse to improve sample size for these two species that have been considered for listing under the ESA.

In 2009, approximately 40,100 resident hunting license buyers hunted upland game and approximately 5,300 nonresident hunting license buyers hunted upland game. This represents 18 percent of all resident hunting license buyers and 16 percent of all nonresident hunting license buyers.

For GRSG, the season framework was altered in 1996 to provide three different types of seasons: liberal, conservative, and closed. In 2002, the season framework was modified. The Birch Creek Valley and the Big Desert areas, closed to GRSG hunting from 1995 to 2001, were reopened. Research suggested that the closed season did not have any measurable effect on GRSG populations, as measured by number of GRSG counted on lek routes. In 2009, there was a 7-day season with a 1-bird daily bag limit in Zone 2, and a 23-day season with a 2-bird daily bag limit in Zone 3.

Starting in 2000, GRSG hunters were required to purchase a GRSG hunting validation. This requirement provided a means to collect better harvest estimates from a sample of GRSG hunters through a telephone survey. Approximately 4,400 hunters harvested 7,200 GRSG in 2009.

Numerous check stations are run in the state to gather information on reproductive success in different areas. In general, the sample size has decreased at these check stations in recent years due to shortened seasons and reduced hunter participation.

### **3.10 Travel Management**

#### **3.10.1 Conditions on BLM-Administered Lands**

Travel and transportation are integral parts of virtually every activity that occurs on BLM-administered lands. The BLM has taken a comprehensive approach to travel and transportation management (TTM). It is an interdisciplinary approach to travel and transportation planning and management that addresses resource uses and associated access to BLM-administered lands and waters, including motorized, nonmotorized, mechanical, and animal-powered modes of travel.

Travel and transportation management planning means providing clear and specific direction that addresses public and administrative access needs on the proper levels of land and water for all modes of travel. The TTM process addresses variability among landscapes, users' interests, equipment options, and cultural and biological resource constraints. The primary goal of TTM is to develop a systematic network of routes with appropriately designated uses that provides opportunities for a diverse set of activities to occur on BLM-administered



lands, such as recreation, energy development, grazing, and wildlife management. Travel management objectives serve as the foundation for appropriate travel and access prescriptions.

There is considerable overlap between travel management and all other uses on BLM-administered lands. For example, many people visit BLM-administered lands for recreation purposes. For these visitors, a route system may serve as either a means to reach a destination where the activity occurs (e.g., a road to a trailhead or parking area) or as the focus of the recreation activity itself (e.g., four-wheel driving, hiking, or horseback riding trails).

To reduce the duplication of narrative between travel management and the other sections of this document, this section addresses only public travel and access (i.e., OHV management area designations, route designations, types of travel, and seasonal area limitations). The interrelated recreation components, such as OHV use, are addressed under **Section 3.9, Recreation**.

#### ***Modes of Travel***

Visitors to BLM-administered lands use roads and trails for a variety of activities involving various modes of travel. Motorized travel in the planning area ranges from standard passenger vehicles driving on maintained roads to OHVs operating on primitive roads and trails. OHV is synonymous with off-road vehicle, as defined in 43 CFR 8340.0-5(a):

*Off-road vehicle means any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) Any nonamphibious registered motorboat; 2) Any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; 3) Any vehicle whose use is expressly authorized by the authorized officer or otherwise officially approved; 4) Vehicles in official use; and 5) Any combat or combat-support vehicle when used in times of national defense emergencies.*

OHVs commonly used in the planning area include off-road motorcycles, all-terrain vehicles, utility terrain vehicles, jeeps, specialized 4-by-4 trucks, and snowmobiles. Other modes of travel include mountain biking, cross-country skiing, snowshoeing, horseback riding, pack animal driving, hiking, boating, hang-gliding, paragliding, ballooning, and wheelchairs. The type and amount of use and the location of roads and trails influence physical, social, and administrative recreation setting and the overall quality of the recreation experience.

#### ***Travel Designations***

Executive Order 11644 and 43 CFR 8340 both require the BLM to designate all BLM-administered lands nationally as open, closed, or limited for OHV use.

#### ***Open***

Areas designated as Open are areas where all types of vehicle use are permitted at all times anywhere in the area. Use is subject to any operating regulations and vehicle standards established in other parts of the CFR.

*Limited*

Areas designated as Limited are areas restricted at certain times, in certain areas, or to certain vehicular use. These restrictions may be of any type but can generally be accommodated within the following categories: numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.

*Closed*

Areas designated as Closed are areas restricted at certain times, in certain areas, and to certain vehicular use. These restrictions may be of any type but can generally be accommodated within the following type of categories: numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.

***Federal Regulations***

Route designation criteria are described in 43 CFR 8342.1 and state:

The authorized officer shall designate all public lands as open, limited, or closed to off-road vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- (d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

***National Guidance***

On a national level and in response to increasing demand for motorized and mechanized recreation trails on BLM-administered lands, the BLM first developed an OHV strategy and then a mountain bike strategy. These strategies emphasize that the BLM should be proactive

in seeking travel management solutions that conserve natural resources while providing for ample recreation opportunities.

The BLM released the current version of the Land Use Planning Handbook (H-1601-1) in March 2005. Guidance on determining Open, Limited, and Closed OHV Area designations during the planning process was incorporated into the Comprehensive Trails and Travel Management Section (Appendix C, Section II D).

Additional TTM guidance continued to be developed and culminated with the release of the Travel and Transportation Management Manual (1626) in July 2011. Current policy states that Open areas will be limited to a size that is geographically identifiable and can be effectively managed and that expansive open areas allowing cross-country travel will not be designated in LUP revisions or new travel management plans.

The Travel and Transportation Handbook (H-8342) was released in March of 2012. It provides detailed guidance using the designation criteria in 43 CFR 8342.1 for area and route selection. It includes guidance for developing other implementation plans including but not limited to sign plans, education and outreach plans, law enforcement plans, and maintenance plans.

### **3.10.2 Conditions on Forest Service-Administered Lands**

The Forest Service published its Travel Management Rule in 2005. It required each national forest to designate roads, trails, and areas open or closed to motor vehicles. Designations were made in accordance with criteria described in Executive Order 11644 and included the type of vehicle and, if appropriate, time of year for motor vehicle use. A given route, for example, could be designated for use by motorcycles, ATVs, or street-legal vehicles. Once designation was complete, the rule prohibited motor vehicle use off the designated system.

In addition to its formal regulations, the Forest Service developed TTM planning guidance, including the Travel Management Manual, FSM 7700 (2008), and the Travel Planning Handbook, FSH 7709.55 (2008).

#### ***Federal Regulations***

The criteria for Forest Service route designation are found in 36 CFR 212.55 (a), General criteria for designation of Forest Service-administered roads, Forest Service-administered trails, and areas on Forest Service-administered lands and state:

In designating National Forest System roads, National Forest System trails, and areas on National Forest System lands for motor vehicle use, the responsible official shall consider effects on National Forest System natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of National Forest System lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; and the availability of resources for that maintenance and administration.

(b) Specific criteria for designation of trails and areas. In addition to the criteria in paragraph (a) of this section, in designating National Forest System trails and areas on National Forest System lands, the responsible official shall consider effects on the following, with the objective of minimizing:

- (1) Damage to soil, watershed, vegetation, and other forest resources;
- (2) Harassment of wildlife and significant disruption of wildlife habitats;
- (3) Conflicts between motor vehicle use and existing or proposed recreational uses of National Forest System lands or neighboring Federal lands;
- (4) Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands. In addition, the responsible official shall consider:
- (5) Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors.

### 3.10.3 Current Conditions

Travel planning is complete for all lands administered by the Forest Service in the planning area. Forest Service-administered lands with a designated route system are considered the same as the Limited designation on lands administered by BLM.

The BLM has not conducted travel management planning throughout the sub-region. In areas with a designation of Limited, motorized use will be limited to existing roads until individual route selection and designation occurs during subsequent implementation-level planning.

### 3.10.4 Regional Context

**Table 3-30**, Miles of Roads within GRSG Habitat, and **Table 3-31**, Acres of Roads within GRSG Habitat, display data for roads within GRSG habitat in the planning area. In each table, data are presented by surface management agency and their occurrence within occupied GRSG habitat in the planning area and MZs that overlap the planning area.

**Table 3-30**  
**Miles of Roads within GRSG Habitat**

Surface Management Agency	Miles within PGH			Miles within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
BLM	3,408	17,000	6,500	12,500	20,100	18,900
Forest Service	1,001	500	1,200	1,405	200	1,900
Tribal and Other Federal	600	2,700	700	1,000	1,600	1,000
Private	3,600	19,600	7,200	4,700	15,500	8,700



**Table 3-30**  
**Miles of Roads within GRSG Habitat**

Surface Management Agency	Miles within PGH			Miles within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
State	801	2,100	1,300	1,613	2,800	1,800
Other	100	0	100	100	100	100

Source: Manier et al. 2013

<sup>1</sup> Note: BER combined acres for MZs II and VII

**Table 3-31**  
**Acres of Roads within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	36,600	188,800	68,500	130,700	209,600	199,400
Forest Service	10,900	5,600	12,900	14,100	2,900	20,100
Tribal and Other Federal	7,600	28,600	8,000	10,900	17,100	11,200
Private	42,300	236,700	83,500	53,000	170,800	100,900
State	9,200	23,400	14,100	17,200	30,200	18,800
Other	800	200	800	1,200	900	1,200

Source: Manier et al. 2013

<sup>1</sup> Assumes footprint of 73.2 meters for interstate highways, 25.6 meters for primary and secondary highways, and 12.4 meters for other roads.

<sup>2</sup> Note: BER combined acres for MZs II and VII

### 3.11 Lands and Realty

The primary goal of the BLM Lands and Realty program is to enhance the administration of public landownership to provide the most effective configuration of lands and interests in land, consistent with land use plans developed through a full and open public involvement process, and to further the purposes of FLPMA. The objectives of the Forest Service landownership adjustment program are to achieve the optimum landownership pattern for the protection and management of resource uses, settle land title claims, and provide resource administrators with title information about the use of and resources on the land they administer.

Lands and realty actions can generally be divided between land tenure adjustments and land use authorizations. Land tenure adjustments focus on land exchange, acquisition (including purchase and easement acquisition), and disposal. Withdrawals, while managed as part of land and realty, are administrative actions that do not affect land tenure. Land use authorizations consist of ROWs and other leases or permits for the use and occupancy of public land.

Forest Service land use plan prescriptions are similar to BLM exclusion and avoidance areas. Prescriptions can restrict or prohibit certain uses in a planning area. It should also be noted that the Forest Service grants special use authorizations (granting ROWs, permits, easements, and leases), while the BLM grants ROWs on their respective agency lands. Lastly, the Forest Service completes landownership adjustments (purchase, exchange, donation, and ROW acquisition), while the BLM conducts land tenure adjustments (exchanges, disposals, and acquisitions).

### 3.11.1 Conditions within the Planning Area

The lands within the planning area are owned and may be managed by multiple federal, state, and local agencies, as well as private landowners. The configuration of landownerships and their proximity to each other is an important factor when considering land tenure adjustments and evaluating land use authorization applications. The planning area contains lands managed by several federal and state agencies, the Bureau of Indian Affairs (in trust for Native American tribes), and private lands. **Table 3-32**, Acres of GRSG Habitat by Surface Management, shows the acreage and overall percent ownership for each land manager in the planning area.

**Table 3-32**  
**Acres of GRSG Habitat by Surface Management**

Surface Land Management	Acres PPH	Acres PGH	Acres Outside Habitat	Total Acres
<b>Bureau of Land Management</b>	<b>7,266,502</b>	<b>1,993,711</b>	<b>3,469,923</b>	<b>12,730,136</b>
BLM – Idaho	6,811,269	1,749,965	2,982,419	11,543,653
BLM – Montana	455,233	243,746	487,504	1,186,483
<b>Forest Service</b>	<b>963,016</b>	<b>897,476</b>	<b>12,027,664</b>	<b>13,887,758</b>
Forest Service - Idaho	800,412	661,830	9,631,958	11,094,200
Forest Service - Montana	162,604	235,646	2,395,706	2,793,558
<b>US Fish and Wildlife Service</b>	<b>35,244</b>	<b>3,648</b>	<b>21,433</b>	<b>60,325</b>
<b>National Park Service</b>	<b>27,334</b>	<b>222,701</b>	<b>420,379</b>	<b>670,414</b>
<b>Department of Energy</b>	<b>378,042</b>	<b>182,455</b>	<b>1,672</b>	<b>562,169</b>
<b>Department of Defense</b>	<b>11,148</b>	<b>37,714</b>	<b>81,014</b>	<b>129,876</b>
<b>Bureau of Reclamation</b>	<b>3,171</b>	<b>22,729</b>	<b>217,720</b>	<b>243,620</b>
<b>Bureau of Indian Affairs</b>	<b>60,635</b>	<b>29,161</b>	<b>273,926</b>	<b>363,722</b>
<b>Indian Reservation</b>	<b>143,949</b>	<b>10,672</b>	<b>188,991</b>	<b>343,612</b>
<b>Idaho State Lands</b>	<b>642,411</b>	<b>368,186</b>	<b>802,820</b>	<b>1,813,417</b>
<b>Montana State Lands</b>	<b>221,665</b>	<b>167,455</b>	<b>431,995</b>	<b>821,115</b>
<b>Private</b>	<b>2,137,373</b>	<b>2,235,327</b>	<b>12,762,174</b>	<b>17,134,874</b>
<b>Other</b>	<b>55,621</b>	<b>29,564</b>	<b>280,985</b>	<b>366,170</b>
<b>Total Acres:</b>	<b>11,946,111</b>	<b>6,200,799</b>	<b>30,980,696</b>	<b>49,127,208</b>

Source: BLM 2013a

Within the planning area, BLM-administered lands have been classified for retention or disposal pursuant to Section 7 of the Taylor Grazing Act (43 USC 315f), FLPMA, and 43

CFR Parts 2400 and 2500; BLM-administered lands have also been identified as ROW exclusion or avoidance areas, and ROW corridors, pursuant to FLPMA and 43 CFR Part 2800. Section 205 of the FLPMA authorizes the Secretary of Agriculture to acquire access (lands or interest therein) over non-federal lands to units of the National Forest System by purchase, exchange, donation, or eminent domain. Several acts of Congress authorize occupancy and use of Forest Service-administered lands and interests in lands administered by the Forest Service. The applicable statutory authority determines the appropriate special use authorization. For example, some permits and temporary permits are issued under the provisions of the Organic Administration Act of June 4, 1897 (16 USC 477-482, 551), while some easements and leases and other types of permits are issued under the provisions of Title V, Federal Lands Policy and Management Act of October 21, 1976 (43 USC 1761-1771), and the Forest Roads and Trails Act of 1964.

**Table 3-33**, Land Classifications/Designations in Planning Area (Acres), lists the number of acres identified with land tenure classifications and ROW designations in the planning area. **Figure 3-6**, Authorized Rights-of-Way in the Planning Area, and **Figure 3-7**, Pending and Expired Rights-of-Way in the Planning Area, provide an overview of the extent of lands currently occupied by ROWs.

**Table 3-33**  
**Land Classifications/Designations in Planning Area (Acres)**

Land Status	Acres within Planning Area
Disposal by sale	869,400
Disposal by exchange	942,900
Withdrawals (Total)	4,610,000
Withdrawals (BLM)	4,025,900
Withdrawals (Forest Service)	584,100
ROW Avoidance (Total)	8,280,200
ROW Avoidance (BLM)	1,087,000
ROW Avoidance (Forest Service)	7,193,200
ROW Exclusion (Total)	3,494,600
ROW Exclusion (BLM)	1,036,000
ROW Exclusion (Forest Service)	2,458,600

Source: BLM 2013a

#### ***Land Tenure Adjustments***

Landownership (or land tenure) adjustment refers to those actions that result in the disposal, acquisition, purchase, exchange, or donation of land or acquisition or grant of ROW by the BLM; or purchase, exchange, or donation of land, or ROW acquisition by the Forest Service. Section 102(a) of FLPMA requires that land be retained in federal ownership unless, as a result of land use planning, it is determined that disposal of certain parcels will service in

Figure 3-6 Authorized Rights-of-Way in the Planning Area



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
October 2013

Figure 3-7 Pending and Expired Rights-of-Way in the Planning Area



*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
October 2013

the national interest. In all land tenure adjustments, keeping the surface and mineral estate intact on both the lands disposed of and acquired would benefit the future owners and their use of the land.

#### *Disposals*

Disposal areas include tracts of land that are economically difficult to manage, and/or parcels that could serve important public objectives, including, but not limited to, expansion of communities and economic development. These lands are usually disposed of through exchanges or land sales.

The Forest Service has very limited authority to sell or otherwise dispose of Forest Service-administered lands. Most authorities allowing the sale of lands have specific criteria or identify only a small number of properties for sale or disposal in a limited geographical area. The tool used most often for conveyance of lands within National Forest boundaries is land exchange.

LUPs relevant to the planning area identify 1,812,300 acres of BLM-administered land for disposal. Of these, 559,300 acres lie within PPH, while 257,400 acres lie within PGH. No Forest Service-administered land has been identified for disposal in the planning area.

Exchanges. Exchange is the process of trading lands or interests in lands and serves as a viable tool for the BLM to accomplish its goals and mission. Exchanges must be in the public interest and conform to applicable BLM LUPs. The lands to be exchanged must be of approximately equal monetary value and located within the same state. BLM-administered lands may be exchanged for lands or interests in lands owned by corporations, individuals, or government entities. Except for those exchanges that are congressionally mandated or judicially required, exchanges are voluntary and discretionary transactions with willing landowners.

Land exchanges are used to bring lands and interests in land with high public resource values into public ownership, consolidate land and mineral ownership patterns to achieve more efficient management of resources and BLM programs, and dispose of BLM-administered land parcels identified for disposal through the planning process.

Forest Service-administered lands are exchanged to achieve a desired national forest landownership pattern that supports forest land and resource goals and objectives, addresses fragmentation, reduces future management costs, and responds to urban and community needs. The objective of the Forest Service land exchange program is to use land exchanges as a tool, in concert with the purchase program, to implement Forest land and resource management planning and direction; to optimize National Forest System landownership patterns; to further resource protection and use; and to meet the present and future needs of the American people.

There are land exchanges pending on 76,982 acres (37,141 federal acres and 39,841 nonfederal acres) within the planning area. One land exchange totaling 52 acres has been identified on Forest Service-administered land in the planning area.

Land Sales. Section 203 (a) of FLPMA provides for sale of public lands if one of the following criteria is met: (1) the tract is difficult and uneconomic to manage as part of the public lands and is not suitable for management by another federal agency; (2) such tract was acquired for a specific purpose and the tract is no longer required for that or any other federal purpose; or (3) disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development that cannot be achieved prudently or feasibly on land other than public land. Public lands that have been identified for consideration for disposal by sale in the approved LUPs meet one or more of these criteria. Public lands must be sold at fair market value.

Section 209 of FLPMA authorizes the conveyance of federal minerals through sale and specifies the conditions under which the mineral rights would be conveyed. The mineral rights could be sold with the land surface, sold as a separate transaction, or retained. Conveyance of mineral rights has occurred only in conjunction with the sale of land.

The Forest Service has very limited authority to sell or otherwise dispose of Forest Service-administered lands. Most authorities allowing the sale of lands have specific criteria or identify only a small number of properties for sale or disposal in a limited geographical area. The tool used most often for conveyance of lands within National Forest boundaries is land exchange. Thus, no Forest Service-administered land has been identified for sale in the planning area.

Withdrawal. Withdrawal are formal actions that accomplish one or more of the following actions:

- Transfers total or partial jurisdiction of federal land between federal agencies
- Segregates (closes) public lands to appropriation under public land laws including mineral laws
- Dedicates public land for a specific public purpose

There are three major categories of formal withdrawals: (1) congressional withdrawals, (2) administrative withdrawals, and (3) Federal Power Act or Federal Energy Regulatory Commission (FERC) withdrawals. Congressional withdrawals are legislative withdrawals made by Congress in the form of public laws (acts of Congress). Administrative withdrawals are made by the President, Secretary of the Interior, or other authorized officers of the executive branch of the federal government. Federal Power Act or FERC withdrawals are power project withdrawals established under the authority of the “Federal Power Act” of 1920. Such withdrawals are automatically created upon filing an application for a hydroelectric power development project with FERC.

Federal policy now restricts all withdrawals to the minimum time and acreage required to serve the public interest, maximize the use of withdrawn lands consistent with their primary purpose, and eliminate all withdrawals that are no longer needed. Management and adjustment of withdrawals focuses on the establishment, management, modification, and revocation of withdrawals.

The purpose of a withdrawal is to withhold Forest Service-administered land from operation of various federal laws, to either reserve the area for some future use or to maintain other public values of the area. A withdrawal may prevent the land from leaving federal ownership, may prevent mineral leasing or may prevent entry under the mining laws. In recent years most withdrawals prevent entry under the mining laws since it is a nondiscretionary action.

The main object of a Forest Service withdrawal is to protect administrative sites and other capital improvements, and to protect designated management areas not compatible with mining activity. Other agencies such as FERC and the Bureau of Reclamation often request withdrawal of Forest Service-administered land for their purposes. The Department of Defense use of Forest Service-administered lands is by special use authorization, agreement, or the Interchange Act of 1956.

There are currently 28 withdrawals in the planning area, encompassing 4,025,900 acres of BLM-administered lands. Of these withdrawals, 1,437,200 acres reside on PPH, and 782,000 acres reside on PGH. There are approximately 584,100 acres of Forest Service withdrawals in the planning area.

#### *Acquisition*

Acquisition of and interests in lands are important components of the BLM's land tenure adjustment strategy. Acquisition of lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed through exchanges (see above), land purchases, or donations.

The Forest Service purchases lands through the Land and Water Conservation Fund to protect critical resource areas and provide increased public recreation opportunities. Land donations are accepted to consolidate Forest Service-administered lands and protect critical resource areas. The legal public use of Forest Service-administered lands is improved by acquiring ROWs for roads and trails.

Lands and interests in lands are acquired for the following actions:

- Improve management of natural resources through consolidation of federal, state, and private lands
- Secure key property necessary to protect endangered species, promote biological diversity, increase recreational opportunities, and preserve archeological and historical resources
- Implement specific acquisitions authorized or directed by acts of Congress

Forest Service objectives in lands or interests in lands through purchase, donation, and rights-of-way are to:

- Enhance the multiple use and sustained yield of the goods and services from Forest Service-administered lands





- Protect and improve the quality of renewable resources
- Protect and preserve important historic, cultural, and natural aspects of the national heritage
- Provide for access, use, and enjoyment of the forest resources by the public
- Improve administrative efficiency and effectiveness of Forest Service-administered lands

One Forest Service land exchange is proposed in Idaho that would affect 52 acres of land within PGH.

Purchases. The BLM has the authority, under Section 205 of FLPMA, to purchase lands or interests in lands. Similar to other acquisitions, purchase is used to acquire key natural resources or to acquire legal ownership of lands that enhance the management of existing public lands and resources. Acquiring lands and interests in lands through purchase helps consolidate management areas to strengthen resource protection. Acquisitions are used primarily to enhance recreational opportunities and acquire crucial wildlife habitats.

#### ***Land Use Authorizations***

The most common form of authorization to permit uses of BLM-administered lands by commercial, private, or governmental entities is the ROW grant. A ROW grant is an authorization to use a specific piece of BLM-administered land for certain projects such as roads, pipelines, transmission lines, or communication sites.

Some uses of BLM-administered lands are short-term uses and authorized through land use permits such as filming activities or apiary sites (bee hives).

Authorizations grant rights and privileges for a specific use of the land for a specific period of time. The BLM's objective is to grant land use authorizations to any qualified individual, business, or government entity, and to direct and control the use of authorizations on BLM-administered lands in a manner that:

- protects the natural resources associated with BLM-administered lands and adjacent lands, whether private or administered by a government entity
- prevents unnecessary or undue degradation to BLM-administered lands
- promotes the use of authorizations in common, considering engineering and technological compatibility, national security, and area LUPs
- coordinates, to the fullest extent possible, all BLM actions with local, state, Native American, and other federal agencies; interested individuals; and appropriate quasi-public entities (43 CFR 2801.2)

Forest Service special use permits authorize and administer use of Forest Service-administered lands by individuals, companies, organized groups, other federal agencies and state or local levels of government in a manner that protects natural resource values and

public health and safety. For example, special use permits authorize uses that contribute to the nation's infrastructure for generating and transmitting energy resources, such as: electric transmission facilities, oil and gas pipelines, hydropower facilities, and wind and solar facilities. They authorize uses for communications, commerce, public health and safety, and homeland security, such as fiber-optic and wireless telecommunications, water development systems, federal, state, and local highways.

The Forest Service objectives of granting ROWs for roads and trails are to:

- Provide ROWs for the public road system, including the federal-aid system, when such roads cross Forest Service-administered lands or interests in lands
- Accommodate the access needs for the protection, development, and utilization of lands and resources owned by private interests or administered by public agencies when the planned forest development road system and public road system do not meet those needs adequately
- Protect and enhance the quality of air, water, soil, and natural beauty of Forest Service-administered lands in the granting of any ROW
- Cooperate with intermingled and adjacent landowners in developing roads that serve the needs of both parties through the exchange of ROWs
- Provide access across Forest Service-administered lands to private land that is adequate to secure the owners thereof of reasonable use and enjoyment of their land without unnecessarily reducing the management options of the Forest Service or damaging Forest Service-administered lands or resources

#### *ROW Avoidance and Exclusion Areas*

Areas closed to mineral leasing, having a no surface occupancy restriction, or otherwise identified as unsuitable for surface disturbance or occupancy are generally identified as avoidance or exclusion areas for ROW authorizations. Restrictions and mitigation measures could be modified on a case-by-case basis for avoidance areas, depending on impacts on resources, while exclusion areas are strictly prohibited from ROW development. See **Table 3-33** for the number of acres currently identified as ROW avoidance and exclusion areas.

#### *ROW Corridors*

Designated utility corridors are developed to concentrate the effects of utility lines in manageable locations on BLM- and Forest Service-administered lands, which often provide suitable locations for utility transmission lines. The corridors may contain power line, transcontinental fiber optic communications cables, and trans-state gas pipelines. Designated utility corridors are designated in BLM and Forest Service LUPs. Such corridor designations are relatively uncommon in the sub-region. The mere presence of a transmission line or pipeline does not imply that it is within a formally designated corridor. Under this planning effort there are no undesignations or changes to the character of previously existing designated corridors; for example, all West-Wide Energy Corridors in Idaho allow for both



overhead and buried utilities; those designations will not change. Also, this plan does not attempt to establish any new formally designated ROW corridors.

For PPMA, new utility pipelines or transmission lines exceeding 50kV are excluded, unless they can be sited within a utility corridor previously designated in a BLM or Forest Service LUP (and subject to appropriate BMPs and siting considerations for GRSG). See **Table 3-33** for the number of acres currently identified as ROW avoidance and exclusion areas.

### ***Renewable Energy***

Solar, wind, biomass, and geothermal (which is managed as a fluid leasable mineral) are considered renewable energy resources. Renewable energy resources all have different requirements related to economic development; however, some issues are common to all renewable energy resources, including connection to the existing power transmission facilities and compatibility with existing federal land use.

Wind and solar resource facilities are permitted with ROW authorizations, through the Lands and Realty Program. Geothermal resources, as mentioned above, are considered fluid leasable minerals (See **Section 3.12**, Mineral Resources). As a result, management actions related to the Lands and Realty Program and leasable minerals could affect renewable energy resources. Special management designation areas, such as ACECs and WSAs, could also affect the use of renewable energy resources by limiting the location of these facilities.

Forest Service renewable energy generation and transmission includes wind, solar, and geothermal energy facilities. Section 501(a)(4) of the FLPMA authorizes the Forest Service to issue ROWs for the use and occupancy of Forest Service-administered lands for generation, transmission, and distribution of electric energy. The Energy Policy Act of 2005 recognizes the Forest Service's role in meeting the renewable energy goals of the US.

Consistent with Forest Service policies and procedures, the use and occupancy of Forest Service-administered lands for alternative energy production, such as wind energy development, are appropriate and will help meet the energy needs of the US. Permits for solar energy power facilities are issued only if non-Forest Service-administered lands are not available and if adverse impacts can be minimized. Permits for geothermal energy power facilities are issued only if feasibility studies have determined that it is not feasible to transmit geothermal water to a power-generating facility on non-Forest Service-administered lands and if adverse impacts can be minimized.

### **3.11.2 Trends**

#### ***Land Use Authorizations***

Land use authorization requests are customer driven. Within the planning area most authorizations processed are primarily for roads, electric distribution lines, and communications sites. Major ROWs are those large-scale utility projects, such as for 500kV electric transmission, wind, and solar development. Land use authorization requests are customer driven.

Over the last 6 years in the planning area, the BLM has received a number of applications for major transmission line projects to traverse the state. Prior to that time, it had been over 20 years since major transmission line applications were received by the BLM. The BLM has not received any applications for utility-scale solar production in the planning area, nor are there solar resources comparable to the areas where utility-scale solar production projects are being proposed or built.

Over the last six years, the BLM has authorized and then relinquished a ROW for wind development and has two pending applications. Wind testing sites have been authorized on BLM lands in the planning area, though no wind developments have been authorized and constructed.

### 3.11.3 Regional Context

**Table 3-34, Acres of GRSG Habitat within City Limits**, through **Table 3-42, Acres of Wind Energy Authorizations within GRSG Habitat**, displays data for GRSG habitat in the planning area (Manier et al. 2013). In each table, data are presented by surface management agency and their occurrence within occupied GRSG habitat in the planning area and across the entire MZs.

The conversion of sagebrush habitat to agricultural land or urban areas can result in GRSG habitat becoming fragmented and increases in domestic predators such as cats and dogs (Knick and Rotenberry 1995). **Table 3-34, Acres of GRSG Habitat within City Limits**, illustrates the locations where agricultural or urban development could occur given the location within a city boundary.

**Table 3-34**  
**Acres of GRSG Habitat within City Limits**

Surface Management Agency	Acres within PGH			Acres within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
BLM	300	106,200	19,700	1,100	37,400	1,100
Forest Service	700	24,600	700	0	21	0
Tribal and Other Federal	0	2,500	100	0	32,400	0
Private	4,600	209,300	43,400	4,202	79,100	4,100
State	51	10,900	2,800	31	6,800	31
Other	38	0	38	0	0	0

Source: Manier et al. 2013

<sup>1</sup> Note: BER combined acres for MZs II and VII

Communication towers, transmission lines, electrical distribution lines and other vertical structures provide additional perching opportunities for ravens and other birds of prey can result in habitat fragmentation, habitat avoidance, and can increase vehicle traffic during maintenance operations (USFWS 2010a). **Table 3-35, Number of Communication Towers within GRSG Habitat**, presents the number of communication towers in each MZ.

**Table 3-35**  
**Number of Communication Towers within GRSG Habitat**

Surface Management Agency	Number <sup>1</sup> within PGH			Number <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	4	18	5	11	8	7
Forest Service	0	2	0	0	0	0
Tribal and Other Federal	8	5	8	1	2	1
Private	5	54	7	8	10	7
State	0	0	0	0	0	0
Other	0	0	0	0	0	0

Source: Manier et al. 2013

<sup>1</sup>Displays the number of Federal Communication Commission communication towers.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-36**, Acres of Transmission Lines within GRSG Habitat, shows the portion of transmission lines in occupied habitat in the planning area and MZs.

Utility corridors are a planning tool that enables the BLM and Forest Service to identify desired locations for future infrastructure. **Table 3-37**, Acres of Utility Corridors within GRSG Habitat, provides the miles and acres of Section 368 Energy corridors for occupied habitat.

**Table 3-36**  
**Acres of Transmission Lines within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	29,600	172,000	42,000	56,400	130,800	83,600
Forest Service	2,000	3,000	3,500	4,432	2,900	5,800
Tribal and Other Federal	4,683	33,900	4,700	10,700	7,500	10,700
Private	29,400	206,000	57,900	23,000	119,500	47,000
State	9,330	20,000	11,200	5,912	20,100	6,500
Other	900	100	900	2,800	1,000	2,800

Source: Manier et al. 2013

<sup>1</sup>Includes transmission lines greater than 115 kilovolts (kV) and assumes a 656-foot-wide (200 meter) footprint.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-37**  
**Acres of Utility Corridors within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	61,700	269,000	90,200	54,100	151,600	131,900
Forest Service	300	1,200	300	900	2,900	900
Tribal and Other Federal	700	6,500	700	0	0	0
Private	11,200	190,100	21,900	12,600	84,100	34,000
State	6,500	15,300	6,800	3,900	13,900	4,100
Other	0	0	0	0	2,200	0

Source: Manier et al. 2013

<sup>1</sup>Centerlines for proposed locations of Section 368 energy corridors were buffered by varied widths, based on corridor width attribute data, to create the direct area of influence.

<sup>2</sup>Note: BER combined acres for MZs II and VII

Railroads can fragment GRSG habitat (Knick and Rotenberry 1995). **Table 3-38**, Miles of Railroads within GRSG Habitat, and **Table 3-39**, Acres of Railroads within GRSG Habitat, show the railroad miles and acres, respectively, in occupied habitat.

**Table 3-38**  
**Miles of Railroads within GRSG Habitat**

Surface Management Agency	Miles within PGH			Miles within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
BLM	66	200	100	84	100	100
Forest Service	1	0	1	8	0	8
Tribal and Other Federal	14	42	14	19	9	19
Private	42	700	300	39	300	100
State	4	100	0	0	0	0
Other	0	0	0	0	1	0

Source: Manier et al. 2013

<sup>1</sup>Note: BER combined acres for MZs II and VII

**Table 3-39**  
**Acres of Railroads within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	300	1,500	500	200	500	400
Forest Service	8	0	8	58	0	58



**Table 3-39**  
**Acres of Railroads within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
Tribal and Other Federal	83	300	84	77	12	77
Private	200	5,100	900	200	1,400	400
State	21	400	24	21	75	21
Other	0	0	0	0	11	0

Source: Manier et al. 2013

<sup>1</sup>Assumes footprint of 9.4 meters.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-40**  
**Acres of Vertical Obstructions within GRSG Habitat**

Surface Management Agency	Acres <sup>1</sup> within PGH			Acres <sup>1</sup> within PPH		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	100	600	200	100	300	200
Forest Service	35	28	36	11	0	22
Tribal and Other Federal	51	100	100	11	0	11
Private	100	1,400	200	63	300	200
State	0	100	0	0	100	0
Other	3	0	0	0	0	0

Source: Manier et al. 2013

<sup>1</sup>Derived from dataset containing Federal Communication Commission communication towers and Federal Aviation Administration vertical obstructions. Excludes wind towers. Assumes a buffer of 56.4 meters (2.47 acres) around each obstruction.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-41**  
**Acres of Wind Towers within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII	MZ IV	Planning Area	MZ II/VII	MZ IV
BLM	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0
Tribal and Other Federal	0	0	0	0	0	0
Private	3	600	200	0	18	0
State	0	100	0	0	0	0
Other	0	0	0	0	0	0

Source: Manier et al. 2013

<sup>1</sup>Assumes a footprint of 62 square meters per wind tower.

<sup>2</sup> Note: BER combined acres for MZs II and VII

**Table 3-42**  
**Acres of Wind Energy Authorizations within GRSG Habitat**

Surface Management Agency	Acres within PGH			Acres within PPH		
	Planning Area	MZ II/VII <sup>1</sup>	MZ IV	Planning Area	MZ II/VII <sup>1</sup>	MZ IV
BLM	14,000	0	296,500	16,100	0	580,600
Forest Service	0	0	0	0	0	0
Tribal and Other Federal	100	0	200	0	0	1,700
Private	900	0	2,300	2,100	0	13,900
State	38	0	400	0	0	0
Other	0	0	0	0	0	0

Source: Manier et al. 2013

<sup>1</sup> Note: BER combined acres for MZs II and VII

### 3.12 Mineral Resources

#### *Fluid Leasable Minerals*

The right to drill for and develop fluid minerals, namely oil and gas and geothermal resources, on federal land may only be acquired through a mineral lease, offered and administered by the BLM in accordance with the Mineral Leasing Act of 1920, as amended and supplemented (30 USC 181 et seq.). The limit for a competitive oil and gas lease is 2,560 acres in size, while a geothermal lease can be up to 5,280 acres in size. If an oil and gas lease is not sold during the competitive sale, it may be sold noncompetitively and may be combined with other parcels for a total of 10,240 acres, but the maximum size for a geothermal lease remains 5,280 acres.

The leases have a 10-year term. If there is no discovery in 10 years, the leases expire. There is no renewal for diligence. If there is a discovery, the lease may be held as long as there is production. The BLM can modify the right conveyed by a lease by attaching a stipulation, which is an enforceable condition of the lease. During the leasing process, the BLM may apply stipulations (for example No Surface Occupancy, Controlled Surface Use, and Timing Limitations) to all or parts of a lease in order to protect a wide range of resources including soils, watersheds, cultural resources, and wildlife (e.g., GRSG). Stipulations may impact the availability of fluid mineral resources on a lease by restricting the timing and/or location of exploration and development activities. On Forest Service-administered lands, the BLM cannot issue a lease without Forest Service consent. Forest Service consent includes stipulations that must be added to the lease to protect the resources on the Forest.

The issuance of a lease does not, in and of itself, authorize any surface-disturbing activities. If a lessee wishes to conduct exploratory drilling, an application for permit to drill must be submitted to the BLM for approval. An environmental analysis is conducted and as a result, the BLM may attach additional, site-specific and activity-specific conditions, called Conditions of Approval or Best Management Practices, to the drilling permit. The Forest





Service approves the Surface Use Plan of Operations portion of the application for permit to drill, and may also add COAs. The BLM cannot deny operations on a lease unless the operation would violate other nondiscretionary statutes, such as the ESA or the Clean Water Act. In cases where surface operations would have unacceptable environmental impacts, the BLM's authority to deny operations on the lease, if not specified in a particular statute, must be established in the lease through the use of lease stipulations.

All leases, regardless of whether they have additional stipulations, are offered with standard terms and conditions. In accordance with a 2002 Instruction Memorandum from the BLM Washington Office, all fluid mineral leases must include the following stipulation:

*Endangered Species Act Section 7 Consultation Stipulation*

The lease area may now or hereafter contain plants, animals or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC 1531 *et seq.*, including completion of any required procedure for conference or consultation.

All geothermal and oil and gas leases in Idaho contain the ESA consultation stipulation. There is also a mandatory cultural resource protection stipulation applied to all leases.

Stipulations to protect other resources, such as GRSG, are developed during the land use planning process. Stipulations must be necessary and justifiable: If a lessee is to be prevented from extracting oil and gas on a lease and the prohibition is not mandated by a specific, nondiscretionary statute such as the ESA, the stipulation is necessary and is to be used. A stipulation is justifiable if there are resource values, uses, and/or users present that cannot coexist with fluid mineral operations, cannot be adequately managed and/or accommodated on other lands for the duration of operations, and provide a greater benefit to the public than that of the fluid mineral operations. If a ground disturbing activity is proposed on the lease during any given year, the authorized officer may modify or waive restrictions if actual conditions do not warrant them.

### **3.12.1 Conditions within the Planning Area**

#### ***Oil and Gas***

There has never been a single producing oil and gas well in the entire state of Idaho, despite the drilling of over 150 wildcat wells in the state since the early 1900s. As of January 18, 2013, Idaho BLM has four federal oil and gas leases – two are located on split-estate and BLM-administered lands on the Bear Lake Plateau, and two are located on split-estate lands near Gray's Lake in Bonneville County. The leases were issued in 2006 for an initial term of 10 years. No drilling or exploration has occurred on any of the leases nor has any activity

been proposed; however, a wildcat well was drilled on private land near the Gray's Lake leases in 2007. The well was drilled to approximately 11,000 feet without encountering an economically viable hydrocarbon source. Additionally, a company has drilled numerous wells on private lands in the New Plymouth area of southwest Idaho, and is planning to develop a natural gas field. BLM-administered lands are located near this field and have been nominated for leasing, however leasing is being deferred until completion of the Four Rivers RMP. There is no GRSG habitat in this area.

The two leases on the Bear Lake Plateau are located in GRSG habitat and each have the following stipulation (as well as several others not directly related to GRSG):

In order to protect important seasonal wildlife habitat (sage grouse leks, sage grouse brood rearing, sage grouse winter range, and deer winter range), exploration drilling and other development activity will be allowed only during the period from 7/1 to 11/30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the Authorized Officer of the BLM.

The Dillon Field Office has 47 active oil and gas leases, none of which are producing, according to LR2000. None of the leases appear to be located in GRSG habitat, however many leases likely contain timing limitations for other wildlife species, as the Dillon RMP shows that much of the field office is covered by stipulations restricting activities during critical seasons for other wildlife species or prohibiting all surface occupancy.

**Figure 3-**, Oil and Gas Potential of Federal Oil and Gas Mineral Estate depicts the oil and gas potential within the planning area.

#### ***Geothermal***

Idaho's prospects for development of geothermal resources are better than those for oil and gas. There are currently 25 federal leases in Idaho, covering approximately 60,000 acres. Leases are scattered across southern Idaho, but are primarily located near Raft River, Crane Creek, and Parma, Idaho. There are no active leases currently in the Dillon Field Office. Seventeen of Idaho's 25 geothermal leases are located in GRSG habitat, and all have existing stipulations protecting GRSG habitat during critical seasons (as well as having stipulations to protect crucial habitat for other species):

- Each of the nine leases at Raft River have a stipulation restricting exploration and development work in GRSG strutting/brood-rearing habitat from April 1 through June 15.
- Each of the four leases at Crane Creek contain a stipulation requiring that a survey be conducted for the presence of active GRSG leks in key habitat, prior to authorization of surface disturbing activities. If active leks are present (defined as being used at least once in a five-year period), two stipulations will apply. One is a timing limitation precluding exploration or drilling activities between March



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15 and May 1 from 6 pm to 9 am within two miles of an active lek. The other

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Figure 3-8 Oil and Gas Potential of Federal Oil and Gas Mineral Estate



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stipulation precludes construction of wells, geothermal plants, power lines, pipelines, or other such permanent structures that would fragment or degrade nesting habitat within two miles of an active lek.

- Both of the geothermal leases located west of Weiser have the following stipulations:
  - Controlled surface and timing limitation use near GRSG leks and/or nesting/early brood rearing habitat: Potentially disruptive major construction and maintenance activities (e.g., infrastructure/energy development and similar projects), shall be avoided within 4 miles (6.4 kilometers) of occupied or undetermined status GRSG leks from February 15 to June 30 to reduce disturbance to lekking birds, or April 15 to June 30 for nesting GRSG (and/or hens with early broods). Major construction and maintenance activity will be avoided in GRSG winter range from December 1 to February 15. Specific dates may be earlier or later, depending on local breeding chronology. The spatial buffer may be increased or decreased based on site-specific factors analyzed and documented in an environmental assessment or EIS and authorized via the appropriate decision document. Exceptions may be granted for activities involving only infrequent, short term disturbance (less than 1 hour within a 24-hour period in a specific area); or if there are intervening topographic features or line-of-site screening that buffer the lek or nesting habitat from disturbance; or if recent (within the past 5 years) site-specific studies or local expertise suggest that leks or nesting hens are unlikely to be present within the 4-mile zone surrounding the project activity.
  - For smaller-scale human disturbances, (e.g., water pipeline construction, routine fence maintenance, and facility maintenance), a 0.62 mile (1 kilometer) lek disturbance buffer will apply between approximately March 15 and May 1 in lower elevations and March 25 through May 15 in higher elevations, from 6 p.m. to 9 a.m. in a specific area to minimize disturbance to lekking GRSG.
- The two geothermal leases located on the north side of Magic Reservoir have the same stipulations (concerning GRSG) as the leases west of Weiser.

Geothermal exploration and development activity on federal lands in Idaho has been sporadic, due largely to economic factors. Idaho now has one 10 megawatt geothermal power plant currently operating, as of 2007. It is located on private land at Raft River, south of Burley, Idaho. Nine federal leases surround the plant and extend up the southeast flank of Jim Sage Mountain. The BLM approved five geothermal drilling permits on a lease at Raft River in 2010, however no drilling has occurred to date. The drilling permits have several Conditions of Approval attached to protect wildlife. These include fencing reserve pits and safeguarding migratory birds from hazards associated with pits and treatment facilities, including but not limited to pit screening or netting, and placing protective cones over vent

stacks. In addition, drilling is prohibited during the GRSG strutting and brood-rearing season (lease stipulation).

**Figure 3-9, Geothermal Potential of Federal Geothermal Mineral Estate**, depicts the geothermal potential of the federal mineral estate in the planning area.

***Mineral Materials***

Mineral materials include sand, gravel, most building and landscaping stone, pumice, and other common variety materials that are not subject to mineral leasing or location under the mining laws. The Materials Act of 1947, as amended (61 Stat. 681) authorizes disposal of mineral materials on BLM-administered lands through a sales system, and provides for free use of material by government agencies, municipalities or nonprofit organizations, if the material is not to be used for commercial purposes. Permitting the removal or extraction (i.e., disposal) of mineral materials on BLM-administered lands is a discretionary activity. The BLM will not authorize the disposal of mineral materials if it is determined that the aggregate damage to BLM-administered lands and resources would exceed the public benefits that the BLM expects from the proposed disposal; nor will the BLM dispose of mineral materials from areas identified in land use plans as not appropriate for mineral materials disposal (43 CFR 3601.11 and 3601.12). Disposal of mineral materials on Forest Service-administered lands is covered by 36 CFR 228D.

Most BLM-administered land in Idaho is available for consideration of mineral material disposal; however, existing guidance in many of the LUPs in the planning area encourages the use of existing disposal sites until the material is depleted. **Table 3-43, Existing Mineral Materials Cases**<sup>1</sup>, shows the numbers of mineral material disposal cases within the planning area. **Figure 3-10, Mineral Material Commodity Types in the Planning Area**, shows the geographic distribution of mineral materials in the planning area.

**Table 3-43  
Existing Mineral Materials Cases<sup>1</sup>**

Field Office	# Community Pits	# Free Use Permits	# Negotiated Sales	Total # sites in GRSG Habitat
Owyhee	9	13	2	All, 4 closing
Bruneau	5	10	2	All
Four Rivers	6	43	4	2
Burley	12	31	2	7
Shoshone	17	22	0	9
Jarbidge	9	25	0	4
Pocatello	4	19	0	2
Challis	20	51	5	All
Salmon	6	11	2	All
Upper Snake	17	47	15	56
Dillon, MT.	4	0	1	2
<b>Total</b>	<b>109</b>	<b>272</b>	<b>33</b>	<b>120</b>



**Table 3-43**  
**Existing Mineral Materials Cases<sup>1</sup>**

<b>Field Office</b>	<b># Community Pits</b>	<b># Free Use Permits</b>	<b># Negotiated Sales</b>	<b>Total # sites in GRSG Habitat</b>
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Source: BLM 2013

<sup>1</sup> Data as of January 18, 2013

Figure 3-9 Geothermal Potential of Federal Geothermal Mineral Estate



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Figure 3-10 Mineral Material Commodity Types in the Planning Area



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Community pits are sites established by the BLM and Forest Service for the public to acquire mineral materials by purchasing a short-term permit over-the-counter at the field office. Free Use Permits are usually sand and gravel pits, and are requested by county highway districts and nonprofit organizations for road construction and maintenance of county roads. A negotiated sale is an exclusive site proposed by a single party, often commercial, as the party must now pay for the BLM to process the permit.

The number of sales out of a community pit varies by site, from less than one to more than 50 per year. Many of the most popular community pits are for landscaping rock and building stone that is simply picked up by hand from the ground surface or from a talus slope. Most of these sales are for less than one ton. Most Free Use Permit sites are used sporadically and may be scattered throughout a field office or ranger district office, so that when the county needs material it has a nearby source, thereby reducing haul costs. A pit may be inactive for several years before it is needed for a road project in the area.

A gravel pit is initially developed by scraping off the vegetation and topsoil, which is then stockpiled for future reclamation. Most gravel pits are 5 to 15 acres in size. No infrastructure other than an access road is needed for mineral materials disposals. Most mineral material removal activity occurs during the summer months and during daylight hours.

Very few mineral material sites have mitigation measures protecting GRSG habitat. One exception is the St. Anthony Sand Dune Community Pit, which has a provision stating “Proposals to remove sand between March 1st and June 15th will be evaluated to determine if breeding birds are utilizing the area.”

#### ***Locatable Minerals***

Under the General Mining Act of 1872 (17 Stat. 91), any US citizen, or person with the intent to become a citizen, may stake a mining claim for locatable minerals on federal lands (unless administratively withdrawn from mineral entry). This gives the claimant a possessory right to develop the locatable mineral resource. Lands withdrawn from mineral entry are Wilderness, ACECs, and other specially designated areas. The staking of a mining claim is a nondiscretionary activity: As long as the lands are open to locatable mineral entry, and as long as the claimant maintains the mining claim on an annual basis in accordance with regulations at 43 CFR 3830 through 3838, the mining claim is considered active. If the claimant fails to properly locate or maintain the claim on an annual basis, the claim is forfeited. The BLM’s role is limited to recording and adjudicating the location notices and maintenance filings, and preventing undue or unnecessary degradation of the lands under FLPMA. **Figure 3-11**, Locatable Mineral Potential in the Planning Area, shows areas where locatable minerals are considered to be more likely to be found and **Figure 3-12** shows existing Surface Management Plans or Notices in the planning area.

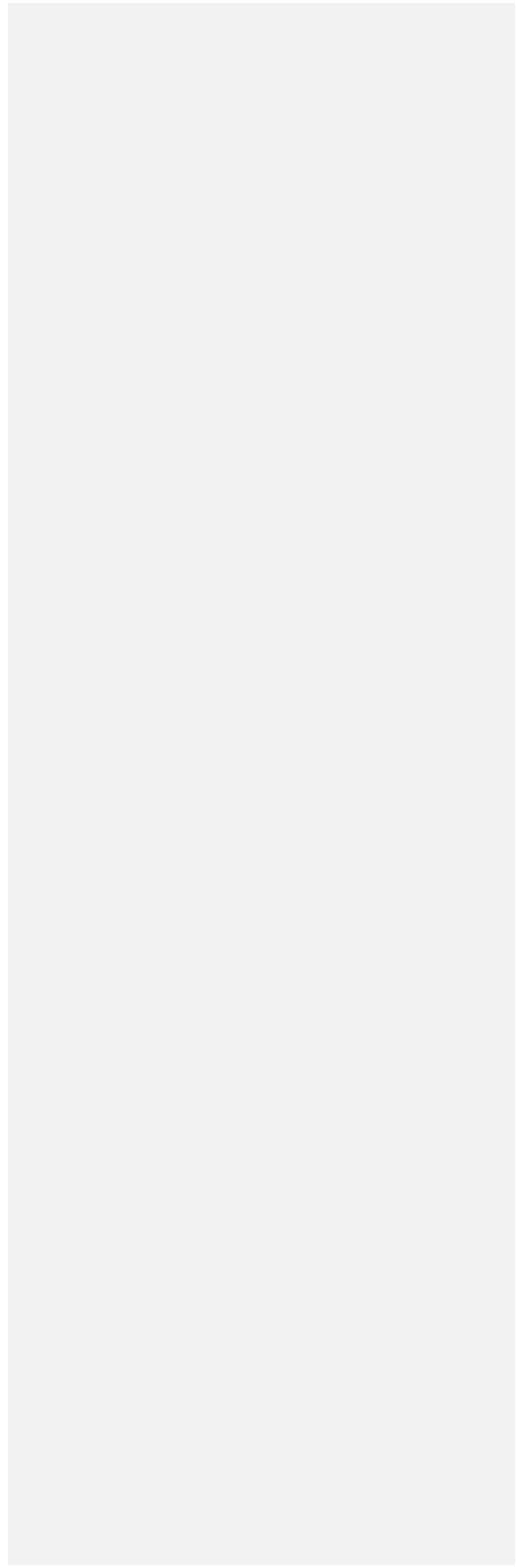
If a claimant wants to perform mining operations other than casual use on BLM-administered lands, a Notice or Plan, filed under 43 CFR 3809, must be filed with the BLM (or 43 CFR 3802, if the claim is located on lands under wilderness review). The Forest Service has similar locatable minerals management regulations at 36 CFR 228A. For



Figure 3-11 Locatable Mineral Potential in the Planning Area



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Figure 3-12 Existing Surface Management Plans or Notices in the Planning Area



operations on Forest Service-administered lands, a Notice of Intent must be filed. In addition, a Plan of Operations is required if the proposed activities will cause “significant disturbance of surface resources” (36 CFR 228.4[a][4]). Where there is a reference to notices or plans, it means both notices or plans on BLM-administered lands and Notices of Intent or Plans of Operation on Forest Service-administered lands. Later in this document, the terms Notice/Notice of Intent or Plan/Plan of Operation are roughly equivalent for the purpose of this analysis. The purpose of these regulations is to prevent unnecessary or undue degradation of surface resources by operations authorized by the mining laws. The subparts establish procedures and standards to ensure that operators and mining claimants meet their obligation to prevent undue or unnecessary degradation and to reclaim disturbed areas.

The existing land use plans identify areas that are closed to mineral entry but are silent on mitigation measures to be taken in GRSG habitat. **Table 3-44, [Authorized or Pending 3809 Plans and Notices](#)<sup>1</sup>**, shows the numbers of 3809 Plans and Notices that are authorized or pending in the planning area.

**Table 3-44**  
**Authorized or Pending 3809 Plans and Notices<sup>1</sup>**

District	3809 Plans of Operations		3809 Notices		GRSG Habitat?
	Authorized	Pending	Authorized	Pending	
Boise District	13	3	17	4	8 Plans in PH
Twin Falls	4	5	5	4	7 Plans in PH
Idaho Falls	5	1	6	3	4 Plans in PH
Dillon FO	5	1	21	3	No Plans in GRSG Habitat
<b>Total</b>	<b>32</b>	<b>9</b>	<b>28</b>	<b>11</b>	<b>19 Plans in GRSG Habitat</b>

Source: BLM 2013a

<sup>1</sup> Data current as of December 14, 2012

The Boise District currently has eight 3809 Plans in GRSG habitat for mostly small operations for zeolite and bentonite along the Owyhee Front. Three of the plans are located in the Castle Creek drainage south of Oreana (zeolite, bentonite); two plans are located close to the Oregon border near US Highway 95 (both for zeolite); and two plans on the Owyhee Plateau near the Upper Deep Creek area.

The Twin Falls District currently has seven 3809 Plans in GRSG habitat. Six are building stone operations south of Oakley, and one is the Eskridge pumice pit north of Magic Reservoir. At least three companies operate quarries on Middle Mountain south of Oakley, extracting a variety of micaceous quartzite called Oakley Stone. Oakley Stone is highly prized as a building and flooring material, as it has very high tensile strength and can be split into large, thin sheets. Building stone quarry operations have been active on Middle Mountain for over sixty years in the vicinity of active GRSG leks.



The operations are confined to discrete quarries located at mid-elevation on the west slope of Middle Mountain. The quarries expand very slowly over the years, and no infrastructure such as power lines or pipelines are required. Very little mechanical equipment is used, as the stone is split to the desired thickness using only small hand tools such as pry bars, hammers and chisels, and is then placed on pallets by hand. However, operators also use excavators, dump trucks, front end loaders, and other equipment in their daily operations, and blasting is used occasionally. Most of the quarry workers are employed seasonally and are housed on-site, thereby reducing traffic and dust. The quarries are strung out north-south along Middle Mountain such that each quarry has a separate road to access the Goose Creek road, an improved gravel road that leads to Oakley.

During the field season (roughly May to November), semi-truck traffic, hauling pallets of Oakley Stone, can be fairly intense on the Goose Creek road, making 10 to 20 round trips per day. One of the operations has a mill site adjacent to the Goose Creek Road where stone is split and palletized for shipping. All of the operations shut down in the winter, so in the fall pallets of stone are brought off the mountain and stockpiled in Oakley. Several of the quarries have been patented and are therefore privately owned. No stipulations pertaining to GRSG are currently applied to the Plans of Operations for any of these quarries. Altogether, the quarries employ approximately 100 people year-round and approximately 600 seasonal workers (Southern Idaho Living 2012).

The Eskridge pumice pit is located north of Magic Reservoir, on both sides of US Highway 20. The mining claimants have mined pumice for landscaping material since the 1940s. Current operations are located on the south side of the highway, where disturbance consists of 15 acres of quarry and staging area. A few years ago, the claimant moved the operation from the north side of the highway, and reclaimed (sloped and seeded) 34 acres of previous disturbance. The operation is active throughout the year, but activities rotate approximately every 3 years, depending on demand for the material. In the first year of the cycle, bulldozers are used to rip the material from the quarry face. In the second year, the material is classified based on size and color, and stockpiled. In the third year, the stockpiles are loaded into belly dump trucks and transported to Gooding, where it is loaded onto train cars and shipped to Rexburg, where it is sold.

The Idaho Falls District currently has four 3809 Plans located in GRSG habitat, all in the Challis Field Office. Two plans are for building stone (including Three Rivers Stone) and 2 are for zeolite. The Three Rivers Stone quarry is a large building stone quarry operation situated along the south side of US Highway 93, east of the confluence of the East Fork and the Main Salmon rivers. The quarry is operated in a similar manner as those on Middle Mountain: The stone (a variegated argillaceous quartzite) is split into thin sheets using hand tools and is palletized at the quarry. The pallets are hauled to the mill site adjacent to the highway, from which they are shipped. At peak production in 2007, there were 99 people employed by the quarry's operator, L&W Stone. In January, 2013, however, the company announced that it would be shutting down production at the quarry while it undergoes bankruptcy proceedings.

In the Dillon Field Office, there are currently no 3809 Plans located in GRSG habitat. Eight out of twenty-four 3809 Notices are in GRSG habitat.

On the Raft River division of the Sawtooth National Forest in Utah, there are several quarries of building stone. They are located on the southern slopes of the Raft River Range, in GRSG habitat.

#### ***Nonenergy Solid Leasable Minerals***

The Pocatello Field Office has a large nonenergy solid leasable mineral program, as the phosphate resource in southeast Idaho is significant. The goal in the Pocatello RMP is to manage the federal mineral estate while minimizing adverse impacts on resource values. The 2012 Pocatello RMP does not have any stipulations or minerals guidance for nonenergy leasable minerals which specifically address GRSG.

Phosphate has been mined in southeast Idaho for over one hundred years. Of the 86 federal phosphate leases that BLM administers in Idaho, only ten are located in GRSG habitat. These are located primarily north and west of Blackfoot Reservoir. None of these leases have had active mining operations on them, nor is any mining planned on the leases in the next 5 to 10 years. Most of the leased acreage around Blackfoot Reservoir is split-estate (privately owned or state-owned surface with federal minerals). The Trail Creek and Caldwell Canyon leases, located in GRSG habitat east of Conda Mountain, are currently undergoing drilling. One additional lease is located in priority GRSG habitat northwest of Bear Lake near Paris, Idaho. Exploration drilling was conducted in 2012 on lease, and on the private lands and unleased split-estate lands surrounding the small lease. Timing restrictions for GRSG were applied to the approval for the drilling. If developed, this property would likely be developed as an underground mine, due to geologic factors. The Dillon Field Office has one nonenergy solid leasable lease, for phosphate. It is not located in GRSG habitat.

**Figure 3-13**, Unleased Known Phosphate Leasing Areas, shows gas potential within the planning area.

#### ***Coal***

No economically viable coal resources have ever been discovered in Idaho, and most plans are silent on the subject. The Dillon RMP states its goal is to make coal resources available on a site-by-site basis. A plan amendment would be required to lease coal, along with the appropriate level of NEPA analysis. No specific mitigation measures for GRSG are identified in any of the land use plans. Coal mining is regulated in accordance with the Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.). BLM's coal mining regulations are found at 43 CFR 3400. According to 43 CFR 3420.1-4 (e)(1), only those areas that have development potential may be identified as acceptable for further consideration for leasing. As there is no development potential in the planning area, the lands are determined to be unsuitable for leasing. For this reason, the impacts on GRSG from the development of a coal resource will not be discussed further in this document.





Figure 3-13 Unleased Known Phosphate Leasing Areas



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### 3.12.2 Trends

#### *Oil and Gas*

Interest in oil and gas leasing in Idaho has been sporadic over time, and it is expected to remain so. Many leases were held in the 1970s and 1980s throughout much of Idaho, when leasing was done under a noncompetitive system. After passage of the Federal Oil and Gas Royalty Management Act in the early 1980s, leasing became a competitive process, and BLM's standards for leasing became more rigorous. Lease nominations dropped dramatically in Idaho and for many years, BLM's oil and gas program in Idaho was nonexistent. With passage of the Energy Policy Act in 2005, Idaho BLM experienced an uptick in leasing interest, with over 400,000 acres of federal land nominated since that time<sup>2</sup>.

Interest in leasing is currently high in the Payette area, due to the recent wildcat discovery of natural gas and planned development in that area (181,000 acres nominated for leasing, overlapping). Much of the land nominated for leasing is split estate, and only the northernmost nominated parcels are located in GRSG habitat. The Bear Lake area has been nominated for leasing by several parties, most recently in 2012 (59,700 acres, overlapping acreage). Interest in leasing the Bear Lake Plateau was at its highest in the early 1980s, when a discovery of gas was made 10 miles south of the Idaho/Utah state line, and in adjoining areas in Wyoming. Several wells were drilled in Idaho at that time, but were reported to be dry. Other areas that have been nominated for leasing recently include approximately 90,000 acres in Twin Falls County, south of Rogerson, and approximately 60,000 acres in Clark County, on the Idaho-Montana border in the Targhee National Forest. All of these nominated lands have GRSG habitat.

Several geophysical surveys have been conducted recently in the Payette area (two-dimensional and three-dimensional seismic surveys). It is likely that additional geophysical surveys will be conducted in the planning area. Seismic reflection surveys are the most commonly used geophysical tool. Very little surface disturbance is associated with a seismic survey, as no excavating or drilling is involved. All that is required is a seismic energy source and an array of receptors. The most common type of survey seen in Idaho involves mechanically vibrating or "thumping" the ground using truck-mounted equipment. This creates seismic waves that are recorded by a series of receptors placed on the ground surface along a three- to five-mile line. This process requires a crew of about 10 to 15 people and 5 to 7 vehicles. No reclamation is usually required.

Despite the occasional interest in leasing in Idaho, no drilling permits have ever been filed on BLM-administered lands in Idaho. This trend is expected to continue, however, for the sake of this analysis, a description of the drilling process is included in this report, since the issuance of a lease commits those lands to the possibility of exploration and development of the oil and gas resource. Exploration drill holes for oil and gas range in depth from a few thousand feet to many thousands of feet, but in much of Idaho would probably be 7,000 to 11,000 feet deep. These wells are 30 inches in diameter or larger at the surface, then narrow

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<sup>2</sup> Some of this acreage overlaps, due to multiple nominations for the same land



(telescope) to 12 inches at the bottom of the well. In order to drill these deep, large-diameter holes, a large drilling rig would be utilized. The top of the drill rig derrick could be as much as 155 feet above the ground surface, and the rig floor could be at least 25 feet above the ground surface. These rigs are typically equipped with diesel engines, fuel and drilling mud storage tanks, mud pumps, and other ancillary equipment. Blow-out prevention equipment would be utilized while drilling to prevent uncontrolled flow at the surface if a pressurized hydrocarbon deposit is encountered.

Temporary roads would likely be needed to transport and maintain the drill rig and other heavy equipment. Either existing roads would be improved or new roads would be constructed to accommodate the traffic. Typically, roads are constructed with a 20-foot wide graveled running surface with adjacent ditches and berms, for a total disturbance width of about 40 feet. It may be necessary to haul in gravel to obtain a good road base, as well as a base for the well pad. Based on the road density in the planning area, it is assumed that access to the drill pads may require up to one mile of road construction or improvement. Surface disturbance from construction of one mile of road equals about five acres.

Getting the rig and ancillary equipment to the site may require 15 to 20 trips by full-sized tractor-trailers, with a similar amount for de-mobilizing the rig. There would be 10 to 40 daily trips for commuting and hauling in equipment. Drilling operations would likely occur 24 hours a day and 7 days a week. It takes approximately one month to drill one well. A drilling operation generally has from 10 to 15 people on-site at all times, with more people coming and going periodically with equipment and supplies.

During this exploratory or wildcat phase of drilling, it is likely that a drill pad, to accommodate the rig and equipment, would be required at each well location. A drill pad is usually 2.5 acres in size (300 feet by 350 feet), but it can vary considerably due to the depth of the target zone, surface topography, and equipment needs for various drilling methods. In order to obtain a level pad, cut and fill of the site may be required. Topsoil would first be removed from the well pad site and stored on site for reclamation. In addition to the drill rig, the well pad may house a reserve pit for storage or disposal of water, drill mud, and cuttings; several mud pits and pumps, a tool shed, drill pipe rack, a fuel tank, a water tank, a generator and several compressors, equipment storage, and several trailers for temporary lab and office quarters. Depending on the contents of the reserve pit and environmental sensitivity of the site, it may be lined or unlined.

Well drilling also requires water. As much water as possible is recycled on site, yet about 5,000 to 15,000 gallons of water may be needed each day depending on well conditions. Initially, water would need to be provided, either by wells or trucked in, to meet demands. Many oil or gas wells encounter water at depth when drilling for oil and/or gas and can be utilized when production is ongoing. Any water rights required would likely need to be filed in the name of the BLM.

Various tests are then run down the hole and data is collected to determine whether the well is capable of production. At the conclusion of well testing, if paying quantities of oil and gas are not discovered, the operator is required to plug the well according to federal and state

standards. Cement plugs are placed above and below water-bearing units with drilling mud placed in the space between plugs. When abandonment is complete, the site is reclaimed, which includes pad and road recontouring, topsoil replacement, and seeding with approved mixtures. Erosion control measures would be incorporated into the reclamation design as needed.

The drilling site could be active for approximately 1 year, from the start of drill pad and access road construction; through drilling and well testing; to completion of production facilities or plugging the hole and reclamation of the surface, which usually involves removing all infrastructure, disposal of any waste generated, reshaping pads and roads, and re-seeding. The total surface disturbance expected from the drilling of a single exploratory well and the construction of one mile of access road is approximately eight acres.

If a producible quantity of oil or gas is discovered, additional development wells would be drilled to confirm the discovery, establish the limits of the field, and drain the field. Depending on the field characteristics, well spacing may be from 40 to several hundred acres per well.

The speed at which a field is developed is dependent on the anticipated productivity. It may take from 1 to 3 years to fully develop an oil or gas field. Large fields with several operators may be unitized to reduce surface impacts. In addition, directional drilling may allow for drilling more than one well per pad.

During field development, the road system may be greatly expanded. Temporary roads are usually improved to accommodate more traffic and increased duration of use. Improvements may include crowning, capping, and implementing additional erosion controls. New roads would also be constructed. Depending on well location and topography, a main access road is built with smaller secondary roads running to each pad. In addition to roads, other facilities may also be installed including power lines, tank farms, pipelines, oil/water separators, and injection wells.

Where oil and gas flow to the surface naturally, control valves and collection pipes are attached to the well head. Otherwise pumps are installed. Oil is typically produced along with water and gas. Separation facilities are constructed on site to remove water, carbon dioxide, and hydrogen sulfide. The oil and natural gas are then separated. Water, usually saline, is disposed of either through surface discharge, evaporation ponds or re-injection into the producing formation.

If gas is present in economic quantities and a pipeline is located within close proximity, a network of pipelines would likely be constructed to collect and transport the gas. If not, gas would likely be re-injected into the reservoir. Oil would be collected in a similar manner and stored in tanks in a central location. Well operators would likely have service operations (e.g., cementing, logging, bits, and testing) provided by established oil field service companies in Wyoming or Utah.



The producing life span of an oil or gas field varies depending on field characteristics. A field may produce for a few years to many decades. Commodity price, recovery technique, and the political environment also affect the life of a field. Well abandonment may begin as soon as it is depleted, or it may be rested for a period of time and put back into production.

#### ***Geothermal***

Interest in geothermal is sporadic in Idaho, depending on factors such as the economy, political climate, government incentive programs, such as the renewable energy tax credit, and technological advances. It is anticipated that drilling will occur on federal leases at Raft River over the next 10 to 15 years, and that an additional power plant would be constructed, likely on private lands, but with wells on federal land.

#### ***Mineral Materials***

Demand for mineral materials is expected to remain fairly steady, although the collapse of the housing industry in 2008 definitely resulted in fewer sales throughout the planning area. The implementation of full cost recovery for individual sales has caused a decline in that case type.

#### ***Locatables***

While Idaho's mining claim numbers fluctuate with the price of gold, the number of plans and notices remains fairly steady. Production of building stone in the Middle Mountain area remains steady, however it was recently reported that L&W Stone's Three River Stone quarry near Clayton has been shut down due to bankruptcy. Several Plans of Operations are in the approval process on Middle Mountain.

#### ***Nonenergy Solid Leasable Minerals***

Demand for phosphate remains high, and the companies that mine in southeast Idaho continue to develop new mines as old ones are reclaimed and remediated. There is no indication that the leases west of Soda Springs in GRSG habitat will be developed in the foreseeable future. It is anticipated that, over the next 10 years, new mines will be developed on phosphate leases at Dairy Syncline, Husky/Dry Ridge, Caldwell Canyon, and Trail Creek, as current mines are depleted of ore and are reclaimed. Only the Caldwell Canyon and Trail Creek leases are located in GRSG habitat. Both of these leases are located primarily on split estate lands: at Caldwell Canyon, the majority of the surface estate is privately owned (1,200 acres), with only 160 acres on BLM-administered lands; the Trail Creek lease is composed of a mix of state and private surface estate. In the spring of 2013 it was announced that a company plans to open an underground operation near Paris, Idaho, on patented lands in GRSG habitat. The announcement stated that initial development would not involve federal minerals; however, exploration drilling occurred on federal minerals in 2012.

#### ***Coal***

It is highly unlikely that any coal exploration or development will occur in the planning area.

### **3.13 Special Designations**

Within the planning area are a variety of lands set aside through congressional or administrative action to protect certain values, such as Wilderness, Wilderness Study Areas,

National Landscapes, National Scenic and Historic Trails, and Wild and Scenic Rivers (**Figure 3-14**, Special Designations in the Planning Area).

### 3.13.1 Areas of Critical Environmental Concern (ACEC)

An ACEC is defined in FLPMA, Section 103(a), as an area on BLM-administered lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and ensure safety from natural hazards. BLM regulations for implementing the ACEC provisions of FLPMA are found in 43 CFR 1610.7-2(b).

ACECs differ from some other special management designations in that designation by itself does not automatically prohibit or restrict other uses in the area. The special management attention is designed specifically for the relevant and important values and, therefore, varies from area to area. Restrictions that arise from an ACEC designation are determined at the time the designation is made and are designed to protect the values or serve the purposes for which the designation was made. The BLM identifies goals, standards, and objectives for each proposed ACEC as well as general management practices and uses, including necessary constraints and mitigation measures. In addition, ACECs are protected by the provisions of 43 CFR 3809.1-4(b)(3), which requires an approved plan of operations for activities resulting in more than 5 acres of disturbance under the mining laws.

Research natural areas are areas where natural processes are allowed to predominate, and that are preserved for the primary purposes of research and education. Under current BLM policy, research natural areas must meet the relevance and importance criteria of ACECs and are, therefore, designated as ACECs. Under current guidelines, ACEC procedures also are used to designate outstanding natural areas.

There are portions of fifty two Idaho and 7 Montana ACECs in the planning area that overlap occupied GRSG habitat (see **Figure 3-15**, Existing Areas of Critical Environmental Concern with Preliminary Priority and General Habitat). Refer to **Table 3-45**, BLM Areas of Critical Environmental Concern, which summarizes the acres of ACECs within GRSG habitat and the identified relevant and important values for each. None of the existing ACECs were designated solely for the purpose of protecting GRSG habitat.

As part of this effort, the BLM called for and received nominations for ACECs to protect GRSG. A BLM interdisciplinary team reviewed nominations to determine which areas meet the relevance and importance criteria, as defined by 43 CFR 1610.7-2(a)(1), and 43 CFR 1610.7-2(a)(2), and guidance in BLM Manual 1613, Areas of Critical Environmental Concern. Details of the process and information on those areas found to meet the relevance and importance criteria can be found in **Appendix H**, BLM ACEC Evaluation and Forest Service Zoological Areas.



Figure 3-14 Special Designations in the Planning Area



Figure 3-15 Existing Areas of Critical Environmental Concern with Preliminary Priority and General Habitat



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**Table 3-45  
BLM Areas of Critical Environmental Concern**

ACEC Name	State	Total Acres	Acres in PPH	Acres in PGH	Values
Antelope Flat RNA	Idaho	589	589	0	Unusual and uncommon plant communities
Big Beaver	Idaho	7,217	0	7,082	Natural Features (Elk Habitat)
Birch Creek	Idaho	8,640	4,164	4,455	Crucial winter range and lambing habitat for bighorn sheep. Rare plants.
Block Mountain	Montana	8,587	0	544	Geologic Resources
Boulder Creek	Idaho	6,976	4,183	874	Scenic and multiple natural resource values
Bruneau/Jarbidge River	Idaho	85,263	38,745	39,972	Cultural, Geological, Scenic, and Natural Features (Big Horn Sheep Habitat)
Buckwheat Flats RNA	Idaho	185	185	0	Special Status Plants
Centennial Mountains	Montana	40,440	12,999	0	Wildlife Resources – grizzly bear, lynx & wolf
Centennial Sandhills	Montana	1,035	1,035	0	Geological and Botanical Resources
China Cup Butte RNA	Idaho	159	159	0	Geological values.
Cinnabar Mountain	Idaho	278	0	229	Valuable Range Reference Area, Scenic Values, Special Status Animals including GRSG
Coal Mine Basin	Idaho	2,392	1,605	0	Special Status Plants and animals (only mentions that GRSG are present), scenery, paleontological resources
Cottonwood Creek	Idaho	326	326	0	Riparian Vegetation, redband trout, bighorn sheep, and scenic quality
Cronk's Canyon	Idaho	1,126	1,126	0	Wildlife and botanical resources. Relict bighorn sheep population. Pristine natural plant communities.
Cronk's Canyon RNA	Idaho	366	366	0	Wildlife and botanical resources. Relict bighorn sheep population. Pristine natural plant communities.
Dairy Hollow RNA	Idaho	44	44	0	Geological and botanical resources.
Donkey Hills	Idaho	29,726	15,380	9,277	Wildlife resources – crucial elk habitat.

**Table 3-45**  
**BLM Areas of Critical Environmental Concern**

ACEC Name	State	Total Acres	Acres in PPH	Acres in PGH	Values
Dry Gulch RNA	Idaho	540	540	0	Botanical resources – unusual plant communities; several rare plant populations.
East Fork Salmon River Bench RNA	Idaho	78	78	0	Botanical resources – remnant pristine vegetation.
Elk Mountain	Idaho	7,791	7,540	251	Natural Features (Elk Habitat)
Everson Creek	Montana	8,772	8,772	0	Archaeological Resources
Geoff Hogander/Stump Creek	Idaho	2,474	0	2,453	Exceptional ecological communities
Goodrich Creek RNA	Idaho	389	0	389	Exceptional ecological communities
Goose Creek Mesa	Idaho	104	104	0	Natural Features (Vegetation)
Granite Pass	Idaho	294	86	0	Historic and Cultural Features
Herd Creek Watershed	Idaho	16,884	13,413	990	Botanical, fish and visual resources. Riparian recovery and demonstration area. Presence of rare plants. Variety of high elevation range and forest plant communities. Known spawning and rearing habitat for special status steelhead trout, bull trout, and Chinook salmon. Roadless/primitive and scenic values.
Herd Creek Watershed RNA	Idaho	1,056	278	0	Same as Herd Creek Watershed.
Hixon Columbia Sharp-Tailed Grouse Habitat	Idaho	11,238	682	6,347	Wildlife resources - Columbia Sharp-Tailed Grouse habitat.
Humbug Spires	Montana	8,374	0	23	Outstanding scenic qualities and diverse upland and aquatic habitat for plants, animals and fish.
Jim Sage Canyon	Idaho	655	491	153	Natural Features (Vegetation)

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**Table 3-45**  
**BLM Areas of Critical Environmental Concern**

ACEC Name	State	Total Acres	Acres in PPH	Acres in PGH	Values
Jump Creek Canyon	Idaho	613	100	335	Riparian Communities
King Hill Creek	Idaho	2,844	1,336	601	Scenic and Natural Features (Redband Trout and Riparian)
Lone Bird	Idaho	9,967	9,967	0	Cultural and botanical resources. Numerous and unique cultural resources. Rare plants.
Malm Gulch/Germer Basin	Idaho	5,643	4,399	1,065	Botanical, paleontological, geologic resources. Concentration of rare plants, unusual plant communities. Petrified forest. Fragile soils.
Malm Gulch/Germer Basin RNA	Idaho	2,183	1,860	323	Same as Malm Gulch/Germer Basin
McBride Creek	Idaho	262	262	0	Special Status Plants
McKinney Butte	Idaho	3,758	2,214	0	Geological, Scenic, and Natural Features (Bats, Unusual plants, and invertebrates)
Muddy Creek/Big Sheep Creek	Montana	13,053	12,374	0	Cultural Resources
Nine Mile Knoll	Idaho	40,680	18,107	678	Big game wildlife values.
North Fork Juniper Woodland	Idaho	4,203	0	280	Montane Western Juniper and Special Status Plants and Animals
North Menan Butte	Idaho	781	630	151	Geological values.
North Menan Butte RNA	Idaho	344	329	15	Geological and botanical values.
Oregon-California Trail Junction	Idaho	522	0	521	Historic and Cultural Features
Owyhee River/Bighorn Sheep	Idaho	198,121	152,783	45,339	Wildlife resources - bighorn sheep habitat
Peck's Canyon RNA	Idaho	783	783	0	Botanical resources – excellent condition plant communities.
Pennal Gulch	Idaho	5,817	5,522	226	Botanical resources – rare plants; unique riparian area; unique and representative vegetation.
Pine Gap RNA	Idaho	237	236	2	Botanical resources – rare plant <i>Cryptantha caespitosa</i> .

**Table 3-45  
BLM Areas of Critical Environmental Concern**

ACEC Name	State	Total Acres	Acres in PPH	Acres in PGH	Values
Playas	Idaho	38	38	0	Natural Features (Davis Peppergrass)
Pleasant Valley Table	Idaho	1,468		1,468	Botanical resources - excellent examples of Owyhee sagebrush-Sandberg bluegrass and low sagebrush-Idaho fescue communities
Rebecca Sand Hill RNA	Idaho	339		338	Special Status Plants
Salmon Falls Creek Canyon	Idaho	5,129	567	889	Pristine, Scenic, and Natural Features
Sand Hollow RNA	Idaho	3,334	3,334	0	Geological and botanical resources – fragile watershed, rare plant populations; geological area of interest.
Sevenmile Creek	Idaho	1,033	956	0	Natural hazard due to unstable nature of the soils and considerable slumps that occur.
Snake River	Idaho	20,833	4,043	686	Botanical, Wildlife, Fish, Recreation, Scenic Resources-Extensive cottonwood riparian-wetland ecosystems, multiple listed species, world class fishery, visual class 1 areas.
Sommercamp Butte	Idaho	438	268	170	Botanical resources - good ecological condition of Mountain Mahogany-bluebunch wheatgrass communities
Squaw Creek	Idaho	146	112	33	Low elevation Wyoming sagebrush-bluebunch wheatgrass communities
Summit Creek ACEC	Idaho	112	112	0	Botanical Resources- Unique wetland system; rare plants; special recreation values.



**Table 3-45  
BLM Areas of Critical Environmental Concern**

ACEC Name	State	Total Acres	Acres in PPH	Acres in PGH	Values
Summit Creek RNA	Idaho	187	187	0	Botanical and Recreational Resources -Unique wetland system; rare plants; special recreation values.
Tee-Maze	Idaho	10,736	10,537	112	Geological, Scenic, and Natural Features (Bats, Unusual plants, and invertebrates)
The Badlands	Idaho	1,834	982	853	Scenic Values and Diverse Botanical Features
The Tules RNA	Idaho	114	15	99	Outstanding Geologic Features and Special Status Plants
Thousand Springs	Idaho	600	436	147	Botanical and Wildlife Resources-Unique wetland ecosystem; high value for waterfowl.
Thousand Springs RNA	Idaho	231	231	0	Botanical and Wildlife Resources-Unique wetland ecosystem; high value for waterfowl.
Travertine Park	Idaho	184	184	0	Botanical resources.
Travertine Park RNA	Idaho	23	23	0	Botanical resources.
Triplet Butte	Idaho	311	7	304	Undisturbed vegetation communities, cultural resources, bighorn sheep, and scenic quality
Virginia City Historic District	Montana	483	0	238	Cultural Resources

Source: BLM 2013a

### 3.13.1 Wilderness

#### ***BLM***

In 1964, the Wilderness Act (the Act) established the National Wilderness Preservation System to be managed by the Forest Service, National Park Service, and USFWS. In 1976, with the passage of the FLPMA, Congress made the BLM the fourth agency with wilderness management authority under the Wilderness Act.

Section 4(b) of the Act further sets forth the agencies' responsibilities in administering wilderness areas and states that the preservation of wilderness character is the primary management mandate. In the relevant part, the Act states: "Except as otherwise provided in

this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area.”

As set forth in Section 2(c) (“Definition of Wilderness”) of the Wilderness Act, wilderness character is composed of four mandatory qualities and a fifth, optional, quality. These are:

- i. **Untrammelled.** The Wilderness Act states that wilderness is “an area where the earth and its community of life are untrammelled by man.” A “trammel” is literally a net, snare, hobble, or other device that impedes the free movement of an animal. Here, used metaphorically, “untrammelled” refers to wilderness as essentially unhindered and free from modern human control or manipulation. This quality is impaired by human activities or actions that control or manipulate the components or processes of ecological systems inside wilderness.
- ii. **Natural.** The Wilderness Act states that wilderness is “protected and managed so as to preserve its natural conditions.” In short, wilderness ecological systems should be as free as possible from the effects of modern civilization. Management must foster a natural distribution of native wildlife, fish, and plants by ensuring that ecosystems and ecological processes continue to function naturally. Watersheds, water bodies, water quality, and soils are maintained in a natural condition; associated ecological processes previously altered by human influences will be allowed to return to their natural condition. Fire, insects, and diseases are allowed to play their natural role in the wilderness ecosystem except where these activities threaten human life, property, or high value resources on adjacent nonwilderness lands. Additional guidance on this is provided in section 1.6.C of this manual, which addresses the management of specific activities in wilderness. This quality may be affected by intended or unintended effects of human activities on the ecological systems inside the wilderness.
- iii. **Undeveloped.** The Wilderness Act states that wilderness is an area “of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation,” “where man himself is a visitor who does not remain,” and “with the imprint of man’s work substantially unnoticeable.” Wilderness has minimal evidence of modern human occupation or modification. This quality is impaired by the presence of structures or installations, and by the use of motor vehicles, motorized equipment, or mechanical transport that increases people’s ability to occupy or modify the environment. More detail on the activities that impair this quality is found in Section 1.6.B of this policy.
- iv. **Solitude or Primitive and Unconfined Recreation.** The Wilderness Act states that wilderness has “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” Wilderness provides opportunities for people to experience: natural sights and sounds; remote, isolated, unfrequented, or secluded places; and freedom, risk, and the physical and emotional challenges of self-discovery and self-reliance. Any one wilderness does not have to provide all



these opportunities, nor is it necessary that they be present on every acre of a given wilderness. Where present, however, the preservation of these opportunities is important to the preservation of wilderness character as a whole. This quality is impaired by settings that reduce these opportunities, such as visitor encounters, signs of modern civilization, recreation facilities, and management restrictions on visitor behavior.

- v. Unique, Supplemental, or Other Features. The Wilderness Act states that wilderness areas “may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” Though these values are not required of any wilderness, where they are present they are part of that area’s wilderness character, and must be protected as rigorously as any of the four required qualities. They may include historical, cultural, paleontological, or other resources not necessarily considered a part of any of the other qualities. These values are identified in a number of ways: in the area’s designating legislation, through its legislative history, by the original wilderness inventory, in a wilderness management plan, or at some other time after designation.

Section 4(b) of the Wilderness Act states that: “Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.” In most cases the public purposes reflect one or more qualities of wilderness character and are administered so as to preserve the wilderness character of the area.

Section 4(c) of the Wilderness Act lists uses and activities that are specifically prohibited in wilderness: “Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.”

The BLM Wilderness Manual 6340 states: Wildlife management within wilderness is guided by all relevant laws, including the Wilderness Act, acts designating specific wilderness areas, the Endangered Species Act, the Migratory Bird Treaty Act, Native American treaty rights, 43 CFR 6300 (Management of Designated Wilderness Areas), 43 CFR 24 (Department of the Interior Fish and Wildlife Policy: State-Federal Relationships), and applicable State laws and policies regarding wildlife.

Many wilderness areas provide important habitat for federally listed threatened or endangered wildlife species. The BLM will manage wilderness areas to protect and recover known populations of federally listed threatened or endangered species and to aid in their recovery in previously occupied habitat. The wilderness restrictions can directly or indirectly influence GRSG and their habitat.

The BLM has seven wilderness areas within the planning boundary (**Table 3-46**, BLM-Administered Wilderness Areas). These seven areas are all within Owyhee County and were designated by Congress in 2009 through the Omnibus Public Lands Management Act.

A wilderness management plan for the seven BLM wilderness areas will be released in draft in February 2013. A final plan should be completed by mid to late 2013.

**Table 3-46**  
**BLM-Administered Wilderness Areas**

BLM Wilderness Name	Wilderness Acres
Bear Trap Wilderness	6,350
Big Jacks Creek Wilderness	52,800
Bruneau-Jarbidge Rivers Wilderness	90,000
Little Jacks Creek Wilderness	50,900
North Fork Owyhee Wilderness	43,400
Owyhee River Wilderness	267,300
Pole Creek Wilderness	12,500
<b>Total BLM Wilderness</b>	<b>523,250</b>

Source: BLM 2013a

#### ***Forest Service***

The Forest Service, National Park Service, and BLM manage wilderness areas under the same legislation; the 1964 Wilderness Act. The agencies have similar objectives and policies related to wilderness. Below is text from the Forest Service wilderness manual.

Wilderness is a unique and vital resource. In addition to offering primitive recreation opportunities, it is valuable for its scientific and educational uses, as a benchmark for ecological studies, and for the preservation of historical and natural features.

Manage the wilderness resource to ensure its character and values are dominant and enduring. Its management must be consistent over time and between areas to ensure its present and future availability and enjoyment as wilderness. Manage wilderness to ensure that human influence does not impede the free play of natural forces or interfere with natural successions in the ecosystems and to ensure that each wilderness offers outstanding opportunities for solitude or a primitive and unconfined type of recreation. Manage wilderness as one resource rather than a series of separate resources (FSM 2300 Sec. 2320.6).

#### *Objectives*

- Maintain and perpetuate the enduring resource of wilderness as one of the multiple uses of Forest Service-administered land.
- Maintain wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces.





- Minimize the impact of those kinds of uses and activities generally prohibited by the Wilderness Act, but specifically excepted by the Act or subsequent legislation.
- Protect and perpetuate wilderness character and public values including, but not limited to, opportunities for scientific study, education, solitude, physical and mental challenge and stimulation, inspiration, and primitive recreation experiences.
- Gather information and carry out research in a manner compatible with preserving the wilderness environment to increase understanding of wilderness ecology, wilderness uses, management opportunities, and visitor behavior.

*Policy*

- Where there are alternatives among management decisions, wilderness values shall dominate over all other considerations except where limited by the Wilderness Act, subsequent legislation, or regulations.
- Manage the use of other resources in wilderness in a manner compatible with wilderness resource management objectives.
- In wildernesses where the establishing legislation permits resource uses and activities that are nonconforming exceptions to the definition of wilderness as described in the Wilderness Act, manage these nonconforming uses and activities in such a manner as to minimize their effect on the wilderness resource.
- Cease uses and activities and remove existing structures not essential to the administration, protection, or management of wilderness for wilderness purposes or not provided for in the establishing legislation.
- Because wilderness does not exist in a vacuum, consider activities on both sides of wilderness boundaries during planning and articulate management goals and the blending of diverse resources in forest plans. Do not maintain buffer strips of undeveloped wildland to provide an informal extension of wilderness. Do not maintain internal buffer zones that degrade wilderness values. Use the Recreation Opportunity Spectrum (FSM 2310) as a tool to plan adjacent land management.
- Manage each wilderness as a total unit and coordinate management direction when they cross other administrative boundaries.
- Use interdisciplinary skills in planning for wilderness use and administration.
- Gather necessary information and carry out research programs in a manner that is compatible with the preservation of the wilderness environment.
- Whenever and wherever possible, acquire non-federal lands located within wildernesses, as well as non-federal lands within those areas recommended for inclusion in the system.

The Forest Service manages eight wilderness areas that are either all or portions of within the planning area (**Table 3-47, ~~Forest Service-Administered Wilderness Areas~~ Forest Service-Administered Wilderness Areas**).

**Table 3-47  
Forest Service-Administered Wilderness Areas**

Forest Service Wilderness Name	Wilderness Acres
Sawtooth	217,100
Frank Church River of No Return	2,366,900
Anaconda Pintler	158,600
Gates of the Mountains	28,600
Lee Metcalf	264,600
Red Rock Lakes	32,400
Absaroka Beartooth	943,600
<b>Total Forest Service Wilderness</b>	<b>2,709,100</b>

Source: BLM 2013a

***National Park Service***

The following is from the National Park Service Wilderness Management Policy 2006: The National Park Service will manage wilderness areas for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness. Management will include the protection of these areas, the preservation of their wilderness character, and the gathering and dissemination of information regarding their use and enjoyment as wilderness. The purpose of wilderness in the national parks includes the preservation of wilderness character and wilderness resources in an unimpaired condition and, in accordance with the Wilderness Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

Craters of the Moon National Monument manages one wilderness area within the planning boundary (**Table 3-48, National Park Service Wilderness Areas**).

**Table 3-48  
National Park Service Wilderness Areas**

National Park Service Wilderness Name	Wilderness Acres
Craters of the Moon National Wilderness	43,200
<b>Total National Park Service Wilderness</b>	<b>43,200</b>

Source: BLM 2013a

**3.13.2 Wilderness Study Areas**

Section 603 of FLPMA directed the BLM to carry out a wilderness review of the BLM-administered lands. The wilderness inventory was conducted from 1978 to 1980. The original inventory focused on roadless areas of BLM-administered lands of 5,000 acres or



more and on roadless islands, but also included areas of less than 5,000 acres that had wilderness characteristics in association with contiguous roadless lands managed by another agency, and areas of less than 5,000 acres that had wilderness characteristics and could practicably be managed to keep those characteristics in an unimpaired condition. Additional WSAs were designated through the BLM land use planning process under the authority of Sections 201, 202, and 302 of FLPMA after the reports to Congress were completed in 1993.

The inventory phase identified areas that were found to have the characteristics of wilderness enumerated by Congress in Section 2 (c) of the Wilderness Act of 1964:

“A wilderness... (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” When these characteristics were found within a defined boundary, the presence of the wilderness resource was documented and the area was classified as a WSA.

During the study phase, all values, resources, and uses occurring within each WSA were analyzed, pursuant to the NEPA, through legislative environmental impact statements. When the study was completed, recommendations as to the suitability or unsuitability of each WSA for designation as wilderness were submitted to the President through the Secretary of the Interior, and then from the President to Congress.

Consistent with BLM Manual 6330 and FLPMA Section 603(c), the BLM currently manages approximately 770,000 acres of WSAs within the planning boundary. This includes 10 WSAs in the Dillon Field Office and 34 WSAs in the Idaho Field Offices. **Table 2-2** identifies acres of WSAs that contain GRSG habitat in the decision area for this LUPA/EIS.

### **3.13.3 National Landscapes, Monuments, and Conservation Areas**

#### ***National Landscape Conservation System***

The National Landscape Conservation System (NLCS) was created in 2000 through an order signed by Interior Secretary Babbitt. The concept of the NLCS was for the BLM to manage a system of lands with a dominant conservation mission. In the order, Secretary Babbitt included lands, rivers, and trails designated by acts of Congress or presidential proclamations under the 1906 Antiquities Act as units in the NLCS. In 2009, Congress passed the Omnibus Public Lands Management Act, which permanently established the NLCS “... to conserve, protect and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations.”

Since the creation of the NLCS, the BLM has promoted understanding of the system. As a way to help the public recognize the NLCS, the BLM has developed a brand and logo: National Conservation Lands.

Within the planning area, there are multiple units representing the National Conservation Lands. These include a National Monument, a National Conservation Area, Wilderness Areas, Wilderness Study Areas, Wild and Scenic Rivers, and National Scenic and Historic Trails.

***National Monuments and National Conservation Areas***

National Monuments are areas either designated by Congress or by presidential proclamation (under the authority of the Antiquities Act of 1906) to protect unique historic landmarks, historic and prehistoric structures, or other objects of historic or scientific interest. Within the planning area, the BLM and the National Park Service jointly administer the Craters of the Moon National Monument and Preserve (737,700 acres). The BLM portion of the monument was designated in 2000 to protect *kipukas* (small areas surrounded by lava). These are some of the last undisturbed vegetation communities on the Snake River Plain and the surrounding sagebrush (*Artemisia* spp.) steppe ecosystem. They consist of diverse communities of grasses, sagebrush, and shrubs that provide habitat for a variety of wildlife. This area also includes lava tube caves, older volcanic formations, and volcanic buttes. Craters of the Moon is managed to protect and preserve the objects and values for which it was designated.

National Conservation Areas (NCAs) are designated by Congress to conserve, protect, enhance, and manage public land areas for the benefit and enjoyment of present and future generations. NCAs feature exceptional natural, recreational, cultural, wildlife, aquatic, archaeological, paleontological, historical, educational, and scientific resources. Within the planning area, the BLM manages the Morley Nelson Snake River Birds of Prey National Conservation Area (485,000 acres). Congress established the NCA in 1993 to protect a unique environment that supports one of the world's most dense concentrations of nesting birds of prey. Falcons, eagles, hawks, and owls are found here in exceptional profusion and variety. The NCA is managed to conserve, protect, and enhance raptor populations and their associated habitats.

The BLM manages National Monuments and National Conservation Areas in accordance with the direction provided in BLM Manual 6220. This policy will be adhered to during any site-specific NEPA analyses that are conducted within either of these areas.

***National Scenic and Historic Trails***

A National Historic Trail (NHT) is congressionally designated as an extended long-distance trail, not necessarily managed as continuous. It follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of an NHT is to identify and protect the historic route and the historic remnants and artifacts for public use and enjoyment. An NHT is managed to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail.

While National Scenic and Historic Trails cross lands managed by different agencies, trails and trail segments that cross BLM-administered lands are managed in accordance with BLM



Manual 6280, Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation. This manual mandates that the BLM establish NHT's Management Corridors to assist in the management of the resources, qualities, values, and associated settings and the primary use or uses for which the NHT was designated. The designation of NHT's Management Corridors in the future may encompass lands that include GRSG habitat and may include management decisions and actions that likely will have positive effects on GRSG populations.

**Table 3-49**, National Historic Trails, lists the NHTs in the planning area, by planning district.

**Table 3-49  
National Historic Trails**

Planning District	National Historic Trail
<b>BLM</b>	
Dillon Field Office	Lewis and Clark National Historic Trail Oregon National Historic Trail
Burley Field Office	California National Historic Trail
Four Rivers Field Office	Oregon National Historic Trail
Owyhee Field Office	Oregon National Historic Trail
Pocatello Field Office	Oregon National Historic Trail California National Historic Trail
Salmon Field Office	Lewis and Clark National Historic Trail
Shoshone Field Office	Oregon National Historic Trail
Upper Snake Field Office	Oregon National Historic Trail Nez Perce National Historic Trail
<b>Forest Service</b>	
Beaverhead-Deerlodge National Forest	Nez Perce National Historic Trail Oregon National Historic Trail
Caribou-Targhee National Forest	Nez Perce National Historic Trail

### 3.13.4 Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 USC 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

*It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and*

*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS  
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*enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes. (Wild & Scenic Rivers Act, October 2, 1968)*

Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. For federally administered rivers, the designated boundaries generally average one-quarter mile on either bank in the lower 48 states and one-half mile on rivers outside national parks in Alaska in order to protect river-related values.

#### ***River Classification***

Rivers are classified as wild, scenic, or recreational.

- Wild River Areas – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- Scenic River Areas – Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- Recreational River Areas – Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments. In most cases not all land within boundaries is, or will be, publicly owned, and the Act limits how much land the federal government is allowed to acquire from willing sellers. Visitors to these rivers are cautioned to be aware of and respect private property rights.

The Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding resource values. However, designation does not affect existing water



rights or the existing jurisdiction of states and the federal government over waters as determined by established principles of law.

The Forest Service manages two designated rivers within the planning boundary (**Table 3-50, ~~Forest Service-Administered Wild and Scenic Rivers~~ Forest Service Administered Wild and Scenic Rivers**). The Middle Fork of the Salmon is wholly within the planning boundary whereas only a portion of the Salmon River is within the planning boundary.

**Table 3-50  
Forest Service-Administered Wild and Scenic Rivers**

Name	Classification	River Miles
Salmon River	Wild	79
	Recreational	46
Middle Fork of the Salmon River	Wild	103
	Scenic	1

The BLM manages 16 designated rivers that are wholly within the planning boundary (**Table 3-51, ~~BLM-Administered Wild and Scenic Rivers~~ BLM Administered Wild and Scenic Rivers**). All of the 16 rivers are within wilderness areas. Where the wilderness policy is more restrictive than the Wild and Scenic Rivers policy regarding actions within wilderness, the wilderness policy takes precedence; however, Wild and Scenic Rivers must be administered so as to protect and enhance the values that caused it to be designated.

**Table 3-51  
BLM-Administered Wild and Scenic Rivers**

Name	Classification	River Miles
Battle Creek	Wild	23.4
Big Jacks Creek	Wild	35
Bruneau River	Recreational	0.6
	Wild	39.3
West Fork Bruneau River	Wild	0.35
Cottonwood Creek	Wild	2.6
Deep Creek	Wild	13.1
Dickshooter Creek	Wild	9.25
Duncan Creek	Wild	0.9
Jarbidge River	Wild	28.8
Little Jacks Creek	Wild	12.4
North Fork Owyhee River	Recreational	5.7
	Wild	15.1
Owyhee River	Wild	67.3
South Fork Of The Owyhee River	Recreational	1.2
	Wild	31.4
Red Canyon	Wild	4.6
Sheep Creek	Wild	25.6
Wickahoney Creek	Wild	1.5

### 3.13.5 Regional Context

**Table 3-52**, Acres of Conservation Areas within GRSG Habitat, displays special designations data for GRSG habitat in the planning area. Data are presented by surface management agency and their occurrence within occupied GRSG habitat in the planning area and the MZs that overlap the planning area.

**Table 3-52**  
**Acres of Conservation Areas within GRSG Habitat**

Surface Management Agency	Acres within PGH <sup>1</sup>			Acres within PPH <sup>1</sup>		
	Planning Area	MZ II/VII <sup>2</sup>	MZ IV	Planning Area	MZ II/VII <sup>2</sup>	MZ IV
BLM	231,000	511,100	741,400	904,200	241,300	1,510,700
Forest Service	400	46,800	3,000	500	2,500	26,600
Tribal and Other Federal	240,100	105,700	254,800	67,900	93,300	76,000
Private	108,800	358,900	164,300	120,400	217,100	124,800
State	16,500	41,400	16,600	22,300	44,000	22,500
Other	1,500	4,400	1,500	21	26,500	21

Source: Manier et al. 2013

<sup>1</sup>Includes Areas of Critical Environmental Concern, USFWS refuges, National Conservation Easements, National Park Service units, National Landscape Conservation System Units, congressionally designated Wilderness areas, and conservation areas on private and state land.

<sup>2</sup> Note: BER combined acres for MZs II and VII

### 3.14 Soil Resources

Many resources and resource uses, including livestock grazing, wildlife habitat, riparian habitat, special status species, fisheries, recreation, water quality and forestry, depend on suitable soils. Consequently, soil attributes and conditions are important to BLM and Forest Service management [decisions/reaction](#).

Soils are defined by the processes that form them. Through time, these processes form unique soil types and influence what plants may grow upon them. Soil surveys indicate that climate and topography are the primary influences on soil formation. Soil development processes, such as rock weathering, decomposition of plant materials, accumulation of organic matter, and nutrient cycling, are controlled largely by climate. Soil moisture and temperature strongly affect the rates of addition, removal, translocation, and transformation of material within the soil. Topography influences site conditions such as precipitation amounts and effectiveness, drainage, runoff, erosion potential, and temperature.

Soils play an integral part in vegetation community development. Plants use soil as an anchor, a means to provide water for growth, and a storehouse for the nutrients needed for growth. Plant communities are most noticeably influenced where soil texture and thickness of soil horizons change, depth to restrictive layers including abrupt soil horizon boundaries





exist, and by soil drainage, moisture holding capacity, or depth to water table. Native plant communities require management considerations that include the ability of the soil to produce a healthy ecosystem over the long term. Reducing the risk of erosion from water and air processes, limiting compaction from traffic source or grazing, and allowing the water to infiltrate at a normal rate for the given soil texture will allow vegetative communities to thrive and further protects the soil resources.

The NRCS provides soil mapping across the United States. Soil information and mapping from the NRCS are provided below under existing conditions to describe soil resources.

Land uses strive to conform to Standards for Public Land Health on BLM-administered lands, which describe conditions needed to sustain public land health and relate to all uses of the BLM-administered lands.

### **3.15 Conditions within the Planning Area**

#### ***Soil Productivity***

Soil productivity within the planning area varies widely due to the diversity of soils and site characteristics, specifically differences in elevation and slope gradient. The planning area landscape varies greatly from broad valleys to mountains.

The average annual precipitation and temperature in the project area vary greatly by elevation and aspect. Some of the most productive soils are found in well drained valley bottoms, toe-slopes, benches, and broad ridge topes. On uplands where rainfall is moderate to low, medium-textured soils may produce favorable conditions, depending on land uses such as livestock grazing. Soils that feature shallow clay pans, hardpans, or salts pose substantial constraints to land use and land use management.

Management practices affect the ability of soils to maintain productivity by influencing disturbances such as displacement, compaction, erosion, and alteration of organic matter and soil organism levels. When soil degradation occurs in semiarid, high desert regions, natural processes are slow to return site productivity. Prevention of soil degradation is far more cost-effective and time effective than remediation or waiting for natural processes. Management practices, such as proper stocking rates for livestock, rotation of grazing, periodic rest from grazing, improved design, construction and maintenance of roads, selective logging, rehabilitation of unneeded surface disturbance, restricting vehicles to roads and trails, rehabilitating mined areas, and control of concentrated recreational activities, have reduced erosion effects and improved soil conditions.

#### ***Soil Erosion***

Erosion is a continuing natural process that can be accelerated by human disturbances. Factors that influence soil erosion include soil texture, structure, length and percent of slope, vegetative cover, and rainfall or wind intensity. Soils most susceptible to erosion by wind or water are typified by bare or sparse vegetative cover, noncohesive soil particles with slow infiltration rates, and moderate to steep slopes. Wind erosion processes are less affected by slope angle but are highly influenced by wind intensity.

The semi-arid planning area has a low percentage of natural plant community ground cover, allowing the soils to erode naturally in wind and during infrequent rain events. In addition, management actions affect the rate at which soil erodes. Activities that remove vegetative cover increase the erosion rate. Some soils are particularly vulnerable to soil erosion.

NRCS soil map unit descriptions rate soils in the planning area according to their susceptibility to water and wind erosion. Wind erosion is particularly a hazard when surface litter and vegetation are removed by fire or other disturbances. Soils in the planning area were screened based on several relevant characteristics that indicate potentially fragile soils or high erosion hazards. These characteristics include:

- soils rated as highly or severely erodible by wind or water, as described in NRCS soil survey reports
- landslide areas as identified in NRCS soil survey reports
- soils on slopes greater than 35 percent

#### ***Soil Types***

When making land management decisions based on soil related hazards or limitations, the BLM evaluates soil surveys available from the NRCS. Soils mapped according to the boundaries of major land resource areas, which are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses. Each soil survey describes the specific properties of soils in the area surveyed and shows the location of each kind of soil on detailed maps. The BLM evaluates soil map units to make management decisions that would likely affect soils. Each soil survey applicable to the planning area describes soil map units by the individual soil or soils that make up the unit. These descriptions indicate the limitations and hazards inherent in each unit. Descriptions include soil depth, range of elevation, origin, climate, physical properties, runoff capabilities, erosion hazard, associated native vegetation, wildlife habitat use, and capability for community development and other uses.

Soil can be classified in many ways according to a whole host of parameters. For the generalization of soils in the planning area, the taxonomy of soil order is a convenient starting place. Most of the soils in the planning area are part of the largest soil order, Mollisols. The remaining areas are composed of similar young developmental soils in the Inceptisol, Entisol, and Andisol orders, with a very small amount of Histisols and Vertisols that have particular properties that may be of importance.

Soil properties can provide information as to why certain plants may grow in one area and not another, or why erosion occurs by wind and not water. The NRCS provides a suite of risk ratings, interpretations, and basic soil data that describes soils resources. The soil texture for most soils across the planning area is a loam as composed of the representative percent of sand, silt and clay. Some greater or lesser amounts of these percentages produce clayey loams and silty loams for the most part. The soils have very low amounts of organic matter (2 percent), low available moisture content in the top 10 inches (25.4 cm) and are considered



well drained. The risk of erosion by water is slight, except in those very steep canyons and exposed bedrock ridges that have a severe to very severe rating. The overall majority of the planning area is considered to be of slight risk for erosion. The soils are prone to degradation when soil is removed in excess of the ability to rebuild it. In this area of the state, the amount of loss can be significant with wind exposure or increased erosion from water. Only 1 to 2 tons of soil per acre per year needs to be removed in approximately half of the planning area to have a loss of long term productivity.

The amount of sand, silt and clay in the soil alters the water infiltration. Soils with higher amounts of silt and clay infiltrate water more slowly than soils with higher amounts of sand. For most of the planning area water infiltrates rapidly into the soil resulting in little standing water.

Hydric (wet) soils and unique biological soil crusts are key soil resources in the planning area.

Hydric Soils. Hydric soils constitute only a small portion of the planning area. Hydric soils are associated with riparian areas and wetlands. Riparian-wetland soils are found throughout the planning area along water courses, near springs, seeps, playas, and adjacent to reservoirs. Because of the presence of water, riparian-wetland soils have properties that differ from upland areas.

Biologic Soil Crusts. Biologic soil crusts are made up of tiny living plants and bacteria that grow together on the soil surface. They help keep the soil from washing or blowing away, fix nitrogen from the atmosphere into the soil, help keep out weeds, and promote the health of plant communities. Loss of biological soil crusts is a contributing factor in the replacement of native vascular plants by invasive species such as cheatgrass or medusa head.

Based on research throughout the west, parameters for the ecology and management of biological soil crusts have been developed by the Department of the Interior. Factors found affecting presence, density, cover, and species diversity of macrobiotic crusts include elevation, soils, and topography, disturbances, timing of precipitation, vascular plant community, ecological gradients and microhabitats.

### 3.15.1 Trends

Soil resources change slowly unless catastrophic or larger scale disturbance events such as landslides, floods, volcanoes, or wildfires occur. Then, erosion or deposition would change the ground cover at one point or many. Thus, the degree of change in the planning area would be considered low or insignificant, with the direction of change being the most likely to occur naturally over time. There have been larger wildfire events and to some degree restoration activities that have altered the vegetation communities where juniper has been invading sagebrush communities.

The overall guidance for soil resources is to maintain or improve the ability of the soil to support vegetation and allow water and nutrients to be cycled by either macro or microorganisms, all of which promote and improve the health of the land. Degradation by excessive grazing, erosion, or land developments will cause a reduction in soil function as

one or perhaps many of the soil properties are changed thereby affecting the functions necessary for healthy soils. In the planning area, impacts on soil resources have resulted from energy development, grazing, recreation, natural processes, and other activities. The potential for maintaining or restoring these communities and conserving the soil resource depends on the specific soil types and how resource programs are managed.

### **3.16 Water Resources**

Water on BLM- and Forest Service-administered lands is regulated by the Clean Water Act, Safe Drinking Water Act, Public Land Health Standards, and other laws, regulations, and policy guidance at the federal, state, and local levels. Water resources in Idaho are regulated by the EPA, US Army Corps of Engineers, and the Idaho Department of Environmental Quality.

The Idaho Department of Environmental Quality has granted designated management agency status to the BLM. As a designated management agency, the BLM must: (1) implement and enforce natural resource management programs for the protection of water quality on federal lands under its jurisdiction; (2) protect and maintain water quality where it meets or exceeds applicable state and Tribal water quality standards; (3) monitor activities to assure that they meet standards and report the results to the State of Idaho; and (4) meet periodically to recertify water quality BMPs. BMPs include methods, measure, or practices to prevent or reduce water pollution, including but not limited to structural and nonstructural controls, operations, and maintenance procedures. BMPs are applied as needed to projects.

#### **3.16.1 Existing Conditions**

The discussion of existing conditions includes a description of water resources for the planning area, regardless of landownership. Where appropriate, it also includes a more detailed description of water resources for just BLM-administered lands within the planning area. For this, the description is limited to describing water resources associated with GRSG and their habitat. Wetlands and livestock water developments are important sources of water that can influence GRSG and their habitat.

#### **3.16.2 Conditions within the Planning Area**

The BLM is the overwhelming land manager in the planning area. The Forest Service, USFWS, Bureau of Indian Affairs, and State of Idaho all have lands within the planning area that also contain a suite of water resources.

Within the planning area, the major water features are streams, lakes, wetlands, playas, and dry lakes. Streams can be ephemeral, intermittent, or perennial. Ephemeral streams do not flow during an average water year, but do flow in response to large precipitation events. Intermittent streams flow during spring runoff for an average water year, but generally dry up later in the summer. Perennial streams contain some water all year for an average water year. Lakes can be permanent or temporary. Wetlands and floodplains vary in extent and depth throughout the year. Permanent waters can also be in the form of ponds and reservoirs developed for human or livestock consumption.



Stream channels and floodplains are important because their shape and condition affect how rapidly water flows through a river system, how much water is stored within the basins, the quality of the water, and how much erosion occurs. These functions, in turn, affect fish and wildlife habitat, agriculture, recreation, and the susceptibility of local communities and landowners to floods.

As early land management reduced vegetation in the watershed, overland flow of water increased, and stream channels deepened to match the increased supply of water and sediment. Major flood events in the late 1800s were the likely immediate cause of the deepening channels. Channel incisions eventually lead to bank failures and subsequent channel widening. As channel widening and bank failures continued, new low flow channels began to form in the debris from bank failure. Many of the stream channels in the planning area were in the process of this initial buildup in the 1980s. The result of this process is that new channels are usually lower than pre-disturbance channels, and the old floodplain now functions primarily as a terrace. Some terraces may be the result of climatic variations and associated changes in flow and sediment supply. The final stage of channel evolution results in a new bankfull channel and active floodplain at a new, lower elevation. Many stream channels in the planning area have new, lower elevation channels and floodplains.

#### ***Surface Water***

The US is divided and sub-divided into successively smaller hydrologic units called regions, sub-regions, accounting units (basins), and cataloging units (sub-basins). Each hydrologic unit is identified by a unique hydrologic unit code consisting of two to eight digits. The fourth level of classification (sub-basin) is represented by an eight-digit hydrologic unit code.

The historic scarcity of stream flow in the planning area has led to increased flow regulation by the State of Idaho. Projects for irrigation, livestock, human use, and flood control have significantly altered natural flow regimes. This has changed habitat conditions, channel stability and timing of sediment and organic material transport. Stream flow has been altered by management activities such as water impoundments, water withdrawals, road construction, vegetation manipulation, grazing, fire suppression, and timber harvesting.

Most surface runoff in the planning area is from snowmelt or rainfall producing peak discharges in the spring and early summer. Many of the streams in the lower elevation semi-arid areas are either intermittent, with segments of perennial flow near springs, or ephemeral, with flow only during spring runoff and intense summer storms.

#### ***Riparian Areas and Wetlands***

Riparian areas are ecosystems that occur along rivers, streams or water bodies. These areas exhibit vegetation or physical characteristics reflective of a permanent surface or subsurface water influence. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers, streams, and shores of lakes and reservoirs with stable water levels. Excluded are sites such as ephemeral streams or washes that do not exhibit vegetation dependent on free water in the soil. Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and which under normal circumstances do support a prevalence of vegetation typically adapted

for life in saturated soil conditions. Wetlands include marshes, swamps, lake shores, lakeshores, sloughs, bogs, wet meadows, and riparian areas. Even through riparian and wetlands areas occupy only a small percentage of the planning area, these areas provide a wide range of functions critical to many different wildlife species, improve water quality, provide scenery, and recreational opportunities.

The BLM uses proper functioning condition (PFC) assessments for evaluating riparian-wetland areas and uses it to supplement existing stream channel and riparian area evaluations and assessments. Each riparian-wetland has to be judged against its capability and potential. The capability and potential of natural riparian-wetland areas are characterized by the interaction of hydrology, vegetation, and erosion/deposition. PFC is defined separately for lotic (moving water systems, such as rivers, streams, and spring and lentic (standing water systems, such as lakes, ponds, seeps, and wet meadows). If a riparian or wetland area is not in PFC, it is placed into one of three other categories; functional at risk, nonfunctional, or unknown.

The majority of BLM stream channels and floodplains within the planning area are not meeting the BLM standard of PFC. However relatively few stream channels are nonfunctioning. More intermittent stream channels are in nonfunctioning condition than perennial streams but they also have more miles of stream at potential and PFC.

#### *Water Quality*

Water quality as defined by the Clean Water Act, includes all the physical, biological, and chemical characteristics which affect existing and designated beneficial uses. The state of Idaho is required to identify which beneficial uses a water body currently supports or could support in the future. Water quality standards are established to protect the beneficial uses of the State's waters. Beneficial uses in planning area are public and private domestic water supplies, industrial water supply, irrigation, livestock watering, fish and aquatic life, and recreation.

The State of Idaho is required by section 303(d) of the Clean Water Act to identify waters which are water quality impaired because of failing to meet their designated beneficial uses. Section 303(d) requires that each state develop a list of water bodies that fail to meet water quality standards and delineate stream segments and listing criteria for all streams. The Section 303(d) list of impaired waters is updated biannually, and the state is required to develop a total maximum daily load allocation for each pollutant of concern.

Water quality is evaluated based on the ability of a water body to support beneficial uses of the water. Generally, key water qualities are those that support native fish and wildlife and support human uses such as agriculture, recreation, and domestic water supply.

The major water quality concern for streams in the planning area has been water temperature. These water temperature concerns correlate to the beneficial use of fish spawning and rearing habitat. Conditions that affect stream temperature can be summaries as amount of near stream vegetation, channel shape, and hydrology. Many of these conditions are interrelated, and many conditions vary considerably across the landscape. For



example, channel width measurements can change greatly over even small distances along a stream. Some conditions vary daily and or seasonally. Stream orientation from a north-south to an east-west can change solar heating considerably when stream width and vegetation type remain the same.

Removal of riparian vegetation and the shade it provides contributes to elevated stream temperatures. Channel widening can similarly increase solar loading. The principal source of heat energy delivered to the water column is solar energy striking the stream surface directly. Exposure to solar radiation can cause an increase in stream temperature. The ability of riparian vegetation to shade the stream throughout the day depends on aspect and vegetation height, width, density, and position relative to the stream, as well as aspect the stream flows.

Causes of stream degradation are removal of riparian vegetation and destabilization of streambanks. The land use most commonly associated with these problems in the planning area is livestock grazing. Other land uses associated with degraded streams include roads, trails, water withdraw, reservoir storage and release, altered physical characteristics of the stream and wetlands alteration.

#### ***Groundwater***

Groundwater is used for irrigation, domestic use, and livestock use. The quality of the groundwater is a function of the chemical makeup of the underground formation containing the water. Most of the planning area contains good quality water but the water is usually hard and contains moderate amounts of dissolved minerals.

Springs and seeps occur in areas where water from aquifers reaches the surface. Many springs begin in stream channels and others flow into small ponds or marshy areas that drain into channels. Some springs and seeps form their own channels that reach flowing streams, but other springs lose their surface expression and recharge alluvial fill material or permeable stratum.

Springs and seeps are important to aquatic habitats because of the perennial base flow they provide to a stream. The outflow from springs in summer usually helps to maintain lower water temperatures. In winter, especially in small streams, base flow helps to maintain an aquatic habitat in an otherwise frozen environment.

#### ***Water Quantity***

Water balance across the US is approximately 30 percent runoff and 70 percent evaporation. This may be different across the planning area due to higher temperatures and lower relative humidity in some areas.

Peak flows are connected with the spring runoff and snow melt with a decrease to near base flow during the month of July. Seasons and years of low water yield are particularly crucial periods for most of the planning area's beneficial uses.

The annual flow patterns may have changed since the 19<sup>th</sup> century. Historical descriptions indicate that streams were relatively stable with good summer streamflow and good water

quality and heavy riparian cover. Streambanks were covered with dense growths of aspen, poplar, and willow; cottonwood galleries were thick and wide; and beaver were abundant. Now peak flows are greater and late season flows are diminished. This may be the normal condition of larger flowing streams in the planning area. It is suspected that these effects are due to reduced rates of soil infiltration, reduced capacity for groundwater/riparian storage, and loss of in channel storage in beaver ponds.

### 3.16.3 Trends

Demands on water resources have increased over the past few decades. Although most early water rights were established for irrigation and mining, today's demand includes municipal water supplies, commercial and industrial supplies, and maintenance of adequate streamflow for fish, recreation, and water quality.

The availability of water in much of the planning area is limited and may hamper additional developments that depend on water. Future water development for wildlife, recreation, and livestock would require a State of Idaho water right before project implementation could occur.

### 3.17 Cultural Resources

In this section the term "cultural resources" is used to encompass the broad scope of resources that must be considered by the BLM and Forest Service and as further defined below. A cultural resource is a definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence (BLM Manual 8100). The term cultural resources is inclusive and has been adopted and widely used to refer to the diverse human record found in sites, structures, objects and places created and/or used by people. These may comprise archaeological, historic, or architectural sites, structures, objects, or places, and may include locations of traditional cultural or religious importance to a particular social and/or cultural group, often referred to as Traditional Cultural Properties. The term includes "historic properties," as defined in the National Historic Preservation Act of 1966, as amended (NHPA), and the implementing regulations found at 36 CFR Part 800. Historic properties are cultural resources determined to be eligible for listing on the National Register of Historic Places (NRHP). The term also includes "archaeological resources" as defined in the Archaeological Resources Protection Act of 1979, and other sites, structures, objects, items and places as addressed in other statutes/regulations (e.g., American Indian Religious Freedom Act of 1978, the Antiquities Act of 1906, NEPA, and the Native America Graves Protection and Repatriation Act of 1990).

Cultural resources are represented by the full temporal range of human occupation of the continent, from the first peoples' arrival and settlement in the region over 13,000 years ago and subsequent tribal groups expansion and use throughout all of the sub-region and other parts of the West to more recent incursions of fur trappers, homesteaders and miners and ranchers of the last 200 years. Cultural resources can include surface and buried artifacts and cultural features made and left by human cultures in archaeological sites; items built by past





cultures (e.g., houses/house remains and activity areas); and places associated with traditional cultural uses.

### **3.17.1 Considering Effects on Cultural Resources Pursuant to Section 106 of the NHPA**

Cultural resources are most frequently identified and recorded through federal compliance with Section 106 of the NHPA and subsequent consultation with Native American tribes and State Historic Preservation Offices (SHPO). Section 106 requires that federal agencies that fund, approve, authorize, license, or permit actions or undertakings to consider effects on “historic properties” that could occur due to the proposed undertakings. It is important to emphasize again that the term “historic property” has a specific meaning under the NHPA, referring only to those properties determined to be eligible for or listed in the NRHP regardless of property type or period of use (e.g., traditional cultural property or archaeological site, and historic or prehistoric).

Federal regulations define specific criterion for NRHP eligibility and provide the measures for evaluating cultural resources for their eligibility. These criteria are found at 36 CFR 60.4. Once a cultural resource has been determined to be eligible for the NRHP the agency must consider the potential effects of the proposed action on the historic property and provide measures to either reduce or mitigate any adverse effects. Consequently, compliance with Section 106 provides a primary mechanism for federal agencies to assess and take into account the effects of proposed federal actions or undertakings on cultural resources during NEPA reviews.

The BLM follows alternative procedures, defined in state specific protocols, for meeting its Section 106 obligations allowed for and pursuant to the implementing regulations of the NHPA (36 CFR 800.14). In collaboration with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers, the BLM developed alternative procedures that define the manner in which the agency will comply with Section 106 of the NHPA. These procedures are defined in a national Programmatic Agreement, revised in 2012, between the three parties. The national Programmatic Agreement procedures are implemented by the state specific protocol agreements with each state’s SHPO. The protocols further define how the BLM will coordinate with the SHPO in each state to fulfill Section 106 responsibilities.

Prior to initiating proposed actions for protection and enhancement of GRSG and GRSG habitat, the responsible manager shall determine the area of potential effect; review existing information on known and anticipated historic properties that could be affected; seek information (in coordination with environmental review and land use planning processes) from Native American tribes and other parties likely to have knowledge of or concern with historic properties (including places of traditional cultural and religious significance); determine the need for field surveys or other actions to identify historic properties; make a good faith effort to identify and evaluate historic properties; assess and determine effects on historic properties; and identify measures to avoid, lessen or mitigate adverse effects on historic properties.

As the various types of GRSG/habitat improvement projects are identified, effects on cultural resources can be assessed on a case by case or programmatic level; however, given current information, it is assumed that all future actions will require separate NHPA analyses. Any programmatic procedures not covered by the BLM's national Programmatic Agreement or state protocols will require either (a) separate NHPA analysis, or (b) a separate Section 106 agreement.

### 3.17.2 Conditions of the Planning Area

The planning area includes federal lands administered by the BLM Boise, Twin Falls, and Idaho Falls Districts in Idaho and the Dillon Field Office of the Western Montana District in Montana. Forest Service-administered lands include lands administered by the Boise, Sawtooth, Salmon-Challis, and Caribou-Targhee National Forests in Idaho, and the Beaverhead-Deerlodge National Forest in Montana. A majority of the habitat is sagebrush steppe on BLM-administered land, with upland sagebrush steppe and sub-alpine habitat or ecotones located on Forest Service-administered lands. The Snake and Salmon Rivers, and the headwaters of the Missouri river, are three major watershed systems within the planning area.

In general, and as extrapolated from BLM survey and site location data, on average 15 percent of BLM-administered lands within the planning area have been inventoried, resulting in the recordation of 17,801 archaeological resources (**Table 3-53, Recorded Cultural Resource Surveys and Sites within GRSG Habitat in the Planning Area**~~Recorded Cultural Resource Surveys and Sites within GRSG Habitat in the Planning Area~~), including prehistoric and historic sites. These data indicate that, on average, six to eight sites occur per square mile on BLM-administered lands within the planning area. Formal determinations of eligibility have not been completed for most sites in the planning area; however, recorded resources are treated as eligible until determined otherwise. Based on logged eligibility determinations for known sites on BLM-administered lands, roughly 14 percent of recorded sites have been determined to be eligible for listing on the NRHP. These data indicate that over 2,492 of the recorded sites on BLM-administered lands are eligible for the NRHP (**Table 3-53, Recorded Cultural Resource Surveys and Sites within GRSG Habitat in the Planning Area**~~Recorded Cultural Resource Surveys and Sites within GRSG Habitat in the Planning Area~~).

**Table 3-53**  
**Recorded Cultural Resource Surveys and Sites within GRSG Habitat in the Planning Area**

Habitat	Idaho BLM Surveys	Idaho BLM Resources	Montana BLM Surveys	Montana BLM Resources	Planning Area Totals
PPH	2,057 surveys	12,517	596 surveys	723	718,292 acres
	692,778 acres		25,514 acres		13,240 Resources
PGH	1,226 surveys	4,561	538 surveys	564	763,170 acres
	739,277 acres		23,893 acres		5,125 Resources
<b>Totals</b>	<b>1,432,055 acres</b>	<b>17,078</b>	<b>49,407 acres</b>	<b>1,287</b>	<b>1,481,462 acres</b> <b>18,365 Resources</b>

Source: BLM 2013a



The total extent of the cultural resource base is unknown for the National Forests in PPH or PGH, as the entire land base has not been inventoried. Survey coverage of GRSG habitat on the National Forests in the sub-region varies between 5 and 15 percent on most of the National Forests, with most surveys conducted for range allotment plans, wildlife habitat improvement projects, and commercial activities. The exact number of cultural resource surveys and sites located on the National Forests changes as new surveys are conducted; therefore, providing exact numerical information would not be accurate.

Several well-known historic properties and districts occur in the planning area, as listed by field office in **Table 3-54**, Well Known Historic Properties within the Planning Area. These historic properties along with other eligible properties in the planning area would need evaluation for the effects of proposed undertakings for GRSG habitat improvement prior to implementation. Areas not previously inventoried would be subjected to full cultural resources analysis for ground-disturbing actions.

**Table 3-54**  
**Well Known Historic Properties within the Planning Area**

Field Office	Key National Register Listed or Eligible Properties
Dillon	The Bannack National Historic Landmark Big Hole National Battlefield Everson Creek/Black Canyon Quarry District Muddy Creek Archaeological District Historic mining districts, including Argenta, Bannack, Blue Wing, Ermont, Melrose, Rochester, Silver Star, Utopia, and Virginia City
Burley	Castle Rocks Traditional Cultural Property City of Rocks National Historic Landmark Kelton Road
Bruneau	Camas and Pole Creeks Archaeological District Shoofly Rock Alignments Little Blue Table complex Five Fingers & Y "Buffalo" Jumps Hole in Rock Pictographs
Challis	Challis Springs Historic District Ima Mine White Knob Mining District Crystal City Double Springs Challis Bison Jump Bayhorse Mining District Donkey Hills horse trap
Jarbridge	Toana Freight Wagon Road Devil Creek Complex Bruneau River/DryLakes Complex Browns Bench Obsidian Complex
Owyhee FO	Silver City Historic District Delamar Historic District

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**Table 3-54**  
**Well Known Historic Properties within the Planning Area**

Field Office	Key National Register Listed or Eligible Properties
Salmon FO	Jaguar Cave Rag Town Buckhorn Mine Elmira Mine
Shoshone FO	Wilson Butte Cave Richfield Pumphouse
Upper Snake FO	Birch Creek Rockshelters Bobcat Cave Jackknife Cave Black Canyon Rock Art Sites

Source: BLM 2013a

The Forest Service identifies their significant historic properties through identification of Priority Heritage Assets (**Table 3-55**, Forest Service Priority Heritage Assets and Listed Properties within the Planning Area). These are, in essence, the most significant sites on the forest.

**Table 3-55**  
**Forest Service Priority Heritage Assets and Listed Properties within the Planning Area**

National Forest	Number of Priority Heritage Assets	Listed Properties
Boise NF	34	Atlanta Ranger Station Rocky Bar Townsite
Beaverhead – Deerlodge NF	45	Historic Resources of Pony, Montana Canyon Creek Charcoal Kilns Butte Anaconda and Pacific Railway Historic District Birch Creek Civilian Conservation Corps Camp Lemhi Pass National Historic Landmark
Sawtooth NF	32	Pole Creek Guard Station Oregon National Historic Trail
Caribou-Targhee NF	10	Salt River Hydroelectric Plant Bishop Mountain Lookout Squirrel Meadow Guard Station Mesa Falls Lodge Hudspeth’s Cutoff Oregon Trail
Salmon – Challis NF	58	Leesburg Townsite and Cemetery Lemhi Pass National Historic Landmark Custer Townsite

***Cultural Use of the Planning Area***

Three cultural areas are located within the planning area. Cultural areas have often been correlated to physiographic regions, with the planning area falling within the northern Great



Basin, southeastern Plateau and western Plains regions. These cultural areas roughly correspond to distinctly different indigenous groups with different languages and moderately different resource-based economic systems and social structures. While these areas are associated to cultural groups and distinct tribes, cultural boundaries are fluid and overlapping. The main homelands and cultural traits of tribal groups that inhabit the region are generally defined by the cultural areas. Tribes that inhabit the region today and in the past include Great Basin groups such as the Shoshone-Paiute Tribes, Shoshone-Bannock Tribes, and the Eastern Shoshone; the Plateauan Nez Perce, Coeur d'Alene, Pend d'Oreille, Confederated Salish-Kootenai Tribes, Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Reservation; and Plains groups including the Blackfoot Tribe, Chippewa Cree Tribes, and the Crow.

Tribal members actively use BLM- and Forest Service-administered lands for traditional resource procurement. The planning area contains populations of economically important plant and animal resources to tribal groups and individuals with certain species dominating depending on the region and the particular preferences of tribes or individuals. The sagebrush steppe and rocky upland flats are likely to support populations of plants such as bitterroot, biscuit root, Indian carrot, Indian rice grass and needle grass and other important root plants, such as camas in wetland areas. Modern traditional food plant gathering focuses almost entirely on root crops and wild fruits especially if they are found near the various reservations. Other types of cultural food plants such as seeds are not collected today to the degree they were collected in former times. Cultural plants for weaving appear to be collected wherever they are found. Medicinal cultural plants are undoubtedly collected today but practitioners of indigenous healing methods may not share the types of species used as readily as those collecting plants for subsistence and weaving. Rabbits, deer, elk, and fish are also important animal resources in the planning area.

The most common type of prehistoric site or cultural resource in Idaho and southwestern Montana is the lithic scatter. These types of sites contain mainly flaked stone (debitage) and/or stone tools left during the process of creating or repairing bifacial tools, such as arrow points, spear points, dart points, knives or scrapers. Lithic scatters often represent the remnants of prehistoric tool manufacturing/maintenance, locales created during subsistence pursuits, including hunting camps, animal butchering sites, or quarries. The lithic scatter comprises approximately 70 percent or more of recorded prehistoric sites in the planning area. Other site types may include habitation sites with remnants of house pits, house rings and hearths, as well as milling and storage equipment, such as pottery and basketry, and stone circles and wickiups in far eastern Idaho and Montana. Ceremonial sites may also exist in the planning area, but only a few may leave an archaeological signature, such as cairns, pits (e.g., eagle catching and fasting) or stacked rock of a vision quest site, or medicine wheels, and may require tribal consultation with practitioners and elders to identify. Other site types include trails, such as the Oregon National Historic Trail (NHT) and Nez Perce NHT, petroglyphs and pictographs, hunting drivelines and blinds, rock shelters, and caves.

While researchers in Idaho and Montana have developed varying cultural chronologies for prehistoric human use of the region, the general periods of use are similar and are discussed in very general terms here to outline prehistoric use of the planning area. The prehistoric

cultural chronology for both Idaho and Montana include five general periods, the Early Prehistoric (Paleo-Indian), circa 13,500 to 8,000 years before the present, three sub-periods of the Middle Prehistoric 8,000 to 300 years before the present and the Protohistoric/Early Historic 300 to 150 years before the present. General overviews of archeological research in the region are provided in studies by Butler (1978, 1986), Meatte (1990), and Plew (2008), for southern Idaho, and Deaver and Deaver (1990), and Foor (1996) in southwestern Montana.

The most common type of historic cultural resource in the planning area relates to the mining of gold, silver, lead, and copper during the latter part of the 19th century and the early part of the 20th century. Such properties include mining camp remnants, ghost towns, miner's cabins, mining shafts, adits, mills, smelters, and an assortment of other mining related buildings, structures, and landscape features. Several comprehensive overviews of historic metal mining in Idaho and Montana have been produced in recent years, and provide the important context with which to evaluate such properties (McKay 2011; Godfrey 2003; Warhank 1999; Herbort 1995a, 1995b). Other historic period sites include transportation networks, trails, including the Oregon and California NHTs and associated side trails (e.g., Goodale's and Hudspeth Cutoffs) and the Lewis and Clark NHT, notable Lewis and Clark campsites, lumber mills, fur trapping shelters and cabins, homesteads, historic cemeteries, irrigation ditches, cow/sheep camps, shepherd cairns, stage stops and trash dumps.

### 3.17.3 Trends

Federal lands will continue to be managed for the protection and preservation of cultural resources pursuant to regulation and policy. More concerted government-to-government consultation with tribes is occurring to address tribal resources and concerns. Prehistoric and historic resources are nonrenewable and overtime have been diminished by unauthorized collection, looting and cumulative project impacts. However, efforts have increased in public education and outreach creating awareness about our nation's cultural heritage and tribal interests. These efforts have improved public understanding and awareness, resulting in increased preservation of cultural resources.

### 3.18 Tribal Interests

The federal government has a unique and distinctive relationship with federally recognized Native American tribes as set forth in the Constitution of the US, treaties, statutes, Executive Orders, judicial decisions, and agreements. This relationship is different from the federal government's relationship with state and local governments or other entities. The US government has a trust responsibility to federally recognized Native American tribes that covers lands, resources, money, or other assets held by the federal government in trust and the ability of those tribes to exercise their tribal rights. The US recognizes Native American tribes as sovereign nations. The tribes maintain active interests in the planning area. Tribal members use BLM-administered lands to gather plants or other native materials (e.g., stone for flint-knapping), hunt animals, and fish.

Native American treaties are negotiated contracts made pursuant to the Constitution of the US and are considered the "supreme law of the land." They take precedence over any



conflicting state laws because of the supremacy clause of the Constitution (Article 6, Clause 2). Treaty rights are not gifts or grants from the US, but are bargained for concessions. These rights are grants-of-rights from the tribes rather than to the tribes. The reciprocal obligations assumed by the federal government and Native American tribes constitute the chief source of present-day federal Native American law.

The BLM, Forest Service, and other federal agencies have the responsibility to identify and consider potential impacts of project alternatives identified for GRSG planning on Native American trust resources, including fish, game, and plant resources, and on off-reservation, treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on BLM-administered lands. This also includes rights of access and use for ceremonial and other traditional cultural practices. The BLM, as lead federal agency, also has the responsibility to ensure that meaningful consultation and coordination concerning GRSG planning is conducted on a government-to-government basis with federally recognized tribes to consider tribal treaty rights and trust resources. BLM-administered lands retain social, economic, and traditional value for tribal people, as well as contemporary and ongoing spiritual and cultural uses. Through consultation with the tribes, the BLM is aware of their treaty and trust obligations and the tribes' desire to capitalize on opportunities that maintain or enhance resources critical to the exercise of treaty rights, traditional customs, subsistence, and cultural uses of the land.

BLM and Forest Service consultation with Native American tribes, as it pertains to tribal interests, treaty rights and trust responsibilities, is conducted in accordance with the following direction:

- Executive Order No. 13175 – Consultation and Coordination with Indian Tribal Governments, November 6, 2000
- Secretarial Order 3317 – Department of Interior Policy on Consultation with Indian Tribes, December 1, 2011
- Bureau Manual Handbook H-8120-1 – Guidelines for Conducting Tribal Consultation (Transmitted 12/03/04)
- The National Historic Preservation Act of 1966 as amended (PL 89-665; 80 Stat. 915; 16 USC 470)
- Archaeological Resources Protection Act of 1979 (PL 96-95; 93 Stat. 721; 16 USC 470aa et seq.) as amended (PL 100-555; PL 100-588)
- American Indian Religious Freedom Act of 1978 (PL 95-431; 92 Stat. 469; 42 USC 19960)
- Native American Graves Protection and Repatriation Act of 1990 (PL 101-601; 104 Stat. 3048; 25 USC 3001)
- Executive Order No. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994

- Executive Order No. 13007 – Indian Sacred Sites, May 24, 1996
- Executive Order No. 13084 – Consultation and Coordination with Indian Tribal Governments, May 14, 1998
- Government-to-Government Relations with Native American Tribal Governments (Memorandum signed by President Clinton; April 29, 1994)
- Order No. 3175 – Departmental Responsibilities for Indian Trust Resources (Section 2 of Reorganization Plan No. 3 of 1950 – 64 Stat. 1262; November 8, 1993)
- USDA Department Regulations 1340-007 and 1350-002
- Forest Service Manual Direction FSM 1500
- Forest Service Handbook Direction FSH 1509

The planning area is within the traditional and historical use area of the Blackfeet Tribe, Chippewa Cree Tribe, Confederated Salish-Kootenai Tribes, Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Reservation, Crow Tribe, Eastern Shoshone Tribe, Nez Perce Tribe, Shoshone-Bannock Tribes, and the Shoshone-Paiute Tribes. These tribes lived, hunted, fished, gathered plant foods, buried their dead, and conducted religious ceremonies on lands within the planning area.

During the 1850s and 1860s, the US negotiated treaties with some tribes in order to acquire lands for homesteading. The treaties that apply to the project area include the Crow Treaty, Fort Benton Treaty, Fort Bridger Treaty, Hell Gate Treaty, Nez Perce Treaty, and Walla Walla, Cayuse, and Umatilla Treaty. More information on these specific treaties is presented below. No tribal treaties were afforded to the Chippewa Cree and the Confederated Tribes of the Colville Indian Reservation. The Shoshone-Paiute Tribes of the Duck Valley Indian Reservation assert aboriginal rights to their traditional homelands; however, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866 were never ratified. The Shoshone-Paiute Tribes believe that title to these lands was not relinquished and they continue to claim title, rights, and interests associated with these lands.

On May 7, 1868, the Crow Tribe and the US signed the Treaty with the Crows, 1868, referred to as the Crow Treaty (15 Stat. 649). In the Crow Treaty, the tribes relinquished ownership of thousands of acres of land to the US. The treaty also guaranteed a permanent homeland for the Crow Tribe in southeastern Montana, which became known as the Crow Reservation. Article 4 of the treaty also states the tribe's right to "hunt on the unoccupied lands of the US so long as game may be found thereon."

On October 17, 1855, the Blackfeet and the US signed the Blackfeet Treaty of Fort Benton, 1855, referred to as the Fort Benton Treaty (11 Stat. 657). In the Fort Benton Treaty, a great majority of the land was designated as common hunting ground for the Blackfeet and neighboring tribes. In 1888, lands were set aside in north-central Montana for the Blackfeet Indian Reservation.





On July 3, 1868, the Eastern Band Shoshone and Bannock Tribes and the US signed the Treaty with the Eastern Band Shoshoni and Bannack, 1868, referred to as the Fort Bridger Treaty (15 Stat. 673). In the Fort Bridger Treaty, the tribes relinquished ownership of approximately 20 million acres to the US. The Eastern Band Shoshone were guaranteed a permanent homeland in western Wyoming, which has become known as the Wind River Indian Reservation. The Bannock and other bands of Shoshone were guaranteed a permanent homeland as well which ended up being in southeast Idaho, known as the Fort Hall Indian Reservation. Article 4 of the treaty also retains the tribes' rights to hunt, fish, and gather natural resources (including timber), and provides other associative rights necessary to effectuate these rights on the unoccupied lands of the US.

On July 16, 1855, the confederated tribes of the Flathead, Kootenay (sic), and the Upper Pend d'Oreille Indians and the US signed the Treaty with the Flatheads, etc., 1855, referred to as the Hell Gate Treaty (12 Stat. 975). The treaty guaranteed a permanent homeland for the confederated tribes in northwestern Montana, which has become known as the Flathead Reservation. Article 3 of the treaty also retains the tribes, "privilege of hunting, gathering roots, and berries, and pasturing their horses and cattle upon open and unclaimed lands."

On June 11, 1855, the Nez Perce Tribe and the US signed the Treaty with the Nez Percés, 1855, referred to as the Nez Perce Treaty (12 Stat. 957). In the Nez Perce Treaty, the tribes relinquished ownership of millions of acres of land to the US. The treaty also guaranteed a permanent homeland for the Nez Perce Tribe in northern Idaho, which became known as the Nez Perce Reservation. Article 3 of the treaty also asserts the tribe's right to "take fish at all usual and accustomed places in common with citizens of the [Washington] Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land."

On June 9, 1855, the Walla Walla, Cayuses, and Umatilla tribes and the US signed the Treaty with the Walla Walla, Cayuse, etc., 1855 (12 Stat. 945). In the treaty, the tribes relinquished 6.4 million acres of land to the US. The treaty also guaranteed a permanent homeland for the Walla Walla, Cayuse, Umatilla, and other tribes in northeastern Oregon, which became known as the Confederated Tribes of the Umatilla Indian Reservation. Article 1 of the treaty also retained the tribes' right to "hunt, gather roots and berries, and pasture stock on unclaimed lands of the US."

The BLM manages portions of these "unoccupied or unclaimed lands." Members of the tribes affected by this proposed action exercise their hunting, fishing, and gathering rights on federal lands outside of the boundaries of their reservations. Currently, there is little specific information available on the exact animal species hunted, plant species gathered, or locations used by Native Americans exercising their treaty rights within the boundaries of the project area.

### **3.19 Visual Resources**

Visual quality of western landscapes is an increasingly sensitive issue. Impacts on visual resources are identified as a significant issue to address in RMPs, Forest Plans, and major EISs such as the renewable energy and transmission programmatic environmental impact

statements. The general public's increasing awareness of the vertical scale, footprint, character and visible prominence associated with utility scale renewable energy and transmission line development has increasing the need for Visual Resource Management (VRM).

### 3.19.1 Conditions on BLM-Administered Lands

The BLM manages scenic values using the VRM program. VRM policy was initially launched in 1976 in response to both NEPA requirements placed on federal land management, and FLPMA requirements for scenery resource inventory and management. The BLM developed the current VRM policy manual (M-8400) and handbooks (H-8410-1, H-8431-1) in the mid-1980s to guide the field offices through an objective and systematic program for managing scenery resources.

VRM requires that the BLM field offices complete a visual resource inventory of the lands under their management control. The visual resource inventory is a systematic process for determining the visual values on the BLM-administered lands. The inventory process has three parts: scenic quality evaluation, sensitivity level analysis and delineation of distance zones. Based on the combinations of the three, BLM-administered lands can then be categorized as Class I (most valued and highest quality of scenery) down to Class IV (areas of low scenic quality and sensitivity at most or all distance zones). These inventory classes represent the existing visual resources.

VRM provides a way to inventory and classify visual resources, describe characteristic landscapes, determine contrasts from proposed actions, and potential mitigation from impacts on visual resources.

BLM Handbook 8410 describes the three basic landscape characteristics used to indicate visual resources in VRM: 1) scenic quality; 2) sensitivity levels; and 3) distance zones. Scenic quality is a measure of the visual appeal of a tract of land. Areas can be sub-divided into Scenic Quality Rating Units of similar visual character on the basis of like physiographic characteristics, similar visual patterns, texture, color, and variety; and areas which have similar impacts from man-made modifications. The size of the Scenic Quality Rating Units may vary from several thousand acres to 100 or less, depending on landscape feature similarities, and the desired inventory detail. Seven key factors determine the scenic quality of a unit: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Resource specialists consider these factors when ranking units for scenic quality (A = high, B = medium, C = low).

Visual sensitivity is a measure of public concern for scenic quality. BLM-administered lands are assigned high, medium, or low sensitivity levels by analyzing various indicators of public concern, such as: type of user, amount of use, public interest, adjacent land uses, and special areas.

Sensitivity level rankings are not available for the planning area.



Landscapes can be divided into three distance zones based on relative visibility from travel routes or observation points. They are foreground-midground, background, and seldom seen. The foreground-midground zone includes areas seen from highways, rivers, or other viewing locations that are less than five miles away. The background zone is generally between 5 and 15 miles away. The seldom-seen zone includes areas usually hidden from view.

During the resource management planning process, the BLM determines how the visual landscape will be managed in the future. The VRM decisions that are made in the planning process result in areas being assigned a VRM class. VRM classes determine how much change will be allowed in the landscape. VRM Class I areas are managed to preserve the existing character of the landscape and allow for limited management activity. Class II allows for low levels of landscape change that do not attract attention of the casual observer. Class III allows for moderate changes to the landscape that may attract attention but are not dominant and Class IV areas allow for high levels of landscape change.

The BLM uses a VRM contrast rating system that addresses form, line, color and texture of the landscape to determine if proposed projects are in compliance with the designated visual resource management class.

These management classes are separate from the visual resource inventory classes and guide management irrespective of the underlying visual resource (i.e., areas that have an inventory Class II could be designated and managed as a VRM Class IV to allow for major changes in the landscape).

In the past, especially in older management framework plans, BLM field offices would often adopt the VRM inventory classes as the management class (**Table 3-56**, BLM Visual Resource Management Class Acres). In some plans, the BLM did not make any decisions regarding the VRM classes. In such cases, the VRM inventory class has generally been used as the VRM class. A majority of the BLM-administered lands within the planning area do not have a current visual resource inventory.

**Table 3-56**  
**BLM Visual Resource Management Class Acres**  
**(approximate for offices with designated VRM classes)**

VRM Class	Class I	Class II	Class III	Class IV
Acres	510,924	2,058,432	3,983,572	2,052,936

### 3.19.2 Conditions on Forest Service-Administered Lands

Forest Service Manual 2380.3 requires the agency to “inventory, evaluate, manage, and, where necessary, restore scenery as a fully integrated part of the ecosystems of Forest Service-administered lands through the land and resource management and planning process.” Scenery must be treated equally with other resources. The Forest Service

developed a visual management system to provide a mechanism for inventory and analysis of landscape resources and the effects of land management activities on those resources.

The Forest Service established the Visual Management System in 1974 to inventory, evaluate, and manage scenic resources. The Visual Management System is described in Agriculture Handbook No. 462, National Forest Landscape Management. Using an established physiographic character type as a frame of reference, the Visual Management System determines the inherent scenic quality based on the different degrees of landscape variety within an area.

Inherent scenic quality is a measure of the natural landscape's scenic beauty based on attributes, such as landform, vegetation, water features, and rock formations. The basic assumption of the Visual Management System is that all landscapes have some inherent value, but those with the most variety and diversity have the greatest potential for "high scenic value." Three variety classes, designated A, B, and C, represent inherent scenic quality.

Sensitivity levels are identified in the Visual Management System and are defined as the measure of people's concern for the scenic quality of the landscape. Basically, all viewed landscape is rated for a level of sensitivity. Sensitivity levels are overlaid with distance zones to identify all the viewed and unseen landscape within a given area. The Visual Management System defines distance zones—that is, the distance from which a landscape is viewed—as foreground, middleground, and background. Distance zones are important in evaluating how change is perceived in the landscape because the closer the features in the landscape are to the viewer, the more pronounced they appear and the more detail is observed.

Visual quality objectives are determined in the Visual Management System by combining the sensitivity levels and scenic quality. Visual quality objectives are assigned to the landscape to describe the degree of acceptable alteration of the natural landscape. The Visual quality objectives classifications are Preservation, Retention, Partial Retention, Modification, and Maximum Modification. Preservation allows for ecological changes only, while Maximum Modification allows for landscape changes that may dominate the natural landscape character.

#### ***Scenery Management System***

The Visual Management System process has been updated as the Scenery Management System, which is being incorporated into respective Forest Management Plans. The Scenery Management System is described in Landscape Aesthetics: A Handbook for Scenery Management (Forest Service 1995). Adoption of the Scenery Management System is to occur as each National Forest revises its LUP. For National Forests not currently undergoing the forest-plan revision process, or for those requiring extensive time for revision, application of the Scenery Management System will occur at the subforest or project level.

In general, the Scenery Management System differs from the Visual Management System in that it is integrated with ecosystem management and addresses landscape character, constituent preferences, scenic integrity, and landscape visibility as key aesthetic



considerations. Landscape character describes the visual patterns of form, line, color, texture, dominance, scale, and diversity of elements in the landscape and the cultural attributes that make the landscape identifiable and give it a “sense of place.” Constituent preferences convey the aesthetic experience of forest visitors, communities, and tourists and the significance of scenic quality to these user groups.

The Scenery Management System entails identifying the landscape character, visual sensitivity, and scenic integrity. The Scenery Management System provides an overall framework for the orderly inventory, analysis, and management of scenery. It is a tool for integrating the benefits, values, desires, and preferences regarding aesthetics and scenery for all levels of land management planning. The Scenery Management System also considers Concern Levels, which are a categorization of the importance of scenic resources to forest visitors.

Three concepts of the Scenery Management System are of key importance: (1) Scenic Attractiveness, (2) Landscape Character, and (3) Scenic Integrity. These concepts and landscape character are defined below:

Scenic Attractiveness is the primary indicator of the scenic importance of a landscape based on human perceptions of the intrinsic beauty of landforms, rock outcrops and forms, waterforms, vegetation patterns, and cultural features. It reflects varying visual perception attributes of variety, unity, vividness, intactness, coherence, uniqueness, harmony, balance, and pattern. The frame of reference for scenic attractiveness (generally at the section scale) is landscape character.

Three levels of scenic attractiveness are identified during the scenery inventory process: (A) Distinctive, (B) Common or Typical, and (C) Undistinguished (FSM 2380, Landscape Management).

Landscape character is a combination of physical, biological, and cultural images that gives an area its visual and cultural identity and helps to define a sense of place. Landscape character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity (FSM 2380, Landscape Management).

Scenic Integrity Objectives define the degrees of deviation from the landscape character that occur at any given time by using the process described in Agriculture Handbook 701, Landscape Aesthetics: A Handbook for Scenery Management (FSM 2380, Landscape Management). When discussing Scenic Integrity Objectives, the degree of alteration is measured in terms of visual contrast with the surrounding natural landscape. The objectives of each Scenic Integrity Objectives classification are included below:

- Very High – Management activities, except for very low visual-impact recreation facilities, are prohibited. Allows for ecological changes only. The existing landscape character and sense of place is expressed at the highest possible level.
- High – Management activities are not visually evident to the casual observer. The landscape character appears intact. Deviations may be present but must repeat

the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident. Changes in the qualities of size, amount, intensity, direction, pattern, etc., should not be evident.

- Moderate – Management activities remain visually subordinate to the characteristic landscape being viewed. Activities may repeat form, line, color, or texture common to the characteristic landscape but may not change in their qualities of size, amount, intensity, direction, pattern, etc.
- Low – Management activities begin to visually dominate the original characteristic landscape. However, activities of vegetative and landform alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Structures must remain visually subordinate to the proposed composition.
- Very Low – Management activities of vegetative and landform alterations may dominate the characteristic landscape. While alterations may not borrow from attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles within or outside the landscape being viewed, they must be shaped and blended with the natural terrain so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

#### ***Visual Management Classes***

For both the BLM and Forest Service, where management decisions have been made to preserve and protect the visual characteristics of the landscape, these areas are likely to provide better habitat and protection for GRSG.

#### **3.20 Lands with Wilderness Characteristics**

The purpose and need of the National GRSG Planning Effort is limited to providing LUP guidance specific to the conservation of GRSG habitats. No decisions related to the management of lands with wilderness characteristics will be made as part of this planning effort; therefore, management of lands with wilderness characteristics is considered outside the scope of this plan amendment process. Impacts on lands with wilderness characteristics from the alternatives being analyzed for this planning effort are presented in **Section 4.14**.

Section 201 of FLPMA and BLM Manual Section 6310 require the BLM to maintain on a continuing basis an inventory of all BLM-administered lands and their resources and other values, which includes wilderness characteristics. It also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of BLM-administered lands. Regardless of past inventory, the BLM must maintain and update as necessary, its inventory of wilderness resources on BLM-administered lands. In some circumstances conditions relating to wilderness characteristics may have changed over time, and an area that was once determined to lack wilderness



characteristics may now possess them. The BLM determines when it is necessary to update its wilderness characteristics inventory.

Under the following circumstances, the BLM considers whether to update a wilderness characteristics inventory or conduct a wilderness characteristics inventory for the first time:

1. The public or the BLM identifies wilderness characteristics as an issue during the NEPA process.
2. The BLM is undertaking a land use planning process.
3. The BLM has new information concerning resource conditions, including wilderness characteristics information submitted by the public that meets the BLM's minimum standard described in the Wilderness Characteristics Inventory Process section of this policy.
4. A project that may impact wilderness characteristics is undergoing NEPA analysis.
5. The BLM acquires additional lands.

There also may be other circumstances in which BLM will find it appropriate to update its wilderness characteristics inventory.

The original FLPMA Section 603 mandated inventories that were conducted during past RMP revisions and amendments and through other lands with wilderness characteristics inventory updates that have recently taken place. Inventories for wilderness characteristics were conducted between 2009 and 2013 and reflect the most up-to-date lands with wilderness characteristics baseline information for this planning area. For inventories that were conducted after 2011, findings were documented following guidance in BLM IM 2011-154, Requirement to Conduct and Maintain Inventory Information for Wilderness Characteristics and to Consider Lands with Wilderness Characteristics in Land Use Plans, which is now encompassed in BLM Manuals 6310 and 6320. Lands with wilderness characteristics inventories will be updated for any site-specific NEPA analyses that are conducted in the planning area. This will be to determine if a project will have impacts on lands with wilderness characteristics identified through previous or updated inventories.

The primary function of an inventory is to determine the presence or absence of wilderness characteristics. The BLM has completed lands with wilderness characteristics inventories in the Bruneau, Jarbidge, Salmon, Pocatello and Dillon Field Offices. Upper Snake has a draft inventory, and partial inventories have been completed in the Owyhee, Shoshone, and Burley Field Offices. The Pocatello Field Office found that it has no lands with wilderness characteristics. The Bruneau, Salmon, Owyhee, Burley, Shoshone, Dillon, and Jarbidge Field Offices found areas that do contain lands with wilderness characteristics.

Currently no Field Offices have taken their lands with wilderness characteristics through a complete planning process to determine how they will be managed. There are 252,296 acres

of lands with wilderness character within the planning area boundary (**Table 3-57**, Lands with Wilderness Characteristics within the Planning Area).

**Table 3-57  
Lands with Wilderness Characteristics within  
the Planning Area**

BLM Field Office	Acres
Bruneau	153,900
Burley	31,000
Dillon	68,400
Jarbidge	88,500
Owyhee	102,500
Salmon	7,300
Shoshone	760
<b>Total</b>	<b>452,360</b>

Source: BLM 2013a

**Figure 3-16**, Lands with Wilderness Characteristics and Roadless Areas in Planning Area, shows BLM Lands with Wilderness Characteristics and Forest Service Roadless Areas in the planning area.

### 3.21 Forest Service Roadless Areas

Under 36 CFR 294, the Forest Service designated Roadless Areas in Idaho (**Figure 3-16**). The purpose of designating Roadless Areas is to conserve areas with wilderness attributes.

The Forest Service organizes Roadless Areas into five management classifications. These management classifications are; 1. Wild Land Recreation, 2. Special Areas of Historic or Tribal Significance, 3. Primitive, 4. Backcountry/Restoration, and 5. General Forest, Rangeland, and Grassland. Management of Roadless Areas is impacted by the management classification into which a Roadless Area falls. The Forest Service restricts activities such as road construction and reconstruction, timber cutting, and mineral activities to various degrees under each management classification in order to protect Roadless Areas (36 CFR 294).

There are approximately 1,695,900 acres of Roadless Areas on Forest Service-administered lands.

### 3.22 Air Quality and Climate Change

Air resources include air quality, air quality related values, and climate change. As part of the decision-making process, the BLM and Forest Service consider and analyze the potential effects of agency and agency-authorized activities on air resources.



Figure 3-16 Lands with Wilderness Characteristics and Roadless Areas in Planning Area



The US Environmental Protection Agency (USEPA) has the primary responsibility for regulating air quality, including seven criteria air pollutants subject to National Ambient Air Quality standards (NAAQS). Pollutants regulated under NAAQS include carbon monoxide (CO), lead, nitrogen dioxide (NO<sub>2</sub>), ozone, particulate matter with a diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with a diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). Two additional pollutants, nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs), are regulated because they form ozone in the atmosphere. Air quality is determined by pollutant emissions and emission characteristics, atmospheric chemistry, dispersion meteorology, and terrain. Air quality related values include effects on soil and water, such as sulfur and nitrogen deposition and lake acidification, and aesthetic effects, such as visibility.

In addition to USEPA regulations, air quality is also regulated by the Idaho Department of Environmental Quality, Air Quality Division. This agency develops state-specific regulations and issues air quality permits to emission sources.

Climate is the composite of generally prevailing weather conditions of a particular region through the year, averaged over a series of years. Climate change includes both historic and predicted climate shifts that are beyond normal weather variations.

### 3.22.1 Conditions within the Planning Area

#### *Air Quality*

Human Health. The USEPA classifies areas of the US according to whether they meet the NAAQS. Areas that violate air quality standards are designated as nonattainment areas for the relevant criteria air pollutants. Areas that comply with air quality standards are designated as attainment areas for the relevant criteria air pollutants. Areas that have been reclassified from nonattainment to attainment are considered maintenance areas. The majority of the planning area is in attainment for all of the NAAQS.

The Air Quality Index is an USEPA health index that normalizes the various air pollutants in order to report one health level. The Air Quality Index is reported on a scale of 0 to 300, with 0 to 50 indicating good air quality; 51 to 100 indicating moderate air quality; 101 to 150 indicating air quality unhealthy for sensitive groups; 151 to 200 indicating unhealthy air quality; and 201 to 300 indicating very unhealthy air quality. Idaho Department of Environmental Quality publishes annual data summaries of Idaho's air quality that describe the Air Quality Index for all areas where air quality is monitored. The Air Quality Index is computed using the 24-hour average for PM<sub>2.5</sub> and the eight hour average for ozone.

Visibility and Regional Haze. There are no mandatory Class I areas on BLM-administered lands in the planning area; all designated wilderness areas on BLM-administered lands are Class II.

#### *Climate Change*

Climate change is defined by the Intergovernmental Panel on Climate Change (IPCC) as "a change in the state of the climate that can be identified (e.g., using statistical tests) by changes



in the mean and/or the variability of its properties, and persist for an extended period, typically decades or longer. It refers to any change in climate over time whether due to natural variability to as a result of human activity (IPCC 2007).” Climate change is generally described on a global, national, or regional scale (state or multi-state), while greenhouse gas emissions in the US are generally reported on a national or statewide scale.

Climate change is manifested in several ways, of which the most commonly analyzed are precipitation, temperature, and snowpack. Temperature and precipitation data for the planning area were retrieved from WestMap, a climate analysis and tracking tool that uses hydrologic basins as the mapping unit.

#### *Greenhouse Gas Emissions*

There are six greenhouse gases tracked by the IPCC, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons, and sulfur hexafluoride (SF<sub>6</sub>); US Department of State 2010). Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are also known as high global warming potential due to their warming effectiveness (140 to 23,900 times the warming potential compared to carbon dioxide, depending on the compound) and their essential permanence in the atmosphere (remaining over 3,000 years; US Department of State 2010; USEPA 2012). Carbon dioxide, methane, and nitrous oxide have both natural and human generated sources, while high global warming potential gases are strictly human generated from various industrial processes. Greenhouse gas emissions are tracked as carbon dioxide equivalents (CO<sub>2</sub>e) with one gram of carbon dioxide molecule counting as one and other molecules some multiple. Emissions are usually reported in teragrams or million metric tonnes, which are equivalent measures (USEPA 2010).

In the US, USEPA tracks and reports greenhouse gas emissions; the Department of State also reports emissions.

Greenhouse gas emissions in the US and in Idaho are similar in terms of percentages and in the main sources of the different gases. Idaho’s greenhouse gases have remained about 1 percent of the US emissions from 1990 to 2010. Carbon dioxide is the primary greenhouse gas, comprising 83 to 85 percent of total emissions in the US and in Idaho, with fossil fuel combustion for energy the primary sources of carbon dioxide. Methane production accounts for 7 to 10 percent of greenhouse gas emissions. In the US, the primary source is natural gas systems, while in Idaho the primary source is enteric fermentation from domestic livestock. Nitrous oxide production accounts for 4 to 6 percent of the total emissions, slightly more in Idaho than in the US with agricultural soil management the primary sources.

The high global warming potential gas comprises 1 to 3 percent of total emissions, more in Oregon than in the US. The primary sources of hydrofluorocarbons are the production of substitutes for ozone-depleting compounds, while aluminum production and semiconductor manufacturing are the primary sources of perfluorocarbons and electricity transmission and distribution are the primary sources of sulfur hexafluoride.

The USEPA also estimates greenhouse gas sinks arising from land use, land use changes, and forestry. These sinks effectively reduce total greenhouse gas emissions by 15 to 16 percent nationally (USEPA 2010). The proportion in Idaho may be somewhat higher due to the productivity of Idaho forests.

### 3.22.2 Conditions on BLM-Administered and Forest Service-Administered Lands

#### *Air Quality*

Air quality conditions on BLM-administered and Forest Service-administered lands are generally as described for the planning area.

### 3.22.3 Trends

#### *Air Quality*

Human Health. There are no clear long term trends in particulate emissions or the number of unhealthy days in the planning area; the lack of trends maybe due to a number of factors. There are no trends in the number of wildfires of acres burned or in the prescribed burning programs of BLM districts or National Forests; there are also no documented trends in the other particulate emitting sectors. The recent downturn in the economy may have resulted in temporary or permanent changes in the number or types of particulate emitters. The 2010 Clean Air status and trends network report indicates that 2009 was the lowest year on the 15 year recorded for several criteria pollutants, with increases in 2010 (USEPA 2012). That trend would be consistent with the recent downturn and slow recovery. In the western states as a whole, mean annual sulfur dioxide and particulate sulfur concentrations, total nitrate levels, total nitrogen deposition, and ozone concentrations have declined between 1996 and 2010 (Hand et al. 2011; USEPA 2012).

#### *Climate Change*

Certain precipitation, temperature, and snowfall trends within the planning area are similar, while others differ. The reasons for the observed differences are not clear. In the Oregon closed basins, precipitation has increased annually and in all four season, with the greatest seasonal increase in spring. Temperatures are also increasing, with greater increases in minimum temperature in winter and summer, consistent with observed national and global trends. Even temperatures are warming, above a threshold elevation that varies by mountain range; temperatures are still cold enough for winter precipitation to fall as snow. The combination of warmer temperatures and increased water vapor means that either more snow, snow with a higher moisture content, or some combination of these two factors will occur.

#### *Projections*

Karl et al. (2009) summarize the observed trends and projections in climate for the US, with an updated report due in 2013. In the US, average temperature has risen 2 degrees Fahrenheit (°F) in the last 50 years, compared to the 1961 to 1979 baseline, and is projected to increase by 2 to 3°F by the 2020s. Precipitation has increased by 5 percent in the last 50 years. Summers are expected to become drier over most of the US, and winters are expected to become wetter. Spring is expected to become drier in the southern tier of the US. The amount of rain falling in the heaviest storms has increased by 20 percent. This trend is



expected to continue, with the greatest increase in the wettest places. In contrast, the amount of rain falling in the lightest storms has decreased, with the trend expected to continue. Extreme weather events such as heat waves and drought have become more frequent and more intense. Heat event frequency is expected to increase from 1 every 20 years to 1 every 2 to 3 years, with the number of days above 90°F increasing as well. Snowpack is expected to decrease, especially in the western US. Cold season storm tracts should continue to shift northward, and the strongest winter storms are expected to become stronger and more frequent.

For the Pacific Northwest (Oregon, Washington, Idaho, and western Montana) the projections are somewhat different than for the US as a whole (Mote and Salathe 2010). Most climate models tend to over predict precipitation as compared to observed means in the Pacific Northwest, so must be corrected in any projections. In the Pacific Northwest, temperatures are expected to increase by about 1 to 3 degrees by the 2020s, 1.5 to 5 by mid-century, and 3 to 10 by the end of the century. The greatest warming is expected in summer, and least is expected in spring. Annual precipitation is expected to change little, but summers should become drier and all other seasons possibly wetter. As with the US as a whole and globally, the frequency of extreme precipitation events, heat waves, and droughts are expected to increase, and snowpack is expected to decrease.

#### *Greenhouse Gas Emissions*

Between 1990 and 2010, total us greenhouse gas emissions increased by 10.5 percent, averaging 0.5 percent per year (USEPA 2012). Carbon dioxide emissions, particularly those associated with energy production and use, are the dominant factor in US trends. Emissions from fossil fuel combustion increased by 13.7 percent between 1990 and 2010, and increased by 3.5 percent between 2009 and 2010. Emissions tend to decline during economic slowdowns and increase during economic recoveries. Emissions in Idaho followed similar trends as the US as a whole. The State Department (2010) projected greenhouse gas emissions for 2015 and 2020 based on data through 2007. Carbon dioxide emissions are expected to increase only slightly from 2007 levels, although the projected increase is considerably lower than the observed trend. All other emissions are expected to increase as well, with the least increase in methane and the most increase in the high global warming potential gases.

### **3.23 Social and Economic Conditions (Including Environmental Justice)**

Due to the nature of social, economic, and environmental justice conditions, the social and economic analysis is based on a somewhat different area for analysis than is used for other resources. Specifically, the Socioeconomic Study Area is made up of counties within the Idaho-Southwestern Montana sub-region that contain GRSG habitat and within which social and economic conditions might reasonably be expected to change based on alternative management actions. In addition, the BLM reviewed the need to include additional counties within a secondary study area that may not contain GRSG habitat but are closely linked from an economic and/or social perspective to counties that do contain habitat. This latter category includes what are sometimes called “service area” counties, or counties from which businesses operate that regularly provide critical economic services, such as recreational

outfitting or support services for the livestock grazing sector, within the counties that contain habitat (METI Corp/Economic Insights of Colorado 2012). Including service area counties is important because a change in economic activity in a county containing habitat may result in changes in economic activity within service area counties as well.

The Socioeconomic Study Area contains 27 counties in Idaho: Adams, Bear Lake, Bingham, Blaine, Bonneville, Butte, Camas, Caribou, Cassia, Clark, Custer, Elmore, Fremont, Gem, Gooding, Jefferson, Jerome, Lemhi, Lincoln, Madison, Minidoka, Oneida, Owyhee, Payette, Power, Twin Falls, and Washington; and two counties in Montana: Beaverhead and Madison. Each of these counties contains GRSG habitat. A secondary study area is included that contains an additional four counties in Idaho: Ada, Bannock, Boise, and Canyon; and two counties in Montana: Gallatin and Silver Bow. All of these counties are included in the secondary study area because of identified links to the primary area based on commuter patterns (OMB 2009; US Census Bureau 2012a).<sup>3</sup>

**Table 3-58**, Commuter Patterns in the Socioeconomic Study Area, 2010, shows the share of workers employed in a given county of the Primary and Secondary Socioeconomic Study Areas and that reside in the same county. It also shows other counties that provide labor to the selected primary or secondary study area.

**Table 3-58**  
**Commuter Patterns in the Socioeconomic Study Area, 2010**

Geographic Area of Employment	Live in Same Area of Employment	Other Counties Where Considerable Share of Workers Live
<b>Primary Socioeconomic Study Area</b>		
Adams County, Idaho	69.4%	Valley (7.3%), Idaho (6.7%), Washington (3.5%)
Bear Lake County, Idaho	77.2%	Ada (2.7%), Bannock (2.4%)
Bingham County, Idaho	64.3%	Bannock (10.2%), Bonneville (9.5%), Ada (2.0%)
Blaine County, Idaho	70.9%	Ada (6.7%), Lincoln (3.6%), Canyon (2.6%), Twin Falls (2.6%)
Bonneville County, Idaho	61.0%	Bingham (8.7%), Jefferson (8.3%), Bannock (6.3%), Madison (3.3%), Ada (2.5%)

<sup>3</sup> Other counties considered but excluded from the secondary area were: (a) Valley County, Idaho, which has its main commuter tie to Ada County, Idaho, a secondary area county; (b) Franklin County, Idaho, which has its main commuter tie to Cache County, Utah, a county outside of the Socioeconomic Study Area; (c) Teton County, Idaho, which has its main commuter tie to Teton County, Montana, a county outside of the Socioeconomic Study Area; (d) Jefferson and Broadwater Counties, Montana, both of which have their main commuter ties to Lewis and Clark County, Montana, a county outside of the Socioeconomic Study Area; (e) Ravalli County, Montana, which has its main commuter tie outside the primary study area, is linked to the Salmon Challis National Forest or the Beaverhead Deerlodge National Forest, but is less likely to be affected by GRSG habitat management alternatives because GRSG habitat is concentrated in the southeast of Lemhi County, Idaho, at a distance from Ravalli County; (f) Deer Lodge and Park counties in MT, whose main ties are to Silver Bow and Gallatin, counties of the secondary area; and (g) the counties of Missoula, Granite, and Powell (all in Montana) were not included in the secondary study area because the Beaverhead Deerlodge National Forest areas potentially affected by GRSG habitat management alternatives are located considerably to the south of those counties.



**Table 3-58**  
**Commuter Patterns in the Socioeconomic Study Area, 2010**

<b>Geographic Area of Employment</b>	<b>Live in Same Area of Employment</b>	<b>Other Counties Where Considerable Share of Workers Live</b>
Butte County, Idaho	21.5%	Bonneville (40.9%), Bingham (14.2%), Bannock (7.6%), Jefferson (6.5%), Custer (2.1%), Madison (2.0%)
Camas County, Idaho	58.5%	Gooding (10.9%), Blaine (8.3%), Twin Falls (5.7%), Jerome (3.0%), Ada (2.6%), Elmore (2.6%)
Caribou County, Idaho	56.8%	Bannock (11.4%), Bear Lake (9.8%), Ada (2.8%), Bonneville (2.8%), Franklin (2.8%)
Cassia County, Idaho	49.9%	Minidoka (23.8%), Twin Falls (6.8%), Ada (3.0%), Jerome (2.5%), Bonneville (2.1%)
Clark County, Idaho	51.4%	Bonneville (18.3%), Jefferson (18.3%), Bannock (2.2%), Madison (2.2%)
Custer County, Idaho	65.7%	Lemhi (13.6%), Butte (2.8%), Bonneville (2.7%), Ada (2.6%)
Elmore County, Idaho	69.7%	Ada (11.3%), Canyon (4.2%), Twin Falls (2.3%)
Fremont County, Idaho	70.5%	Madison (10.3%), Bonneville (6.2%), Jefferson (2.9%)
Gem County, Idaho	60.0%	Ada (15.4%), Canyon (10.7%), Payette (2.7%)
Gooding County, Idaho	48.5%	Twin Falls (17.3%), Jerome (10.7%), Lincoln (2.5%), Ada (2.3%)
Jefferson County, Idaho	51.6%	Bonneville (23.7%), Madison (8.4%), Bingham (2.4%)
Jerome County, Idaho	42.8%	Twin Falls (26.1%), Gooding (8.8%), Ada (3.3%), Cassia (2.4%), Minidoka (2.2%)
Lemhi County, Idaho	88.1%	Bonneville (2.1%)
Lincoln County, Idaho	49.7%	Twin Falls (14.2%), Gooding (12.4%), Jerome (7.0%), Minidoka (3.3%), Blaine (2.0%)
Madison County, Idaho	49.6%	Bonneville (12.9%), Fremont (12.2%), Jefferson (9.5%), Bannock (3.2%), Bingham (2.3%)
Minidoka County, Idaho	54.9%	Cassia (19.7%), Twin Falls (7.2%), Ada (2.3%), Bannock (2.2%)
Oneida County, Idaho	78.3%	Bannock (7.0%), Bonneville (2.5%), Box Elder, UT (2.1%)
Owyhee County, Idaho	42.2%	Canyon (31.5%), Ada (8.2%), Elmore (4.3%), Malheur, OR (2.4%),
Payette County, Idaho	51.3%	Canyon (14.4%), Malheur, OR (10.4%), Ada (8.0%), Washington (4.6%), Gem (3.4%)
Power County, Idaho	45.5%	Bannock (24.2%), Bingham (6.5%), Twin Falls (5.0%), Ada (2.7%)
Twin Falls County, Idaho	64.8%	Jerome (7.0%), Ada (5.2%), Gooding (2.6%), Cassia (2.6%), Canyon (2.5%), Minidoka (2.5%)
Washington County, Idaho	63.4%	Payette (6.3%), Ada (4.7%), Malheur, OR (4.5%), Canyon (4.5%)
Beaverhead County, Montana	62.1%	Lewis and Clark (6.9%), Yellowstone (6.7%), Silver Bow (5.7%), Gallatin (3.6%), Missoula (3.2%), Cascade (2.8%)
Madison County, Montana	67.8%	Gallatin (17.3%), Jefferson (3.0%)

**Table 3-58**  
**Commuter Patterns in the Socioeconomic Study Area, 2010**

Geographic Area of Employment	Live in Same Area of Employment	Other Counties Where Considerable Share of Workers Live
<b>Secondary Socioeconomic Study Area</b>		
Ada County, Idaho	71.9%	Canyon (14.9%)
Bannock County, Idaho	68.6%	Bonneville (6.5%), Bingham (6.5%), Ada (2.8%), Twin Falls (2.2%)
Boise County, Idaho	77.0%	Ada (12.2%), Gem (3.4%), Canyon (2.5%)
Canyon County, Idaho	60.2%	Ada (24.7%), Owyhee (2.7%)
Gallatin County, MT	77.6%	Yellowstone (3.1%), Park (2.8%), Lewis and Clark (2.9%)
Silver Bow County, MT	64.8%	Missoula (5.8%), Deer Lodge (4.4%), Lewis and Clark (4.4%), Gallatin (3.5%), Jefferson (2.3%), Cascade (2.1%), Yellowstone (2.0%)

Source: US Census Bureau 2012a

Because any effects on the secondary study area would be indirect and sometimes focused on specific sectors, this chapter focuses primarily on the social and economic conditions of the Socioeconomic Study Area and provides what is necessary to convey appropriate context for the impact analysis. The impact analysis in the next chapter will document potential effects on both the primary and the secondary study areas.

**Table 3-59** Table 3-59, BLM and Forest Service Plans, Management Units, and Counties within the Socioeconomic Study Area, shows the planning documents that may be altered by the Idaho-Southwestern Montana sub-region planning process and the counties containing GRSG habitat within the area encompassed by those plans.

**Table 3-59**  
**BLM and Forest Service Plans, Management Units, and Counties within the Socioeconomic Study Area**

Agency	Plan or Document	Management Unit	Counties
BLM	Birds of Prey National Conservation Area RMP (2008)	Four Rivers Field Office	Ada, Canyon, Elmore, Owyhee (Idaho)
	Bruneau RMP revision	Bruneau Field Office	Owyhee (Idaho)
	Challis RMP (1999)	Challis Field Office	Custer, Lemhi (Idaho)
	Craters of the Moon National Monument RMP (2006)	Shoshone Field Office	Blaine, Butte, Lincoln, Minidoka, Power (Idaho)
	Dillon RMP (2006)	Dillon Field Office	Beaverhead, Madison (Montana)





**Table 3-59**  
**BLM and Forest Service Plans, Management Units, and Counties within the Socioeconomic Study Area**

Agency	Plan or Document	Management Unit	Counties
	Four Rivers RMP revision	Four Rivers Field Office	Ada, Adams, Boise, Canyon, Elmore, Gem, Payette, Valley, Washington (Idaho)
	Jarbidge RMP revision	Jarbidge Field Office	Elmore, Owyhee, Twin Falls (Idaho); Elko (Nevada)
	Lemhi RMP (1987)	Salmon Field Office	Lemhi (Idaho)
	Owyhee RMP (1999)	Owyhee Field Office	Owyhee (Idaho)
	Pocatello RMP revision	Pocatello Field Office	Bannock, Bear Lake, Bingham, Bonneville, Caribou, Cassia, Franklin, Oneida, Power (Idaho)
	Shoshone-Burley RMP revision	Shoshone Field Office, Burley Field Office	Blaine, Camas, Elmore, Jerome, Minidoka, Power (Idaho)
	Upper Snake RMP revision	Upper Snake Field Office	Blaine, Bingham, Bonneville, Butte, Clark, Fremont, Jefferson, Madison, Power, Teton (Idaho)
Forest Service	Beaverhead-Deerlodge National Forest Plan (2009)	Dillon, Wise River, Wisdom, Butte, Jefferson, Pintler, and Madison Ranger Districts	Granite, Powell, Jefferson, Deer Lodge, Silver Bow, Madison, Gallatin, Beaverhead (Montana)
	Boise National Forest Plan, as amended in 2010	Cascade, Lowman, Emmett, Mountain Home, and Idaho City Ranger Districts	Valley, Boise, Elmore, Gem, Ada (Idaho)
	Caribou National Forest Revised Forest Plan (2003)	Montpelier, Soda Springs, and Westside Ranger Districts	Caribou, Bonneville, Bannock, Bear Lake, Oneida, Franklin, Power (Idaho); Lincoln (Wyoming); Box Elder, Cache (Utah)
	Challis National Forest Plan (1987)	Challis, Lost River, Middle Fork, and Yankee Fork Ranger Districts	Custer, Lemhi, Butte, Valley, Blaine, Clark (Idaho)
	Curlew National Grassland Management Plan (2002)	Westside Ranger District	Oneida, Power (Idaho)
	Salmon National Forest Plan (1988)	Cobalt, Leadore, North Fork, and Salmon Ranger Districts	Idaho, Lemhi, Valley (Idaho)
	Sawtooth National Forest Revised Forest Plan (2003)	Fairfield, Ketchum, Minidoka, and Sawtooth National Recreation Area Ranger Districts	Blaine, Boise, Cassia, Camas, Custer, Elmore, Oneida, Power, Twin Falls (Idaho); Box Elder (Utah)

**Table 3-59**  
**BLM and Forest Service Plans, Management Units, and Counties within the Socioeconomic Study Area**

Agency	Plan or Document	Management Unit	Counties
	Targhee National Forest Plan (1997)	Ashton/Island Park, Dubois, Palisades, and Teton Basin Ranger Districts	Bonneville, Butte, Clark, Fremont, Jefferson, Lemhi, Madison, Teton (Idaho); Lincoln, Teton (Wyoming)

Because of the nature of the Socioeconomic Study Area, the socioeconomic resources section has a slightly different format than the other resource analyses in the EIS. Rather than proceeding by field office and National Forest, the section provides information for the entire Socioeconomic Study Area except where the relevant information or data is tabulated for the specific geographic area of Field Office or National Forest. In addition, the analysis presents information about existing conditions and trends within the same section, because that is the common practice for analysis of social and economic conditions.

### 3.23.1 Indicators

Many of the indicators used to characterize social and economic conditions are quantitative, including population, demographics (e.g., age and gender breakouts), local industry (e.g., recreation and mineral development), employment, personal income, and presence of minority and low-income populations. Other indicators, especially for social conditions, are qualitative.

### 3.23.2 Existing Conditions and Trends

#### *Social Conditions*

Social conditions concern human communities, including towns, cities, and rural areas, and the custom, culture, and history of the area as it relates to human settlement, as well as current social values.

#### *Population and Demographics*

**Table 3-60**, Population Growth, 1990-2010, shows current and historic populations in the Socioeconomic Study Area.

**Table 3-60**  
**Population Growth, 1990-2010**

Geographic Area	1990	2000	2010	Percent Change (1990-2010)	Population as Percentage of Study Area Total (2010)
Adams County, Idaho	3,254	3,476	3,976	22.2%	0.6%
Bear Lake County, Idaho	6,084	6,411	5,986	-1.6%	0.9%
Bingham County, Idaho	37,583	41,735	45,607	21.4%	6.6%



**Table 3-60**  
**Population Growth, 1990-2010**

Geographic Area	1990	2000	2010	Percent Change (1990-2010)	Population as Percentage of Study Area Total (2010)
Blaine County, Idaho	13,552	18,991	21,376	57.7%	3.1%
Bonneville County, Idaho	72,207	82,522	104,234	44.4%	15.2%
Butte County, Idaho	2,918	2,899	2,891	-0.9%	0.4%
Camas County, Idaho	727	991	1,117	53.6%	0.2%
Caribou County, Idaho	6,963	7,304	6,963	0.0%	1.0%
Cassia County, Idaho	19,532	21,416	22,952	17.5%	3.3%
Clark County, Idaho	762	1,022	982	28.9%	0.1%
Custer County, Idaho	4,133	4,342	4,368	5.7%	0.6%
Elmore County, Idaho	21,205	29,130	27,038	27.5%	3.9%
Fremont County, Idaho	10,937	11,819	13,242	21.1%	1.9%
Gem County, Idaho	11,844	15,181	16,719	41.2%	2.4%
Gooding County, Idaho	11,633	14,155	15,464	32.9%	2.3%
Jefferson County, Idaho	16,543	19,155	26,140	58.0%	3.8%
Jerome County, Idaho	15,138	18,342	22,374	47.8%	3.3%
Lemhi County, Idaho	6,899	7,806	7,936	15.0%	1.2%
Lincoln County, Idaho	3,308	4,044	5,208	57.4%	0.8%
Madison County, Idaho	23,674	27,467	37,536	58.6%	5.5%
Minidoka County, Idaho	19,361	20,174	20,069	3.7%	2.9%
Oneida County, Idaho	3,492	4,125	4,286	22.7%	0.6%
Owyhee County, Idaho	8,392	10,644	11,526	37.3%	1.7%
Payette County, Idaho	16,434	20,578	22,623	37.7%	3.3%
Power County, Idaho	7,086	7,538	7,817	10.3%	1.1%
Twin Falls County, Idaho	53,580	64,284	77,230	44.1%	11.2%
Washington County, Idaho	8,550	9,977	10,198	19.3%	1.5%
Beaverhead County, Montana	8,424	9,202	9,246	9.8%	1.3%
Madison County, Montana	5,989	6,851	7,691	28.4%	1.1%
Socioeconomic Study Area	420,204	491,581	562,795	33.9%	100.0%
Idaho	1,006,734	1,293,953	1,567,582	55.7%	-
Montana	799,065	902,195	989,415	23.8%	-
United States	248,790,925	281,421,906	308,745,538	24.1%	-

Sources: US Census Bureau 1990, 2000, 2010a

Since 1990, the population in Idaho has increased by 55.7 percent, more than doubling the United States population growth rate (24.1 percent) during the same time period. In contrast, Montana's population has grown 23.8 percent, closer to the rate of the United States as a whole. Both states experienced a higher percentage of population growth from 1990 to 2000 than they did from 2000 to 2010. The Socioeconomic Study Area population growth also

The “Communities of Place” section below provides more information about the character and history of the counties in the Socioeconomic Study Area. ~~Table 3-61~~ **Table 3-61**, Demographic Characteristics, Share in Total Population (percent), 2010, shows age and gender characteristics of the population in each county of the Socioeconomic Study Area.

**Table 3-61**  
**Demographic Characteristics, Share in Total Population (percent), 2010**

Geographic Area	Women	20 to 64 Years of Age	Under 20 Years of Age	65 Years of Age or Older
Adams County, Idaho	48.7	58.2	21.0	20.8
Bear Lake County, Idaho	50.4	52.1	29.5	18.4
Bingham County, Idaho	49.8	52.8	35.8	11.4
Blaine County, Idaho	49.1	62.4	26.0	11.6
Bonneville County, Idaho	50.1	55.2	33.9	10.9
Butte County, Idaho	48.6	52.5	30.0	17.5
Camas County, Idaho	47.9	61.1	23.0	15.9
Caribou County, Idaho	49.6	53.3	30.9	15.8
Cassia County, Idaho	49.4	51.1	36.0	12.9
Clark County, Idaho	44.7	53.7	33.2	13.1
Custer County, Idaho	46.9	60.1	21.2	18.7
Elmore County, Idaho	48.3	58.9	31.1	10.0
Fremont County, Idaho	47.4	52.2	33.9	13.9
Gem County, Idaho	50.5	54.4	27.0	18.6
Gooding County, Idaho	48.3	52.6	32.3	15.1
Jefferson County, Idaho	49.8	52.2	38.2	9.6
Jerome County, Idaho	48.9	54.7	34.1	11.2
Lemhi County, Idaho	49	56.1	21.7	22.2
Lincoln County, Idaho	48.3	53.9	35.1	11.0
Madison County, Idaho	51.6	59.1	35.3	5.6
Minidoka County, Idaho	49.4	53.0	32.2	14.8
Oneida County, Idaho	48.9	51.1	32.2	16.7
Owyhee County, Idaho	48.9	54.1	31.9	14.0
Payette County, Idaho	50.5	53.3	31.4	15.3
Power County, Idaho	48.5	53.9	34.0	12.1
Twin Falls County, Idaho	50.6	55.7	30.4	13.9
Washington County, Idaho	50.8	52.4	27.1	20.5
Beaverhead County, Montana	48.8	58.9	24.2	16.9
Madison County, Montana	48	59.6	19.4	21.0
Socioeconomic Study Area	49.5	56.7	30.8	12.5
Idaho	49.9	57.2	30.4	12.4
Montana	49.8	59.9	25.3	14.8
United States	50.8	60.1	26.9	13.0

Source: US Census Bureau 2010b



The Socioeconomic Study Area, Idaho, Montana, and the United States all generally follow the same trend in gender, with approximately half of the population being female. Of the counties within the Socioeconomic Study Area, Clark County, Idaho (44.7 percent) and Custer County, Idaho (46.9 percent) have the lowest percentages of women. And only one county, Madison County, Idaho (51.6 percent) has a higher percentage of women than the nation.

Idaho and the Socioeconomic Study Area have a younger population than the nation: each having 57 percent of the population between 20 and 64 years of age compared to 60 percent of the national population, and more than 30 percent of the population less than 20 years of age compared to only 27 percent of the national population. In contrast, Montana has a slightly older population than the nation, having nearly 15 percent of the population being 65 years or older compared to only 13 percent of the national population. Of the counties within the Socioeconomic Study Area, Bingham County, Idaho; Cassia County, Idaho; Jefferson County, Idaho; Jerome County, Idaho; Lincoln County, Idaho; Madison County, Idaho; and Power County, Idaho, have the highest percentages of residents under the age of 20, all at least 7 percentage points higher than the national average (60.1 percent). In contrast, Adams County, Idaho; Lemhi County, Idaho; Washington County, Idaho; and Madison County, Montana, have the highest percentages of residents over the age of 65, all at least 7 percentage points higher than the national average (13 percent).

#### *Interest Groups and Communities of Place*

There is a range of interest groups in the Socioeconomic Study Area, including groups that focus advocacy on resource conservation and others that focus advocacy on resource uses such as livestock grazing. There are also groups that represent coalitions of interest groups. A list of interest groups that have requested to receive a copy of the LUPA/DEIS are provided in Chapter 5. The types of interest groups identified within the Socioeconomic Study Area include the following: federal agencies, state agencies, county agencies, local agencies, congressional representatives, local representatives, academic institutions, civic organizations, local chambers of commerce, environmental groups, land conservation groups, outdoors groups, local school boards, farm associations, Native American groups and Tribal Governments, and various business groups. Specific types of business interest groups identified include the following: real estate, tourism, mineral extraction, farms/ranches, textile manufacturers, livestock growers, and news media.

The Socioeconomic Study Area includes various communities of people who are bound together because of where they reside, work, visit, or otherwise spend a continuous portion of their time. Stakeholder groups currently benefitting from BLM-administered and Forest Service-administered lands within the Socioeconomic Study Area include those associated with agriculture and livestock production; forest products; mining; travel, tourism, and recreation; and local residents (see, for example, BLM 2006 and 2008; Forest Service 2003).

A common perception is that there is a dichotomy of values and attitudes between stakeholder groups in the Socioeconomic Study Area between individuals or groups who feel that resource conservation and nonconsumptive uses of BLM-administered lands are more important than benefits derived from consumptive type uses, such as livestock grazing,

timber harvesting, and mining. At a more nuanced scale, however, personal attitudes, interests, and values are quite complex, and these groupings are not mutually exclusive. The high value that residents and visitors place on small town character, private property rights, low population density, scenery and landscape, outdoors and open space, the rural lifestyle, fishing, and hunting are commonly held throughout the Socioeconomic Study Area (BLM 2006 and 2008; Forest Service 2003). These values are also commonly expressed within individual county land use plans, and were also expressed by attendees at both scoping meetings and the Economic Strategies Workshop that BLM and Forest Service held in Twin Falls, Idaho, in June 2012.

A unifying theme expressed by residents of the Socioeconomic Study Area – including in previous planning processes – is the concern for the preservation of rural characteristics and values. For example, a shift toward larger, more mechanized agricultural operations, as well as the increasing diversification of local economies, have challenged traditional ways of life in many communities. These changes are evident in the declining number of mid-sized farms and the number of workers employed in agriculture and agriculture-based industries (Blaine County 1994; Power County 2009; Headwaters Economics 2012; US Department of Commerce 2012a). Nevertheless, farming and ranching remain important parts of the economy, society, and culture across the Socioeconomic Study Area.

In some areas, particularly those with scenic and recreational amenities, farmlands and ranches are being sold and used for recreation purposes or subdivided for homesites. This phenomenon is part of a larger trend in which many rural communities in the western United States have witnessed "migration turnaround," a reversal of the rural-to-urban migration that characterized much of the United States prior to the 1970s. Many rural areas are now experiencing a significant increase in population after decades of stability or decline (BLM 2006). In response to recent commercial and industrial expansion and the associated demand for affordable, diversified housing, many counties are encouraging infill development and other strategies to prevent the loss of agricultural lands and maintain the rural character of their communities (Caribou County 2006).

Despite population increases across most of the study area, some rural areas continue to lose population (Idaho Department of Labor 2011). This is due, in part, to the out-migration of young people and aging of the population (Idaho Commerce & Labor 2005). In contrast to communities where in-migration is occurring, residents of these communities may be more concerned about the economic survival of their communities. Multiple use management of and access to BLM-administered lands, which comprise a large portion of lands in many counties, are cited as paramount concerns in these areas (BLM 2006). Residents expressed some similar themes during public scoping and the June 2012 Economic Strategies Workshop for this planning effort (BLM and Forest Service 2012; BLM 2012b). Comments received from these outreach efforts came from nonprofit or citizen groups; local, state and federal agencies; the commercial sector and members of the general public. These comments strongly supported maintaining or expanding access to BLM-administered lands for grazing and recreational purposes. Many expressed concern that placing additional constraints on these activities might create economic hardship within their communities and alter



traditional cultural values and lifestyles. Additionally, some argued that constraints on livestock grazing would exacerbate existing trends of conversion of ranch lands to agricultural and residential uses, perhaps with the unintended consequence of decreasing open space and wildlife habitat. Other issues of concerns cited by residents include the management of invasive species, fire and fuels, and whether BLM-administered lands should be opened to wind energy development.

Economic activity and land use patterns in the Socioeconomic Study Area have been strongly influenced by the region's dramatic geography. Agriculture, timber harvesting, and mining have historically defined the character and lifestyle of much of the Study Area. Within the past two decades, however, increasing urbanization and the growth of service sector industries, including retail trade, local government, and health care, have been powerful agents of change on the landscape and local cultures (Headwaters Economics 2012; US Department of Commerce 2012a).

The rolling hills and valleys of the Northern Basin and Range, which stretches across much of southern Idaho, provide ample opportunities for livestock grazing with occasional croplands, and contains all or substantial parts of Caribou, Cassia, Oneida, Owyhee, Power, and Twin Falls Counties (McGrath et al. 2002). The region is still heavily dependent on agriculture and agriculture-based industries, despite stagnant or declining employment in these sectors (Headwaters Economics 2012; US Department of Commerce 2012a). Twin Falls is the most populous city in the Socioeconomic Study Area and the seventh largest city in the State of Idaho, and serves as the major commercial and industrial hub of south-central Idaho's Magic Valley region, so named due to the transformation of the basin into productive farmland through the construction of extensive irrigation systems in the early 1900s. Twin Falls is also the principal city of the Twin Falls, Idaho Micropolitan Statistical Area, which includes Jerome and Twin Falls Counties.

The broad Snake River Plain that arcs just north of Idaho's Basin and Range region contains all or substantial parts of Ada, Adams, Bingham, Canyon, Elmore, Gem, Gooding, Jefferson, Jerome, Lincoln, Madison, Minidoka, Payette, and Washington Counties. Potatoes, sugar beets, alfalfa, grains, and vegetables are grown in areas where irrigation and soil depth are suitable for crop production (McGrath et al. 2002). Other prominent land uses include livestock grazing, cattle feedlots, and dairy operations. The barren, lava-field landscape of Craters of the Moon National Monument is a popular visitor attraction showcasing the region's unique geologic history. Upward trends in population growth, fueled by expansion in the retail trade and small manufacturing sectors over the past decade, have left some school districts and governmental service struggling to provide maintain adequate levels of service (Jefferson County 2005).

Butte, Camas, Clark, Custer, and Lemhi Counties are located in Idaho's Rocky Mountain region, which rises sharply from the northern edge of the Snake River Plain. Here, timber harvesting, grazing, and recreation are the predominant land uses (McGrath et al. 2002). The counties of Bonneville, Butte, Caribou, and Fremont in Idaho and Beaverhead, and Madison in southwestern Montana also offer abundant opportunities for outdoor recreation. Popular activities include fishing, hunting, hiking, horseback riding, off-highway vehicle use, skiing,

and sightseeing, which attract residents, as well as visitors from all areas of the United States (BLM, 2005b, 2008). In many communities, growth in tourism and recreation industries has largely outpaced historical land uses. The in-migration of residents who purchase smaller ranches or farms, but do not depend on the economic return from these activities as their primary source of income, has created conflict with long-time rural residents (BLM 2008).

Bear Lake County, which occupies the far southeastern corner of Idaho and the Wasatch and Uinta Range, has remained largely rural but serves also as an important destination for tourists and recreationists.

#### *County Land Use Plans*

BLM-administered, Forest Service-administered, and other federal lands in the Socioeconomic Study Area are intermingled with state and private lands. County governments have land use planning responsibility for the private lands located within their jurisdictions. County-level LUPs (also referred to as Comprehensive plans or Growth Policies) were identified for 26 of the 29 counties within the Socioeconomic Study Area (Adams County, 2006; Bingham County, 2005; Blaine County, 1994; Bonneville County, 2004; Camas County, 2006; Caribou County, 2006; Cassia County, 2006; Clark County, 2010; Custer County, 2006; Elmore County, 2004; Fremont County, 2008; Gem County, 2010; Gooding County, 2010; Jefferson County, 2005; Jerome County, 2006; Lemhi County, 2007; Lincoln County, 2008; Madison County, 2008; Minidoka County, 2001; Owyhee County, 2010; Payette County, 2006; Power County, 2009; Twin Falls County, 2008; Washington County, 2010; Beaverhead County, 2009; Madison County, 2006). Of the counties with identified LUPs, all had some form of economic development component, such as promotion of specific industrial sectors and natural resource use.

#### *Economic Conditions*

Economic analysis is concerned with the production, distribution, and consumption of goods and services. This section provides a summary of economic information, including trends and current conditions. It also identifies and describes major economic sectors in the Socioeconomic Study Area that can be affected by management actions. Most likely affected would be those economic activities that rely or could rely on BLM-administered lands, such as recreation and livestock grazing.

#### *Economic Sectors, Employment, and Personal Income*

The distribution of employment and income by industry sector within the Socioeconomic Study Area is summarized in **Table 3-62**, Employment by Sector within the Socioeconomic Study Area, and **Table 3-63**, Labor Income by Sector within the Socioeconomic Study Area (2010 dollars), below. See **Appendix Q** for equivalent data by county.





**Table 3-62**  
**Employment by Sector within the Socioeconomic Study Area**

Socioeconomic Study Area	Absolute			Percentage of Total		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
<b>Total Employment (number of jobs)</b>	<b>281,346</b>	<b>309,620</b>	<b>28,274</b>	<b>100.00%</b>	<b>100.00%</b>	<b>10.05%</b>
<b>Non-services related</b>	<b>72,614</b>	<b>67,772</b>	<b>-4,842</b>	<b>25.81%</b>	<b>21.89%</b>	<b>-6.67%</b>
Farm	28,028	25,639	-2,389	9.96%	8.28%	-8.52%
Forestry, fishing, & related activities	2,613	2,938	325	0.93%	0.95%	12.44%
Mining (including oil and gas)	777	960	183	0.28%	0.31%	23.55%
Construction	19,432	18,913	-519	6.91%	6.11%	-2.67%
Manufacturing	21,764	19,322	-2,442	7.74%	6.24%	-11.22%
<b>Services related</b>	<b>142,525</b>	<b>171,386</b>	<b>28,861</b>	<b>50.66%</b>	<b>55.35%</b>	<b>20.25%</b>
Utilities	374	762	388	0.13%	0.25%	103.74%
Wholesale trade	11,080	11,115	35	3.94%	3.59%	0.32%
Retail trade	31,535	32,653	1,118	11.21%	10.55%	3.55%
Transportation and warehousing	5,787	9,361	3,574	2.06%	3.02%	61.76%
Information	2,973	3,761	788	1.06%	1.21%	26.51%
Finance and insurance	7,325	10,547	3,222	2.60%	3.41%	43.99%
Real estate and rental and leasing	7,906	12,986	5,080	2.81%	4.19%	64.25%
Professional and technical services <sup>1</sup>	16,507	19,380	2,873	5.87%	6.26%	17.40%
Management of companies and enterprises	480	361	-119	0.17%	0.12%	-24.79%
Administrative and waste services	10,062	9,350	-712	3.58%	3.02%	-7.08%
Educational services	1,273	1,792	519	0.45%	0.58%	40.77%
Health care and social assistance	14,042	19,239	5,197	4.99%	6.21%	37.01%
Arts, entertainment, and recreation	3,593	5,247	1,654	1.28%	1.69%	46.03%
Accommodation and food services	16,691	18,404	1,713	5.93%	5.94%	10.26%
Other services, except public administration	12,897	16,428	3,531	4.58%	5.31%	27.38%

**Table 3-62**  
**Employment by Sector within the Socioeconomic Study Area**

Socioeconomic Study Area	Absolute			Percentage of Total		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
<b>Government</b>	<b>42,027</b>	<b>43,854</b>	<b>1,827</b>	<b>14.94%</b>	<b>14.16%</b>	<b>4.35%</b>
Federal	10,984	10,670	-314	3.90%	3.45%	-2.86%
State	3,484	3,425	-59	1.24%	1.11%	-1.69%
Local	27,559	29,759	2,200	9.80%	8.6%	7.98%

Sources: US Department of Commerce 2012a

<sup>1</sup>Professional and technical services activities require a high degree of expertise and training. Example activities include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; and veterinary services.

**Table 3-63**  
**Labor Income by Sector within the Socioeconomic Study Area (2010 dollars)**

Socioeconomic Study Area	Absolute (Millions)			Percentage of Total <sup>1</sup>		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
<b>Total Labor Earnings<sup>2</sup></b>	<b>10,272</b>	<b>\$11,793</b>	<b>\$1,521</b>	<b>100.00%</b>	<b>100.00%</b>	<b>14.81%</b>
<b>Non-services related</b>	<b>\$2,990</b>	<b>\$2,947</b>	<b>-\$43</b>	<b>29.11%</b>	<b>24.99%</b>	<b>-1.44%</b>
Farm	\$1,081	\$1,215	\$134	10.52%	10.30%	12.40%
Forestry, fishing, & related activities	\$71	\$96	\$25	0.69%	0.81%	35.21%
Mining (including oil and gas)	\$33	\$38	\$5	0.32%	0.32%	15.15%
Construction	\$851	\$693	-\$158	8.28%	5.88%	-18.57%
Manufacturing	\$954	\$905	-\$49	9.29%	7.67%	-5.14%
<b>Services related</b>	<b>\$4,612</b>	<b>\$5,712</b>	<b>\$1,100</b>	<b>44.90%</b>	<b>48.44%</b>	<b>23.85%</b>
Utilities	\$24	\$70	\$46	0.23%	0.59%	191.67%
Wholesale trade	\$467	\$602	\$135	4.55%	5.10%	28.91%
Retail trade	\$809	\$806	-\$3	7.88%	6.83%	-0.37%
Transportation and warehousing	\$267	\$422	\$155	2.60%	3.58%	58.05%
Information	\$107	\$140	\$33	1.04%	1.19%	30.84%
Finance and insurance	\$224	\$290	\$66	2.18%	2.46%	29.46%
Real estate and rental and leasing	\$138	\$159	\$21	1.34%	1.35%	15.22%
Professional and technical services	\$1,070	\$1,293	\$223	10.42%	10.96%	20.84%
Management of companies and enterprises	\$34	\$17	-\$17	0.33%	0.14%	-50.00%



**Table 3-63**  
**Labor Income by Sector within the Socioeconomic Study Area (2010 dollars)**

Socioeconomic Study Area	Absolute (Millions)			Percentage of Total <sup>1</sup>		Percent Change 2001-2010
	2001	2010	Change 2001-2010	2001	2010	
Administrative and waste services	\$178	\$202	\$24	1.73%	1.71%	13.48%
Educational services	\$22	\$28	\$6	0.21%	0.24%	27.27%
Health care and social assistance	\$557	\$827	\$270	5.42%	7.01%	48.47%
Arts, entertainment, and recreation	\$120	\$98	-\$22	1.17%	0.83%	-18.33%
Accommodation and food services	\$270	\$330	\$60	2.63%	2.80%	22.22%
Other services, except public administration	\$325	\$428	\$103	3.16%	3.63%	31.69%
<b>Government</b>	<b>\$1,924</b>	<b>\$2,208</b>	<b>\$284</b>	<b>18.73%</b>	<b>18.72%</b>	<b>14.76%</b>
Federal	\$684	\$841	\$157	6.66%	7.13%	22.95%
State	\$172	\$179	\$7	1.67%	1.52%	4.07%
Local	\$1,068	\$1,188	\$120	10.40%	10.07%	11.24%
<b>Non-labor Income<sup>3</sup></b>	<b>\$5,939</b>	<b>\$8,250</b>	<b>\$2,311</b>	<b>41.71%</b>	<b>47.14%</b>	<b>38.91%</b>
Dividends, interest, and rent	\$2,719	\$3,325	\$606	19.10%	19.00%	22.29%
Personal current transfer receipts <sup>4</sup>	\$2,112	\$3,516	\$1,404	14.83%	20.09%	66.48%
Contributions to government social insurance <sup>5</sup>	\$1,108	\$1,409	\$301	7.78%	8.05%	27.17%
<b>Total Personal Income<sup>6</sup></b>	<b>\$14,239</b>	<b>\$17,501</b>	<b>\$3,262</b>	<b>100.00%</b>	<b>100.00%</b>	<b>22.91%</b>

Sources: US Department of Commerce, 2012a. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (Bureau of Labor Statistics [BLS] 2012a).

<sup>1</sup>Industry earnings are reported as a share of total labor earnings. Dividends, interest, and rent; personal current transfer receipts; and contributions to government social insurance are reported as a share of personal income.

<sup>2</sup>Total labor earnings are reported by place of work.

<sup>3</sup>Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>4</sup>"Personal current transfer receipts" are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>5</sup>"Contributions for government social insurance" consists of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance (US Department of Commerce 2012b).

<sup>6</sup>Total personal income is reported by place of residence.

With respect to employment by industry sector, the services-related sector accounted for the largest share (55.4 percent) of total employment in the Socioeconomic Study Area in 2010. This reflects a growth rate of 20.3 percent from 2001 (compared to an overall employment growth rate for all sectors of 10.1 percent from 2001). Compared to the services related sector, the non-services related sector and the government sector represented lower levels of employment, 21.9 percent and 14.2 percent, respectively. At the industry level, retail trade (10.6 percent) accounted for the largest share of employment of all industries in the Socioeconomic Study Area in 2010, followed by local government (9.6 percent), professional and technical services (6.3 percent), and health care and social assistance (6.2 percent). Although mining contributed a relatively small share of total employment within the study area in 2010, a notable proportion of total employment within Caribou County (21 percent) and Custerlark County (32 percent) came from the mining industry, according to estimates from Headwaters Economics (2013). The industries that demonstrated the largest growth between 2001 and 2010 were utilities, with an increase of 103.7 percent; real estate rental and leasing, with an increase of 64.3 percent; and transportation and warehousing, with an increase of 61.8 percent. The industries with greatest decrease in employment levels from 2001 to 2010 were management of companies and enterprises (decrease of 24.8 percent), manufacturing (decrease of 11.2 percent), and farming (decrease of 8.5 percent).

**Appendix Q** provides county-level employment figures. The greatest difference in industry sector proportion between counties in 2010 was in the professional and technical services industry. Professional and technical services contributed a low 1.5 percent of total employment in Power County, Idaho, but a much larger percentage in Butte County, Idaho (83.8 percent). Other industries also showed large variation in shares of employment across counties, including the farm industry (from 1.5 percent in Blaine County, Idaho, to 25.6 percent in Gooding County, Idaho) and the manufacturing industry (from 0.6 percent in Butte County, Idaho, to 24.8 percent in Power County, Idaho). Other counties identified as having relatively high employment shares in the farming industry include Lincoln County, Idaho (22.5 percent); Oneida County, Idaho (22.6 percent); and Owyhee County, Idaho (25.3 percent). The federal government industry also showed a high level of variation in shares across counties (from 1 percent in Blaine County, Idaho, to 35.5 percent in Elmore County, Idaho). However, in 24 of the 29 counties included in the Socioeconomic Study Area, the federal government contributed less than 5 percent of employment. Recreation-related economic activity, including the arts, entertainment, and recreation; retail trade; and accommodation and food services industries, varied across the counties (by 8.4 percentage points, 12.7 percentage points, and 16.7 percentage points, respectively). Note that these sectors are influenced not only by recreation but also by many other industries. See **Appendix Q** for individual county detail.

With respect to labor earnings, the services-related sector accounted for the largest share (48.4 percent) of labor earnings in the Socioeconomic Study Area in 2010, followed by the non-services related sector (25.0 percent) and the government sector (18.7 percent). In 2010, the individual industries that generated the largest shares of labor earnings included the professional and technical services industry (11.0 percent), farming (10.3 percent) and the local government industry (10.1 percent). Labor earnings associated with utilities almost



tripled during the 2001-2010 period. Other sectors showing strong trends of growth since 2001 include transportation and warehousing (58.1 percent) and health care and social assistance (48.5 percent). During the same time period, management of companies and enterprises, construction and recreation experienced the largest decline in earnings of all the industry sectors (declines of 50.0 percent, 18.6 percent and 18.3 percent, respectively).

**Appendix Q** provides county-level labor earnings figures. The county-by-county patterns are similar to those for employment, with relatively more variation in income from professional and technical services than from other industries; professional and technical services contribute the most to earnings in Butte County, Idaho at 93.5 percent. At the other end of the range, professional and technical services accounts for only 1.2 percent of earnings in Elmore County, Idaho and only 1.3 percent in Power County, Idaho. Of the counties for which data are provided (20 of 29), only two earn more than 10 percent of income from the professional and technical services industry. Farm income varied from a low share of -2.1 percent of total earnings in Adams County, Idaho to highs of 47.3 percent in Gooding County, Idaho, followed by 46.9 percent in Owyhee County, Idaho. Manufacturing income varied in proportion across the counties, from 0.2 percent of earnings in Butte County, Idaho to 32.9 percent in Power County, Idaho. Earnings from the mining sector are left undisclosed in 15 of the 29 counties included in the Socioeconomic Study Area due to confidentiality requirements. Furthermore, mining sector earnings figures are not provided for nine of the 29 counties because the earnings amounted to less than \$50,000 in those counties. For the counties for which data are available, earnings from mining range from 0.1 percent in Twin Falls County, Idaho to a share of 12.7 percent of total earnings in Caribou County, Idaho. Accommodation and food services contributes 0.1 percent of total earnings in Butte County, Idaho and up to 16.6 percent in Madison County, Montana. The other recreation and travel-related industries (i.e., retail trade and arts, entertainment, and recreation) contribute between 0.1 percent (arts, entertainment, and recreation in Elmore County, Idaho) and 16.2 percent (retail trade in Adams County, Idaho).

In addition to industry shares of labor earnings, another metric – residence adjustment – provides information about the economic conditions in the Socioeconomic Study Area. Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs. Jefferson County, Idaho's residence adjustment represented 27.8 percent of its total personal income, the highest share of all counties in the Socioeconomic Study Area. Gem County, Idaho had the second highest share (25.8 percent). Residence adjustment accounted for the most lowest share of total personal income in Butte County, Idaho (-701.3 percent), followed by Caribou County, Idaho (-22.1 percent). See **Appendix Q** for individual county detail.

**Appendix Q** provides employment and earnings data for Ada, Bannock, Boise, and Canyon Counties in Idaho, and Gallatin and Silver Bow Counties in Montana, which constitute a secondary study area as discussed in the introduction. In 2010, overall employment in the six-county secondary study area (472,046) was greater than overall employment levels in the 29-county primary socioeconomic study area (309,753). Earnings (by place of work) in the

six-county secondary study area were \$19,896, considerably larger than earnings in the primary socioeconomic study area (\$11,793). The impact analysis in the next chapter will document potential effects on the economy in the secondary study area, as well as for the 29 counties within the primary socioeconomic study area.

**Table 3-64**, Annual Unemployment, 2007 – 2011, presents the unemployment rates for each county in the Socioeconomic Study Area, as well as the rates for the counties aggregated and the States of Idaho and Montana. The data show that unemployment in the Socioeconomic Study Area matches or approximates that of the state for each of the years listed. At the county level, in 2011, the unemployment rates in the Socioeconomic Study Area ranged from a low of 5.0 percent in Owyhee County to a high of 17.3 percent in Adams County.

**Table 3-64**  
**Annual Unemployment, 2007 – 2011**

<b>Geographic Area</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Adams County, Idaho	5.5%	10.0%	14.0%	16.5%	17.3%
Bear Lake County, Idaho	2.3%	3.1%	5.0%	6.2%	5.5%
Bingham County, Idaho	2.6%	3.7%	5.5%	7.0%	7.3%
Blaine County, Idaho	2.3%	3.6%	7.1%	8.9%	8.8%
Bonneville County, Idaho	2.1%	3.3%	5.4%	6.6%	7.1%
Butte County, Idaho	2.4%	4.1%	4.8%	6.2%	7.1%
Camas County, Idaho	2.4%	4.3%	8.9%	11.2%	11.3%
Caribou County, Idaho	2.8%	3.4%	5.6%	7.6%	7.6%
Cassia County, Idaho	3.1%	3.7%	5.0%	6.8%	6.8%
Clark County, Idaho	2.2%	3.2%	5.1%	8.4%	8.4%
Custer County, Idaho	3.3%	4.3%	5.2%	7.1%	7.3%
Elmore County, Idaho	3.8%	5.3%	7.2%	8.5%	9.0%
Fremont County, Idaho	3.2%	4.7%	7.5%	9.2%	8.2%
Gem County, Idaho	3.7%	6.7%	9.9%	11.1%	11.4%
Gooding County, Idaho	2.1%	3.2%	5.3%	6.9%	6.6%
Jefferson County, Idaho	2.4%	3.6%	5.9%	7.3%	7.2%
Jerome County, Idaho	2.8%	4.0%	6.0%	8.1%	7.8%
Lemhi County, Idaho	4.4%	6.4%	7.6%	9.9%	10.9%
Lincoln County, Idaho	3.3%	5.3%	10.2%	13.0%	12.4%
Madison County, Idaho	2.1%	3.3%	5.1%	5.8%	6.2%
Minidoka County, Idaho	3.8%	4.3%	5.7%	7.5%	7.3%
Oneida County, Idaho	1.7%	3.3%	5.3%	5.0%	5.1%
Owyhee County, Idaho	1.9%	2.9%	3.7%	4.8%	5.0%
Payette County, Idaho	4.1%	5.6%	8.4%	9.2%	9.6%
Power County, Idaho	3.9%	5.0%	6.9%	9.3%	9.2%
Twin Falls County, Idaho	2.7%	3.8%	5.9%	8.1%	8.0%
Washington County, Idaho	4.1%	5.4%	8.4%	10.0%	10.1%
Beaverhead County, Montana	2.7%	3.6%	4.4%	5.4%	5.7%
Madison County, Montana	2.8%	3.7%	5.6%	7.0%	6.9%
Socioeconomic Study Area	2.7%	4.0%	6.1%	7.6%	7.7%

**Table 3-64**  
**Annual Unemployment, 2007 – 2011**

Geographic Area	2007	2008	2009	2010	2011
Idaho	3.0%	4.7%	7.4%	8.8%	8.7%
Montana	3.4%	4.5%	6.1%	6.9%	6.8%

Source: BLS 2012b

*Recreation*

An estimated 15.3 percent of the employment in the primary study area is related to travel and tourism (Headwaters Economics 2012). This estimate is based on data from the US Census Bureau County Business Patterns and includes industrial sectors that, at least in part, provide goods and services to visitors, the local economy, and the local population. This estimate includes both full- and part-time jobs. Most of these jobs are concentrated in the “accommodation and food services” and “retail trade” sectors. Jobs related to travel and tourism are more likely to be seasonal or part-time and are more likely to have lower average annual earnings than jobs in non-travel and tourism-related sectors. The average annual wage per travel or tourism related job is roughly half that of jobs not related to travel and tourism. In 2010 dollars, the average annual wage was \$14,820 in 2011 compared to \$31.315 for jobs not related to travel and tourism (Headwaters Economics 2013).

Although much of the recreation use on BLM-administered lands is dispersed and far from counting devices (e.g., trail registers, fee stations, and vehicle traffic counters), approximations of the number of visitors to BLM-administered lands can be obtained from the BLM Recreation Management Information Service database, in which BLM recreation specialists provide estimated total visits and visitor days to various sites within their field office boundaries. **Table 3-65**, Estimated Annual Visits by Planning Unit, summarizes BLM visitation data in each field office area for fiscal year (FY) 2011 (i.e., the year ending September 30, 2011), and Forest Service visitation data from Round 2 of the National Visitor Use Monitoring program.

Visitor expenditures can be approximated by using the BLM Recreation Management Information Service database and Forest Service National Visitor Use Monitoring program visitation data in conjunction with data from Forest Service, which has constructed recreation visitor spending profiles based on years of survey data gathered through the Forest Service National Visitor Use Monitoring program. Although the data are collected from National Forest visitors, the analysis that follows is based on the National Visitor Use Monitoring program profiles because the BLM has no analogous database. The profiles break down recreation spending by type of activity, day use versus overnight use, local versus non-local visitors, and “non-primary” visits (i.e., incidental visits where the primary purpose of the trip was other than visiting BLM-administered lands). **Table 3-66**, Visitor Spending from Recreation on BLM- and Forest Service-Administered Land in Socioeconomic Study Area, FY 2011, summarizes individual and party visits and expenditures by trip type and estimated direct expenditure.

**Table 3-65**  
**Estimated Annual Visits by Planning Unit**

Field Office or National Forest	Total Individual Visits, FY 2011	Local Individual Visits <sup>1</sup>	Non-local Individual Visits <sup>1</sup>	Non Primary <sup>2</sup> Individual Visits <sup>1</sup>
Bruneau Field Office, Idaho	24,740	13,360	8,164	3,216
Burley Field Office, Idaho	642,867	347,148	212,146	83,573
Challis Field Office, Idaho	217,505	117,453	71,777	28,276
Four Rivers Field Office, Idaho	235,643	127,247	77,762	30,634
Jarbidge Field Office, Idaho	39,980	21,589	13,193	5,197
Owyhee Field Office, Idaho	288,968	156,043	95,359	37,566
Pocatello Field Office, Idaho	292,275	157,829	96,451	37,996
Salmon Field Office, Idaho	269,976	145,787	89,092	35,097
Shoshone Field Office, Idaho	926,637	500,384	305,790	120,463
Upper Snake Field Office, Idaho	1,174,536	634,249	387,597	152,690
Dillon Field Office, Montana	1,431,825	773,186	472,502	186,137
Beaverhead-Deerlodge National Forest	907,830	490,228	299,584	118,018
Boise National Forest	1,509,436	815,095	498,114	196,227
Caribou-Targhee National Forest <sup>3</sup>	1,291,105	697,197	426,065	167,844
Salmon-Challis National Forest	236,435	127,675	78,024	30,737
Sawtooth National Forest	1,086,883	586,917	358,671	141,295
<b>Total</b>	<b>10,576,641</b>	<b>5,711,387</b>	<b>3,490,291</b>	<b>1,374,966</b>

Source: BLM 2012c; Forest Service 2012b

<sup>1</sup>Based on national averages for all National Forests. White and Goodding (2012).

<sup>2</sup>Non primary means incidental visits where the primary purpose of the trip was other than visiting the National Forest being surveyed.

<sup>3</sup>Includes Curlew National Grassland

**Table 3-66**  
**Visitor Spending from Recreation on BLM- and Forest Service-Administered Land in Socioeconomic Study Area, FY 2011**

Trip Type	Percent of Visits	Estimated Number of Individual Visits	Average Party Size	Estimated Number of Party Visits	Party Spending Per Visit (2010 \$)	Estimated Direct Expenditure (Millions \$)
Non-local Day Trips	10	1,057,664	2.5	423,066	\$63.68	\$26.94
Non-local Overnight on Public Lands	9	951,898	2.6	366,115	\$237.27	\$86.87
Non-local Overnight off Public Lands	14	1,480,730	2.6	569,511	\$522.63	\$297.64
Local Day Trips	49	5,182,554	2.1	2,467,883	\$33.56	\$82.82
Local Overnight on Public Lands	4	423,066	2.6	162,718	\$165.14	\$26.87





**Table 3-66**  
**Visitor Spending from Recreation on BLM- and Forest Service-Administered Land in**  
**Socioeconomic Study Area, FY 2011**

Trip Type	Percent of Visits	Estimated Number of Individual Visits	Average Party Size	Estimated Number of Party Visits	Party Spending Per Visit (2010 \$)	Estimated Direct Expenditure (Millions \$)
Local Overnight off Public Lands	1	105,767	2.4	44,070	\$216.48	\$9.54
Non Primary Visits	13	1,374,964	2.5	549,985	\$376.62	\$207.14
<b>Total</b>	<b>100</b>	<b>10,576,641</b>	<b>-</b>	<b>4,583,347</b>	<b>-</b>	<b>\$737.82</b>

Source: White and Goodding 2012; Forest Service 2012b; BLS 2012a  
NA Not Applicable

As **Table 3-66** shows, the estimated total visitor spending on BLM- and Forest Service-administered lands in the Socioeconomic Study Area was about \$737.82 million in FY 2011. It is important to note that this includes expenditures from local residents and from visitors whose use of BLM-administered lands was incidental to some other primary purpose.

*Grazing*

Farming employed approximately 25,639 people in the Socioeconomic Study Area in 2010, accounting for 8.2 percent of total employment. The average annual wage for a farm job in the Study Area was \$27,565 in 2011 (in \$2010 dollars). This was lower than the average annual wage for a non-farm job (\$28,603) (Headwaters Economics 2013).<sup>4</sup>

~~Table 3-67~~ **Table 3-67, Farm Earnings Detail, 2010 (2010 dollars)**, presents the proportion of personal income originating from farm earnings and the farm cash receipts from livestock received throughout the Socioeconomic Study Area and Idaho and Montana as a whole. As shown in **Table 3-67**, agricultural services are an important contribution in several counties; however, in some counties the data are not released for confidentiality reasons.

**Table 3-67** shows the relative contribution of farm earnings across the counties in the Socioeconomic Study Area. Farm earnings constitute the largest share of total earnings in Camas, Cassia, Clark, Gooding, Jefferson, Jerome, Lincoln, Minidoka, Oneida, Owyhee and Twin Falls Counties. Both livestock and crops provide substantial cash receipts, with some variations across the counties. Though approximately 62.5 percent of farm cash receipts in the Socioeconomic Study Area come from livestock, many counties have significant percentages of farm cash receipts from crops, including Camas, Caribou, Clark, Gem, Madison, Minidoka, Oneida, and Power Counties.

<sup>4</sup> All dollar values were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).

**Table 3-67**  
**Farm Earnings Detail, 2010 (2010 dollars)**

Geographic Area	Farm Earnings as Share of All Earnings	Agriculture and Forestry Support Activities Earnings as Share of All Earnings <sup>1</sup>	Farm Cash Receipts (Millions)	Share of Farm Cash Receipts from Livestock	Share of Farm Cash Receipts from Crops
Adams County, Idaho	-2.1%	(D)	\$11.5	80.8%	19.2%
Bear Lake County, Idaho	7.8%	(D)	\$21.9	74.7%	25.3%
Bingham County, Idaho	5.3%	2.7%	\$310.0	33.5%	66.5%
Blaine County, Idaho	1.4%	(D)	\$34.3	39.9%	60.1%
Bonneville County, Idaho	1.7%	(D)	\$177.8	51.3%	48.7%
Butte County, Idaho	1.3%	(D)	\$41.6	23.2%	76.8%
Camas County, Idaho	29.5%	(D)	\$20.0	9.9%	90.1%
Caribou County, Idaho	5.6%	(D)	\$51.6	43.2%	56.8%
Cassia County, Idaho	28.2%	2.2%	\$688.7	72.1%	27.9%
Clark County, Idaho	31.6%	(D)	\$38.0	22.0%	78.0%
Custer County, Idaho	9.5%	(D)	\$22.6	65.6%	34.4%
Elmore County, Idaho	6.6%	0.3%	\$349.3	66.7%	33.3%
Fremont County, Idaho	-1.1%	(D)	\$59.8	19.5%	80.5%
Gem County, Idaho	6.3%	(D)	\$37.7	53.1%	46.9%
Gooding County, Idaho	47.3%	2.5%	\$664.4	90.0%	10.0%
Jefferson County, Idaho	19.9%	(D)	\$247.0	48.3%	51.7%
Jerome County, Idaho	28.0%	3.5%	\$516.0	75.9%	24.1%
Lemhi County, Idaho	2.6%	(D)	\$25.4	88.5%	11.5%
Lincoln County, Idaho	46.0%	(D)	\$147.2	76.2%	23.8%
Madison County, Idaho	-1.1	1.0%	\$63.5	10.5%	89.5%
Minidoka County, Idaho	24.1%	(D)	\$290.2	28.5%	71.5%
Oncida County, Idaho	27.8%	(D)	\$35.9	30.5%	69.5%
Owyhee County, Idaho	46.9%	(D)	\$263.8	63.5%	36.5%
Payette County, Idaho	8.4%	(D)	\$165.1	77.6%	22.4%

*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
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**Table 3-67**  
**Farm Earnings Detail, 2010 (2010 dollars)**

Geographic Area	Farm Earnings as Share of All Earnings	Agriculture and Forestry Support Activities Earnings as Share of All Earnings <sup>1</sup>	Farm Cash Receipts (Millions)	Share of Farm Cash Receipts from Livestock	Share of Farm Cash Receipts from Crops
Power County, Idaho	9.7%	2.6%	\$122.2	29.2%	70.8%
Twin Falls County, Idaho	10.9%	(D)	\$531.5	66.6%	33.4%
Washington County, Idaho	7.2%	3.5%	\$49.7	54.6%	45.4%
Beaverhead County, Montana	5.3%	1.1%	\$81.4	67.3%	32.7%
Madison County, Montana	1.9%	1.1%	\$64.7	64.0%	36.0%
Socioeconomic Study Area	10.3%	0.7%	\$5,132.8	62.5%	37.6%
Idaho	4.5%	0.7%	\$6,128.8	59.2%	40.8%
Montana	2.5%	0.4%	3,162.6	43.8%	56.2%

Sources: Headwaters Economics 2012; US Department of Commerce 2012a. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (BLS 2012a).

<sup>1</sup>This division is the finest resolution of data provided by the US Department of Commerce's Bureau of Economic Analysis that includes agricultural services.

<sup>2</sup>(D) indicates that the value is not shown to avoid disclosure of confidential information.

**Table 3-68**, Active and Billed Animal Unit Months, provides information on active and billed AUMs on BLM-administered and Forest Service-administered land, for each of the BLM field offices and National Forest areas. The estimated gross receipts in the table are calculated from data from the USDA Economic Research Service (ERS), which publishes annual budgets for cow-calf operations for different production regions across the country (USDA ERS 2012). The BLM calculated a ten-year inflation-adjusted average gross receipt per cow-calf operation from the ERS budgets, then converted that information to a per-AUM figure based on average forage requirements for a cow including other livestock (e.g., bulls and replacement heifers) that are needed to support the production from the cow (Workman 1986). Southwest Montana falls into the Basin and Range region, whereas southern Idaho is in the ERS's Fruitful Rim region. The BLM's calculations resulted in a ten-year average gross receipt in the Basin and Range region of \$50.24 per AUM (2010 dollars), and in the Fruitful Rim region of \$30.29 per AUM (2010 dollars). However, the BLM used the higher value for both regions, both to err on the side of conservative analysis and because the characteristics of livestock grazing in southern Idaho seem more like those in southwestern Montana (and across southeast Oregon, Nevada, and Utah, which are also in ERS's Basin and Range region) than like those in the remainder of the Fruitful Rim (e.g., much of the California coast, western Oregon, and Washington State).

**Table 3-68**  
**Active and Billed Animal Unit Months**

Geographic Area	Active (2011)	% Billed (2011)	Billed (2011)	Cattle (%)	Sheep (%)	Other (%)	Allotments	Acres per AUM	Gross Receipts (millions)
Beaverhead-Deerlodge National Forest	207,637	79%	163,655	96%	4%	1%	224	11.25	\$10.4
Birds of Prey National Conservation Area	47,807	71%	33,773	88%	12%	0%	23	12.3	\$2.4
Boise National Forest	48,275	86%	41,517	82%	18%	1%	54	25.78	\$2.4
Bruneau Field Office	128,394	73%	93,760	99%	0%	1%	37	10.9	\$6.5
Burley Field Office	141,091	73%	102,925	92%	8%	0%	201	6.1	\$7.1
Caribou-Targhee National Forest (includes Curlew National Grassland)	308,711	72%	221,910	73%	26%	0%	254	7.21	\$15.5
Challis Field Office	55,107	61%	33,605	98%	0%	2%	63	13.4	\$2.8
Craters of the Moon National Monument	14,956	28%	4,120	93%	7%	0%	4	7.1	\$0.8
Dillon Field Office	105,669	75%	78,933	97%	0%	3%	394	8.0	\$5.3
Four Rivers Field Office	105,328	79%	83,092	93%	7%	0%	305	7.1	\$5.3
Jarbridge Field Office	182,212	81%	148,129	97%	2%	0%	92	9.0	\$9.2
Owyhee Field Office	121,975	92%	112,404	98%	2%	1%	145	10.2	\$6.1
Pocatello Field Office	86,492	86%	74,599	90%	10%	1%	328	6.6	\$4.3
Salmon Field Office	62,680	80%	50,096	99%	0%	1%	83	7.9	\$3.1
Salmon-Challis National Forest	142,213	67%	95,976	97%	2%	1%	106	15.36	\$7.1
Sawtooth National Forest	172,070	77%	131,789	77%	22%	0%	128	9.36	\$8.6
Shoshone Field Office	187,217	59%	110,342	84%	15%	0%	197	7.7	\$9.4
Upper Snake River Field Office	210,842	70%	148,638	80%	20%	0%	309	7.5	\$10.6
Total	2,328,676								\$117.0

Sources: BLM 2012d; Forest Service 2012a, 2012c; Workman 1986; USDA ERS 2012

Thus, the table above reflects a gross receipt value of \$50.24 per AUM, and the last column of the table represents annual gross receipts in the region from livestock operations in 2010 dollars.

Gross receipts are calculated based on active AUMs and ten-year average gross receipts, as described in the text.

The data in the table help to demonstrate the importance of livestock grazing throughout the Socioeconomic Study Area. It is important to remember, as well, that the data are only for forage values on BLM-administered and Forest Service-administered lands; forage on other



public and private lands contribute additional values to the Socioeconomic Study Area. The economic analysis of the alternatives, presented in Chapter 4, addresses additional indirect contributions of livestock grazing (as well as other resource uses) to the regional economy, comparing the alternatives to one another.

#### *Forestry and Wood Products*

Approximately 1,570 jobs (1 percent of total employment in 2011) in the Socioeconomic Study Area came from timber-related industries, which is 0.3 percentage points higher than the national average of 0.7 percent (Headwaters Economics 2013). This estimate is based on data from the US Census Bureau County Business Patterns. The proportion of employment associated with timber-related industries varied by county, with a low of zero percent in Butte, Camas, Clark, Jerome, Lincoln, and Minidoka Counties and highs of 25.3 percent in Adams County, 8.8 percent in Washington County, 6.8 percent in Owyhee County, and 6.5 percent in Payette County. These estimates include both full- and part-time jobs and reflect three timber-related industries: growing and harvesting, sawmills and paper mills, and wood products manufacturing.

Average annual earnings for timber-related jobs tend to be higher than for non-timber jobs. The average annual wage per timber-related job in the Socioeconomic Study Area in 2011 was \$35,521 (2010 dollars), compared to \$29,971 for non-timber jobs.<sup>5</sup>

#### *Mining and Minerals*

The data in **Table 3-69**, Mining Sector Employment by County, show that within the 29 counties included in the Socioeconomic Study Area, mining industries employed 1,248 people in 2010, accounting for approximately 0.4 percent of total employment, which is 0.3 percentage points higher than the national average (Headwaters Economics 2012). Mining industries include those for phosphate, metals, building stone quarrying, sand and gravel quarrying, geothermal exploration and development, oil and gas exploration, and mining-related businesses. The proportion of employment associated with mining industries varied by county, from zero percent in 12 of the counties up to 30.4 percent of total employment in Custer County and 22.7 percent of total employment in Caribou County. The average annual earnings per mining-related job in the Socioeconomic Study Area are higher than non-mining jobs. The average annual wage per job in this sector was \$56,239 (2010 dollars) in the Socioeconomic Study Area in 2011, compared to an average of \$33,926 for private sector jobs (Headwaters Economics, 2013). States receive 50 percent of all rents and royalties collected from mineral extraction on public lands. In FY2012, \$10 million was collected in Idaho (the state received \$5 million).

Phosphate mining in Caribou County for BLM-administered phosphate raw ore produced 4.2 million units for a sales total of \$167.4 million in 2011 (ONRR 2012). There are currently three companies operating mines and processing plants who employ over 1,800 people, in mines or plants (BLM 2013). Although some of the richest silver-producing regions in the

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<sup>5</sup> All dollar values were converted to 2010 dollars using the Consumer Price Index (BLS 2012a).

**Table 3-69**  
**Mining Sector Employment by County**

Geographic Area	Number of Jobs	Percentage of Total Employment
Adams County, Idaho	0	0.0%
Bear Lake County, Idaho	0	0.0%
Bingham County, Idaho	0	0.0%
Blaine County, Idaho	13	0.1%
Bonneville County, Idaho	10	0.0%
Butte County, Idaho	0	0.0%
Camas County, Idaho	0	0.0%
Caribou County, Idaho	643	22.7%
Cassia County, Idaho	44	0.7%
Clark County, Idaho	0	0.0%
Custer County, Idaho	289	30.4%
Elmore County, Idaho	5	0.1%
Fremont County, Idaho	3	0.2%
Gem County, Idaho	13	0.6%
Gooding County, Idaho	2	0.1%
Jefferson County, Idaho	2	0.1%
Jerome County, Idaho	0	0.0%
Lemhi County, Idaho	15	0.9%
Lincoln County, Idaho	0	0.0%
Madison County, Idaho	0	0.0%
Minidoka County, Idaho	0	0.0%
Oneida County, Idaho	13	2.3%
Owyhee County, Idaho	6	0.4%
Payette County, Idaho	7	0.2%
Power County, Idaho	13	0.6%
Twin Falls County, Idaho	31	0.1%
Washington County, Idaho	0	0.0%
Beaverhead County, Montana	66	2.8%
Madison County, Montana	73	5.3%
Socioeconomic Study Area	1,248	0.4%
Idaho	2,444	0.5%
Montana	5,962	1.8%
US	581,582	0.5%

Source: Headwaters Economics 2012.

All dollar values were converted to 2010 dollars using the Consumer Price Index (BLS 2012a).

US are in the northern Idaho panhandle (outside the Socioeconomic Study Area), the study area does produce some silver, along with industrial minerals such as molybdenum (Idaho Mining Association 2010). Idaho has several large stone quarries that support the rural communities of Oakley (Cassia County) and Challis (Custer County). It is estimated that

approximately 40,000 tons of Oakley Stone are mined annually from unpatented mining claims in southern Idaho/northern Utah (not including patented claims). Approximately 60 people are employed full-time from these operations, and an additional 100 to 200 skilled laborers are employed during the summer months (BLM 2013d).

#### *Other Values*

BLM-administered lands provide a range of goods and services that benefit society in a variety of ways. Some of these goods and services, such as timber and minerals, are bought and sold in markets, and hence have a readily observed economic value (as documented in the sections above); others have a less clear connection to market activity, even though society derives benefits from them. In some cases, goods and services have both a market and a non-market component value to society. This section provides an overview of several non-market values described through a qualitative and quantitative economic valuation analysis.

The non-market values associated with BLM-administered lands can be classified as values that derive from direct or indirect use (e.g., recreation) and those that do not derive from use, such as existence values held by the general public from self-sustaining populations of GRSG. This section and the related appendix describe the use and nonuse economic values associated with recreation, populations of GRSG, and land that is currently used for livestock grazing and ranch operations. The sections that follow discuss each of these values in turn. **Appendix R** provides more discussion of the concepts and measurement of use and nonuse nonmarket values. It is important to note that these nonmarket values are not directly comparable to previous sections that describe output (sales or expenditures) and jobs associated with various resource uses on BLM-administered and Forest Service-administered lands (see **Appendix R** for more information).

#### *Values Associated with Recreation*

Actions that promote the conservation of GRSG habitat may result in changes in recreation activity, by changing opportunities or access for different recreational activities. Opportunities for some activities such as wildlife viewing may increase as the amount of habitat may increase for species that depend on BLM-administered lands, including GRSG. The Environmental Consequences analysis (**Chapter 4**) addresses this issue for each of the management alternatives. This section documents baseline nonmarket values visitor receive associated with recreation activities. This is measured by what economists call consumer surplus, which refers to the additional value that visitors receive over and above the price they pay. **Appendix S** provides an explanation of consumer surplus. Fees to use BLM-administered lands for recreation are typically very low or nonexistent, so the value people place on BLM-administered land recreation opportunities is not fully measured simply by the entrance fees people pay.

Economists estimate the consumer surplus from recreation by measuring how the variation in visitors' travel costs corresponds to the number of visits taken. This "travel cost method" has been developed extensively in academic literature and is used by federal agencies in economic analyses; the method is explained more fully in **Appendix R**. Conducting original travel cost method studies can be time-consuming and expensive. For this project, the BLM

and Forest Service relied on estimates of consumer surplus from prior recreation studies in the same geographic region, using an established scientific method called “benefit transfer.” Based on the studies reviewed and cited in **Appendix R**, visitors to natural areas, such as BLM-administered and Forest Service-administered lands, gain values (in excess of their direct trip cost) ranging from approximately \$32 per day for camping, to about \$175 per day for mountain biking.

To calculate the aggregate “consumer surplus” value of recreation in the study area, BLM multiplied this per-day value of recreation by the estimated number of visitor days associated with each activity type. Visitation estimates by activity are derived based on the BLM Recreation Management Information Service database and the Forest Service National Visitor Use Monitoring program for the study area.

Accounting for the value per day and the number of days, the total nonmarket value of recreation on BLM- and Forest Service-administered lands in the study area was estimated to be about \$431.8 million per year (see **Appendix S** for details). Based on the quantity of recreational trips and the economic value of each type of activity, the largest annual nonmarket values are associated with hunting, camping, fishing, hiking, sightseeing, floatboating/rafting/canoeing, and pleasure driving. These categories omit downhill skiing, because there is little or no overlap between GRSG habitat and lands used for downhill skiing. The Environmental Consequences section (**Chapter 4**) discusses how recreational visits and total nonmarket value for recreation may change under the alternatives being considered.

#### *Values Associated with Populations of GRSG*

The existence and perseverance of the Endangered Species Act and similar acts reflects the values held by the American public associated with preventing species from going extinct. Economists have long recognized that rare, threatened and endangered species have economic values beyond those associated with active “use” through viewing. This is supported by legal decisions and technical analysis (see **Appendix R** for details), as well as a number of conceptual and empirical publications that refine concepts and develop methods to measure these nonuse or existence values.

The dominant method uses surveys to construct or simulate a market or referendum for protection of areas of habitat, or changes in populations of species. The survey asks the respondent to indicate whether they would pay for an increment of protection, and if so how much they would pay. Economists have developed increasingly sophisticated survey methods for nonuse value over the last two decades to improve the accuracy of this method. **Appendix R** offers an in-depth discussion of this method of value estimation.

Original surveys to estimate nonuse values are complex and time-consuming; rather than perform a new survey, the BLM and Forest Service reviewed existing literature to determine if there were existing nonuse value studies for GRSG. No existing studies on valuation specific to the GRSG were found. However, there are several studies published in peer-reviewed scientific journals for bird species that the BLM judged to have similar characteristics with GRSG, including being a candidate for listing as threatened or





endangered and being a hunted species. These studies find average stated willingness to pay of between \$15 and \$58 per household per year in order to restore a self-sustaining population or prevent regional extinction (see **Appendix S** for details). These values represent a mix of use and nonuse values, but the nonuse components of value are likely to be the majority share, since the studies primarily address species that are not hunted. Since GRSG protection is a public good available to all households throughout the intermountain west, if similar per-household values apply to the species the aggregate regional existence value could be substantial.

#### *Values Associated with Grazing Land*

BLM-administered land managed for livestock grazing provides both market values (e.g., forage for livestock) and nonmarket values, including open space and western ranch scenery, which provide value to some residents and outside visitors, and may also provide some value to the nonusing public (e.g., the cultural icon of the American cowboy). Many people who ranch for a living or who otherwise choose to live on ranches value the ranching lifestyle in excess of the income generated by the ranching operations. This could be seen as a nonmarket value associated with livestock grazing. On the other hand, some residents and visitors perceive nonmarket opportunity costs associated with livestock grazing. Although some scholars and policy makers have discussed nonmarket values associated with livestock grazing, the process for incorporating these values into analyses of net public benefits remains uncertain, and the BLM and Forest Service did not attempt to quantify these values for the present study.

Furthermore, some of the lifestyle value of ranching is likely to be captured in markets, such as through the property values of ranches adjacent to BLM-administered lands with historic leases or permits for grazing on BLM-administered land. Economists typically use a method called the hedonic price method to estimate values associated with particular amenities; this method may be used to explain the factors that influence the observed sale prices of ranch land. **Appendix R** provides more information about this method, as well as additional information to address potential nonmarket values associated with grazing.

#### *Fiscal*

Most of Idaho's tax revenue comes from three sources: income, sales and use, and property taxes (US Census Bureau 2010d). The Idaho State Tax Commission collects income tax and sales and use tax, while property taxes fund local governments and are imposed and collected by the county where the property is located. Idaho imposes a sales and use tax of 6 percent, a corporate net income tax of 7.6 percent, and an individual income tax rate that ranges from 1.6 percent to 7.8 percent. States receive 50 percent of rents and royalties collected from federal mineral leases. In 2012, \$4.6 million was disbursed to the State and individual counties, primarily from phosphate royalties, but also from geothermal rent (BLM 2013f). In addition, Idaho imposes a severance tax rate of 2 percent of the market value of oil and gas produced or sold in the state. It also imposes a mine license tax of 1 percent of the value of ores mined or extracted, which accounted for approximately \$2.5 million in tax revenue in 2011 (Idaho State Tax Commission 2011).

Idaho's counties receive most of their revenue from property taxes, charges for local services and redistribution of State and Federal sources. In 2009-2010, Idaho counties received approximately 25 percent of their revenues from property taxes, 25 percent from charges, and 40 percent from state government intergovernmental transfers (US Census Bureau 2010e). Major sources of state funds received by counties include state liquor revenues, highway user taxes and fees, sales taxes and education funds and endowments (Idaho Association of Counties 2011). Public elementary and secondary schools received, in 2008-2009, approximately 67 percent of their resources from state sources, 10 percent from federal funds, and 23 percent from local funds, mostly property taxes (National Center for Education Statistics 2012).

The largest source of revenue in Montana is the individual income tax. The second largest source is severance and other taxes (US Census Bureau 2010d), although most of the mineral production in Montana is outside the Socioeconomic Study Area for this sub-region. Two-thirds of the severance and other taxes category is made up of an oil and gas production tax, with the remainder of the category being composed of mining taxes and other miscellaneous taxes. While it is collected at the state level, about half of the oil and gas tax is distributed to local governments and school districts. Montana does not have a general sales tax, but selective sales taxes account for about 14 percent of state tax revenue (Montana Department of Revenue 2010).

In Montana, local government and school district tax collections come almost entirely from property taxes. Local jurisdictions also collect a coal gross proceeds tax, a local severance tax that imposes a flat tax on the value of production so that all mines pay the same rate (Montana Department of Revenue 2010).

The primary government revenues that are directly linked to BLM- and Forest Service-administered lands are Payments in Lieu of Taxes, which are federal government payments based on the presence of all federal lands (not just BLM-administered lands) within each county. **Table 3-70, [Payments in Lieu of Taxes \(PILT\) Received in the Socioeconomic Study Area by County in 2010](#)**~~Payments in Lieu of Taxes (PILT) Received in the Socioeconomic Study Area by County in 2010~~, shows the payments each county received in 2010. The nontaxable status of federal lands is of interest to local governments, which must provide public safety and other services to county residents. BLM revenue-sharing programs provide resources to local governments in lieu of property taxes because local governments cannot tax federally owned lands the way they would if the land were privately owned.

Other federal payments to states, counties, and public schools associated to the presence of federal lands include Forest Service revenue transfers and federal mineral royalties. Since 2008, the Forest Service pays 25 percent of its receipts to states for use on roads and schools in the counties where national forests are located. The decline in the sale of timber from Federal lands over time has led to the decline in these payments. However, Secure Rural Schools and Community Self-Determination Act of 2000 has attempted to limit this decline (Congressional Research Service 2012). Idaho and Montana also receive federal mineral royalties from mining activities on federal land. In Idaho, 90 percent of these receipts are



distributed to the Public School Income Fund and the other 10 percent are distributed to the

**Table 3-70**  
**Payments in Lieu of Taxes (PILT) Received in**  
**the Socioeconomic Study Area by County in 2010**

Geographic Area	PILT (thousands of dollars)
Adams County, Idaho	\$179
Bear Lake County, Idaho	\$373
Bingham County, Idaho	\$679
Blaine County, Idaho	\$1,807
Bonneville County, Idaho	\$1,065
Butte County, Idaho	\$295
Camas County, Idaho	\$147
Caribou County, Idaho	\$507
Cassia County, Idaho	\$1,874
Clark County, Idaho	\$153
Custer County, Idaho	\$684
Elmore County, Idaho	\$2,338
Fremont County, Idaho	\$591
Gem County, Idaho	\$220
Gooding County, Idaho	\$603
Jefferson County, Idaho	\$452
Jerome County, Idaho	\$232
Lemhi County, Idaho	\$874
Lincoln County, Idaho	\$749
Madison County, Idaho	\$21
Minidoka County, Idaho	\$430
Oneida County, Idaho	\$532
Owyhee County, Idaho	\$1,209
Payette County, Idaho	\$153
Power County, Idaho	\$704
Twin Falls County, Idaho	\$1,530
Washington County, Idaho	\$770
Beaverhead County, Montana	\$674
Madison County, Montana	\$443
Socioeconomic Study Area	\$22,070

Sources: DOI 2012. . Includes payments received from BLM, Forest Service, Bureau of Reclamation, National Park Service, and USFWS.

general fund of the counties where the revenue was generated. In Montana, 25 percent of federal mineral royalties are distributed to counties (Headwaters Economics 2011). Other revenues from federal lands include fees for grazing, recreation, and rents on ROWs.

*BLM Expenditures and Employment*

BLM offices provide a direct contribution to the economy of the local and surrounding area. BLM operations and management make direct contributions to area economic activity by employing people who reside within the area and by spending on project related goods and services. Contracts for facilities maintenance, shuttling vehicles, and projects contribute directly to the area economy and social stability as well. **Table 3-71**, BLM and Forest Service Employment and Related Expenditures in the Socioeconomic Study Area, provides available information on the BLM expenditures from each field office, including both labor and nonlabor expenditures.

**Table 3-71  
BLM and Forest Service Employment and Related Expenditures in the Socioeconomic Study Area**

Agency	State	Field Office	Employment, 2011 (Full-Time)	Nonlabor Expenditures, 2011 (2010 dollars)
BLM	Idaho	Bruneau	14.2	\$189,214
	Idaho	Burley	23.9	\$1,776,536
	Idaho	Challis	21.9	\$472,283
	Idaho	Four Rivers	20.8	\$810,326
	Idaho	Jarbidge	23.5	\$6,072,960
	Idaho	Owyhee	20.0	\$594,148
	Idaho	Pocatello	30.9	\$699,083
	Idaho	Salmon	24.8	\$670,559
	Idaho	Shoshone	24.1	\$1,902,984
	Idaho	Upper Snake	30.1	\$1,104,839
	Montana	Dillon	44.9	\$1,107,213
Forest Service	Idaho	Boise National Forest	234	\$11,682,250
	Idaho, Wyoming, Utah	Caribou-Targhee National Forest	177	\$8,918,490
	Idaho	Salmon-Challis National Forest	159	\$10,828,200
	Idaho, Utah	Sawtooth National Forest	129	\$6,568,660
	Montana	Beaverhead-Deerlodge National Forest	150	\$6,942,850

Sources: BLM 2012b; Forest Service 2013d, 2013e. Values reported in 2001 dollars (BLM) or 2011 dollars (Forest Service) were converted to 2010 dollars using the Consumer Price Index (BLS 2012a)

*Environmental Justice*

Environmental justice pertains to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the adverse environmental consequences resulting



from industrial, municipal, and commercial operations or the execution of federal, state, local, and Tribal programs and policies). The BLM and Forest Service incorporate environmental justice into its planning process, both as a consideration in the environmental effects analysis and by ensuring a meaningful role in the decision-making process for minority and low-income populations.

Executive Order 12898 requires federal agencies to “identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The BLM Land Use Planning Handbook reiterates the BLM’s commitment to environmental justice – both in providing meaningful opportunities for low-income, minority, and Tribal populations to participate in decision-making, and to identify and minimize any disproportionately high or adverse impacts on these populations. Similarly, the US Department of Agriculture’s Departmental Regulation on Environmental Justice provides direction to agencies for integrating environmental justice considerations into USDA programs and activities, including those of Forest Service. Specifically, the Departmental Regulation on Environmental Justice calls for the identification, prevention, and mitigation of disproportionately high and adverse human health or environmental effects of USDA programs and activities on minority and low-income populations and provision for the opportunity for minority and low-income populations to participate in planning, analysis, and decision-making that affects their health or environment.

According to the Council on Environmental Quality Environmental Justice Guidance Under the National Environmental Policy Act (CEQ 1997), “minority populations should be identified where either: (a) the minority population of the affected region exceeds 50 percent or (b) the minority population percentage of the affected region is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.” The same document states that, “In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.”

Additionally, the same guidance (CEQ 1997) advises that, “In order to determine whether a proposed action is likely to have disproportionately high and adverse human health or environmental effects on low-income populations, minority populations, or Indian tribes, agencies should identify a geographic scale, obtain demographic information on the potential impact area, and determine if there is a disproportionately high and adverse effect on these populations. Agencies may use demographic data available from the Bureau of the Census to identify the composition of the potentially affected population. Geographic distribution by race, ethnicity, and income, as well as a delineation of tribal lands and resources, should be examined.”

*Minority Populations*

**Table 3-72**, Population Race and Ethnicity, 2010, summarizes the percentage of the population made up of ethnic minority groups in each county of the Socioeconomic Study Area and in the State of Idaho, the State of Montana, and the United States as a whole.

**Table 3-72**  
**Population Race and Ethnicity, 2010**

Geographic Unit Analyzed	Total Population	Percent of Total Population								
		White	Black or African American	Alaska Native or American Indian	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino <sup>1</sup>	Total Minorities <sup>2</sup>
Adams County, Idaho	3,976	96.1	0.1	1.0	0.4	0.1	0.7	1.7	2.4	5.3
Bear Lake County, Idaho	5,986	96.3	0.1	0.5	0.4	0.0	1.6	1.1	3.6	5.2
Bingham County, Idaho	45,607	80.6	0.2	6.5	0.6	0.1	9.8	2.1	17.2	24.9
Blaine County, Idaho	21,376	84.9	0.2	0.6	0.9	0.1	11.8	1.5	20.0	22.0
Bonneville County, Idaho	104,234	90.6	0.6	0.8	0.8	0.1	5.1	2.1	11.4	14.6
Butte County, Idaho	2,891	95.5	0.2	0.4	0.2	0.2	2.0	1.5	4.1	6.2
Camas County, Idaho	1,117	94.1	0.3	0.5	0.1	0.0	1.8	3.2	6.7	9.7
Caribou County, Idaho	6,963	95.3	0.1	0.3	0.2	0.2	2.3	1.5	4.8	6.9
Cassia County, Idaho	22,952	81.8	0.3	0.8	0.5	0.1	14.2	2.3	24.9	27.1
Clark County, Idaho	982	72.4	0.7	1.0	0.5	0.0	23.8	1.5	40.5	42.9
Custer County, Idaho	4,368	96.4	0.2	0.6	0.2	0.1	1.5	1.0	4.0	5.9
Elmore County, Idaho	27,038	82.2	2.7	1.0	2.8	0.4	6.8	4.1	15.2	24.7
Fremont County, Idaho	13,242	89.5	0.3	0.7	0.2	0.1	7.6	1.5	12.8	14.8
Gem County, Idaho	16,719	93.4	0.1	0.6	0.5	0.1	3.1	2.2	8.0	10.9
Gooding County, Idaho	15,464	80.7	0.2	0.8	0.5	0.1	15.3	2.4	28.1	30.5
Jefferson County, Idaho	26,140	91.2	0.2	0.8	0.4	0.1	5.8	1.5	10.1	12.3
Jerome County, Idaho	22,374	80.0	0.3	1.3	0.3	0.1	15.8	2.1	31.0	33.2
Lemhi County, Idaho	7,936	96.4	0.2	0.7	0.4	0.0	0.6	1.6	2.3	4.9
Lincoln County, Idaho	5,208	80.1	0.4	0.7	0.4	0.1	16.2	2.2	28.3	30.6
Madison County, Idaho	37,536	93.9	0.5	0.3	0.9	0.1	2.8	1.5	5.9	8.7
Minidoka County, Idaho	20,069	80.2	0.4	1.2	0.4	0.0	15.3	2.4	32.4	34.6
Oncida County, Idaho	4,286	96.7	0.2	0.5	0.5	0.0	1.1	1.0	2.9	4.9
Owyhee County, Idaho	11,526	76.0	0.2	4.3	0.5	0.0	16.6	2.4	25.8	31.6
Payette County, Idaho	22,623	88.6	0.2	1.1	0.8	0.1	6.3	2.8	14.9	18.7
Power County, Idaho	7,817	75.1	0.3	2.3	0.4	0.1	19.5	2.4	29.8	34.0
Twin Falls County, Idaho	77,230	88.9	0.4	0.8	1.2	0.1	6.3	2.3	13.7	17.4



**Table 3-72  
Population Race and Ethnicity, 2010**

Geographic Unit Analyzed	Total Population	Percent of Total Population								
		White	Black or African American	Alaska Native or American Indian	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino <sup>1</sup>	Total Minorities <sup>2</sup>
Washington County, Idaho	10,198	86.6	0.2	1.0	0.9	0.0	9.1	2.2	16.8	19.7
Beaverhead County, Montana	9,246	94.8	0.2	1.4	0.4	0.4	1.2	1.6	3.7	7.3
Madison County, Montana	7,691	96.8	0.2	0.5	0.3	0.0	0.8	1.4	2.4	4.6
Socioeconomic Study Area	562,795	87.5	0.5	1.4	0.8	0.1	7.6	2.1	15.0	18.6
Idaho	1,567,582	89.1	0.6	1.4	1.2	0.1	5.1	2.5	11.2	15.9
Montana	989,415	89.4	0.4	6.3	0.6	0.1	0.6	2.5	2.9	12.3
United States	308,745,538	72.4	12.6	0.9	4.8	0.2	6.2	2.9	16.3	36.0

Source: US Census Bureau 2010b.

<sup>1</sup> Individuals who identify themselves as Hispanic or Latino might be of any race; the sum of the other percentages under the “Percent of Total Population” columns plus the “Hispanic or Latino” column therefore does not equal 100 percent, and the sum of the percentages for each racial and ethnic category does not equal the percentage of “total minorities”.

<sup>2</sup> The total minority population, for the purposes of this analysis, is the total population for the geographic unit analyzed minus the non-Latino /Hispanic white population.

Of the 27 Idaho counties in the Socioeconomic Study Area, 14 have a higher minority population than Idaho as a whole, while neither of the 2 Montana counties in the Socioeconomic Study Area have a higher minority population than Montana as a whole. The percentage of minorities among counties ranges from a low of 4.6 percent in Madison County, Montana, to a high of 42.9 percent in Clark County, Idaho. Several Idaho counties have a Hispanic or Latino population greater than 25 percent, with the highest being Clark County (41 percent). Additionally, Montana as a whole has a high percentage of Alaska Native or American Indian residents (6.3 percent), though neither of the Montana counties included in the study area have a population of this minority group higher than 2 percent.

*Low-income Populations*

**Table 3-73**, Low-Income Populations, 2006-2010 Average, summarizes the percentage of the population below the poverty line in each county of the Socioeconomic Study Area and in Montana, Idaho, and the United States as a whole. Following the Office of Management and Budget’s Directive 14, the Census Bureau uses a set of money income thresholds that

vary by family size and composition to detect what part of the population is considered to be in poverty (US Census Bureau 2012b).

Of the 27 Idaho counties in the Socioeconomic Study Area, 14 have a higher percentage of residents below the poverty line than Idaho overall (13.6 percent), and 1 of the 2 Montana counties has a higher percentage of residents below the poverty line than Montana as a

**Table 3-73**  
**Low-Income Populations, 2006-2010 Average**

<b>Geographic Area</b>	<b>Percent Population Below Poverty Level</b>
Adams County, Idaho	12.4
Bear Lake County, Idaho	13.9
Bingham County, Idaho	14.7
Blaine County, Idaho	9.3
Bonneville County, Idaho	11.0
Butte County, Idaho	13.8
Camas County, Idaho	16.3
Caribou County, Idaho	8.4
Cassia County, Idaho	15.4
Clark County, Idaho	11.3
Custer County, Idaho	13.8
Elmore County, Idaho	12.0
Fremont County, Idaho	8.5
Gem County, Idaho	14.7
Gooding County, Idaho	16.5
Jefferson County, Idaho	10.2
Jerome County, Idaho	15.5
Lemhi County, Idaho	20.0
Lincoln County, Idaho	15.3
Madison County, Idaho	32.2
Minidoka County, Idaho	13.1
Oneida County, Idaho	13.4
Owyhee County, Idaho	22.2
Payette County, Idaho	15.7
Power County, Idaho	11.1
Twin Falls County, Idaho	13.0
Washington County, Idaho	13.2
Beaverhead County, Montana	15.0
Madison County, Montana	11.6
Socioeconomic Study Area	14.3
Idaho	13.6
Montana	14.5
United States	13.8

Source: US Census Bureau 2010c





whole (14.5 percent). Both Idaho and Montana have a higher percentage of residents above the poverty line than the United States as a whole (13.8 percent). The percentages of residents below the poverty line range from a low of 8.4 percent in Caribou County, Idaho, to a high of 32.2 percent in Madison County, Idaho.

#### *Tribal Populations*

Five Native American reservations in the State of Idaho are home to federally recognized tribes. These reservations comprise almost 2 million acres in trust. The Shoshone-Bannock Tribe of the Fort Hall Indian Reservation (Bannock, Bingham, Caribou, and Power Counties) and Shoshone-Paiute Tribe of the Duck Valley Indian Reservation (Owyhee County) are located within the Socioeconomic Study Area. Other tribes outside the Socioeconomic Study Area include Coeur d'Alene in Benewah and Kootenai Counties; Kootenai in Boundary County; and Nez Perce in Clearwater, Idaho, Latah, Lewis, and Nez Perce Counties (Rodríguez 2011).

Several major tribes live in Montana: the Blackfeet nation, the Confederated Salish, the Pend d'Oreille, the Kootenai, the Assiniboine, the Sioux, the Northern Cheyenne, the Crow Nation, the Gros Ventre, and the Little Shell Chippewa (Montana Office of Indian Affairs 2011). However, none of these tribes' reservations are located in or near the Socioeconomic Study Area.

#### **3.24 Forest and Woodland Products**

The NEPA, the FLPMA, the Water Quality Act of 1987, as amended from the Federal Water Pollution Control Act (Clean Water Act) of 1977, the Endangered Species Act of 1973, and the Archaeological Resources Protection Act of 1979 direct the protection and management of forest management and woodland products on BLM-administered lands. The FLPMA directs that BLM-administered lands be managed on the basis of multiple use and sustained yield without the permanent impairment of the productivity of the land and the quality of the environment. Guidance provided under FLPMA applies to those forested lands containing what is traditionally referred to as timber lands, capable of producing in excess of 20 cubic feet per acre per year; as well as woodlands, those forested lands producing less than 20 cubic feet per acre per year; and other vegetative material, or those lands containing cactus and other salable vegetation which were not previously covered by management policy. Other salable vegetation includes Christmas trees and plant seed. BLM forest management policy and requirements are identified in the BLM Forest Management regulations (43 CFR Part 5000).

In the analysis area there are approximately 368,000 acres of BLM-administered forest land; 250,000 acres of BLM-administered forest land (timberland) available for commercial management; 353,000 acres of BLM-administered woodland; and 197,000 acres of BLM-administered woodland available for commercial management.

In the analysis area, annual production of commercial product from timberlands has averaged approximately 2,877 thousand board feet (MBF) per year. Annual production of special forest products (wood) in the past ten years has averaged approximately: 4 MBF per year for sawtimber; 490 MBF for fuel wood; 8 MBF per year for fence posts; 11 MBF per

Idaho and Southwestern Montana  
Draft LUPA/EIS

year for fence poles; and 1 MBF per year for other wood products (such as mine timbers and teepee poles). Annual production of special forest products (nonwood, such as Christmas trees) in the past 10 years has averaged approximately 379 tickets per year.

*Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS*  
October 2013

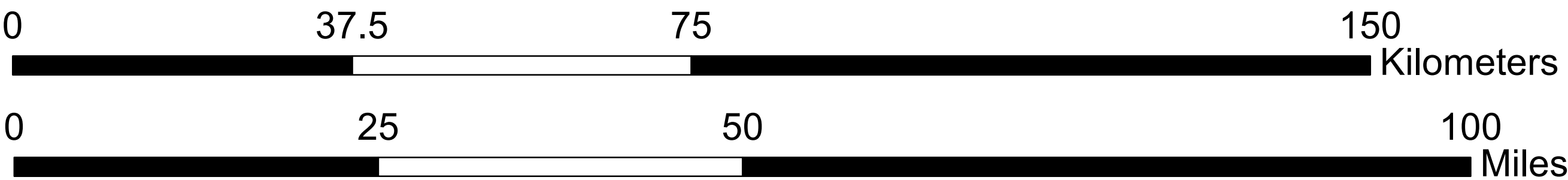
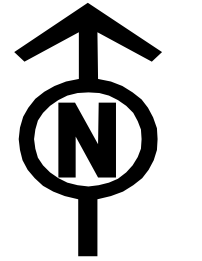


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6.3.c

# Endowment Disposition by Sage Grouse Habitat Zone

- |                            |                      |
|----------------------------|----------------------|
| <b>Sage Grouse Habitat</b> | <b>IDL Endowment</b> |
| Core                       | Surface              |
| Important                  | Minerals Only        |
| <b>Conservation Areas</b>  | <b>RFPAs</b>         |
| CA Boundaries              | Existing RFPAs       |



Data Sources:  
 Ownership: idboldb01.sde\LandRecordsData.DBO.Ownership\LandRecordsData.DBO.Ownership  
 Sage Grouse Habitat: ManagementZones\_Alt\_G\_05272014\_Final.shp

"This map has been compiled using the best information available to the Idaho Department of Lands at the time and may be updated and/or revised without notice. In situations where known accuracy and completeness is required, the user has the responsibility to verify the accuracy of the map and the underlying data sources."

Idaho Mountain  
Valleys  
Conservation Area

Idaho Desert  
Conservation Area

Idaho West Owyhee  
Conservation Area

Idaho Southern  
Conservation Area

Black  
Canyon  
RFFA

Mountain  
Home  
RFFA

Owyhee  
RFFA

Saylor  
Creek  
RFFA

Notch  
Butte  
RFFA  
- 2016

Three  
Creek  
RFFA

Shoshone  
Basin  
RFFA  
- 2015

## Brent Ralston

---

**From:** Meredith Zaccherio  
**Sent:** Monday, June 30, 2014 9:34 AM  
**To:** Brent Ralston  
**Cc:** Mickelsen, Robert -FS  
**Subject:** RE: Webinar recap

Hi Brent,

I'm pretty much around and free to have the webinar anytime next week. If I don't hear anything this week, I'll coordinate with Nika directly and make it happen next week. I'll also incorporate your suggestion regarding anthropogenic disturbance, adaptive management, and coordination.

Also, if you have any of the appendices associated with the proposed plan, particularly the seasonal timing restrictions, buffers, and adaptive management components, please send those along. I think they will be useful for the effects analysis. And of course the acreages of allocations table when it's ready.

Meredith

### Meredith Zaccherio

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**From:** Brent Ralston [mailto:bralston@blm.gov]  
**Sent:** Monday, June 30, 2014 8:28 AM  
**To:** Meredith Zaccherio  
**Cc:** Mickelsen, Robert -FS  
**Subject:** RE: Webinar recap

Meredith,

Here are my thoughts. I think the coordination approach you have will work. As for the pieces of the GRSG assumptions that need revisited – that may need to be the first topic for the GRSG group, I don't think there is a need to involve the whole group again. The discussion on anthropogenic disturbance and the 3% that I instigated – after looking at the template I think it would be better dealt with as part of a section or heading – Anthropogenic Disturbance, Adaptive Management and Coordination. These three topics tie together in the management actions especially in the proposed plan and if we discussed these as a separate or additional section in each alternative that would get at the comment I was trying to forward in the assumptions. We could take that out of the assumptions or include an assumption that is more holistic such as – To the extent lands are subject to adaptive management and/or an anthropogenic disturbance cap effects of threats would be further restricted based on the applicable thresholds and caps. Coordination between State and Federal managers would further ensure the application and implementation of these thresholds and caps.

I'll be out of the office after the 4<sup>th</sup>, and we need to get some input on the other assumptions – livestock/range and wild horses primarily. I may have some time Wednesday the 8<sup>th</sup> but am unavailable for such a call on Monday, Tuesday or Thursday next week. Could you take the lead in setting something up with the team and especially Nika? I have a few comments on those assumptions that I'll pass along if I can't call-in.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Meredith Zaccherio [mailto:[meredith.zaccherio@empsi.com](mailto:meredith.zaccherio@empsi.com)]  
**Sent:** Thursday, June 26, 2014 12:55 PM  
**To:** Brent Ralston  
**Subject:** Webinar recap

Hi Brent,  
Attached are the revised assumptions from our webinars this week. It looks like we may need to revisit some of the GRSG ones. I've also attached a draft Chapter 4 proposed plan template with some notes. Please provide feedback to let me know what you think.

In terms of the coordination calls with EMPSi and BLM/FS, I was going to advise my resource specialists to review the impacts from the proposed plan on their resource, going through the proposed plan resource by resource to identify the main impacts with BLM/FS. The Chapter 4 template could be used to document that all topics were addressed. Any additional literature to be incorporated will also be noted. In addition, we would identify any changes that need to be made based on the public comments. It may be useful to have the coordination calls as webinars or lync screen shares to ensure EMPSi captures the main impacts. I will have the EMPSi specialists send out doodle polls to see about having these calls the week of July 7<sup>th</sup>. Do you think this approach will work?

Thanks,  
Meredith

**Meredith Zaccherio**  
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San Francisco, CA 94108  
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## 1.1 Special Status Species – Greater Sage-Grouse

### 1.1.1 Methods and Assumptions

This analysis is organized by threats to GRSG as categorized in the USFWS's *12-Month Findings for Petitions to List the Greater Sage-Grouse (Centrocercus urophasianus) as Threatened or Endangered* (USFWS 2010a).

#### ***Indicators***

Indicators of impacts on GRSG are as follows:

- Acres of sagebrush
- Direct habitat loss
- Habitat fragmentation
- Disruption to species life history requirements
- Population loss
- Habitat degradation
- Habitat restoration/improvement

Effects listed above may be characterized for each resource and alternative, as appropriate, and, where available, quantified by the indicators described below:

- Identified GRSG Habitat (PPH and PGH) – Identified habitat includes habitats considered vital to the persistence of GRSG populations at all scales. Acres impacted or improved by each resource is a general metric for acres of sagebrush, direct habitat loss, habitat degradation, and habitat restoration/improvement. The metrics provide a basis for a qualitative discussion of habitat loss and fragmentation and species life history requirements.
- Populations – Metric is strongly correlated to nesting habitat since radioed hens tend to nest within several miles of their lek of capture (Connelly et al. 2000). In Idaho lek to nest distances may vary spatially over large landscapes but roughly 80 percent of nests occur within 8 to 12 kilometers of the lek of capture (Connelly et al. 2013). The metric is derived by quantifying for each GRSG population area, the number of occupied leks in 2011, reflecting lek attendance by at least 2 males during at least one of the prior 5 years (2007-2011). This metric provides general insight into the population contribution of specific population areas relative to the sub-region overall, providing additional context for comparison. The metric also allows for inferences of risk to population persistence from certain threats or resource allocations (such as areas open to ROWs or mineral leasing), assuming that population areas with a smaller number

of occupied leks are more vulnerable to resource activities and that areas with a greater number of occupied leks imply larger populations and a greater opportunity for long term persistence, given effective conservation efforts (see **Section 3.2**). Where land or resource allocations overlap population areas and/or occupied leks, the allocation is considered to be affecting the grouse population, for purposes of analysis. **Table 4-1**, Resource Programs Impacting GRSG by Threat in the Sub-region, relates individual resource programs to threats to the species in order of priority within the sub-region. Impacts from each resource are assessed using the indicators described above.

- Areas of potential development – potential for habitat degradation/fragmentation/edge effect. Anthropogenic disturbance tables. % of anthropogenic disturbance and what is projected under each alternative (how to calculate this?). We have this number for Alt A. Use the RFD and management actions for each alternative to project the effects on disturbance. Clearly state your assumptions. (e.g., Alt A assume future development would occur in Core, but for Alt B, development would occur outside of Core). Table showing which alternatives would add to 3% disturbance cap and which would not (zero additive). **Revisit!**
- Habitat suitability – measured by VDDT, driven by sagebrush canopy cover and lack of conifer encroachment.

**Table 4-1**  
**Resource Programs Impacting GRSG by Threat in the Sub-region**

Threat/Issue	Resource Program
Wildfire	Fire, Fuels, Vegetation
Invasive Species	Fire, Fuels, Vegetation
Infrastructure	ROW Avoidance/Exclusion Areas, ACECs, Wilderness, Wilderness Study Areas
Energy Development	Areas Open/Closed to Fluid Mineral Exploration, Leasing and Development
Human Uses	ROW Avoidance/Exclusion Areas, ACECs, Wilderness, Wilderness Study Areas, areas Open, Limited or Closed to off road motorized travel
Conifer Encroachment	Fire, Fuels, Vegetation
Climate Change	Climate Change, Fire, Fuels, Vegetation
Livestock Grazing	Areas Open/Closed to Livestock Grazing
Mining	Areas Open/Closed to locatable and salable minerals

**Assumptions**

Three general categories of human disturbance (to habitats) or disruption (to animals) would be the most influential on GRSG and their habitat: 1) disturbance or disruption from casual use; 2) disturbance or disruption from permitted activity; and 3) changes in habitat condition, such as from fire or presence of noxious weeds and invasive species.





The assumptions listed below are intended for large-scale planning-level analysis; project-level assumptions for NEPA may differ.

The analysis includes the following assumptions:

- ~~GRSG Management Zone Designations are assumed to represent habitat adequate to maintain GRSG populations in the sub region. For Idaho, GRSG Habitat Designations were derived from modeling efforts completed in 2012, based on 75 percent Breeding Bird Density and 75 percent lek connectivity models as well as known winter habitat, connectivity considerations and other factors. In Montana, GRSG Habitat Designations were derived from habitat modeling of core areas by MTFWP with additional input by the BLM.~~
- ~~Insert bullet that describes Alternative G map.~~
- This analysis uses PPH and PGH categories for Alternative A only to facilitate comparison across the other alternatives. There are currently no BLM- or Forest Service-administered lands designated as GRSG PPH or PGH within the sub-regional planning area, and Alternative A would neither result in the designation of PPH or PGH nor assign additional management actions to PPH or PGH areas.
- Population and subpopulation boundaries (Connelly et al. 2004) were modified to include the entirety of mapped GRSG Management Zone Designations in the vicinity. (See **Section 3.2**).
- Habitat conditions and trends for each GRSG population area were determined by modeling vegetation dynamics such as wildfire, succession, insects and disease, habitat restoration projects (e.g., sagebrush seeding, grass seeding, and herbicide treatment of annual grass), prescribed fire, overgrazing, conifer encroachment and treatment, mechanical sagebrush treatment, and fuels reduction projects using the Vegetation Dynamics Development Tool (VDDT). Modeling was completed for population areas in Idaho, Utah (Sawtooth National Forest portion only), and southwestern Montana. Initial population areas from Connelly et al. (2004) were considered, but some were ultimately combined or delineated further, to accommodate similarities in vegetation models or disturbance regimes.
- Because GRSG are highly sensitive to habitat fragmentation, development, or changes in habitat conditions and require large, intact habitat patches to complete their annual life history, alternatives proposing to protect the most GRSG Habitat from disturbance are considered of greatest beneficial impact. These impacts can be described both qualitatively and quantitatively.
- Seasonal ranges of migratory and non-migratory GRSG are largely encompassed within GRSG Management Zone Designations but are not consistently mapped across the subregion to provide an assessment of direct impacts.

**Deleted:** Habitat

**Deleted:** Habitat

**Comment [MZ1]:** Revisit this bullet.

**Deleted:** Habitat

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- GRSG Management Zone Designations encompass adequate habitat for providing connectivity within populations and subpopulations. ~~Connectivity will be considered by incorporating population area scale information in the design and implementation of restoration projects.~~

**Deleted:** Habitat

Impacts on GRSG accrue over varying distances from origin depending on the type of development:

- Impacts from transmission lines constructed before 2002 are likely fully manifested. Therefore, co-locating new lines would have no additional long-term measurable impacts if the habitat disturbance were not to exceed the width of the existing right-of-way. BMPs, RDFs, COAs, and standard operating procedures are used for analysis and would be implemented to reduce impacts on GRSG. These are subject to modification based on subsequent guidance and new science.
- Ground-disturbing activities could positively or negatively modify habitat or cause loss or gain of individuals, depending on the size of the area disturbed, the nature of the disturbance, the species affected, and the location of the disturbance; for example, juniper reduction treatments disturb the ground but could positively modify habitat in the long term.
- A 4.25-mile (6.9-kilometer) foraging distance is assumed to adequately encompass possible direct and indirect effects for both nesting and roosting avian predators (Boarman and Heinrich 1999; Leu et al. 2008) in instances where increased predation from human infrastructure (e.g. power lines, wind turbines, communication towers, agricultural and urban development) is a threat.
- Energy extraction such as oil and gas, geothermal, and plan of operation mining can cause impacts up to 11.8 miles (19 kilometers) based on direct impacts of field development, including associated infrastructure, noise, lighting, and traffic (Johnson et al. 2011; Taylor et al. 2012).
- Interstate highways at 4.7 miles (7.5 kilometers) and paved roads and primary and secondary routes can cause impacts at 1.9 miles (3 kilometers) based on indirect effects measured through road density studies (Connelly et al. 2004; Holloran 2005; Lyon 2000).
- Site-specific disturbances such as small-scale mining and mineral material sites can cause impacts at 1.6 miles (2.5 kilometers) based on indirect influence distance from estimated spread of exotic plants (Bradley and Mustard 2006).

**Deleted:** C

**Comment [M22]:** driven by foraging outside of the nesting season – different impact than foraging nesting ravens (forage in a smaller area). May need to reword.

**Deleted:** avian predator

**Deleted:**

**Comment [M23]:** Move last 4 bullets to nature and type of effects section.

Short-term impacts would accrue over a timeframe of up to 10 years. Long-term impacts would accrue over timeframes exceeding 10 years.

## 1.2 Lands and Realty



### 1.2.1 Methods and Assumptions

#### Indicators

Indicators of impacts on lands and realty are as follows:

- Acres of surface ownership in the planning area
- ~~Acres of ROW allocations (e.g., exclusion, avoidance, open)~~
- ~~Acres of ROW restrictions (e.g., BMPs, RDFs, seasonal restrictions, buffers)~~
- ~~Acres/miles of designated ROW corridors open to ROW development~~
- Number and ~~acres~~ of surface-disturbing ROWs and leases
- ~~Acres~~ of land tenure adjustments (i.e., lands identified as suitable for disposal, acquisition, or exchange)

#### Assumptions

This analysis includes the following assumptions:

- Authorized ROWs, ~~permits and leases~~, would be managed ~~subject to~~ valid existing rights
- ~~Activities on dispersed private parcels within the planning area would continue to require new or upgraded services for small distribution facilities, including communication sites, roads, and utilities.~~
- ~~Power~~ lines and other vertical structures in areas naturally devoid of perching opportunities provide a perch for raptors and increase the potential for GRSG to abandon leks (Ellis 1984). Mitigation by burying lines or including design features that do not encourage perching on lines would reduce perching opportunities and subsequent impacts on GRSG (Connelly et al. 2000).
- The demand for both energy- and nonenergy-type ROWs is anticipated to remain steady or gradually increase over time.
- ~~No utility-scale (20 MW) solar energy ROWs are anticipated due to low solar energy potential.~~
- ~~Activities proposed or approved for mineral exploration or development have potential implications for lands and realty decisions for associated ROWs.~~
- ~~Maintaining and upgrading ROWs is preferred before the construction of new facilities in the decision area, but only if the upgrading can be accommodated within or next to the existing ROW.~~
- ~~Collocating new infrastructure in existing ROWs is preferred over creating new ROWs. Collocation does not eliminate the potential for new temporary or permanent surface disturbance.~~

**Deleted:** restrictions (i.e., avoidance or exclusion areas)

**Deleted:** types

**Deleted:** , including communication sites

**Deleted:** Number

**Deleted:** and type

**Deleted:** and landownership

**Comment [MZ4]:** Peter will check to see if we should include withdrawals.

**Deleted:** withdrawal,

**Deleted:** , purchase, donation, or ROW acquisition

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**Deleted:** and communication sites

**Deleted:** to protect

**Deleted:** , as long as those ROWs comply with the terms and conditions of their ROW grant

**Comment [MZ5]:** Move to RFDS

**Deleted:** <#>On renewal, assignment, or amendment of existing ROWs, permits, and leases, additional stipulations could be included in the land use authorization.¶

**Comment [MZ6]:** Duplicate this in the GRSG section.

**Deleted:** (including communication sites)

**Deleted:** Little to n

**Comment [MZ7]:** Incorporate into screening criteria in proposed plan

**Deleted:** <#>Geothermal energy development may occur during the life of the LUP but would be localized, and the number of ROW authorizations is anticipated to be less than those for wind. ¶

**Deleted:** utilities, communication sites, and other

**Deleted:** <#>Demand for small distribution facilities to extend and upgrade services, such as communication sites and utilities, is anticipated to increase as rural development occurs on dispersed private parcels within the planning area.¶ <#>The number of ROW applications for new communication and computer technology, such as fiber optic cable, is anticipated to continue to increase.¶

**Comment [MZ8]:** Move to proposed plan.

**Deleted:** The BLM and Forest Service

**Deleted:** c

**Deleted:** likelihood

- The BLM and Forest Service would continue to manage all previously withdrawn lands as withdrawn from entry, appropriation, or disposal under the public land laws. Withdrawals would be reviewed as needed and recommended for extensions, modifications, revocations, or terminations. All existing withdrawals initiated by other agencies ~~would be continued unless the initiating agency, BLM, or the Forest Service requests that the withdrawal be extended, modified, revoked, or terminated.~~
- Any lands that become unencumbered by withdrawals or classifications will be managed according to the decisions made in this LUPA. If the LUPA has not identified management prescriptions for these lands, they will be managed the same as adjacent or comparable public lands within the decision area.
- Designated utility corridors have a higher probability for development because of their designation in existing land use plans.

**Deleted:** ,

**Deleted:** such as the Bureau of Reclamation or the Department of Energy,

**Deleted:** If the unencumbered lands fall within two or more management scenarios where future planning criteria may not be clear, a plan amendment may be required.

**Deleted:** The existing designated ROW corridors within the decision area include the Western Utility Group updates to the Western Regional Corridor Study, Section 368 Energy Policy Act of 2005, and West-wide Energy Corridor Programmatic EIS, which are adopted and carried out under BLM IM-2013-118 (dated April 12, 2013). Designated transportation and utility corridors include linear ROWs, such as electric transmission facilities, pipelines, communication lines, and transportation systems.

### 1.3 Livestock Grazing

#### 1.3.1 Methods and Assumptions

##### *Indicators*

Indicators of impacts livestock grazing/range management are as follows:

- Changes in permitted AUMs in areas open to livestock grazing
- Changes in the type of livestock permitted on allotments
- Prohibitions or limitations on the construction or maintenance of structural and nonstructural range improvements
- Modifications to or removal of structural range improvements
- Closures of areas to livestock grazing for the life of the plan
- Changes to the timing, duration, or frequency of permitted use, including temporary closures

##### *Assumptions*

The analysis includes the following assumptions:

- All new and renewed leases and permits would be subject to terms and conditions determined to be necessary by the authorizing officer to achieve the management and resource condition objectives for BLM- and Forest Service-administered lands and to meet land health standards for BLM-administered lands and desired conditions on Forest Service-administered lands.

- Range improvements (e.g., fences, pipelines, water wells, troughs, and reservoirs) could create a localized loss of vegetation cover. Fencing would cause a temporary loss due to construction, whereas other types of improvements may cause vegetation loss for the improvements' useful life. Additionally, wells, troughs, and reservoirs might cause long-term vegetation loss due to repeated livestock disturbance where animals congregate, and would be revegetated only if abandoned. Vegetation would be reestablished through reclamation along water pipelines and naturally along fence lines within five years to the extent possible.
- The construction and maintenance of range improvements would continue in the decision area, and would vary according to the constraints imposed by each alternative. New range improvements would be subject to limitations, as defined in the plan. Range improvements are generally intended to improve livestock distribution and management, which would maintain or improve rangeland health and could benefit the forage base and wildlife and GRSG habitat.
- By definition in this plan, livestock grazing is not considered a surface-disturbing activity, but it could affect the surface in areas where livestock concentrate, such as around range improvements.

## 1.4 Locatable Minerals

### 1.4.1 Methods and Assumptions

The analysis of impacts on locatable minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on locatable minerals would result from withdrawing an area from locatable mineral entry. An indirect impact would result by removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on locatable minerals are described below.

#### *Indicators*

Indicators of impacts on locatable minerals are as follows:

- Acres withdrawn from locatable mineral entry
- Acres petitioned for withdrawal from locatable mineral entry
- The amount of land under claim subject to buyout or validity exam
- Acres over which restrictions, such as RDFs and conservation measures, are placed on locatable mineral development activities to prevent unnecessary or undue degradation of GRSG habitat as the law allows

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**Comment [M29]:** Is this relevant? Did we analyze this?

**Deleted:** Application of

**Deleted:** that can be

Where information is available, consideration is given to the potential for locatable minerals on lands withdrawn from locatable mineral entry. For example, an indicator of an impact on

locatable minerals is if there were substantial withdrawals from locatable mineral entry in high potential areas.

### Assumptions

The analysis includes the following assumptions:

- ~~New information may lead to changes in delineated GRSG habitat. New habitats, or areas that are no longer habitat, may be identified. This adjustment would typically result in small changes to areas requiring the stipulations or management actions stated in this plan. Modifications to GRSG habitat would be updated in the existing data inventory through plan maintenance. In areas that are no longer habitat, the waiver/exception/modification process would be used to remove stipulations or management actions that were no longer needed.~~
- ~~(rephrase): Will apply management actions to split estate. Management actions to withdraw areas from locatable mineral entry or prevent unnecessary or undue degradation also apply to locatable mineral activity on lands overlying federal locatable mineral estate, which includes federal locatable mineral estate underlying BLM- and Forest Service-administered lands, and lands managed by other entities. There are 32,023,500 acres of federal locatable mineral estate within the decision area (29,772,700 acres of BLM- and Forest Service-administered surface with federal locatable minerals and 2,250,800 acres of surface with federal minerals on land not administered by the BLM). Federal locatable minerals refers to mineral estate where the federal government controls the locatable minerals.~~
- Information on locatable mineral withdrawals is not available for 33,000 acres of federal locatable mineral estate in the Butte Field Office in Montana (less than one percent of the federal locatable mineral decision area). These acres were not included in the analysis.
- Areas recommended for withdrawal would be withdrawn.
- Trends described in Section 3.12, Mineral Resources, are assumed to continue for the life of the analysis.
- Historical patterns of locatable mineral development in the planning area are used to assess the level of locatable mineral potential throughout the planning area. Areas with a high level of historical development are considered to have high potential for locatable minerals.

**Comment [MZ10]:** Move some of this text to the step-down implementation

**Comment [MZ11]:** Move acreages to Chapter 3.

**Deleted:** oil and gas

**Comment [MZ12]:** Katie will check on what the analysis assumption is.

**Deleted:** As discussed in

**Deleted:** there are 60 authorized plans of operations or notices in the planning area, and 20 more are pending. Demand for and development of locatable minerals in the planning area is expected to remain steady. However, new electronic products requiring materials that have not been historically used, such as rare earth elements, could change demand and development patterns in the future.

## 1.5 Mineral Materials (Salables)

### 1.5.1 Methods and Assumptions

Analysis of impacts on mineral materials from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on mineral materials would result from closing an area to mineral material disposal. An indirect impact would result from removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on mineral materials are described under *Indicators*, below.

#### *Indicators*

Indicators of impacts on mineral materials are as follows:

- Acres closed to mineral material disposal
- Acres subject to timing limitations
- Acres managed as ROW avoidance areas
- Acres managed as ROW exclusion areas
- Acres over which RDFs are applied to solid minerals
- Application of restoration requirements

Where information is available, consideration is given to the potential for mineral materials on lands closed to mineral material disposal. For example, an indicator of an impact on mineral materials is if there were substantial closures to mineral material disposal in areas with high occurrence of mineral materials.

#### *Assumptions*

The analysis includes the following assumptions:

- Management actions also apply to mineral materials activity on lands overlying federal mineral material estate, which includes federal mineral material estate underlying BLM- and Forest Service-administered lands, and lands not administered by the BLM or Forest Service. There are 31,566,400 acres of federal mineral material estate within the decision area (29,636,500 acres of BLM- and Forest Service-administered surface with federal mineral material estate and 1,929,900 acres of surface with federal minerals not administered by the BLM or Forest Service). Federal mineral material estate refers to mineral estate where the federal government controls the mineral materials.
- Information on mineral material allocations is not available for 1,444,100 acres of federal mineral material estate in the Butte and Dillon Field Offices in Montana (five percent of the federal mineral material decision area).

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**Comment [M213]:** Double check with Karen re: mineral material estate/split estate. Incorporate info into Chapter 3.

**Deleted:** <#>New information may lead to changes in delineated GRSG habitat. New habitats or areas that are no longer habitat may be identified. This adjustment would typically result in small changes to areas, requiring the stipulations or management actions stated in this plan. Modifications to GRSG habitat would be updated in the existing data inventory through plan maintenance. In areas that are no longer habitat, the waiver/exception/modification process would be used to remove stipulations or management actions that were no longer needed.¶

**Deleted:** ,

**Deleted:** oil and gas

- As discussed in Section 3.12, demand for mineral materials in the planning area is expected to remain fairly steady. However, this demand is influenced by market factors that influence construction.
- Historical patterns of mineral material development in the planning area are used to assess the level of mineral material potential throughout the planning area. Areas with a high level of historical development are considered to have high potential for mineral materials.

**Comment [MZ14]:** Rephrase as per locatable minerals

## 1.6 Nonenergy Leasable Minerals

### 1.6.1 Methods and Assumptions

Analysis of impacts on nonenergy solid leasable minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on nonenergy solid leasable minerals would result from closing an area to leasing. An indirect impact would result from removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on nonenergy solid leasable minerals are described under *Indicators*, below.

#### *Indicators*

Indicators of impacts on nonenergy solid leasable minerals are as follows:

- Acres closed to nonenergy solid mineral leasing
- Acres over which restrictions on timing are placed on nonenergy solid mineral leasing
- Acres over which RDFs are applied to solid minerals

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Where information is available, consideration is given to the potential for nonenergy solid leasable minerals on lands closed to leasing. For example, an indicator of an impact on nonenergy solid leasable minerals is if there were substantial closures to nonenergy solid mineral leasing in areas with high occurrence of nonenergy solid minerals.

#### *Assumptions*

The analysis includes the following assumptions:

- Management actions and conservation measures also apply to nonenergy solid leasable mineral activity on lands overlying federal nonenergy solid leasable mineral estate. This includes federal nonenergy solid leasable mineral estate underlying BLM-administered, National Forest System, and lands not administered by the BLM or Forest Service. There are 31,566,400 acres of federal nonenergy solid leasable mineral estate within the decision area (29,636,500 acres

**Deleted:** <#>New information may lead to changes in delineated GRSG habitat. New habitats or areas that are no longer habitat may be identified. This adjustment would typically result in small changes to areas, requiring the stipulations or management actions stated in this plan. Modifications to GRSG habitat would be updated in the data inventory through plan maintenance. In areas that are no longer habitat, the waiver/exception/modification process would be used to remove stipulations or management actions that were no longer needed.¶



of BLM- and Forest Service-administered surface with federal nonenergy solid leasable minerals and 1,929,900 acres of surface with federal minerals not administered by the BLM or Forest Service). Federal nonenergy solid leasable mineral material estate refers to mineral estate where the federal government controls the nonenergy solid leasable minerals.

**Comment [MZ15]:** Move to Chapter 3. Make paragraph consistent with locatable minerals text.

- Information on nonenergy solid leasable mineral allocations is not available for 1,444,100 acres of federal nonenergy solid leasable mineral estate in the Butte and Dillon Field Offices in Montana (five percent of the federal nonenergy solid leasable mineral decision area).

**Comment [MZ16]:** Follow up with MT to see about getting minerals data.

**Deleted:** mineral material

As discussed in Section 3.12, significant phosphate resources exist in the Pocatello Field Office within the planning area. There are ten active phosphate leases within GRSG habitat in this area; however, no development on these leases is planned for the next 5 to 10 years.

## 1.7 Leasable Minerals

### 1.7.1 Methods and Assumptions

The analysis of impacts on fluid minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on fluid minerals would result from closing an area to fluid mineral leasing. An indirect impact would result from managing an area as ROW exclusion, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on fluid minerals are described under *Indicators*, below.

#### *Indicators*

Indicators of impacts on fluid minerals are as follows:

- Acres of unleased land identified as closed to fluid mineral exploration and development
- Acres subject to NSO stipulations
- Acres subject to CSU stipulations
- Acres subject to TLs
- Number of leases and acres over which COAs are applied on fluid mineral development activities on leased parcels for the protection of GRSG
- Acres of restrictions on geophysical exploration in GRSG habitat
- Acres managed as ROW avoidance areas
- Acres managed as ROW exclusion areas

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**Comment [MZ17]:** Karen to revisit management actions

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Where information is available, consideration is given to the potential for fluid mineral resources on lands closed to leasing. For example, an indicator of an impact on fluid minerals is if there were substantial reductions in federal leasing and development of fluid mineral resources in high potential areas.

*Assumptions*

The analysis includes the following assumptions:

- Existing fluid mineral leases would not be affected by the closures proposed under this LUPA.
- Fluid mineral operations on existing federal leases, regardless of surface ownership, would be subject to COAs by the authorizing officer. The BLM can deny surface occupancy on portions of leases with COAs to avoid or minimize resource conflicts if this action does not eliminate reasonable opportunities to develop the lease or affect lease rights.
- Existing leases would be managed under the stipulations in effect when the leases were issued; new stipulations proposed under this LUPA would apply only on new leases. See the glossary for definitions of stipulations versus COAs.
- Under all alternatives, reclamation bonds would be required, pursuant to 43 CFR 3104 and 36 CFR 228.109(a), in an amount sufficient to ensure full restoration of lands to the condition in which they were found. In addition, Applications for Permit to Drill would be required under all alternatives in accordance with 43 CFR 3162.
- The lands in the Curlew Grassland area, as described in the Pocatello RMP, that are administratively unavailable for leasing will be included in the total number of acres/hectares closed to leasing under Alternative A.
- If an area is leased, it could be developed; development is expected as described in the RFDS (Appendix XX). [Combine with trends bullet below]
- As the demand for energy increases, so will the demand for extracting energy resources in areas with potential.
- Technological advancements, such as directional drilling, could lead to changes in levels of fluid mineral development potential throughout the planning area as additional resources become more easily accessible.
- Stipulations also apply to fluid mineral leasing on lands overlying federal oil and gas estate, which includes federal oil and gas estate underlying BLM-administered and Forest Service-administered lands and non-BLM-administered and Forest Service-administered lands. There are 32,028,100 acres of federal oil and gas estate within the decision area (29,638,300 acres of BLM-administered and Forest Service-administered surface with federal minerals and 2,389,800 acres of non-BLM-administered and non-Forest Service-administered surface with federal

**Deleted:** remain so for the life of the Pocatello RMP. Therefore, these acres/hectares are

**Deleted:** <#>New information may lead to changes in delineated GRSG habitat. New habitats, or areas that are no longer habitat, may be identified. This adjustment would typically result in small changes to areas requiring the stipulations or management actions stated in this plan. Modifications to GRSG habitat would be updated in the existing data inventory through plan maintenance. In areas that are no longer habitat, the waiver/exception/modification process would be used to remove stipulations or management actions that were no longer needed.¶

**Deleted:** however, not all leases would be developed within the life of this LUPA.

**Comment [MZ18]:** Incorporate this and the next bullet in RFDS.

**Comment [MZ19]:** Make changes per similar locatable mineral text.



minerals). Federal oil and gas estate refers to mineral estate where the federal government controls the oil and gas resources.

- As discussed in Section 3.12, Mineral Resources, interest in oil and gas and geothermal leasing in Idaho is expected to remain sporadic.

**Comment [MZZ0]:** Combine with above bullet. Refer to trends in Chapter 3.

**Deleted:** There is some interest in leasing oil and gas resources within occupied habitat in the Bear Lake area. However, no drilling permits have been applied for or issued in Idaho, and this trend is expected to continue.

## 1.8 Special Designations

### 1.8.1 Methods and Assumptions

Direct impacts on ACECs are considered to be those that either impair or enhance the relevant and important values for which the ACEC was proposed for designation. As such, this analysis focuses on relevance and importance criteria for each potential ACEC. There are no relevance and importance criteria for Forest Service ZAs. It also focuses on impacts on these values from either the special management derived from ACEC or ZA designation or, under alternatives where an ACEC or ZA is not proposed for designation, the management actions for other resources. All impacts discussed are direct, though some may not occur immediately after implementation of management actions.

#### *Indicators*

Impacts on ACECs would occur from management actions that protect or impair relevant and important ACEC values, including “important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes” (BLM Manual 1613 – Areas of Critical Environmental Concern). As such, indicators of impacts are allocations for surface-disturbing activities within existing or potential ACECs that could affect the relevant and important values for which the ACEC was designated.

#### *Assumptions*

The analysis includes the following assumptions:

- Management of existing ACECs was determined in the applicable LUPs to be adequate to support the relevant and important values at the time of their designation. Impacts on these ACECs are not further discussed because the BLM would continue to manage these ACECs to protect their relevant and important values. Management to protect GRSG under the various alternatives could provide additional protections for existing ACECs and, at a minimum, would provide complementary management.
- Although management actions for most resources and resource uses have application throughout the decision area, ACEC and ZA management prescriptions apply only to those lands within each specific ACEC or ZA.
- Permitted activities would not be allowed to impair the relevant and important values for which the ACECs are designated. The exception is locatable minerals; until withdrawn from mineral entry, a mining claim can be filed, and subsequent

mining activities could have an impact. However, measures would have to be identified in a mine plan to mitigate unnecessary and undue degradation.

- ACEC designation provides protection and focused management of relevant values beyond that provided through general management of the relevant and important values elsewhere in the decision area.
- Any designated ACEC that falls within a WSA would be managed according to BLM Manual 6330, Management of Wilderness Study Areas, unless the ACEC management is more restrictive. Because activities within WSAs must meet the nonimpairment criterion, which generally restricts new surface disturbance, a WSA would generally protect relevant and important values. Also, it would have a beneficial effect on overlapping designated and undesignated ACECs. If Congress were to release a WSA from further consideration, the special management in designated ACECs would be designed to protect and enhance the relevant and important values.

## 1.9 Travel Management

### 1.9.1 Methods and Assumptions

#### *Indicators*

Indicators of impacts on travel and transportation management from BLM and Forest Service management to protect GRSG are changes in the following:

- The acreages designated as open, limited, or closed to motorized travel
- The types of transportation activities occurring on routes that could impact GRSG or habitat
- The number of acres where new road development would be allowed

#### *Assumptions*

In addition to the assumptions in **Section 4.1.1**, this analysis includes the following assumptions:

- The demand for general access to travel routes on BLM-administered and Forest Service-administered lands would continue to increase over the life of the LUPs.
- Administration of updated agency travel management policy, rules, and planning and design guidelines will change public land travel systems through design, making them more sustainable while decreasing potential impacts on resources.
- OHV use will continue to increase.

- The designation of individual routes is an implementation-level process and not considered as part of a planning-level process.
- The potential for resource and user conflict increases as OHV use increases and becomes more concentrated.
- Travel systems are dynamic and will be changed through subsequent implementation-level planning.
- Implementation of a travel management plan would include increased public education, signing, enforcement, and resource monitoring in regard to travel management.

## 1.10 Vegetation

### 1.10.1 Methods and Assumptions

#### *Indicators*

Indicators of impacts on vegetation are as follows:

#### *Upland Vegetation*

- Acres and condition of vegetation communities
- Extent of fragmentation

#### *Riparian and Wetland*

- Acres and condition of riparian and wetland vegetation

#### *Noxious Weeds and Invasive Species*

- Change in the likelihood for noxious weed or invasive species introduction or spread
- Change in the estimated acres of conifer encroachment

#### *Assumptions*

The analysis includes the following assumptions:

- All plant communities would be managed to achieve a mix of species composition, cover, and age classes across the landscape, except in site-specific situations where nonnative plantings are used to defer livestock grazing of native vegetation.
- The degree of impact attributed to any one disturbance or series of disturbances would be influenced by several factors. These are location in the watershed; the type, time, and degree of disturbance; existing vegetation; precipitation; and mitigating actions applied to the disturbance.

- Noxious and invasive weeds would continue to be introduced and spread as a result of ongoing vehicle traffic in and out of the planning area, recreation, wildfire, wildlife and livestock grazing and movements, and surface-disturbing activities.
- Activities that would disturb soils could cause erosion, topsoil loss, and soil compaction, which could affect the ability of vegetation to regenerate. Further, surface-disturbing activities could increase dust, which could cover vegetation and impair plant photosynthesis and respiration. Resulting impacts could include lowered plant vigor and growth rate, altered or disrupted pollination, and increased susceptibility to disease.
- Ecological health and ecosystem functioning depend on vegetative cover, species diversity, nutrient cycling and availability, water infiltration and availability, and percent cover of weeds.
- Climate fluctuation would continue to influence the health and productivity of plant communities annually.

Short-term effects would occur over two years or less, and long-term effects would occur over longer than two years.

## 1.11 Wild Horse and Burro Management

### 1.11.1 Methods and Assumptions

#### *Indicators*

Indicators of impacts on wild horses and burros are as follows:

- Changes in Acres available
- Changes in permitted AMLs
- Changes in allotted forage (AUMs)
- Changes in funding or resources available for management

#### *Assumptions*

The analysis includes the following assumptions:

- Horses and burros depend on the herbaceous component of a shrub/grass plant community. Encroachment of shrubs or pinyon-juniper onto established rangelands is adverse, and increases in grasses and forbs are beneficial. Vegetation treatments, such as prescribed burns or weed control, can enhance the plant community composition and forage availability.



- Although the BLM cannot control when wild horses and burros use certain areas, heavy or poorly timed wild horse and burro grazing may adversely affect plant composition, plant succession, and ground cover.
- Water is the primary resource associated with wild horse distribution, and water developments can improve wild horse distribution. Furthermore, human-made water developments that employ some type of mechanical device, such as a windmill or electric pump, can fail and cause horses to go without or to go elsewhere for water.
- Fences and other disturbances can restrict wild horse movement and access. Fences are sometimes necessary to restrict horse distribution to areas inside HMAs or to protect sensitive resources within HMAs.
- While wild horses and burros may be found on lands outside HMAs that have no forage allocated to them. The BLM has no authority to manage wild horses and burros outside of HMAs, except to remove them.
- The scheduling for wild horse and burro gathers is influenced by a national priority process. Factors affecting gather priorities are determinations of excess horses and overpopulations, wild horse and range condition, annual appropriations, litigation and court orders, emergency situations, such as disease, weather, and fire, availability of contractors, the market for adoption, and long-term holding availability for unadoptable excess horses. The principal factor affecting gather priorities is that short- and long-term holding facilities are at or near capacity, significantly reducing the number of excess wild horses and burros that can be removed from HMAs.
- Population growth suppression (fertility control agents, sterilization, and sex ratio adjustments) can aid in population control, but periodic gathers are still necessary to remove excess wild horses.
- Wild horse and burro distribution varies by season, climatic conditions, water and forage availability, and population size.
- Intensive livestock grazing management strategies (scheduled pasture rotations) that involve fences are generally not appropriate for long-term wild horse management.

## 1.12 Lands with Wilderness Characteristics

### 1.12.1 Methods and Assumptions

#### *Indicators*

Indicators of impacts on lands with wilderness characteristics are the management actions and allowable uses that would either protect or degrade the inventoried characteristics to a level at which the value of one or more wilderness characteristic would no longer be present

within the specific area. The inventoried wilderness characteristics are roadless areas of sufficient size, naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation, and supplemental values, as described in **Section 3.20**, Wilderness Characteristics. Roadless Areas already experience some protections from Forest Service management, however, management actions that restrict uses in order to protect the GRSG would provide additional protections to Roadless Areas.

### ***Assumptions***

The analysis includes the following assumption:

- Some inventoried lands with wilderness characteristics have not yet been assessed in a LUP revision; therefore, no decisions have been made about whether to protect their wilderness characteristics. In this analysis, these lands with wilderness characteristics are treated like their wilderness characteristics are not protected to the same degree that congressionally designated wilderness areas would be protected and are discussed in this analysis. Lands with wilderness characteristics that are not managed only to exclusively protect those characteristics will simply be referred to as lands with wilderness characteristics throughout the remainder of the analysis in this section.

## **1.13 Wildland Fire Management**

### **1.13.1 Methods and Assumptions**

#### ***Indicators***

Indicators of impacts on wildfire management are as follows:

- Alteration of vegetative cover that is likely to result in a substantial shift in fire regime condition class (FRCC) across the planning area
- A substantial change in the likelihood or severity of wildfire, based on level of restrictions on uses that may introduce sources of ignition
- Management actions that substantially inhibit a response to wildfire or appropriate treatments to prevent wildfire

#### ***Assumptions***

The analysis includes the following assumptions:

- The spread of invasive annuals (e.g., cheatgrass) has lengthened the fire season in many parts of the planning area. These species often cure sooner than native perennial species and are more prone to ignition. Therefore, actions that reduce the spread or footprint of invasive annuals or restore perennial vegetation





communities would reduce the frequency and intensity of wildfires, while reducing wildfire management costs.

- Fuels treatments using chemical methods are likely to be the most effective in reducing fine fuels and fire intensity and severity.
- Fire is an important functional natural disturbance in many of the ecological systems found in the planning area.
- A direct relationship exists between fuel loading and potential fire intensity and severity.
- Demand for fuels treatments would likely increase over the life of this plan.

**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 [INSERT NAME OF RESOURCE]

#### 4.1.1 **Methods and Assumptions**

##### **Indicators**

Indicators of impacts on Greater Sage-Grouse are as follows:

- <EMPSi specialist: Add bullets regarding indicators of impacts on your resource. The subsequent discussion of impacts should focus around these indicators. This helps to frame the discussion.>

##### **Assumptions**

The analysis includes the following assumptions:

- <EMPSi specialist: Add any assumptions used for your analysis. You do not need to repeat the assumptions below.>

#### 4.1.2 **Nature and Type of Effects**

<EMPSi specialist: Add text regarding the types of impacts that would occur from each resource to your resource. Nature and type of effects are general; the magnitude of these effects will be discussed under each alternative.>

<EMPSi specialist: Delete from the following paragraph any resources that will be discussed further. This paragraph remains at the end of the **Nature and Type of Effects** section.>

Implementing management for the following resources would have negligible or no impact on Greater Sage-Grouse and are therefore not discussed in detail: travel and transportation management, recreation, lands and realty, range management, fluid minerals, solid minerals, mineral split-estate, fire and fuels management, habitat restoration and vegetation management, and ACECs.

**Comment [MZ1]:** Do we want to include methods, assumptions, and the nature and type of effects section with the proposed plan? If so, do we want to repeat it in the main Chapter 4 section or refer to the proposed plan analysis?

### 4.1.3 Proposed Plan

<EMPSi specialist: Add introductory text regarding impacts common to all alternatives, if applicable. Impacts are only common to all alternatives if the magnitude of the impact would be the same across *all* alternatives, including the No Action alternative. If this isn't the case, evaluate whether you are really describing nature and type of effects or if the text should go under the alternatives discussion below. Delete resource headings if they are included in the list of no or negligible impacts under **Nature and Type of Effects.**>

#### **Impacts from Lands and Realty Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from lands and realty management decisions to your resource.>

#### **Impacts from Habitat Restoration and Vegetation Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from habitat restoration and vegetation management decisions to your resource.>

#### **Impacts from Invasive Species Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from invasive species management decisions to your resource.>

#### **Impacts from Wildland Fire Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from wildland fire management decisions to your resource.>

#### **Impacts from Non-Energy Leasable Minerals Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from non-energy leasable minerals management decisions to your resource.>

#### **Impacts from Coal Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from coal management decisions to your resource.>

#### **Impacts from Locatable Minerals Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from locatable minerals management decisions to your resource.>

#### **Impacts from Salable Minerals Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from salable minerals management decisions to your resource.>

#### **Impacts from Unleased Fluid Minerals Management**

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from unleased fluid minerals management decisions to your resource.>

**Comment [MZ2]:** Do we want to keep the headers from the DEIS or make the headers match the proposed plan? For instance, do we want to add a header for coordination, adaptive management, anthropogenic disturbance, etc?

***Impacts from Leased Fluid Minerals Management***

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from leased fluid minerals management decisions to your resource.>

***Impacts from Recreation and Visitor Services Management***

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from recreation and visitor services management decisions to your resource.>

***Impacts from Livestock Grazing Management***

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from livestock grazing management decisions to your resource.>

***Impacts from ACEC Management***

<EMPSi specialist: Add text regarding *impacts under the proposed plan* from ACEC management decisions to your resource.>

**Acronyms**

<EMPSi specialist: list and define acronyms used.>

**References**

<EMPSi specialist: list complete references used and include the specific PAGE NUMBERS referenced.>

**Brent Ralston**

---

**From:** Collins, Rodney  
**Sent:** Tuesday, July 15, 2014 8:19 AM  
**To:** Brent Ralston  
**Cc:** Jesse German; Bernadette Hoffman  
**Subject:** Re: Percent of Disturbance

Brent

I know Don had files stored on a portable drive and there are various folders under sage-grouse with his fingerprints. However, we have not identified anything that appears to be a consolidated location for this work. I do have his personal number though and will give him a call.

A few more questions that came up during a recent call we had to discuss what we had learned so far from our assigned reading.

There is still some question on which scale we (SO/DO/FO) are focusing on. It appears the NOC has Broad scale and Mid-scale covered, with input from the SO/FO. We suspect the fine scale and site scale is what we need to focus on?

Can you tell us what you envision us providing you? Would it be similar to what is in the GRSG Monitoring Framework, identify data-sets to use, reasoning for these data sets, recommended methods, etc. or more of a narrative of what we are trying to do?

We assume there will we need to be an established baseline of existing disturbance. When would that need to be completed by?

Should we be coordinating our efforts with the surrounding states to be consistent?

Do you have time on the 22, 23, or 24th to meet with us?

That's about it for now, thanks Brent.

Rod

Rod Collins  
State GIS Manager & Data Administrator  
DOI - Bureau of Land Management - Idaho  
Office: 208.373.3998  
Mobile: 208.371.5831  
[rcollins@blm.gov](mailto:rcollins@blm.gov)

On Mon, Jun 30, 2014 at 8:31 AM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Rod,

This is a component that needs attention in the next 3-4 weeks so we can pull that information into to EIS. We do have the ability for overtime and comp time as necessary to complete our work. I'm not sure how far Don Major got on this work but I do believe he laid the groundwork or foundation that we can build upon. Rod – do you have access to his files?

Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

**From:** Collins, Rodney [mailto:[rcollins@blm.gov](mailto:rcollins@blm.gov)]  
**Sent:** Thursday, June 26, 2014 5:21 PM  
**To:** Brent Ralston; Jesse German; Bernadette Hoffman  
**Subject:** Percent of Disturbance

Brent

The three of us have discussed the scope of this task from a very broad perspective, basically how difficult this will be to do....but we will begin doing our research and have already started sharing documents and a short list of people to begin talking too.

A couple of questions...for now, more to come I'm sure. What is our timeline and what resources do we have at our disposal?

Regards,

Rod Collins  
State GIS Manager & Data Administrator  
DOI - Bureau of Land Management - Idaho



Office: 208.373.3998  
Mobile: 208.371.5831  
[rcollins@blm.gov](mailto:rcollins@blm.gov)

**Brent Ralston**

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**From:** Makela, Paul  
**Sent:** Thursday, July 24, 2014 1:06 PM  
**To:** Jesse German  
**Cc:** Brent Ralston  
**Subject:** Fwd: Materials for the Disturbance & Monitoring Call today.  
**Attachments:** Broad-Mid Scale Disturbance and Local-Project Level Disturbance Crosswalk.xlsx

Jesse

Brent R. mentioned that you have been asked to work on aspects of the local disturbance analysis for the GRSG effort. Frank Quamen at NOC recently polled those of us on the disturbance team as to additional data fields to consider locally. See attached. There was a conf. call on this today that I was unable to attend due to other meeting priorities so I do not know the outcome. Anyway, it might be helpful for you to talk with Frank directly as to this, and how it fits with what you are doing.

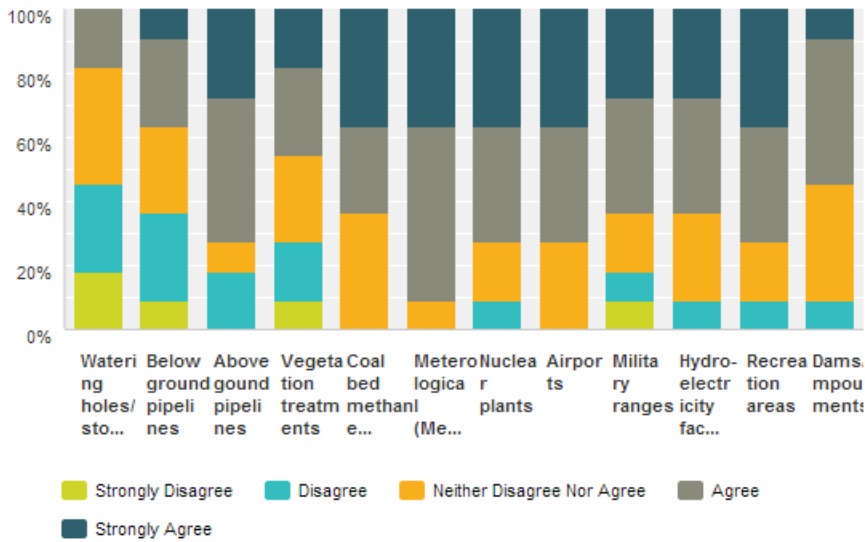
Paul

----- Forwarded message -----

**From:** Quamen, Frank <[fquamen@blm.gov](mailto:fquamen@blm.gov)>  
**Date:** Thu, Jul 24, 2014 at 8:54 AM  
**Subject:** Materials for the Disturbance & Monitoring Call today.  
**To:** John Carlson <[jccarlso@blm.gov](mailto:jccarlso@blm.gov)>, Jennifer Morton <[j75morton@blm.gov](mailto:j75morton@blm.gov)>, Robin Sell <[rsell@blm.gov](mailto:rsell@blm.gov)>, Renee Chi <[rchi@blm.gov](mailto:rchi@blm.gov)>, Paul Makela <[pmakela@blm.gov](mailto:pmakela@blm.gov)>, Glenn Frederick <[gfrederick@blm.gov](mailto:gfrederick@blm.gov)>, Sandra Brewer <[sbrewer@blm.gov](mailto:sbrewer@blm.gov)>, Douglas Havlina <[dhavlina@blm.gov](mailto:dhavlina@blm.gov)>, "Toevs, Gordon R" <[gtoevs@blm.gov](mailto:gtoevs@blm.gov)>, Rob Mickelsen <[rmickelsen@fs.fed.us](mailto:rmickelsen@fs.fed.us)>, Vicki Herren <[vherren@blm.gov](mailto:vherren@blm.gov)>, Lara Juliusson <[lara\\_juliusson@fws.gov](mailto:lara_juliusson@fws.gov)>, Lief Wiechman <[Lief\\_wiechman@fws.gov](mailto:Lief_wiechman@fws.gov)>, Emily Kachergis <[ekachergis@blm.gov](mailto:ekachergis@blm.gov)>, "Damm, Dalinda L -FS" <[ddamm@fs.fed.us](mailto:ddamm@fs.fed.us)>

Good morning all,

Attached and below are materials for our discussion today. The survey results are below, and the table of local/project level proposed degradation disturbances is attached. I will have the webex available, but no need to log on to that if you would rather not. I'll be showing the same things that are attached in this e-mail.



	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Total
Watering holes/stock ponds	18.18% 2	27.27% 3	36.36% 4	18.18% 2	0.00% 0	11
Below ground pipelines	9.09% 1	27.27% 3	27.27% 3	27.27% 3	9.09% 1	11
Above ground pipelines	0.00% 0	18.18% 2	9.09% 1	45.45% 5	27.27% 3	11
Vegetation treatments	9.09% 1	18.18% 2	27.27% 3	27.27% 3	18.18% 2	11
Coal bed methane ponds	0.00% 0	0.00% 0	36.36% 4	27.27% 3	36.36% 4	11
Meteorological (Met) towers	0.00% 0	0.00% 0	9.09% 1	54.55% 6	36.36% 4	11
Nuclear plants	0.00% 0	9.09% 1	18.18% 2	36.36% 4	36.36% 4	11
Airports	0.00% 0	0.00% 0	27.27% 3	36.36% 4	36.36% 4	11
Military ranges	9.09% 1	9.09% 1	18.18% 2	36.36% 4	27.27% 3	11
Hydro-electricity facilities	0.00% 0	9.09% 1	27.27% 3	36.36% 4	27.27% 3	11
Recreation areas	0.00% 0	9.09% 1	18.18% 2	36.36% 4	36.36% 4	11
Dams/Impoundments	0.00% 0	9.09% 1	36.36% 4	45.45% 5	9.09% 1	11

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 Frank Quamen, Wildlife Biologist  
 BLM National Operations Center  
 Denver Federal Center Building 40  
 303-236-6310

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Paul Makela  
Wildlife Program Lead  
Idaho BLM State Office  
Branch of Resources and Science  
1387 S. Vinnell Way  
Boise, ID 83709

Office (208) 373-3809  
Fax (208) 373-3805 Fax  
[pmakela@blm.gov](mailto:pmakela@blm.gov)

<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
<b>Agriculture</b>	Cropland	National Agriculture Statistics Service	If on BLM, yes	Cropland on NAIP imagery	yes	"No" -Included in % SB available- not carried forward in FEIS
<b>Urbanization</b>	Imperviousness	USGS Percent Imperviousness		Buildings and yard (urban boundaries) on NAIP imagery	yes	"No" -Included in % SB available- not carried forward in FEIS
<b>Wildfire</b>	Burn Severity	Geospatial Multi-Agency Coordination Group; Monitoring Trends in Burn Severity	N/A	Perimeter digitized after fire, acquired through GeoMAC or during DDCT. If old, has to meet criteria as trending toward habitat to not be counted as disturbance. Severity also assessed through ground-truthing	yes	"No"-Included in % SB available in DEIS-FWS requested this be part of % disturbance threshold in FEIS. Not sure of resolution.
<b>Wildfire</b>	Perimeters (2013)	GeoMAC	N/A	See above	yes	See above
<b>Conifer Encroachment</b>	n/a	LANDFIRE derived estimate	N/A	Included in the determination of seasonal habitat. From operator or FO	yes	"No" -Included in % SB available- not carried forward in FEIS

<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	Yes	Well pads and all structures (AFMSS, WYOGC, NAIP imagery)	yes	"Yes" -Included in % disturbance threshold & density (1/640) calculation. COGCC data includes wells on out loads also
<b>Energy (oil &amp; gas)</b>	Power Plants	Platts Energy Data	Yes		yes	"Yes" -Included in % disturbance & density
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Yes	Mining operations, DEQ files	yes	"Yes" -Mines includes in % disturbance and in density (1/640) calculation.
<b>Energy (coal)</b>	Power Plants	Platts Energy Data	Yes if on BLM		yes	See above
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	Yes	Wind turbines (not in allowed in Core, so no current need to acquire	yes	"Yes" -None in CO GRSG. Will be included in %
<b>Energy (wind)</b>	Power Plants	Platts Energy Data	Yes		yes	See above
<b>Energy (solar)</b>	Fields/Power Plants	Platts Energy Data	Yes	None currently in WY	yes	"Yes" -None in CO GRSG. Will be included in % disturbance threshold & density (1/64) calculation.

<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
<b>Energy (geothermal)</b>	Wells	IHS	Yes	None currently in Core in WY	yes	"Yes" -None in CO GRSG. Will be
<b>Energy (geothermal)</b>	Power Plants	Platts Energy Data	Yes		yes	"Yes" -None in CO GRSG. Will be included in % disturbance threshold.
<b>Mining</b>	Locatable Developments	InfoMine	Yes	Mining operations – DEQ Land Quality Division	yes	"Yes" -Included in % disturbance threshold
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	Yes	Not 2-tracks less than 10' wide for the majority of the length.	yes	"Yes" -Included in % disturbance threshold. 2-tracks not included.
<b>Infrastructure (roads)</b>	Major Roads	Esri StreetMap Premium	?	BLM road data and NAIP	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (roads)</b>	Interstate Highways	Esri StreetMap Premium	?	BLM road data and NAIP	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	?	BLM road data and NAIP	yes	"Yes" -Included in % disturbance.

<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts Transmission Lines	Yes	Utility corridor scar. Only if outside the SGEO established corridor	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (power lines)</b>	200-399 kV Lines	Platts Transmission Lines	Yes	Proprietary – WyGISC has license to obtain data	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (power lines)</b>	400-699kV Lines	Platts Transmission Lines	Yes	Proprietary – WyGISC has license to obtain data	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (power lines)</b>	700+kV Lines	Platts Transmission Lines	Yes	Proprietary – WyGISC has license to obtain data	yes	"Yes" -Included in % disturbance.
<b>Infrastructure (communication)</b>	Towers	Federal Communications	Yes	Electrical infrastructure from	yes	"Yes" -Included in % disturbance.



<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
Other	Watering Holes			Watering holes on NAIP imagery	yes	Unknown.
Other	Pipelines			Only if outside the BLM RMP corridor and in Core Population Areas until reclaimed to GRSG habitat. Wyoming Pipeline Authority data layers.	yes	"Yes" -Included in % disturbance.
Other	Vegetation Treatments			Some vegetation treatments. WGFD and Teton Science School database, also submitted / tracked within DDCT process	yes	"Yes" -Included in % SB available. Not carried forward in FEIS.

<b>Disturbance Type</b>	<b>Subcategory</b>	<b>National Data Layers</b>	<b>(USGS Contract) Public land user provided</b>	<b>WY (DDCT)</b>	<b>MT (DDCT type)</b>	<b>6.3d</b>
Energy (coal)	Coal bet methane ponds				yes	"Yes" -None in CO GRSG. Will be included in % disturbance threshold.
Energy (wind)	Meteorological Towers				yes	"Yes" -Included in % Disturbance threshold.
Energy (other)	Nuclear Plants					"Yes" -None in CO GRSG. Will be included in % disturbance threshold & density (1/640) calculation.
Other	Airports					"Yes" -None in CO GRSG. Will be included in % disturbance threshold & density (1/640) calculation.

Disturbance Type	Subcategory	National Data Layers	(USGS Contract) Public land user provided	WY (DDCT)	MT (DDCT type)	6.3d
Other	Military Ranges					"Yes" -None in CO GRSG. Will be included in % disturbance threshold & density (1/640) calculation.
Other	Hydro-electricity Facilities					
Other	Recreation Areas					
Other	Impoundments including dams					

UT	ID	OR	NVCA
Probably same as DDCT*	Yes?	BLM - no (sagebrush availability only). SageCon - digitize <b>new</b> (>2014) irrigated ag on NAIP	Yes - same as used at Broad & Mid Scale. No local information would be used. Would clip to BSA or MZ as appropriate.
Probably same as DDCT*	Yes?	BLM - no (sagebrush availability only). SageCon - digitize using NAIP	Yes - same as used at Broad & Mid Scale. No local information would be used. Would clip to BSA or MZ as
GeoMac*	Yes? But need consistency in approach/minimum polygon areas	No (sagebrush availability only)	Yes - same as used at Broad & Mid Scale. No local information would be used. Would clip to BSA or MZ as appropriate. Would update annually.
GeoMac*	Yes?	No (sagebrush availability only)	GeoMAC
NRCS recently provided data	Yes?	No for disturbance. For sagebrush availability, use Oregon's juniper layer developed by TNC	Will USGS model when finalized. Will use LANDFIRE until then.

UT	ID	OR	NVCA
Utah Department of Oil, Gas, and Mining data	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
<del>Utah Department of Oil, Gas, and Mining</del>	<del>Yes?</del>	<del>yes - verified on 1:5,000 NAIP imagery</del>	<del>Yes - Would use actual disturbance footprint.</del>
Utah Department of Oil, Gas, and Mining data	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	N/A - Would have to go through another process.
don't know	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
n/a	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
n/a	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
n/a	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	N/A - Excluded in PPMA

UT	ID	OR	NVCA
n/a	Yes?	yes - verified on 1:5,000 NAIP imagery	Yes - Would use actual disturbance footprint.
n/a	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
Utah Department of Oil, Gas, and Mining data - only if there is a plan of development*	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - Would use actual disturbance footprint.
Utah's own data	Yes?	yes - verified/refined with GTRN (GTLF) and with 1:5,000 NAIP imagery	Yes - ESRI Street Map. BLM roads with less than Maintenance Level of less than 3 would not be included.
Utah's own data	Yes?	yes - verified/refined with GTRN (GTLF) and with 1:5,000 NAIP imagery	Esri StreetMap Premium
Utah's own data	Yes?	yes - verified/refined with GTRN (GTLF) and with 1:5,000 NAIP imagery	Esri StreetMap Premium
not sure	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Federal Railroad Administration

UT	ID	OR	NVCA
Utah's own digitized data*	Need to define "corridor scar". Is this the footprint for towers and access roads etc., or the ROW?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - with a 100' width.
Utah's own digitized data*	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - with 150' width.
Utah's own digitized data*	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - with a 200' Width.
Utah's own digitized data*	Yes?	yes - verified on 1:5,000 NAIP imagery and digitize where needed	Yes - with a 250' Width.
not sure	Yes?	yes - verified on 1:5,000 NAIP imagery	Yes - Would use actual disturbance footprint.

UT	ID	OR	NVCA
not sure if this is something that we include and if so, is it labelled as habitat loss or habitat degradation?	?Watering holes? Is the science there to actually count this as anthropogenic disturbance?	no	No
WY approach sounds reasonable			Yes - Would use actual disturbance footprint.
Some treatments, depends on the nature of the treatment and the anticipated impacts it will have on sage-grouse, we may be adding or subtracting habitat, or not doing either.	Need to define this. Should probably limit to "sagebrush reduction projects"?		N0 - treatments would be tracked but not counted as disturbance as they are to be beneficial. Would add back to sagebrush availability as the area meets habitat objectives.



UT	ID	OR	NVCA
this is a good one. .. But we have not consider yet, may depend on size and proximity to well...maybe group all together into one polygon.	Suggest adding		
don't know	Suggest adding		
n/a	Suggest adding		N/A
don't know	Suggest adding footprint of airstrips		N/A

UT	ID	OR	NVCA
don't know	Suggest adding. Some of these are extensive, and probably not germane but some e.g., ("Restricted Special Use Airspace) are used pretty intensively for low level aerial training exercises. Discuss?		No - Mostly airspace use.
Can you add "hydro-electricity facilities"			
		SageCon only (not BLM) - digitize on NAIP	N/A - Few developed sites on BLM Lands.\
		SageCon only (not BLM) - digitize on NAIP	N/A

**Questions Regarding Disturbance Thresholds and Adaptive Management Triggers**

1. In the current version of your ADPP, do you have a management action which articulates what will take place when a disturbance threshold objective is reached (as opposed to your adaptive management hard trigger response, as depicted in the flow chart)? For example, as described in the NTT Report (NTT alternative), "in priority habitats where the 3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by BLM until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights)."

Yes - Anthropogenic Disturbance (AD)-1: Limit anthropogenic disturbance to 3 percent as calculated within the biologically significant unit (BSU) (Map 3). The BSU is defined as the nesting and wintering habitat within Core and Important Management Zones within a Conservation Area, inclusive of all ownerships. Anthropogenic disturbance excludes habitat disturbance from wildfire and includes activities described in Appendix H. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features. For Montana this disturbance is measured utilizing the Disturbance Density Calculation Tool process described in Appendix I.

AD-2: New anthropogenic disturbances within winter and nesting habitat within Core or Important management zones within a CA where the disturbance threshold is already exceeded from any source or where the proposed development would result in the threshold being exceeded would not be allowed until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights).

2. Do you think it is necessary to include additional information in your FEISs that describes how the disturbance threshold objective links to the adaptive management process and what happens when one of these is reached/tripped? This would be produced by the WO and would include something similar to the flow chart we went over on Friday and a list of Q/As. I am envisioning something that will be very easy to place into the FEISs as an appendix.

No!! Not the way adaptive management is being currently portrayed.

3. Will your ADPP include objectives/thresholds for sagebrush availability?

Yes – we have a Vegetation Management Objectives Table that includes objectives for sagebrush at both the broad and local scales.

4. Will your ADPP include an objective related to the density of anthropogenic disturbance (found on page 23 of the NTT)?

Yes, see above, that is how it is stated.

5. Will your soft and hard trigger responses be initiated when a population and habitat trigger is tripped or only when one of these two triggers is tripped?

## WO-210 Internal Document – Not for Distribution

Our triggers are initiated when either habitat or population meets the identified thresholds. We discussed this a lot but in the end it was understood that the biology of the bird drove this determination, in that the birds are very site loyal even if the habitat is not available, so the habitat could be lost in an area and population/birds numbers not show a change for 3-5 possibly 7 years later when the birds ended up dying out because of the lack of habitat. So if you waited until both conditions were met before initiating a change there is very little chance of actually retaining birds in that area.

6. Is it clear in your ADPP that your hard and soft triggers only apply to BLM managed lands?

Yes, the calculation is based on all lands regardless of ownership but the management changes are only applied to BLM and FS lands, just like any of the decisions we step forward in the RODs.

7. When developing your ADPP soft trigger, did you craft the trigger so that it is sufficient to not reach the disturbance threshold objective?

Our AM triggers were developed independently from the anthropogenic disturbance threshold and include different, but appropriate considerations in the calculation so that they are applied appropriately to the concerns they were developed to address. Taken together they are distinct and complimentary.

### Suggestions I noted from our call on Friday

- In our disturbance threshold objective, we should include a biologically significant scale in which we are measuring the threshold.
- We should take out “all land ownership types” from the land use plan objective and replace it with “BLM managed lands” (this would be a deviation from the NTT Report).
- Eliminate “field office” from the reporting unit.
- Stay away from using the term “cap.”
- Number each box for easy reading.

Implementation Monitoring Plan  
for the  
<INSERT LAND USE PLAN>

IDMT\_PUB\_12043  
6.3d  
12/7/2015

**I. Introduction**

The Implementation Monitoring Plan (IMP) provides information as to how the Land Use Plan will be monitored at the fine and site scale. The emphasis for the IMP is the project implementation of the Land Use Plan Amendment. The direction contained in this document is a programmatic approach and may vary as additional information is obtained during the implementation. The IMP contains four elements, 1) Habitat Condition Assessment, 2) Population Assessment, 3) Implementation Project Achievement and 4) Habitat Disturbance Monitoring.

**II. Habitat Condition Assessment (Availability)**

Local data and/or more current satellite imagery will be used to determine a more accurate measure of sage brush land cover, annual grasses, and conifer encroachment. In the short term (<5 years), locally derived vegetation data may not be available or easily rolled up and regional data layers may be used. The long-term goal is to have locally developed data layers that can be summarized at the WAWFA management zone level.

Disturbance associated fire, disease and other non-anthropogenic actions will be accounted for in the habitat assessment monitoring

**(Add Subregional information)**

**III. Population Assessment**

The <NAME OF STATE WILDLIFE AGENCY> will be lead agency in population data collection and analysis. The BLM and Forest Service resource specialist will participate in inventories and may conduct additional population surveys in accordance with agreed to protocols. For <INSERT PLANNING UNIT>

**(Describe the protocol).**

**IV. Project Achievement  
(To be completed)**

**V. Habitat Disturbance**

The disturbance activities identified for the broad and mid-scale (see Table 2 in *The Greater Sage-grouse Monitoring Framework*) will be used at the fine/site scale. Local data will be used to identify the amount of habitat degradation (loss). If local information is not available, the data layers identified at the broad and mid-scale will be used

Table (??\_1) identifies the disturbance activities that will be monitored, the attributed disturbance for each activity, and the data layer to be used for the existing disturbance

calculations. All future disturbances will use the information developed during the project design and approval. Any secondary development associated with a disturbance ( e.g. roads and powerlines), will be accounted for within the respective disturbance activity rather than accounted for within the primary project disturbance area.

**Table (??-1) Fine and Site Scale Disturbance Calculations**

<u>Disturbance</u>	<u>Disturbance Area</u>	<u>Data layer</u>
<b>Energy-(Oil and Gas)</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Energy-Geothermal</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Energy- Coal Mines</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Energy-Wind Towers</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Energy-Solar Field</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Infrastructure-Roads</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
-Roads <sup>1</sup> w/mtc level <sup>2</sup> 3 or 5	Actual Footprint of Authorization	<b>(to be filled in)</b>
-Primitive Roads <sup>3</sup> w/mtc Level 3	Actual Footprint of Authorization	<b>(to be filled in)</b>
-Temporary Routes <sup>4</sup> w/mtc level 3 or 5	Actual Footprint of Authorization	<b>(to be filled in)</b>
-Administrative Route <sup>5</sup> w/mtc level 3 or 5	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Mining (Locatable, saleable, and non-energy leasable )</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Infrastructures-overhead powerlines</b>		<b>(to be filled in)</b>
-less than 100 kV	Actual Footprint of Authorization	<b>(to be filled in)</b>
-100-199kV	100 Feet	<b>(to be filled in)</b>
-200-399kV	150 Feet	<b>(to be filled in)</b>
-300-699kV	200 feet	<b>(to be filled in)</b>
-700-799kV	250 feet	<b>(to be filled in)</b>
-greater than 800 kV	350 feet	<b>(to be filled in)</b>
<b>Infrastructure –communication towers and met towers</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>
<b>Infrastructure-all other rights-of-way</b>	Actual Footprint of Authorization	<b>(to be filled in)</b>

## VI. Reporting

<sup>1</sup> **Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

<sup>2</sup> **Maintenance Levels** are described in???

<sup>3</sup> **Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards. Seasonal restrictions may be implemented to reduce resource damage, or to protect or mitigate other resource concerns

<sup>4</sup> **Temporary routes** are defined as short-term overland roads, primitive roads or trail authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled

<sup>5</sup> **Administrative routes** are routes that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or a permitted user must have access for regular maintenance or operation

The results of the fine/site scale will be annually compiled and reported by the respective <INSERT BLM DISTRICT OR FOREST>. The information will be used to prioritize subsequent monitoring efforts, adjust project implementation designs, and/or project implementation schedule.

## Brent Ralston

---

**From:** Brent Ralston  
**Sent:** Friday, August 01, 2014 11:23 AM  
**To:** Lance Okeson  
**Subject:** RE: Draft GRSG Preliminary Propsoed Plan  
**Attachments:** BSU Definition 073114.docx; ID swMT ADPP Appendix H 062014 Idaho Anthropogenic Disturbance Process.docx; IDswMT ADPP Appendix E GRSG-FINAL-Monitoring Framework 20140530.pdf

Lance,

Here is a bit more information on the disturbance cap (which still needs some refinement and description) and appendix H. Appendix E has a more thorough description of the data sets that may help answer your questions.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

**From:** Okeson, Lance [<mailto:lokeson@blm.gov>]  
**Sent:** Monday, July 07, 2014 4:45 PM  
**To:** Brent Ralston  
**Subject:** Re: Draft GRSG Preliminary Propsoed Plan

Hi Brent, I read the administrative draft- looks great I need to call you and run a couple of things by you just for clarification- also how do I get a hold of the appendixes? specifically appx. H  
I'm worried about the definition of Anthropogenic Disturbance- when we talked last- you said fuel breaks and road maintenance (of existing roads) would not be Anthropogenic Disturbance which would be good - I'm just worried about the 3% cap on disturbance in regards to fuels breaks and juniper treatments across the west owyhee. thanks for adjusting the burning in sage brush language - that will work.

On Mon, Jun 30, 2014 at 2:06 PM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Lance,

I believe I promised this to you a while ago, and then we had some other issues come up that diverted me. I now have they Draft Proposed Plan and have attached that for your review. Please take a look to see if there are any components that cause some concern with regard to the site specific projects you are working on. Those projects embody the intent to reduce fire occurrence and spread, and subsequent habitat loss for GRSG while maintain consideration for the habitat both affected and at risk of loss due wildfire. The Draft Proposed Plan contains the broad scale direction to retain and protect habitat across the landscape. Both efforts are aimed at similar goals and we want to ensure that we don't have any inadvertent direction in the planning effort that would preclude our ability to implement beneficial projects on the ground to protect GRSG habitat.



Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

--

Lance Okeson

Boise District Fuels AFMO

208-384-3486

cell 208-871-1829

If you get to thinking your a person of some influence, try orderin' somebody else's dog around.

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# Chapter 4

## Environmental Consequences

Administrative Draft  
Cooperating Agency Review



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Administrative Draft  
Cooperating Agency Review

1 **Changes to Chapter 4 between Draft LUPA/EIS and Proposed LUPA/Final EIS**

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- The likely direct and indirect impacts on the human and natural environment that could occur from implementing the Proposed Plan Amendment presented in **Chapter 2** were incorporated into **Chapter 4**. Analysis shown under the draft alternatives may be referenced in the Proposed Plan Amendment analysis with such statements as “impacts would be the same as, or similar to, Alternative D” or “impacts would be the same as Alternative D, except for...,” as applicable.
  - For alternatives with an adaptive management component, revised analysis was presented for Alternative D and analysis was added for the Proposed Plan. In the DEIS, Alternative E analyzed the effects of hard trigger responses imposing CHZ management decisions in HHZ.
  - General corrections (e.g., typographical errors), clarifications, and acreage recalculations were included.

Administrative Draft  
Cooperating Agency Review

1       **Environmental Consequences**

2       **Chapter 4**, Environmental Consequences, presents the direct and indirect impacts on the  
3 human and natural environment anticipated to occur from implementing the alternatives  
4 presented in **Chapter 2**. Cumulative impacts are presented in **Chapter 5**. The purpose of  
5 this chapter is to describe to the decision maker and the public how the environment could  
6 change if any of the alternatives in Chapter 2 were to be implemented. It is meant to aid in  
7 deciding which land use plan amendment, if any, to adopt.

8       This chapter is organized by topic, similar to Chapter 3. Each topic area includes the  
9 following:

- 10           • A method of analysis section that identifies indicators and assumptions
- 11           • An analysis of impacts for each of the six alternatives

12       Management actions proposed in Chapter 2 are planning-level direction that do not result in  
13 direct on-the-ground changes. The analysis focuses on impacts that could eventually result in  
14 on-the-ground changes. It does this by planning for land use on surface estate and federal  
15 mineral estate administered by the BLM and Forest Service over the life of the plan.

16       Some management actions may affect only certain resources and alternatives. This impact  
17 analysis focuses on those impacts that could impair a resource. If an activity or action is not  
18 addressed in a given section, either there are no impacts or the impacts are negligible, based  
19 on professional judgment.

20       The projected impacts on land use activities and the associated environmental impacts of  
21 land uses are characterized and evaluated for each of the alternatives. Impacts for the  
22 following resources are expected to be negligible, therefore they are not discussed in detail:  
23 air resources, soil resources, water resources, special status species (other than GRSG), fish  
24 and wildlife, cultural resources, tribal interests, paleontological resources, visual resources,  
25 cave and karst resources, forestry, recreation, and special designations (e.g., National Historic  
26 Trails, Wild and Scenic Rivers, Wilderness Areas, Wilderness Study Areas, National  
27 Monuments, and National Conservation Areas).

28       Impact analysis is a cause-and-effect process. The detailed impact analyses and conclusions  
29 are based on the following:

- 30           • The BLM and Forest Service planning team's knowledge of resources and the  
31 project area
- 32           • Reviews of existing literature
- 33           • Information provided by experts in the BLM and Forest Service, other agencies,  
34 cooperating agencies, interest groups, and concerned citizens

1 The baseline used for the impact analysis is the current condition or situation, as described in  
2 Chapter 3. Impacts on resources and resource uses are analyzed and discussed in detail,  
3 commensurate with resource issues and concerns identified through the process. At times,  
4 impacts are described using ranges of potential impacts or in qualitative terms.

#### 5 **4.1 Analytical Assumptions**

6 Several overarching assumptions have been made in order to facilitate the analysis of the  
7 project impacts. These assumptions set guidelines and provide reasonably foreseeable  
8 projected levels of development that would occur in the planning area during the planning  
9 period. These assumptions should not be interpreted as constraining or redefining the  
10 management objectives and actions proposed for each alternative, as described in Chapter 2.

11 The following general assumptions apply to all resource categories; any specific resource  
12 assumptions are provided in the methods and assumptions section for that resource:

- 13 • Sufficient funding and personnel would be available for implementing the final  
14 decision.
- 15 • Implementing actions from any of the LUPA alternatives would comply with all  
16 valid existing rights, federal regulations, BLM and Forest Service policies, and  
17 other requirements.
- 18 • Implementation-level actions necessary to execute the land use plan-level  
19 direction in this LUPA would be subject to further environmental review,  
20 including that under NEPA, as appropriate.
- 21 • Direct and indirect impacts of implementing the LUPA would primarily occur on  
22 BLM-administered and National Forest System lands in the planning area.
- 23 • Local climate patterns of historic record and related conditions for plant growth  
24 may change with warmer, drier conditions likely to occur over the life of this  
25 plan.
- 26 • In the future, as tools for predicting climate changes in a management area  
27 improve and climate change affects resources and necessitates changes in how  
28 resources are managed, the BLM and Forest Service may be required to  
29 reevaluate direction provided as part of this planning process and adjust  
30 management accordingly. It is speculative at this time to attempt to predict the  
31 specific nature or magnitude of such changes.
- 32 • The BLM and Forest Service would carry out appropriate maintenance for the  
33 functional capability of all developments.
- 34 • The discussion of impacts is based on best available data. Knowledge of the  
35 planning area and decision area and professional judgment, based on observation  
36 and analysis of conditions and responses in similar areas, are used for  
37 environmental impacts where data are limited.

- Restrictions (such as siting, design, and mitigation measures) apply, where appropriate, to surface-disturbing activities associated with land use authorizations and permits issued on BLM-administered and National Forest System lands.
- New information may lead to changes in delineated GRSG habitat. New habitats, or areas that are no longer habitat, may be identified. This adjustment would typically result in small changes to areas requiring the stipulations or management actions stated in this LUPA. Modifications to GRSG habitat would be updated in the existing data inventory through LUP maintenance.
- Acreage figures and other numbers used in the analyses are approximate projections for comparison and analysis only. Readers should not infer that they reflect exact measurements or precise calculations.
- For alternatives with an adaptive management component, hard trigger responses would impose PHMA/CHZ management decisions in IHMA/IHZ.

#### 4.1.1 General Methodology for Analyzing Impacts

Potential impacts are described in terms of type, context, duration and intensity, which are generally defined below.

Type of impact—Because types of impacts can be interpreted differently by different people, this chapter does not differentiate between beneficial and adverse impacts (except in cases where such characterization is required by law, regulation, or policy). The presentation of impacts for key planning issues is intended to provide the BLM and Forest Service decision makers and readers with an understanding of how multiple uses are balanced for each alternative.

Context—This describes the area or location (site-specific, local, planning area-wide, or regional) in which the impact would occur. Site-specific impacts would occur at the location of the action, local impacts would occur within the general vicinity of the action area, planning area-wide impacts would affect a greater portion of decision area lands in the sub-region, and regional impacts would extend beyond the planning area boundaries.

Duration—This describes the duration of an effect, either short term or long term. Unless otherwise noted, short term is defined as anticipated to begin and end within the first 10 years after the action is implemented; long term is defined as lasting beyond 10 years to the end of or beyond the life of this LUPA.

Intensity—Rather than categorize impacts by intensity (e.g., major, moderate, or minor), this analysis discusses impacts using quantitative data wherever possible.

Direct, indirect, and cumulative impacts—Direct impacts are caused by an action or implementation of an alternative and occur at the same time and place; indirect impacts result from implementing an action or alternative but usually occur later in time or are

1 removed in distance and are reasonably certain to occur. Cumulative impacts are effects on  
2 the environment that result from the impact of implementing any one of the Idaho and  
3 Southwestern Montana GRSB LUPA/EIS alternatives in combination with other actions  
4 outside the scope of this plan, either within the planning area or next to it. The cumulative  
5 effects analysis is provided in **Chapter 5**.

6 Required Design Features have been incorporated into the Forest Service Proposed Plan  
7 Amendment as planning-level Guidelines, which will be implemented during site-specific  
8 project analysis.

#### 9 **4.1.2 Incomplete or Unavailable Information**

10 The CEQ established implementing regulations for NEPA, requiring that a federal agency  
11 identify relevant information that may be incomplete or unavailable for evaluating reasonably  
12 foreseeable significant adverse impacts in an EIS (40 CFR 1502.22). If the information is  
13 essential to a reasoned choice among alternatives, it must be included or addressed in an  
14 EIS. Knowledge and information is, and would always be, incomplete, particularly with  
15 infinitely complex ecosystems considered at various scales.

16 The best available information pertinent to the decisions to be made was used in developing  
17 the LUPA. The BLM has made a considerable effort to acquire and convert resource data  
18 into digital format for use in the LUPA, both from the BLM itself and from outside sources.

19 Under the FLPMA, the inventory of BLM-administered and National Forest System land  
20 resources is ongoing and continuously updated. However, certain information was  
21 unavailable for use in developing the LUPA because inventories either have not been  
22 conducted or are not complete. Some of the major types of data that are incomplete or  
23 unavailable are the following:

- 24 • Comprehensive state-wide inventory of wildlife and special status species  
25 occurrence and condition
- 26 • Geographical information system data used for disturbance calculations on  
27 private lands

28 For these resources, estimates were made concerning the number, type, and significance of  
29 these resources based on previous surveys and existing knowledge. In addition, some  
30 impacts cannot be quantified, given the proposed management actions. Where this gap  
31 occurs, impacts are projected in qualitative terms or, in some instances, are described as  
32 unknown. Subsequent site-specific project-level analysis would provide the opportunity to  
33 collect and examine site-specific inventory data to determine appropriate application of  
34 LUP-level guidance. In addition, the BLM and other agencies in the planning area continue  
35 to update and refine information used to implement this LUPA.



### 4.1.3 Mitigation

This chapter describes the environmental consequences associated with the impacts to GRSG and its habitat from activities carried out in conformance with this plan, in addition to BLM and Forest Service management actions. In undertaking BLM and Forest Service management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM and Forest Service will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this Idaho and southwestern Montana sub-region GRSG LUPA/EIS, a WAFWA Management Zone Regional Mitigation Strategy (per **Appendix J**) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM and Forest Service for BLM and Forest Service management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit GRSG, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

## 4.2 Sage-Grouse and Sage-Grouse Habitat

This section discusses impacts on GRSG from proposed management actions under each alternative. Existing conditions concerning GRSG are described in **Section 3.2**.

### 4.2.1 Methods and Assumptions

Indicators of impacts on GRSG are as follows:

- Acres of sagebrush
- Direct habitat loss or gain
- Habitat fragmentation
- Impacts on life history requirements
- Population loss or gain
- Habitat degradation
- Habitat restoration/improvement

Effects listed above may be characterized for each resource and alternative, as appropriate, and, where available, quantified by the indicators described below:

- 1 • Identified GRSG Habitat (PHMA, IHMA, and GHMA) – Identified habitat  
2 includes habitats considered vital to the persistence of GRSG populations at all  
3 scales. Acres impacted or improved by each resource is a general metric for acres  
4 of sagebrush, direct habitat loss, habitat degradation, and habitat  
5 restoration/improvement. The metrics provide a basis for a qualitative  
6 discussion of habitat loss and fragmentation and species life history  
7 requirements.
  
- 8 • Populations – A surrogate metric for population information used in this analysis  
9 is number of occupied leks. Leks are strongly correlated with nesting habitat  
10 since radioed hens tend to nest within several miles of their lek of capture  
11 (Connelly et al. 2000). In Idaho, lek to nest distances may vary spatially over large  
12 landscapes, depending on the status of local GRSG populations, but roughly 80  
13 percent of nests statewide occur within 8 to 12 kilometers of the lek of capture  
14 (Connelly et al. 2013). In some parts of the state, a small proportion of hens  
15 (e.g., 5 to 7 percent) nested in excess of 15 km from lek of capture (Connelly et  
16 al. 2013). The metric was derived by quantifying for each GRSG population area,  
17 the number of occupied leks using the most recent lek data available (2014 for  
18 IDFG and MFWP; 2013 for Utah Division of Wildlife Resources), and lek  
19 occupancy or activity definitions consistent with those respective states.  
20 Numbers of occupied leks shown reflect leks with at least two or more displaying  
21 males in at least one of the past 5 years (2010 to 2014) for Idaho; for the last 10  
22 years (2005 to 2014) for Montana and Utah (2004 to 2013) respectively. This  
23 metric provides general insight into the population contribution of specific  
24 population areas relative to the sub-region overall, providing additional context  
25 for comparison. The metric also allows for inferences of risk to population  
26 persistence from certain threats or resource allocations (such as areas open to  
27 ROWs or mineral leasing), assuming that population areas with a smaller number  
28 of occupied leks are more vulnerable to resource activities and that areas with a  
29 greater number of occupied leks imply larger populations and a greater  
30 opportunity for long term persistence, given effective conservation efforts (see  
31 Section 3.2). Where land or resource allocations overlap population areas and/or  
32 occupied leks, the allocation is considered to be affecting the grouse population,  
33 for purposes of analysis.
  
- 34 • To the extent lands are subject to adaptive management and/or an  
35 anthropogenic disturbance cap, effects of threats would be further restricted  
36 based on the applicable thresholds and caps. Coordination between State and  
37 Federal managers would further ensure the application and implementation of  
38 these thresholds and caps.
  
- 39 • Habitat suitability – measured by Vegetation Dynamics Development Tool  
40 (VDDT) modeling, driven by sagebrush canopy cover and lack of conifer  
41 encroachment.

- 1           • Climate change - under projected climate change, cooler and moister sagebrush  
2 communities (i.e., nesting and brood rearing habitat) would decrease. In addition,  
3 Wyoming big sagebrush is expected to decline (Still and Richardson 2014).  
4 GRSG may have the ability to redistribute to areas that are currently cooler and  
5 wetter, as long as the new regions are suitable and available for sagebrush  
6 expansion (BLM 2013a, Knick et al. 2013). Climate change impacts are discussed  
7 for each threat where relevant.

8           ***Assumptions***

9           Three general categories of human disturbance (to habitats) or disruption (to animals) would  
10 be the most influential on GRSG and their habitat: 1) disturbance or disruption from casual  
11 use; 2) disturbance or disruption from permitted activities; and 3) changes in habitat  
12 condition, such as from fire or presence of noxious weeds and invasive species. The  
13 assumptions listed below are intended for large-scale planning-level analysis; project-level  
14 assumptions for NEPA may differ.

15          The analysis includes the following assumptions:

- 16           • GRSG Habitat Management Area designations are assumed to represent habitat  
17 adequate to maintain GRSG populations in the sub-region. For Idaho, GRSG  
18 habitat designations were derived from modeling efforts completed in 2012,  
19 based on 75 percent Breeding Bird Density and 75 percent lek connectivity  
20 models as well as known winter habitat, connectivity considerations and other  
21 factors. In Montana, GRSG habitat designations were derived from habitat  
22 modeling of core areas by MTFWP with additional input by the BLM. MZs were  
23 delineated by WAFWA in order to divide range-wide GRSG habitat into discrete  
24 areas for broad-scale planning. Population monitoring for GRSG is still done at  
25 finer scales including State, local working group, and Conservation Area.
- 26           • This analysis uses PPH and PGH categories for Alternative A only to facilitate  
27 comparison across the other alternatives. There are currently no BLM-  
28 administered or National Forest System lands formally designated as GRSG PPH  
29 or PGH within the sub-regional planning area, and Alternative A would neither  
30 result in the designation of PPH or PGH nor assign additional management  
31 actions to PPH or PGH areas.
- 32           • Population and subpopulation boundaries (Connelly et al. 2004) were modified  
33 to include the entirety of mapped GRSG Habitat Management Area designations  
34 in the vicinity. (See **Section 3.2**).
- 35           • Habitat conditions and trends for each GRSG population area were determined  
36 by modeling vegetation dynamics such as wildfire, succession, insects and  
37 disease, habitat restoration projects (e.g., sagebrush seeding, grass seeding, and  
38 herbicide treatment of annual grass), prescribed fire, overgrazing, conifer

1 encroachment and treatment, mechanical sagebrush treatment, and fuels  
2 reduction projects using the VDDT (**Appendix X**). Modeling was completed for  
3 population areas in Idaho, Utah (Sawtooth National Forest portion only), and  
4 southwestern Montana. Initial population areas from Connelly et al. (2004) were  
5 considered, but some were ultimately combined or delineated further, to  
6 accommodate similarities in vegetation models or disturbance regimes.

- 7 • Because GRSG are highly sensitive to habitat fragmentation, development, or  
8 changes in habitat conditions and require large, intact habitat patches for life  
9 history requirements, alternatives proposing to protect the most GRSG Habitat  
10 from disturbance are considered of greatest beneficial impact. These impacts can  
11 be described both qualitatively and quantitatively.
  
- 12 • Seasonal ranges of migratory and non-migratory GRSG are largely encompassed  
13 within GRSG Habitat Management Area designations but mapping is incomplete  
14 across much of the sub-region so an accurate assessment of direct impacts is not  
15 possible.
  
- 16 • GRSG Habitat Management Area designations encompass adequate habitat for  
17 providing connectivity within populations and subpopulations. Connectivity will  
18 be considered by incorporating population area scale information in the design  
19 and implementation of restoration projects.
  
- 20 • Under the Proposed Plan, PHMA focuses on conserving the two key GRSG  
21 meta-populations in the sub-region. The PHMA encompasses areas with the  
22 highest conservation value to GRSG, based on the presence of larger leks,  
23 habitat extent, important movement and connectivity corridors and winter  
24 habitat. IHMA contains additional high value habitat and populations that  
25 provide a management buffer for the PHMA, connect patches of PHMA. The  
26 IHMA encompasses areas of generally moderate to high conservation value  
27 habitat and/or populations and in some CAs includes areas beyond those  
28 identified by USFWS as necessary to maintain redundant, representative and  
29 resilient populations (Priority Areas for Conservation (PACs)). The IHMA are  
30 typically adjacent to PHMA but generally reflect somewhat lower GRSG  
31 population status and/or reduced habitat value due to disturbance, habitat  
32 fragmentation or other factors. GHMA encompasses habitat that is outside of  
33 PHMA or IHMA. It is generally characterized by more marginal habitat and  
34 few, if any, occupied leks or other important seasonal use areas.
  
- 35 • Impacts on GRSG accrue over varying distances from origin depending on the  
36 type and scale of development and the habitat type impacted:
  - 37 ○ Impacts from transmission lines constructed before 2002 are  
38 likely fully manifested. BMPs, RDFs, COAs, and standard  
39 operating procedures are used for analysis and would be  
40 implemented to reduce impacts on GRSG. These are subject

1 to modification based on subsequent guidance and new  
2 science.

3 ○ Ground-disturbing activities could modify habitat and cause  
4 loss or gain of individuals, depending on the size of the area  
5 disturbed, the nature of the disturbance (e.g., anthropogenic  
6 development vs. habitat restoration), and the location of the  
7 disturbance. For example, juniper reduction treatments in  
8 sagebrush steppe disturb the ground but are assumed to  
9 positively modify habitat quality and quantity in the long  
10 term.

11 ○ For analysis purposes, a 4.25-mile (6.9-kilometer) foraging  
12 distance is assumed to adequately encompass possible direct  
13 and indirect effects for both nesting and roosting avian  
14 predators (Boarman and Heinrich 1999; Leu et al. 2008) in  
15 instances where increased predation from human  
16 infrastructure (e.g. power lines, wind turbines,  
17 communication towers, agricultural and urban development)  
18 is a threat.

19 ○ Energy extraction such as oil and gas, geothermal, and plan of  
20 operation mining can cause impacts up to 11.8 miles (19  
21 kilometers) based on direct impacts of field development,  
22 including associated infrastructure, noise, lighting, and traffic  
23 (Johnson et al. 2011; Taylor et al. 2012).

24 ○ Interstate highways at 4.7 miles (7.5 kilometers) and paved  
25 roads and primary and secondary routes can cause impacts at  
26 1.9 miles (3 kilometers) based on indirect effects measured  
27 through road density studies (Connelly et al. 2004; Holloran  
28 2005; Lyon 2000).

29 ○ Site-specific disturbances such as small-scale mining and  
30 mineral material sites can cause impacts at 1.6 miles (2.5  
31 kilometers) based on indirect influence distance from  
32 estimated spread of exotic plants (Bradley and Mustard 2006).

33 • Quantitative impacts are presented for BLM-administered and National Forest  
34 System surface and subsurface only unless otherwise indicated.

35 • Short-term impacts would accrue over a timeframe of up to 10 years. Long-term  
36 impacts would accrue over timeframes exceeding 10 years.



1                   **4.2.2 Nature and Type of Effects**

2                   ***Riparian Areas and Wetlands***

3                   See Livestock Grazing Management, below.

4                   ***Water Resources Management***

5                   See Livestock Grazing Management, below.

6                   ***Vegetation and Habitat Restoration***

7                   Current treatments and active vegetation management typically focus on vegetation  
8                   composition and structure for fuels management, habitat management, and productivity  
9                   manipulation for improving the habitat and forage conditions for ungulates and other  
10                  grazers (Knick et al. 2011). The distribution of these treatments can affect the distribution of  
11                  GRSG and sagebrush habitats by affecting the distribution of suitable cover and forage  
12                  (Manier et al. 2013, p. 169).

13                  GRSG are more productive in higher-quality habitat conditions, including a diversity of  
14                  herbaceous species, vegetative and reproductive health of native grasses, and an abundance  
15                  of sagebrush (Manier et al. 2013, p. 169, Connelly et al. 2000). Residual vegetation cover,  
16                  especially grass and litter, has often been noted as essential for GRSG for concealment  
17                  during nesting and brood-rearing (Sveum et al. 1998; Kirol et al. 2012; Doherty et al. 2014).  
18                  Passive restoration efforts such as adjustments in management practices such as grazing  
19                  systems and seasonal restriction or closures in seasonal-use areas have a reasonable chance  
20                  to improve degraded or altered habitats (Manier et al. 2013, p. 170; Connelly et al. 2004).

21                  Some areas within the Idaho and southwestern Montana sub-region are experiencing severe  
22                  habitat degradation due to the establishment of undesirable annual invasive species which  
23                  have displaced native species, making passive management approaches unsuitable and  
24                  requiring direct manipulation (Connelly et al. 2004).

25                  BLM's Northern Great Basin Rapid Ecoregional Assessment (BLM 2013a) states that  
26                  climate change may worsen the spread of invasive species by increasing the severity of  
27                  droughts, reducing precipitation, or altering wildfire cycles (BLM 2013a). Over the longer  
28                  term, climate change may exacerbate the spread of annual invasive plants and woody plants  
29                  such as juniper, displacing native sagebrush communities. Climate change models indicate  
30                  less precipitation may occur in July through August in lower elevation sites, which may favor  
31                  cheatgrass, which becomes dormant in summer months, over native perennials, which  
32                  depend on summer moisture for growth. Elevated temperatures due to climate change may  
33                  increase the competitive ability of cheatgrass at higher elevations, expanding its range into  
34                  sites where it currently is not widespread. Climate change may increase the spread of woody  
35                  plants such as juniper at higher elevations due to increased precipitation in winter and spring  
36                  and warmer temperatures, which may increase fire risk (BLM 2013a).

37                  Invasive plants alter plant community structure and composition, productivity, nutrient  
38                  cycling, and hydrology, and may competitively exclude native plant populations. In parts of  
39                  the sub-region, invasive species such as cheatgrass or native species such as juniper have  
40                  replaced desirable native shrubs (i.e., sagebrush), perennial bunchgrasses and forbs.

1 Cheatgrass invasion areas typically require active control (e.g., herbicides) and subsequent  
2 seeding of desirable native perennial species may be needed for successful restoration, unless  
3 deep-rooted bunchgrasses are still present in the understory (Miller et al. 2007). Seeding with  
4 non-native perennials may also be necessary, in drier sites. Juniper encroachment requires  
5 active treatment, including manual and mechanical juniper removal. Pinyon pine only occurs  
6 locally in parts of southern Idaho, and has not been identified as a management concern to  
7 date.

8 Cheatgrass competes with native grasses and forbs that are important components of GRSG  
9 habitat. Cheatgrass abundance is negatively correlated with habitat selection by GRSG (Kirol  
10 et al. 2012), indicating that changes in composition and structure associated with cheatgrass  
11 specifically degrade GRSG habitat. Invasion by medusahead (*Taeniatherum caput-medusae*) may  
12 be even worse than cheatgrass, as it is unpalatable to herbivores due to its high silica content,  
13 supports high-frequency wildfire intervals, and requires intensive treatment for restoration  
14 (Davies 2010a, Archer 2001). Invasive species cause direct degradation of sagebrush habitats,  
15 resulting in effects on local GRSG populations by affecting forage, cover quality and  
16 composition, and increased wildfire frequency and intensity, with the potential to cause  
17 complete avoidance (Manier et al. 2013, p. 135).

18 Expansion of conifer woodlands also threatens GRSG populations because woodlands do  
19 not provide suitable habitat and trees can displace shrubs, grasses, and forbs that are  
20 required by GRSG, particularly in shallow-rooted soils (Miller et al. 2007). Conifer expansion  
21 is also associated with increased bare ground and the potential for erosion, as well as an  
22 increase in perch sites for raptors. Juniper encroachment may also represent expansion of  
23 avian predation threats by providing nesting substrate for raptors and corvids. Studies have  
24 shown that GRSG incur population-level impacts at very low levels (as low as 4 percent) of  
25 conifer encroachment (Baruch-Mordo et al. 2013).

26 The VDDT modeling effort is described further in **Appendix X**. Stand replacement wildfire,  
27 mosaic wildfire, overgrazing, insects and disease, and conifer encroachment were  
28 incorporated into the model to quantify changes in GRSG habitat. The modeling effort did  
29 not include changes in habitat conditions associated with climate change or with permitted  
30 activities such as infrastructure development, travel management, or mineral development.  
31 The model also estimated treatment acres required to meet target sagebrush habitat quality  
32 goals. Based on guidelines provided by the GRSG National Technical Team Report (NTT  
33 2011), 70 percent of an area should be in 10 to 30 percent sagebrush canopy cover to meet  
34 GRSG sagebrush habitat objectives. The tables included as part of the vegetation impacts  
35 for each alternative present the percentage of a given GRSG analysis area meeting GRSG  
36 sagebrush habitat objectives by alternative after 10 years and 50 years' time.

### 37 ***Livestock Grazing Management***

38 Livestock grazing is the most widespread land use across the sagebrush biome (Connelly et  
39 al. 2004, pp. 7-29). Livestock grazing can affect soils, biological soil crust, vegetation, riparian  
40 habitat conditions, water, and nutrient availability by consuming or altering vegetation,  
41 redistributing nutrients and plant seeds, trampling soils and vegetation, and disrupting  
42 microbial composition (Connelly et al. 2004). Livestock may also trample nests and disturb



1 GRSG behavior (NTT 2011, p. 14). Livestock grazing is a diffuse form of biotic disturbance  
2 that exerts repeated pressure on a system over many years; unlike point-sources of  
3 disturbance (e.g., fires), effects of grazing are not likely to be detected as disruptions, but as  
4 differences in the processes and functioning of the sagebrush system. Grazing effects are not  
5 distributed evenly because historic practices, management, and animal behavior all lead to  
6 differential use of the range (Manier et al. 2013, pp. 157-168).

7 At improper levels of grazing, impacts can lead to loss of vegetative cover, reduced nesting  
8 habitat quality; reduced forage availability, reduced water infiltration rates, change in  
9 vegetation composition, decreased plant litter, increased bare ground, reduced nutrient  
10 cycling, decreased water quality, increased soil erosion, and reduced overall habitat quality  
11 for wildlife, including GRSG (Manier et al. 2013, pp. 157-159). Grazing practices may  
12 contribute to the spread of invasive weeds in sagebrush ecosystems by reducing cover of  
13 native bunchgrass (Reisner et al. 2013), and may increase desertification or worsen the  
14 impacts of climate change on rangeland (Beschta et al. 2014). Properly managed grazing,  
15 however, may be compatible with GRSG habitat, does not preclude healthy rangelands, and  
16 may reduce wildfire in GRSG habitat by reducing fuel loads in certain circumstances (Strand  
17 and Launchbaugh 2013, Svejcar et al. 2014, NTT 2011, p. 14).

18 Structural range improvements such as fences represent potential movement barriers  
19 (especially woven-wire fences) or predator perches, and are a potential cause of direct  
20 mortality to GRSG due to collision (Stevens et al. 2012; Manier et al. 2013, p. 50).

21 Grazing strategies that promote sagebrush ecosystem health would help to maintain the  
22 desired seasonal GRSG habitat management objectives on the landscape including  
23 herbaceous cover and height metrics, thereby enhancing habitat for GRSG populations  
24 (**Table 2-3**, Seasonal Habitat Desired Conditions for Greater Sage-Grouse).

### 25 ***Fire and Fuels Management***

26 Fire is recognized as a primary threat to GRSG populations in the western half of their  
27 distribution (see Secretarial Order 3336). Within the Snake River Plain floristic province,  
28 which comprises a substantial portion of the sub-region, approximately 37 percent of the  
29 sagebrush area burned between 1980 and 2007 (Baker 2011). Fire is particularly problematic  
30 in sagebrush systems because it kills sagebrush plants and, in some cases, re-burns before  
31 sagebrush has a chance to re-establish.

32 Fuels treatment methods should take into consideration habitat conditions and the presence  
33 or absence of cheatgrass or other invasive species. Avoiding treatments and activities that  
34 remove sagebrush, degrade native herbaceous species, and (or) promote cheatgrass  
35 expansion likely requires a combination of different treatment methods and/or management  
36 actions (Manier et al. 2013, p.81).

37 Actions to reduce the spread of fire in sagebrush can also benefit GRSG. For example,  
38 vegetative fuel breaks have characteristics that disrupt fuel continuity, harbor lower fuel  
39 loads, and have lower volatile compounds and increased moisture content (Pellant 1992).



1 Fuel breaks help provide defensible anchor points for facilitating fire suppression activities  
2 and can allow fires to be compartmentalized, ultimately reducing potential fire size.

3 Grazing may have limited ability to reduce the types of fuels (e.g., cheatgrass) that have the  
4 biggest impact on fire frequency. Intensive livestock grazing is often suggested for  
5 controlling cheatgrass competition. Although targeted grazing may have some applications  
6 for fuels management, it is not effective in reducing cheatgrass competition (Hempy-Mayer  
7 and Pyke 2008).

8 Fire is a primary threat to GRSG populations where increasing exotic annual grasses,  
9 primarily cheatgrass, are resulting in sagebrush loss and degradation (USFWS 2010a, p.  
10 13,932). Cheatgrass can more easily invade and create its own feedback loop in areas that are:  
11 1) dry with understory vegetation cover that is not substantial, or 2) experiencing surface-  
12 disturbing activities (e.g., road construction). It can facilitate short fire return intervals by  
13 outcompeting native herbaceous vegetation with early germination, early moisture and  
14 nutrient uptake, prolific seed production, and early senescence (Hulbert 1955; Mack and  
15 Pyke 1983; Pellant 1996). Furthermore, by providing a dry, fine fuel source during the peak  
16 of fire season, cheatgrass increases the likelihood of fire, which increases the likelihood of  
17 further cheatgrass spread (Pellant 1990). Cheatgrass dominance can also exclude sagebrush  
18 seedlings from establishing due to competition. Fire contributes to the problem by  
19 accelerating the conversion of native, perennial plant communities to annual grasslands,  
20 where those species have a foothold. Without shrubs and a healthy diversity of grasses and  
21 forbs, such annual grasslands will not support GRSG, and populations would likely be  
22 displaced or suffer declines due to increased exposure to predators, loss of forage and cover,  
23 and other factors in burned habitat.

24 Fire risk and the likelihood of perpetuating the cheatgrass-fire cycle in GRSG habitat is  
25 highest in arid, low-elevation areas with Wyoming big sagebrush (*Artemisia tridentata* ssp.  
26 *tridentata*), which dominates the planning area. Ground disturbance, such as roads, facilitates  
27 the establishment and spread of cheatgrass and other invasive weeds (Gelbard and Belnap  
28 2003). While fires do occur within higher elevation mountain big sagebrush (e.g. *Artemisia*  
29 *tridentata* ssp. *naseyana*) habitats, they are typically smaller and more variable in intensity and  
30 these ecological communities typically have a higher resilience to disturbance and a lower  
31 risk of cheatgrass establishment resulting in a shorter recovery time and less effect to GRSG  
32 compared to lower elevations (Chambers et al. 2014, **Appendix D**).

33 Another factor affecting fire in some sagebrush sites is the encroachment of juniper trees or  
34 other conifers, such as Douglas-fir from higher elevations down slope into sagebrush  
35 habitats (Baker 2011; Balch et al. 2012). Wildfires that start in conifer stands can increase in  
36 size and severity with the available heavier fuel, facilitating their spread into Wyoming big  
37 sagebrush stands. Wyoming sagebrush can take 150 years to recover from fire (Cooper et al.  
38 2007). Following fire, sagebrush areas can be opened to invasion by cheatgrass and other  
39 annual grasses, which limit the re-establishment of sagebrush. Increased fire severity leads to  
40 increased soil loss, which in turn facilitates an increase in the abundance of invasive annuals,  
41 resulting in decreased success of rehabilitation efforts. In the Idaho and southwestern  
42 Montana sub-region, several population areas or portions thereof have experienced



1 substantial declines in habitat due to fire (i.e., Jarbidge portion of South Snake River; North  
2 Snake River; Weiser). Depending on the amount of habitat available to the birds, a single fire  
3 can influence a local population's distribution, migratory patterns, and overall habitat  
4 availability (Fischer et al. 1997, p. 89).

5 In degraded GRSG habitats where cheatgrass is dominant under the sagebrush canopy, the  
6 sagebrush may still likely provide adequate winter habitat. However, these areas lack the  
7 understory forb diversity and insect abundance necessary for brood-rearing and could result  
8 in lower chick survival during summer. These areas would also lack the necessary cover for  
9 suitable nesting due to the absence of perennial grasses and forbs., As GRSG habitats  
10 become smaller in scale and less connected to adjacent populations, they become  
11 increasingly susceptible to random events and local extirpation (Knick and Hanser 2011;  
12 Wisdom et al. 2011). In addition, genetically isolated populations could suffer a decrease in  
13 fitness from inbreeding.

14 Fire causes GRSG habitat loss and degradation on an annual basis in portions of the Idaho  
15 and southwestern Montana sub-region. Cheatgrass dominance within portions of the sub-  
16 region has shortened the fire return interval, and exacerbated the loss and degradation of  
17 GRSG habitat. While research and management efforts are focused on developing means of  
18 controlling cheatgrass on a large scale, the only current management actions under the fire  
19 program to minimize the spread of fire in GRSG habitat are fuels treatments, pre-  
20 suppression planning, and effective fire suppression geared toward protecting GRSG habitat.  
21 Reducing the spread of cheatgrass and the scale of wildfire through appropriate conservation  
22 actions associated with other BLM and Forest Service post-fire programs, such as ES&R or  
23 BAER, could also result in more or improved habitat for GRSG.

#### 24 ***Wild Horse and Burro Management***

25 Six horse herd management areas (HMAs) and portions of HMAs occur within or adjacent  
26 to four GRSG population areas in the sub-region including: Southwest Idaho, Weiser,  
27 Mountain Valleys, and South Snake. HMAs occur on 269,800 acres of GRSG habitat in the  
28 sub-region. Within each HMA, an Appropriate Management Level (AML) was established  
29 under which wild horse population levels are managed to meet a Thriving Natural Ecological  
30 Balance (BLM Handbook H-4700-1), and prevent deterioration of the range.

31 Wild horses may alter habitat conditions for GRSG, including reduced total vegetative and  
32 grass abundance and cover, lowered sagebrush canopy cover, increased fragmentation of  
33 shrub canopies, lowered species richness, increased compaction in surface soil horizons, and  
34 increased dominance of unpalatable forbs (Manier et al. 2013, p. 100). In addition, horse  
35 populations over AML can degrade riparian areas, decrease water quantity and quality, and  
36 increase soil erosion, which cumulatively can reduce habitat quality for wildlife, including  
37 GRSG. Effects of wild horses on habitats may also be more pronounced during periods of  
38 drought or vegetation stress (NTT 2011, p. 18).

39 Fences used to manage horse distribution, represent a potential source of direct mortality to  
40 GRSG (Manier et al. 2013). In addition, water must be available year- round in HMAs and  
41 wild horse territories, in compliance with the Wild and Free-Roaming Horses and Burros

1 Act of 1971. This can lead to riparian areas receiving yearlong use by wild horses or riparian  
2 areas being modified with additional fencing and troughs in order to accommodate yearlong  
3 horse use. The range improvements would result in increased potential perch sites for avian  
4 predators, potential drowning hazards, less water available for wildlife, and could have  
5 negative effects on riparian habitat, depending on how each facility is constructed.

### 6 ***Locatable, Leasable, and Salable Minerals Management***

7 Minerals development within the sub-region consists of mining mineral resources at various  
8 scales that require a Notice of Intent when disturbance is 5 acres or less, or Plans of  
9 Operation when the total disturbance will exceed 5 acres, or if the proposed operations meet  
10 one or more of the criteria requiring a Notice of Intent or a Plan of Operations (43 CFR  
11 3809.21 and 36 CFR 228.4). Salable mineral mining in the sub-region is primarily for gravel.  
12 Locatable mineral mining is primarily for gold, silver, and copper, but includes other  
13 minerals such as barite and Oakley stone. Leasable minerals in the sub-region include  
14 commodities such as potash and phosphate. With the exception of the Bear Lake area, the  
15 potential for oil and gas development is low in the sub-region. Development of locatable and  
16 leasable mineral resources typically requires significant infrastructure and human activity for  
17 construction, operation, and maintenance.

18 Mineral extraction of all types in GRSG habitat results in habitat loss caused by construction  
19 of infrastructure and the footprint of the surface facilities/pits or above ground facilities  
20 associated with subsurface operations. Sagebrush communities that are lost or modified in  
21 locations where mine reclamation is not compromised by the presence or introduction of  
22 invasive grasses still may not regain sagebrush cover suitable for GRSG use for 20 to 30  
23 years or longer following interim or final reclamation, depending on scale and site factors  
24 (Knick et al. 2013). GRSG population re-establishment in reclaimed areas may take upwards  
25 of 30 years (Braun 1998). Where compromised by invasive grasses, reclamation may only be  
26 minimally effective, without additional intervention. Necessary infrastructure, including  
27 location, construction, and use of ancillary facilities, staging areas, roads, railroad tracks and  
28 structures such as buildings and power lines causes additional direct and indirect impacts on  
29 GRSG from noise pollution, fugitive dust, human disturbance, increases in predator perch  
30 sites, and weed proliferation, leading to habitat degradation.

31 The industrial activity associated with energy and mineral development produces noise and  
32 human activity that can disrupt the habitat and life-cycle of GRSG. Many studies assessing  
33 impacts of energy development on GRSG have found negative effects on populations and  
34 habitats (Naugle et al. 2011; Taylor et al. 2012). Walker et al. (2007) found that buffer sizes  
35 to 1 mile resulted in an estimated lek persistence of approximately 30 percent, while lek  
36 persistence in areas without oil and gas development averaged 85 percent. Holloran (2005)  
37 found impacts on abundance at a distance between 3 and 4 miles. Coates et al. (2013)  
38 recommended a minimum buffer of 3 miles for protection of GRSG from energy  
39 development impacts. The USGS recently published a scientific review of conservation  
40 buffer distances for GRSG protection from different types of human disturbance (USGS  
41 2014, see **Appendix B**).



1 Noise from industrial activity may disrupt GRSG communication, which is at low-frequency  
2 and potentially masked by low-frequency noise from equipment and vehicles, resulting in  
3 reduced female attendance and yearling recruitment as seen in sharp-tailed grouse (*Pedioecetes*  
4 *phasianellus*; Amstrup and Phillips 1977). The mechanism of how low-frequency noise  
5 affected the birds was not known, but it is known that GRSG depend on acoustical signals  
6 to attract females to leks (Gibson and Bradbury 1985; Gratson 1993; Blickley et al. 2012).  
7 Noise associated with oil and gas development may have played a factor in habitat selection  
8 and a decrease in lek attendance by GRSG in western Wyoming (Holloran 2005). Recent  
9 studies in oil and gas areas suggest GRSG avoid leks exposed to anthropogenic noise  
10 (Blickley et al. 2012; Blickley and Patricelli 2012). Chronic noise pollution can also cause  
11 GRSG to avoid otherwise suitable habitat (Patricelli et al. 2013) and can cause elevated stress  
12 levels in the birds that remain in noisy areas (Blickley et al. 2012).

13 Infrastructure for mining is similar to that required for oil and gas but is more localized in  
14 extent. As revealed by studies on oil and gas development, the interaction and intensity of  
15 effects of habitat loss could cumulatively or individually lead to habitat fragmentation in the  
16 long term (Connelly et al. 2004; Holloran 2005) with negative impacts of fragmentation as a  
17 result of development and associated infrastructure on lek persistence, lek attendance, winter  
18 habitat use, recruitment, yearling annual survival rate, and female nest site choice (Holloran  
19 2005; Aldridge and Boyce 2007; Walker et al. 2007; Doherty et al. 2008).

#### 20 ***Land Uses and Realty Management***

21 Transmission lines and major power lines are widespread throughout the range of GRSG.  
22 GRSG generally respond negatively to increased human infrastructure in sagebrush habitats,  
23 including roads, power lines, and communication towers (Manier et al. 2013, pp. 71-74).  
24 Although transmission and power line construction does not generally result in substantial  
25 direct habitat loss, it would temporarily disturb individual GRSG and habitat along the ROW  
26 due to the associated human activity, equipment, and noise, and would contribute to habitat  
27 fragmentation. In addition, transmission lines can provide perches and nest sites for ravens  
28 and raptors, resulting in indirect negative impacts on GRSG survival and reproduction  
29 (Gillan et al. 2013; Gibson et al. 2013; Lockyear et al. 2103; Coates et al. 2014; Howe et al.  
30 2014). Co-location of transmission lines could reduce impacts by siting new developments in  
31 areas that are previously disturbed. However, co-locating new lines can have indirect impacts  
32 on GRSG such as impeding movement and reducing habitat connectivity (Shirk et al. in  
33 review; Washington Wildlife Habitat Connectivity Working Group 2012). Roads associated  
34 with energy transmission facilities can also reduce the amount and quality of GRSG habitat  
35 or serve as inroads for invasive plants to establish.

36 Following construction, potential GRSG avoidance of tall vertical structures, due to avian  
37 predators perching and nesting on the structures, or due to presence of the structure itself,  
38 may result in habitat exclusion via behavioral response. Although not all studies have found  
39 effects of tall structures on GRSG (Messmer et al. 2013), the tendency of GRSG to fly  
40 relatively low and in low light, puts them at high risk of collision with power lines (Manier et  
41 al. 2013, pp.50-51). The frequency of raptor/GRSG interactions during the breeding season  
42 increased 65 percent and golden eagle interactions alone increased 47 percent in an area  
43 following installation of transmission lines, and nearby lek usage declined 72 percent (Ellis

1 1985, cited in Manier et al. 2013, pp. 50-51). A study of raven occurrence near transmission  
2 lines in southern Idaho found increased raven presence near transmission lines up to 1.4  
3 miles (2.2 km) from the corridor. Ravens preferred sagebrush edge habitats with non-native  
4 vegetation with patchy, exotic vegetation that occurs following disturbance (Coates et al.  
5 2014; Howe et al. 2013).

6 Perch deterrents are often used to reduce the impact of avian predation. Prather and  
7 Messmer (2010) determined that the effectiveness of perch deterrents were limited by the  
8 structure of the power poles and the design and placement of deterrents. In other studies,  
9 equipping poles with perch deterrents has been observed to reduce but not eliminate  
10 perching by corvids and raptors associated with GRSG predation (Lammers and Collopy  
11 2007; Slater and Smith 2010). Similarly, perch-deterrent devices installed following  
12 construction of an 18-mile power transmission line significantly reduced raptor use in  
13 Wyoming (Oles 2007).

14 A west-central Idaho study using spatial statistics and point-pattern simulations found that  
15 GRSG avoided power transmission lines by 600 meters (approximately 0.37 miles; Gillan et  
16 al. 2013). A study of the long-term impacts of the Falcon-Gondor transmission line in  
17 Nevada found strong support for an effect of distance from the power line on nest survival  
18 and female survival, suggesting an impact from increased predation. The study concluded  
19 that placement of transmission lines in GRSG habitat areas may negatively influence long-  
20 term population dynamics (Gibson et al. 2013).

21 In areas managed as ROW/SUA exclusion, the BLM and Forest Service would prohibit all  
22 development of ROWs/SUAs, with some exceptions provided, while in areas managed as  
23 ROW/SUA avoidance, the BLM and Forest Service would consider whether a ROW/SUA  
24 would be allowed on a case-by-case basis. This flexibility may be advantageous where federal  
25 and private land-ownership areas are mixed and exclusion areas may result in more  
26 widespread development on private lands if BLM-administered or National Forest System  
27 lands could not be used. Land tenure adjustments or withdrawals made in GRSG habitat  
28 could reduce the habitat available to sustain GRSG populations, unless provisions were  
29 made to ensure that GRSG conservation remained a priority under the new land  
30 management regime. Land tenure actions designed to decrease fragmentation of GRSG  
31 habitat would help GRSG populations (NTT 2011, p. 12).

32 Collisions with power lines, vehicles, property fencing, and increased predation by raptors  
33 may increase mortality of birds at leks (Connelly et al. 2000a; Lammers and Collopy 2007).  
34 Roads and power lines may also indirectly affect lek persistence by altering productivity of  
35 local populations or survival at other times of the year. GRSG mortality associated with  
36 power lines and roads occurs year round (Aldridge and Boyce 2007). Artificial ponds created  
37 by development (Zou et al. 2006) can support breeding mosquitoes known to vector West  
38 Nile virus (Walker et al. 2007) and elevate risk of mortality in late summer (Walker and  
39 Naugle 2011). GRSG may also avoid otherwise suitable habitat as development increases  
40 (Lyon and Anderson 2003; Holloran 2005; Kaiser 2006; Doherty et al. 2008).



1 Avoidance of development areas should not be considered a simple shift in habitat use, but  
2 rather a reduction in the distribution of GRSG (Walker et al. 2007) because avoidance is  
3 likely to result in true population declines when density dependence, competition, or  
4 displacement of birds into poorer-quality adjacent habitat lowers survival or reproduction  
5 (Holloran and Anderson 2005; Aldridge and Boyce 2007; Holloran et al. 2010). GRSG  
6 exhibit extremely high site fidelity which strongly suggests that unfamiliarity with new  
7 habitats may also reduce survival (Baxter et al. 2008), as evidenced in other grouse species  
8 (Yoder et al. 2004). GRSG avoid other anthropogenic features such as roads, power lines, oil  
9 and gas wells, and buildings (Lyon and Anderson 2003; Pruett et al. 2009). Augmentation of  
10 dwindling GRSG populations by introduction of translocated birds or supplementing  
11 existing populations is often unsuccessful (Naugle et al. 2011; Baxter et al. 2008).

### 12 ***Renewable Energy***

13 Because large-scale development of renewable energy resources is recent compared with oil  
14 and gas, many of the potential impacts of renewable energy on GRSG have not been  
15 studied. However, potential development impacts on GRSG can be anticipated from studies  
16 of oil and gas development on the species (Becker et al. 2009). Recent research has found  
17 that nest and brood survival are negatively affected with proximity to wind turbines, likely as  
18 a result of increased predation (LeBeau 2012; LeBeau et al. 2014). Because GRSG have  
19 evolved in habitats with little vertical structure or other anthropogenic features, tall vertical  
20 structures such as wind turbines may displace GRSG from their normally used habitat  
21 (Johnson and Stephens 2011).

22 Impacts from energy development accrue both locally and cumulatively at the landscape  
23 scale. Accumulated evidence across landscape-scale studies show that GRSG populations  
24 typically decline following oil and gas development (Holloran 2005; Walker et al. 2007;  
25 Doherty et al. 2008). Oil and gas infrastructure and associated human activity have been  
26 shown to adversely affect GRSG populations collectively and in some instances, impacts  
27 have been directly attributed to certain anthropogenic features (e.g., roads, power lines,  
28 noise, and associated infrastructure; Walker et al. 2007; Doherty et al. 2008; Lyon and  
29 Anderson 2003; Holloran 2005; Kaiser 2006; Aldridge and Boyce 2007). Direct impacts of  
30 energy development on GRSG habitats and populations include loss of sagebrush canopy or  
31 nest failure; these effects have been estimated to occur within a 62 m (68 yards) radius from  
32 leks. Indirect effects include habitat degradation or utilization displacement; these effects  
33 have been estimated to occur out to 19 km (11.8 mi) from leks (Naugle et al. 2011).  
34 Population impacts have been observed when leks occur within 4 km (2.5 mi) from a  
35 producing well and when greater than eight active wells occurred within 5 km (3.1 mi) of  
36 leks, or when more than 200 active wells occurred within 18 km (11 mi) of leks. Other  
37 impacts have been documented within varying distances from energy infrastructure and at  
38 different well densities (USGS 2014).

39 Renewable energy development and its infrastructure (e.g., power lines, roads, and  
40 construction activities) may negatively affect GRSG populations via several different  
41 mechanisms. For example, concerns with wind energy development include noise produced  
42 by rotor blades, GRSG avoidance of structures, mortality of GRSG that fly into rotors, and  
43 the presence of new roads and power lines (Connelly et al. 2004; Manier et al. 2013).

1 Mechanisms responsible for cumulative impacts that lead to population declines depend on  
2 the magnitude, frequency, and duration of human disturbance. GRSG may abandon leks if  
3 repeatedly disturbed by raptors perching on power lines or other tall vertical structures near  
4 leks (Ellis 1984), by vehicular traffic on roads (Lyon and Anderson 2003) or by noise and  
5 human activity associated with energy development (Braun et al. 2002; Holloran 2005; Kaiser  
6 2006).

### 7 ***Travel and Transportation Management***

8 The Travel and Transportation program is principally focused on road networks within the  
9 GRSG range. The three types of linear features that comprise the existing transportation  
10 system include roads, primitive roads, and trails. Because roads accommodate year-round  
11 passenger vehicles and volume of traffic is the highest, roads by comparison translate into  
12 the greatest potential for impacts on GRSG and its habitat. Primitive roads are seasonally  
13 passable in many areas and, compared to roads, have a lower traffic volume, lower travel  
14 speeds, and fewer impacts on GRSG. Trails are seasonally passable, have the lowest traffic  
15 volume, and are typically only used by foot travelers, mountain cyclists, equestrians, and  
16 OHVs; thus the fewest impacts on GRSG are expected from trails compared to the other  
17 two feature types.

18 BLM and Forest Service travel management primarily manages public use levels within travel  
19 management zones under the following designations: closed, limited (to existing or  
20 designated roads and trails), or open. Use of roads is predominately associated with  
21 recreational pursuits on BLM-administered or National Forest System lands and permitted  
22 uses, such as by livestock grazing permittees. Areas currently open to cross-country  
23 motorized use would be expected to have greater impacts on GRSG than those areas where  
24 travel is limited to existing roads and trails or closed to motorized use, since there would be a  
25 considerably higher likelihood of disturbance to vegetation, flushing of GRSG, nest  
26 abandonment or destruction, increased wildfire risk and spread of invasive plants and  
27 noxious weeds.

28 GRSG persistence is inversely correlated with road density. Compared with occupied GRSG  
29 range, extirpated range was 60 percent closer to highways and had 25 percent higher road  
30 densities (Manier et al. 2013 citing Wisdom et al. 2011). Within the GRSG range, 95 percent  
31 of the mapped sagebrush habitats are within 1.6 miles (2.5 kilometers) of a mapped road;  
32 density of secondary roads exceeds 3.1 miles per 247 acres (5 kilometers per square  
33 kilometer) in some regions (Knick et al. 2011). Incremental effects of accumulating length of  
34 roads in proximity to leks were apparent rangewide, although limited to major roads (state  
35 and federal highways and interstates). This effect was demonstrated by decreasing lek counts  
36 when there were more than 5 km (3.1 mi) of federal or state highway within 5 km (3.1 mi) of  
37 leks and when more than 20 km (12.4 mi) of highway occurs within an 18-km (11.2-mi)  
38 window (Johnson et al. 2011). Roads have multiple impacts on wildlife in terrestrial  
39 ecosystems, including increased mortality from collision with vehicles; changes in behavior;  
40 loss, fragmentation, and alteration of habitat; spread of exotic species; and increased human  
41 access, resulting in facilitation of additional alteration and use of habitats by humans  
42 (Formann and Alexander 1998; Jackson 2000; Trombulak and Frissel 2000). The effect of



1 roads can be expressed directly through changes in habitat and GRSG populations and  
2 indirectly through avoidance behavior because of noise created by vehicle traffic (Lyon and  
3 Anderson 2003; USFWS 2010a; See **Section 4.2.1** regarding interstates and primary routes).

4 Roads fragment habitat by impeding use of migration corridors or seasonal habitats; facilitate  
5 habitat degradation in the remaining habitats by creating a corridor along which invasive  
6 plants can spread; allow for increased human noise disturbance which can result in GRSG  
7 habitat use avoidance (i.e., functional habitat loss); and increase mammalian and avian  
8 predator abundance (Formann and Alexander 1998, pp. 207-231). Connelly and others  
9 (2004) suggest road traffic within 4.7 miles of leks negatively influences male lek attendance.  
10 Similarly, lek count trends are lower near interstate, federal, or state highways compared with  
11 secondary roads (Johnson et al. 2011), and Connelly and others (2004) reported no leks  
12 within 1.25 miles of an interstate. In general, leks closer to the interstate had higher rates of  
13 decline than leks further away from the interstate. In Montana and southern Canada, as the  
14 length of roads within 2 miles of a lek increased, the likelihood of lek persistence decreased  
15 (Manier et al. 2013).

16 Motorized activities are expected to have a larger footprint on the landscape than non-  
17 motorized users. Cross-country motorized travel would result in increased potential for soil  
18 compaction, loss of perennial grasses and forbs, and reduced canopy cover of sagebrush  
19 (Payne et al. 1983). Long-term losses in sagebrush canopy would likely be the result of  
20 repeated, high frequency, long duration use by cross-country OHV use. Impacts on  
21 vegetation communities would likely be greater during the spring and winter months when  
22 soil conditions are wet and more susceptible to compaction and rutting. In addition, the  
23 chances of wildfire are increased during the summer months when fire dangers are high and  
24 recreation is also at its highest. Noise and increased human presence associated with  
25 construction, use, and maintenance of roads may change GRSG behavior based on the  
26 proximity, magnitude, intensity, and duration.

### 27 ***Special Designations***

28 Special designation areas (e.g., ACECs) may be established to protect GRSG and their  
29 habitat as a relevant or important value. While existing ACECs do not have GRSG as a  
30 relevant or important value, and thus management is not tailored to protect GRSG, some  
31 incidental protection may be conferred in existing ACECs by restricting resource uses  
32 intended to protect other values.

### 33 **4.2.3 Impacts on GRSG and GRSG Habitat Common to All Alternatives**

34 The nature and type of impacts described below are common to all alternatives, but the  
35 context and intensity may vary by alternative.

#### 36 ***Impacts from Vegetation and Soils Management***

37 Vegetation dynamics modeling was completed to describe vegetative changes across all the  
38 alternatives for the short term (10 years) and in the long term (50 years). **Table 4-1**, GRSG  
39 Habitat Condition<sup>1</sup> and Trend Analysis within the Idaho and Southwestern Montana Sub-  
40 region after 10 Years<sup>2</sup>, and **Table 4-2**, GRSG Habitat Condition<sup>1</sup> and Trend Analysis within  
41 the Idaho and Southwestern Montana Sub-region after 50 Years<sup>2</sup>, display these



1 comparisons. Vegetation dynamics modeling is presented separately for the Proposed Plan  
2 in **Section 4.2.7**.

3 ***Impacts from Renewable Energy Management***

4 The magnitude of impacts is different for all alternatives as the acreages of lands managed  
5 for ROWs and zoning designations vary across the alternatives (see **Table 2-3**, Comparative  
6 Allocation Summary of Alternatives, in **Chapter 2**). Acres of avoidance and exclusion areas  
7 for ROWs and SUAs in GRSG habitat would vary by alternative. **Table 4-3**, GRSG Habitat  
8 within Avoidance Areas for ROWs and SUAs in the Idaho and Southwestern Montana Sub-  
9 region, and **Table 4-4**, GRSG Habitat within Exclusion Areas for ROWs and SUAs in the  
10 Idaho and Southwestern Montana Sub-region, show the acreage where ROWs and SUAs  
11 would be restricted under each alternative.

12 ***Impacts from Livestock Grazing Management***

13 Acres available or unavailable (closed) to grazing for each of the alternatives are described in  
14 **Table 4-5**, GRSG Habitat Acres Closed to Grazing in the Idaho and Southwestern Montana  
15 Sub-region.



**Table 4-1**  
**GRSG Habitat Condition<sup>1</sup> and Trend Analysis within the Idaho and Southwestern Montana Sub-region after 10 Years<sup>2,4</sup>**

Analysis Area	Total Acres	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F
Southwest Idaho	5,600,000	62%	63%	61%	63%	63%	63%
South Side Snake	6,768,000	61%	60%	58%	60%	60%	60%
North Side Snake	3,854,000	70%	71%	71%	71%	71%	71%
Mountain Valleys 1 <sup>3</sup>	717,000	82%	82%	82%	82%	82%	82%
Mountain Valleys 2 <sup>3</sup>	2,537,000	87%	87%	87%	87%	87%	87%
Bear Lake	2,022,000	76%	77%	75%	77%	77%	77%
East-Central Idaho	320,000	90%	90%	91%	90%	90%	90%
Sawtooth	1,186,000	81%	81%	82%	81%	81%	82%
Weiser	799,000	76%	76%	75%	76%	76%	76%
Southwest Montana	1,977,000	85%	85%	86%	85%	85%	85%
<b>All</b>	<b>25,780,000</b>	<b>70%</b>	<b>71%</b>	<b>70%</b>	<b>71%</b>	<b>71%</b>	<b>71%</b>

Source: Forest Service 2013a

<sup>1</sup>Percent of analysis area meeting GRSG sagebrush habitat objectives

<sup>2</sup>Existing habitat conditions are estimated from a combination of LANDFIRE and ReGap data sets. These data sets are the best available across both National Forest System and BLM-administered lands, but they include some inaccuracy and error. Interpretation of and evaluation of trends in each population area should consider this. Vegetation modeling data is intended to be an approximation of expected conditions in 50 years. In areas where existing habitat conditions are high, such as 80 to 90 percent, it is not unexpected to see a declining trend in habitat conditions. These conditions can be either a result of overestimating existing conditions or vegetation dynamics driving the trends. The vegetation modeling for each alternative assumes the vegetation treatment rates from Alternative A – No Action. For a description of analysis inputs, see **Appendix X**.

<sup>3</sup>The Mountain Valleys population was divided and modeled as two separate components of the vegetation dynamics model. See **Appendix X** for more details.

<sup>4</sup> Conditions for the Proposed Plan are presented in **Table 4-47**.

**Table 4-2**  
**GRSG Habitat Condition<sup>1</sup> and Trend Analysis within the Idaho and Southwestern Montana Sub-region after 50 Years<sup>2,4</sup>**

Analysis Area	Total Acres	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F
Southwest Idaho	5,600,000	62%	65%	59%	65%	65%	66%
South Side Snake	6,768,000	70%	68%	58%	68%	68%	68%
North Side Snake	3,854,000	74%	78%	68%	76%	76%	78%
Mountain Valleys 1 <sup>3</sup>	717,000	73%	73%	73%	73%	73%	72%
Mountain Valleys 2 <sup>3</sup>	2,537,000	73%	73%	74%	73%	73%	74%
Bear Lake	2,022,000	67%	69%	59%	69%	69%	69%
East-Central Idaho	320,000	78%	80%	80%	78%	78%	80%
Sawtooth	1,186,000	71%	71%	72%	71%	71%	72%
Weiser	799,000	76%	79%	72%	79%	79%	79%
Southwest Montana	1,977,000	74%	74%	74%	74%	74%	74%
<b>All</b>	<b>25,780,000</b>	<b>70%</b>	<b>71%</b>	<b>64%</b>	<b>70%</b>	<b>70%</b>	<b>71%</b>

Source: Forest Service 2013a

<sup>1</sup>Percent of analysis area meeting GRSG sagebrush habitat objectives

<sup>2</sup>Existing habitat conditions are estimated from a combination of LANDFIRE and ReGap data sets. These data sets are the best available across both National Forest System and BLM-administered lands, but they include some inaccuracy and error. Interpretation of and evaluation of trends in each population area should consider this. Vegetation modeling data is intended to be an approximation of expected conditions in 50 years. In areas where existing habitat conditions are high, such as 80 to 90 percent, it is not unexpected to see a declining trend in habitat conditions. These conditions can be either a result of overestimating existing conditions or vegetation dynamics driving the trends. The vegetation modeling for each alternative assumes the vegetation treatment rates from Alternative A – No Action. For a description of analysis inputs, see **Appendix X**.

<sup>3</sup>The Mountain Valleys population was divided and modeled as two separate components of the vegetation dynamics model. See **Appendix X** for more details.

<sup>4</sup> Conditions for the Proposed Plan are presented in **Table 4-47**.

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**Table 4-3**  
**GRSG Habitat within Avoidance Areas for ROWs and SUAs in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D <sup>1</sup>			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA <sup>1</sup>	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>12,200</b>	<b>67,600</b>	<b>0</b>	<b>0</b>	<b>94,200</b>	<b>7,600</b>	<b>4,670</b>	<b>8,420</b>	<b>0</b>	<b>0</b>	<b>67,600</b>	<b>0</b>	<b>0</b>	<b>33,900</b>	<b>0</b>	<b>0</b>
BLM	4,760	23,500	0	0	23,500	7,600	4,670	4,760	0	0	23,500	0	0	4,120	0	0
Forest Service	7,420	44,100	0	0	70,700	0	0	3,660	0	0	44,100	0	0	29,800	0	0
<b>Mountain Valleys</b>	<b>411,400</b>	<b>521,900</b>	<b>0</b>	<b>0</b>	<b>522,000</b>	<b>422,300</b>	<b>1,884,300</b>	<b>144,900</b>	<b>938,500</b>	<b>1,372,300</b>	<b>521,900</b>	<b>0</b>	<b>0</b>	<b>49,200</b>	<b>993,500</b>	<b>1,338,500</b>
BLM	215,900	196,500	0	0	196,500	232,100	1,621,800	35,700	759,900	1,126,100	196,500	0	0	6,090	802,400	1,070,500
Forest Service	195,400	325,400	0	0	325,500	190,300	262,500	109,300	178,600	246,200	325,400	0	0	43,200	191,100	268,000
<b>SW Montana</b>	<b>380,600</b>	<b>363,100</b>	<b>0</b>	<b>0</b>	<b>493,400</b>	<b>160</b>	<b>536,500</b>	<b>166,000</b>	<b>0</b>	<b>124,300</b>	<b>363,100</b>	<b>0</b>	<b>0</b>	<b>166,500</b>	<b>0</b>	<b>536,700</b>
BLM	57,300	212,700	0	0	257,200	80	447,300	16,200	0	36,000	212,700	0	0	16,200	0	447,400
Forest Service	323,400	150,300	0	0	236,100	70	89,200	149,800	0	88,300	150,300	0	0	150,300	0	89,300
<b>North Side Snake</b>	<b>368,200</b>	<b>526,200</b>	<b>0</b>	<b>0</b>	<b>526,200</b>	<b>185,500</b>	<b>1,414,200</b>	<b>163,300</b>	<b>402,000</b>	<b>792,500</b>	<b>526,200</b>	<b>0</b>	<b>13,200</b>	<b>127,900</b>	<b>605,600</b>	<b>928,100</b>
BLM	255,800	440,300	0	0	440,300	167,600	1,403,400	78,600	374,000	792,600	440,300	0	13,200	41,200	577,600	928,100
Forest Service	112,400	85,900	0	0	85,900	17,900	10,800	84,700	28,000	0	85,900	0	0	86,700	28,000	0
<b>South Side Snake</b>	<b>483,800</b>	<b>615,400</b>	<b>0</b>	<b>0</b>	<b>615,400</b>	<b>552,900</b>	<b>1,034,200</b>	<b>190,100</b>	<b>741,600</b>	<b>680,600</b>	<b>615,400</b>	<b>0</b>	<b>1,900</b>	<b>175,500</b>	<b>936,600</b>	<b>608,200</b>
BLM	47,800	446,000	0	0	446,000	505,800	767,300	16,800	578,800	548,500	446,000	0	1,910	10,400	745,600	477,500
Forest Service	435,900	169,400	0	0	169,400	47,100	266,900	173,300	162,800	132,100	169,400	0	0	165,100	191,000	130,700
<b>Southwest Idaho</b>	<b>184,200</b>	<b>330,200</b>	<b>0</b>	<b>0</b>	<b>330,200</b>	<b>72,200</b>	<b>1,346,900</b>	<b>34,800</b>	<b>454,400</b>	<b>978,600</b>	<b>330,200</b>	<b>0</b>	<b>1,900</b>	<b>2,620</b>	<b>439,300</b>	<b>1,171,500</b>
BLM	184,200	330,200	0	0	330,200	72,200	1,346,900	34,800	454,400	978,600	330,200	0	1,900	2,620	439,300	1,171,500

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**Table 4-3**  
**GRSG Habitat within Avoidance Areas for ROWs and SUAs in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D <sup>1</sup>			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA <sup>1</sup>	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>190</b>	<b>5,300</b>	<b>0</b>	<b>0</b>	<b>27,300</b>	<b>1,130</b>	<b>43,700</b>	<b>0</b>	<b>16,600</b>	<b>26,000</b>	<b>5,300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19,900</b>	<b>30,800</b>
BLM	190	4,690	0	0	4,700	740	42,500	0	15,200	26,000	4,690	0	0	0	18,400	30,800
Forest Service	0	610	0	0	22,600	390	1,230	0	1,370	0	610	0	0	0	1,580	0
<b>Weiser</b>	<b>87,700</b>	<b>87,900</b>	<b>0</b>	<b>0</b>	<b>87,900</b>	<b>0</b>	<b>10</b>	<b>87,700</b>	<b>0</b>	<b>0</b>	<b>87,900</b>	<b>0</b>	<b>200</b>	<b>87,400</b>	<b>0</b>	<b>0</b>
BLM	87,700	87,900	0	0	87,900	0	10	87,700	0	0	87,900	0	60	87,400	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	140	0	0	0
<b>Sawtooth</b>	<b>20,900</b>	<b>21,400</b>	<b>0</b>	<b>0</b>	<b>21,400</b>	<b>0</b>	<b>0</b>	<b>20,900</b>	<b>0</b>	<b>0</b>	<b>21,400</b>	<b>0</b>	<b>0</b>	<b>21,400</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	20,900	21,400	0	0	21,400	0	0	20,900	0	0	21,400	0	0	21,400	0	0
<b>Total</b>	<b>1,949,100</b>	<b>2,539,000</b>	<b>0</b>	<b>0</b>	<b>2,717,990</b>	<b>1,241,800</b>	<b>6,264,600</b>	<b>816,100</b>	<b>2,553,100</b>	<b>3,974,200</b>	<b>2,539,000</b>	<b>0</b>	<b>17,300</b>	<b>664,500</b>	<b>2,994,900</b>	<b>4,613,900</b>

Source: BLM GIS 2015

<sup>1</sup>Includes avoidance areas with limited exclusions.

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**Table 4-4**  
**GRSG Habitat within Exclusion Areas for ROWs and SUAs in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>580</b>	<b>0</b>	<b>12,300</b>	<b>79,800</b>	<b>550</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,300</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>
BLM	20	0	12,300	35,700	0	20	0	20	0	0	0	12,300	0	20	0	0
Forest Service	550	0	0	44,100	550	0	0	0	0	0	0	0	0	1,540	20,600	3,800
<b>Mountain Valleys</b>	<b>44,100</b>	<b>18,900</b>	<b>2,331,800</b>	<b>2,872,600</b>	<b>18,900</b>	<b>2,470</b>	<b>22,700</b>	<b>19,500</b>	<b>21,000</b>	<b>4,100</b>	<b>18,900</b>	<b>2,331,800</b>	<b>0</b>	<b>1,540</b>	<b>19,500</b>	<b>20</b>
BLM	25,000	1,660	1,877,200	2,075,400	1,660	1,800	21,600	2,100	19,700	3,860	1,660	1,877,200	0	0	1,150	3,770
Forest Service	19,000	17,200	454,600	797,200	17,200	670	1,120	17,400	1,250	240	17,200	454,600	0	84,100	0	73,600
<b>SW Montana</b>	<b>207,400</b>	<b>84,100</b>	<b>610,300</b>	<b>1,057,500</b>	<b>133,800</b>	<b>0</b>	<b>73,600</b>	<b>84,100</b>	<b>0</b>	<b>73,400</b>	<b>84,100</b>	<b>610,300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	447,400	660,100	0	0	0	0	0	0	0	447,400	0	84,100	0	73,600
Forest Service	207,400	84,100	162,900	397,300	133,800	0	73,600	84,100	0	73,400	84,100	162,900	0	50,800	82,800	20,000
<b>North Side Snake</b>	<b>137,400</b>	<b>31,200</b>	<b>1,705,900</b>	<b>2,263,400</b>	<b>31,200</b>	<b>60,500</b>	<b>45,700</b>	<b>35,400</b>	<b>86,600</b>	<b>15,500</b>	<b>31,200</b>	<b>1,705,900</b>	<b>19,700</b>	<b>50,800</b>	<b>82,800</b>	<b>20,000</b>
BLM	137,400	31,200	1,677,300	2,148,800	31,200	60,500	45,700	35,400	86,600	15,500	31,200	1,677,300	19,700	0	0	0
Forest Service	0	0	28,600	114,500	0	0	0	0	0	0	0	28,600	0	2,500	18,200	39,500
<b>South Side Snake</b>	<b>55,300</b>	<b>17,700</b>	<b>1,624,700</b>	<b>2,257,900</b>	<b>17,700</b>	<b>14,100</b>	<b>23,500</b>	<b>2,800</b>	<b>16,400</b>	<b>37,200</b>	<b>17,700</b>	<b>1,624,700</b>	<b>1,570</b>	<b>2,300</b>	<b>17,600</b>	<b>39,500</b>
BLM	54,600	17,400	1,310,400	1,773,700	17,400	14,100	23,200	2,600	15,900	37,200	17,400	1,310,400	1,570	170	610	0
Forest Service	660	310	314,400	484,100	310	0	350	170	490	0	310	314,400	0	56,800	10,700	412,600
<b>Southwest Idaho</b>	<b>458,500</b>	<b>93,600</b>	<b>1,784,000</b>	<b>2,207,800</b>	<b>93,600</b>	<b>7,660</b>	<b>357,300</b>	<b>43,800</b>	<b>54,100</b>	<b>360,600</b>	<b>93,600</b>	<b>1,784,000</b>	<b>5,320</b>	<b>56,800</b>	<b>10,700</b>	<b>412,600</b>
BLM	458,500	93,600	1,783,997	2,207,800	93,600	7,660	357,300	43,800	54,100	360,600	93,600	1,784,000	5,320	1,540	20,600	3,800
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 4-4**  
**GRSG Habitat within Exclusion Areas for ROWs and SUAs in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Bear Lake</b>	<b>850</b>	<b>0</b>	<b>45,155</b>	<b>50,500</b>	<b>570</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>45,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>280</b>
BLM	280	0	43,532	48,200	0	0	280	0	0	280	0	43,500	0	0	0	280
Forest Service	560	0	1,623	2,240	560	0	0	0	0	0	0	1,620	0	0	0	0
<b>Weiser</b>	<b>124,300</b>	<b>47,100</b>	<b>77,224</b>	<b>212,200</b>	<b>47,100</b>	<b>55,500</b>	<b>21,700</b>	<b>124,300</b>	<b>0</b>	<b>0</b>	<b>47,100</b>	<b>77,200</b>	<b>12,800</b>	<b>135,800</b>	<b>0</b>	<b>0</b>
BLM	124,300	47,100	77,224	212,200	47,100	55,500	21,700	124,300	0	0	47,100	77,200	12,800	135,800	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>40</b>	<b>40</b>	<b>0</b>	<b>21,500</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	40	400	0	21,500	40	0	0	40	0	0	40	0	0	40	0	0
<b>Total</b>	<b>1,028,500</b>	<b>292,700</b>	<b>8,191,346</b>	<b>11,023,100</b>	<b>343,400</b>	<b>140,300</b>	<b>544,800</b>	<b>310,000</b>	<b>178,000</b>	<b>491,100</b>	<b>292,700</b>	<b>8,191,300</b>	<b>39,400</b>	<b>331,500</b>	<b>132,400</b>	<b>549,800</b>

Source: BLM GIS 2015

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**Table 4-5  
GRSG Habitat Acres Closed to Grazing in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>1,600</b>	<b>900</b>	<b>700</b>	<b>79,800</b>	<b>900</b>	<b>700</b>	<b>0</b>	<b>1,600</b>	<b>0</b>	<b>0</b>	<b>900</b>	<b>700</b>	<b>0</b>	<b>1,500</b>	<b>0</b>	<b>0</b>
BLM	1,400	700	700	35,800	700	700	0	1,400	0	0	700	700	0	1,400	0	0
Forest Service	100	100	0	44,100	100	0	0	100	0	0	100	0	0	100	0	0
<b>Mountain Valleys</b>	<b>52,800</b>	<b>23,700</b>	<b>29,100</b>	<b>2,878,400</b>	<b>23,800</b>	<b>2,300</b>	<b>26,800</b>	<b>22,000</b>	<b>17,300</b>	<b>13,500</b>	<b>23,700</b>	<b>29,100</b>	<b>0</b>	<b>2,000</b>	<b>23,100</b>	<b>8,200</b>
BLM	22,500	1,000	21,500	2,079,200	1,000	400	21,100	100	11,800	10,600	1,000	21,500	0	200	15,400	6,000
Forest Service	30,300	22,700	7,600	799,300	22,700	1,900	5,700	21,900	5,500	2,900	22,700	7,600	0	1,800	7,700	2,200
<b>SW Montana</b>	<b>59,300</b>	<b>31,600</b>	<b>14,700</b>	<b>1,105,500</b>	<b>44,600</b>	<b>0</b>	<b>14,700</b>	<b>31,600</b>	<b>0</b>	<b>14,600</b>	<b>31,600</b>	<b>14,700</b>	<b>0</b>	<b>31,600</b>	<b>0</b>	<b>14,700</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	59,300	31,600	14,700	708,200	44,600	0	14,700	31,600	0	14,600	31,600	14,700	0	31,600	0	14,700
<b>North Side Snake</b>	<b>3,000</b>	<b>900</b>	<b>2,100</b>	<b>2,286,500</b>	<b>900</b>	<b>1,200</b>	<b>1,000</b>	<b>900</b>	<b>2,000</b>	<b>200</b>	<b>900</b>	<b>2,100</b>	<b>0</b>	<b>600</b>	<b>1,800</b>	<b>500</b>
BLM	600	200	400	2,172,000	200	0	400	200	200	200	200	400	0	0	100	500
Forest Service	2,400	700	1,700	114,500	700	1,200	600	700	1,700	0	700	1,700	0	600	1,700	0
<b>South Side Snake</b>	<b>17,100</b>	<b>6,100</b>	<b>11,000</b>	<b>2,274,300</b>	<b>6,100</b>	<b>1,600</b>	<b>9,400</b>	<b>6,000</b>	<b>11,100</b>	<b>0</b>	<b>6,100</b>	<b>11,000</b>	<b>0</b>	<b>5,100</b>	<b>13,300</b>	<b>1,100</b>
BLM	2,500	1,000	1,500	1,790,200	1,000	1,500	100	2,000	500	0	1,000	1,500	0	1,400	1,400	1,100
Forest Service	14,600	5,100	9,500	484,100	5,100	200	9,300	4,000	10,600	0	5,100	9,500	0	3,600	11,900	0
<b>Southwest Idaho</b>	<b>148,500</b>	<b>26,600</b>	<b>121,900</b>	<b>2,223,700</b>	<b>26,600</b>	<b>100</b>	<b>121,800</b>	<b>8,500</b>	<b>700</b>	<b>139,300</b>	<b>26,600</b>	<b>121,900</b>	<b>0</b>	<b>7,600</b>	<b>1,000</b>	<b>144,900</b>
BLM	148,500	26,600	121,900	2,223,700	26,600	100	121,800	8,500	700	139,300	26,600	121,900	0	7,600	1,000	144,900
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>600</b>	<b>0</b>	<b>300</b>	<b>50,500</b>	<b>300</b>	<b>0</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>
BLM	200	0	200	48,200	0	0	200	0	0	200	0	200	0	0	0	200
Forest Service	400	0	0	2,200	300	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>212,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	212,200	0	0	0	0	0	0	0	0	0	0	0	0



**Table 4-5**  
**GRSG Habitat Acres Closed to Grazing in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>4,800</b>	<b>4,800</b>	<b>0</b>	<b>21,500</b>	<b>4,800</b>	<b>0</b>	<b>0</b>	<b>4,800</b>	<b>0</b>	<b>0</b>	<b>4,800</b>	<b>0</b>	<b>0</b>	<b>4,800</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	4,800	4,800	0	21,500	4,800	0	0	4,800	0	0	4,800	0	0	4,800	0	0
<b>Total</b>	<b>287,600</b>	<b>94,500</b>	<b>179,800</b>	<b>11,132,500</b>	<b>107,800</b>	<b>5,900</b>	<b>173,900</b>	<b>75,200</b>	<b>31,100</b>	<b>168,000</b>	<b>94,500</b>	<b>179,800</b>	<b>0</b>	<b>53,100</b>	<b>39,200</b>	<b>169,800</b>

Source: BLM GIS 2015

Administrative Draft  
Cooperating Agency Review

1 ***Impacts from Travel Management***

2 Acres designated as open, limited, or closed for off-road motorized vehicle use are described  
3 in **Table 4-6**, GRSG Habitat Where Motorized Travel Would Be Limited to Roads,  
4 Designated Roads, and Trails in the Idaho and Southwest Montana Sub-Region.

5 ***Impacts from ACEC Management***

6 Several alternatives identify the potential designation of new ACECs. These areas are  
7 described in **Table 4-7**, GRSG Habitat within BLM ACECs and Forest Service Zoological  
8 Areas in the Idaho and Southwestern Montana Sub-region.

9 **4.2.4 Alternative A**

10 ***Impacts from Vegetation and Soils Management***

11 Under Alternative A, current management implements the Integrated Vegetation  
12 Management Handbook policies (DOI 2008-H-1740-2, Rel.1-1714), Land Health Standards,  
13 Vegetation Treatments Using Herbicides Programmatic EIS (BLM 2007a), and other  
14 policies and plans. The Integrated Vegetation Management Handbook requires an  
15 interdisciplinary and collaborative process to plan and implement vegetation treatments that  
16 improve biological diversity and ecosystem function while promoting and maintaining native  
17 plant communities that are resilient to disturbance and invasive species. Land-health  
18 standards are ecologically based goal statements which include watershed function,  
19 ecological processes, water quality, and habitat quality for threatened and endangered and  
20 special status species (43 CFR 4180.1). Land Health Standards Assessments are used to  
21 establish program priorities, determine the status of current conditions and set the stage for  
22 evaluations that are used to determine achievement or non-achievement of land-health  
23 standards.

24 Implementation of the above policies and plans would improve vegetation condition by  
25 decreasing invasive species, provide for native vegetation establishment in sagebrush habitat,  
26 reduce the risk of wildfire, restore fire-adapted ecosystems and repair lands damaged by fire.  
27 These policies also recognize the need to improve the diversity, resiliency and productivity of  
28 native vegetation health and persistence (BLM 2008g).

29 Conifer expansion is predominant in mountain sagebrush but also occurs within Wyoming  
30 and low sagebrush. Juniper dominance or encroachment is particularly problematic in  
31 portions of the Southwest Idaho and South Side Snake population areas. Douglas-fir or  
32 other conifer encroachment is also an issue locally in the Mountain Valleys, Sawtooth and  
33 Southwest Montana population areas, and possibly others. In all of the population areas,  
34 current treatment rates are not keeping pace with continued conifer encroachment.

35 Mechanical removal of encroaching conifers, primarily juniper species and others such as  
36 Douglas-fir would result in short-term disturbances of soils and sagebrush due to heavy  
37 equipment, skid trails, and temporary roads. Mechanical and manual treatments would also  
38 increase noise, vehicular traffic and human presence. However, once the disturbed area is  
39 recovered, there would be an increase in forage, vegetation cover quality and composition,  
40

**Table 4-6**  
**GRSG Habitat Where Motorized Travel Would Be Limited to Roads, Designated Roads, and Trails in the Idaho and Southwest Montana Sub-Region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>105,500</b>	<b>57,900</b>	<b>12,300</b>	<b>70,200</b>	<b>85,100</b>	<b>7,600</b>	<b>4,670</b>	<b>69,800</b>	<b>0</b>	<b>0</b>	<b>57,900</b>	<b>12,300</b>	<b>0</b>	<b>54,500</b>	<b>0</b>	<b>0</b>
BLM	25,800	13,900	12,300	26,100	13,900	7,600	4,670	25,700	0	0	13,900	12,300	0	24,700	0	0
Forest Service	79,700	44,100	0	44,100	71,300	0	0	44,100	0	0	44,100	0	0	29,800	0	0
<b>Mountain Valleys</b>	<b>2,286,700</b>	<b>529,200</b>	<b>2,314,800</b>	<b>2,844,000</b>	<b>529,200</b>	<b>426,800</b>	<b>1,888,000</b>	<b>493,100</b>	<b>749,900</b>	<b>1,360,700</b>	<b>529,200</b>	<b>2,314,800</b>	<b>0</b>	<b>218,300</b>	<b>1,005,400</b>	<b>1,328,600</b>
BLM	1,409,700	186,300	1,858,500	2,044,700	186,300	234,100	1,624,400	116,400	568,300	1,114,200	186,300	1,858,500	0	175,100	811,000	1,056,800
Forest Service	877,100	342,900	456,400	799,200	342,900	192,700	263,600	376,700	181,600	246,500	342,900	456,400	0	43,200	194,400	271,800
<b>SW Montana</b>	<b>1,266,300</b>	<b>473,400</b>	<b>621,300</b>	<b>1,094,700</b>	<b>644,700</b>	<b>160</b>	<b>621,200</b>	<b>473,800</b>	<b>0</b>	<b>620,500</b>	<b>473,400</b>	<b>621,300</b>	<b>0</b>	<b>473,400</b>	<b>0</b>	<b>621,400</b>
BLM	739,500	239,000	458,500	697,400	281,000	80	458,400	239,100	0	458,300	239,000	458,500	0	239,000	0	458,500
Forest Service	526,800	234,400	162,900	397,300	363,700	70	162,800	234,800	0	162,200	234,400	162,900	0	234,400	0	163,000
<b>North Side Snake</b>	<b>524,300</b>	<b>574,900</b>	<b>1,569,600</b>	<b>2,144,400</b>	<b>574,900</b>	<b>237,500</b>	<b>1,332,000</b>	<b>248,600</b>	<b>94,500</b>	<b>696,500</b>	<b>574,900</b>	<b>1,569,600</b>	<b>24,800</b>	<b>922,500</b>	<b>656,000</b>	<b>838,600</b>
BLM	408,500	489,400	1,541,700	2,031,200	489,400	220,500	1,321,300	162,600	67,300	696,500	489,400	1,541,700	24,800	836,200	628,800	838,600
Forest Service	115,800	85,400	27,800	113,300	85,400	17,100	10,800	86,100	27,200	0	85,400	27,800	0	86,300	27,200	0
<b>South Side Snake</b>	<b>1,952,100</b>	<b>611,000</b>	<b>1,588,700</b>	<b>2,199,700</b>	<b>611,000</b>	<b>551,700</b>	<b>1,037,000</b>	<b>640,900</b>	<b>616,700</b>	<b>691,900</b>	<b>611,000</b>	<b>1,588,700</b>	<b>32,800</b>	<b>497,800</b>	<b>929,700</b>	<b>615,400</b>
BLM	1,433,000	441,300	1,274,300	1,715,600	441,300	504,500	769,800	452,200	453,400	559,800	441,300	1,274,300	32,800	332,600	738,000	484,700
Forest Service	519,100	169,700	314,400	484,100	169,700	47,100	267,300	188,700	163,300	132,100	169,700	314,400	0	165,200	191,600	130,700
<b>Southwest Idaho</b>	<b>2,110,400</b>	<b>334,100</b>	<b>1,454,900</b>	<b>1,789,000</b>	<b>334,100</b>	<b>73,800</b>	<b>1,381,100</b>	<b>326,700</b>	<b>460,800</b>	<b>1,006,400</b>	<b>334,100</b>	<b>1,454,900</b>	<b>141,100</b>	<b>249,900</b>	<b>455,600</b>	<b>1,201,900</b>

**Table 4-6**  
**GRSG Habitat Where Motorized Travel Would Be Limited to Roads, Designated Roads, and Trails in the Idaho and Southwest Montana Sub-Region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
BLM	2,110,400	334,100	1,454,900	1,789,000	334,100	73,800	1,381,100	326,700	460,800	1,006,400	334,100	1,454,900	141,100	249,900	455,600	1,201,900
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>75,800</b>	<b>5,300</b>	<b>44,900</b>	<b>50,200</b>	<b>27,800</b>	<b>1,130</b>	<b>43,800</b>	<b>7,810</b>	<b>16,600</b>	<b>26,000</b>	<b>5,300</b>	<b>44,900</b>	<b>0</b>	<b>1,420</b>	<b>19,900</b>	<b>30,800</b>
BLM	51,000	4,690	43,300	47,900	4,700	740	42,500	6,880	15,200	26,000	4,700	43,300	0	1,420	18,400	30,800
Forest Service	24,800	610	1,620	2,240	23,100	390	1,230	940	1,370	0	610	1,620	0	0	1,580	0
<b>Weiser</b>	<b>100,400</b>	<b>134,200</b>	<b>77,000</b>	<b>211,300</b>	<b>134,200</b>	<b>55,400</b>	<b>21,700</b>	<b>60,000</b>	<b>0</b>	<b>0</b>	<b>134,200</b>	<b>77,000</b>	<b>36,100</b>	<b>274,100</b>	<b>0</b>	<b>0</b>
BLM	100,300	134,200	77,000	211,300	134,200	55,400	21,700	60,000	0	0	134,200	77,000	35,900	274,100	0	0
Forest Service	150	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0
<b>Sawtooth</b>	<b>21,500</b>	<b>21,500</b>	<b>0</b>	<b>21,500</b>	<b>21,500</b>	<b>0</b>	<b>0</b>	<b>21,500</b>	<b>0</b>	<b>0</b>	<b>21,500</b>	<b>0</b>	<b>0</b>	<b>21,500</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	21,500	21,500	0	21,500	21,500	0	0	21,500	0	0	21,500	0	0	21,500	0	0
<b>Total</b>	<b>8,443,000</b>	<b>2,741,400</b>	<b>7,683,500</b>	<b>10,425,000</b>	<b>2,962,500</b>	<b>1,354,100</b>	<b>6,329,400</b>	<b>23,42,300</b>	<b>1,938,500</b>	<b>4,402,000</b>	<b>2,741,400</b>	<b>7,683,500</b>	<b>234,900</b>	<b>2,713,500</b>	<b>3,066,700</b>	<b>4,636,600</b>
BLM Total	6,278,100	1,842,800	6,720,400	8,563,300	1,884,900	1,096,700	5,623,700	1,389,600	1,565,000	3,861,200	1,842,800	6,720,400	234,700	2,133,200	2,651,800	4,071,200
Forest Service Total	2,164,900	898,600	963,100	1,861,700	1,077,600	257,400	705,700	952,700	373,500	540,800	898,600	963,100	150	580,300	414,900	565,400

Source: BLM GIS 2015

**Table 4-7**  
**GRSG Habitat within BLM ACECs and Forest Service Zoological Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F – Opt A			Alternative F – Opt B			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>2,660</b>	<b>2,450</b>	<b>210</b>	<b>2,660</b>	<b>2,450</b>	<b>200</b>	<b>0</b>	<b>2,660</b>	<b>0</b>	<b>0</b>	<b>2,450</b>	<b>12,300</b>	<b>0</b>	<b>2,450</b>	<b>200</b>	<b>0</b>	<b>2,010</b>	<b>0</b>	<b>0</b>
<b>Mountain Valleys</b>	<b>105,000</b>	<b>18,100</b>	<b>86,800</b>	<b>434,200</b>	<b>18,100</b>	<b>11,300</b>	<b>75,500</b>	<b>8,240</b>	<b>35,600</b>	<b>67,000</b>	<b>18,100</b>	<b>2,336,900</b>	<b>0</b>	<b>18,100</b>	<b>303,500</b>	<b>0</b>	<b>15,900</b>	<b>52,600</b>	<b>30,200</b>
BLM	105,000	18,100	86,800	395,500	18,100	11,300	75,500	8,230	35,600	67,000	18,100	1,880,500	0	18,100	263,600	0	15,900	52,600	30,200
Forest Service	10	0	10	38,700	0	0	10	0	0	0	0	456,400	0	0	39,900	0	0	0	0
<b>SW Montana</b>	<b>42,200</b>	<b>1,490</b>	<b>35,200</b>	<b>36,700</b>	<b>7,030</b>	<b>0</b>	<b>35,200</b>	<b>1,490</b>	<b>0</b>	<b>35,200</b>	<b>1,480</b>	<b>623,500</b>	<b>0</b>	<b>1,480</b>	<b>35,200</b>	<b>0</b>	<b>1,490</b>	<b>0</b>	<b>35,200</b>
BLM	42,200	1,480	35,200	36,600	7,030	0	35,200	1,480	0	35,200	1,480	460,600	0	1,480	35,200	0	1,480	0	35,200
Forest Service	30	0	20	20	0	0	20	0	0	20	0	162,900	0	0	20	0	0	0	20
<b>North Side Snake</b>	<b>29,400</b>	<b>7,640</b>	<b>21,800</b>	<b>29,400</b>	<b>7,640</b>	<b>0</b>	<b>21,800</b>	<b>9,160</b>	<b>12,600</b>	<b>7,650</b>	<b>7,630</b>	<b>1,706,700</b>	<b>2,410</b>	<b>7,630</b>	<b>407,500</b>	<b>2,410</b>	<b>11,000</b>	<b>8,850</b>	<b>12,200</b>
BLM	29,400	7,630	21,800	29,400	7,630	0	21,800	9,140	12,600	7,650	7,630	1,678,100	2,410	7,630	407,500	2,410	11,000	8,850	12,200
Forest Service	20	20	0	20	20	0	0	20	0	0	0	28,600	0	0	0	0	20	0	0
<b>South Side Snake</b>	<b>71,500</b>	<b>34,800</b>	<b>36,700</b>	<b>801,000</b>	<b>34,800</b>	<b>11,700</b>	<b>25,000</b>	<b>15,200</b>	<b>13,200</b>	<b>43,700</b>	<b>34,800</b>	<b>1,638,100</b>	<b>1,050</b>	<b>34,800</b>	<b>487,100</b>	<b>1,050</b>	<b>10,900</b>	<b>16,400</b>	<b>46,700</b>
BLM	71,500	34,800	36,700	801,000	34,800	11,700	25,000	15,200	13,200	43,700	34,800	1,323,700	1,050	34,800	303,500	1,050	10,900	16,400	46,700
Forest Service	0	0	0	0	0	0	0	0	0	0	0	314,400	0	0	183,600	0	0	0	0
<b>Southwest Idaho</b>	<b>210,700</b>	<b>50,000</b>	<b>160,600</b>	<b>1,845,600</b>	<b>50,000</b>	<b>1,010</b>	<b>159,600</b>	<b>7,030</b>	<b>530</b>	<b>203,100</b>	<b>50,000</b>	<b>1,796,100</b>	<b>0</b>	<b>50,000</b>	<b>671,900</b>	<b>0</b>	<b>4,840</b>	<b>1,650</b>	<b>207,300</b>
<b>Bear Lake</b>	<b>280</b>	<b>0</b>	<b>280</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>45,200</b>	<b>0</b>	<b>0</b>	<b>39,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>280</b>
BLM	280	0	280	280	0	0	280	0	0	280	0	43,500	0	0	38,800	0	0	0	280

**Table 4-7**  
**GRSG Habitat within BLM ACECs and Forest Service Zoological Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F – Opt A			Alternative F – Opt B			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
Forest Service	0	0	0	0	0	0	0	0	0	0	0	1,620	0	0	200	0	0	0	0
<b>Weiser</b>	7,590	6,740	850	7,590	6,740	850	0	7,590	0	0	6,740	77,200	0	6,740	850	0	11,800	0	0
<b>Total</b>	<b>469,300</b>	<b>121,300</b>	<b>342,500</b>	<b>3,157,500</b>	<b>126,900</b>	<b>25,100</b>	<b>317,400</b>	<b>51,400</b>	<b>62,000</b>	<b>356,900</b>	<b>121,300</b>	<b>8,235,900</b>	<b>3,460</b>	<b>121,300</b>	<b>1,945,200</b>	<b>3,460</b>	<b>57,900</b>	<b>79,400</b>	<b>331,900</b>

Source: BLM GIS 2015

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1 reduction in predator perches, decrease in heavier fuels and fire intensity and a potential  
2 increase in water availability at nearby springs meadows and seeps. Vegetation management  
3 would create mosaic vegetation patterns and natural fuel breaks by promoting healthy,  
4 diverse vegetation communities that generally fuel low-intensity fires.

5 Annual grass expansion and/or repeated fires in low-elevation sagebrush habitat in portions  
6 of the North and South Snake River population areas are outpacing existing treatment or  
7 restoration efforts.

8 Vegetation dynamics modeling shows that, under Alternative A, all of the eight GRSG  
9 analysis areas that are currently meeting GRSG sagebrush habitat objectives in terms of  
10 sagebrush cover on the landscape would continue to meet these objectives in 10 years,  
11 though most would show a decline in the percentage meeting the habitat objectives. This  
12 percentage would continue to drop for most of the GRSG analysis areas after 50 years.  
13 However, several analysis areas, including Southwest Idaho, South Side Snake, and Weiser,  
14 would increase their proportion meeting habitat objectives over this timeframe (See **Tables**  
15 **4-1** and **4-2**).

#### 16 ***Impacts from Livestock Grazing Management***

17 Under Alternative A, 11,073,800 acres of identified PPH and PGH are open for livestock  
18 grazing affecting 98 percent of GRSG habitat within the sub-region. Livestock grazing  
19 would continue to be managed through existing grazing plans, with methods and guidelines  
20 from the existing plans followed to maintain ecological conditions according to Standards  
21 for Rangeland Health, which include maintaining healthy, productive and diverse  
22 populations of native plants and animals. Older LUPs do not contain specific language in  
23 regards to GRSG conservation and livestock management, although many offices are  
24 covered under various conservation strategies for GRSG. Recent LUPs have more specific  
25 language regarding the management of livestock and its relation to GRSG conservation,  
26 including references to state and local GRSG plans. National and state drought policies are  
27 in place and would be followed to minimize impacts on rangelands under drought  
28 conditions. Continuation of these policies would not specifically protect GRSG habitat,  
29 although the policies could provide indirect benefits through more conservative use of  
30 existing sagebrush habitat. Direct impacts on GRSG have been reduced in some areas due to  
31 GRSG-specific management found in some conservation strategies or LUPs.

32 According to National BLM policy, riparian habitats would be managed to achieve PFC. On  
33 National Forest System lands, riparian areas are managed through a combination of  
34 utilization standards and design features discussed/documented each year in the Annual  
35 Operating Instructions. Functional condition of riparian areas and wetlands are considered  
36 in the development of riparian utilization standards. In some cases this management would  
37 require livestock removal or restrictions in riparian areas to reduce impacts caused by  
38 livestock, such as trampling and overuse of riparian areas. Managing for PFC helps to  
39 improve riparian vegetation health through increased production and diversity of vegetation  
40 and helps to improve water retention on those sites. As a result, brood-rearing habitats for  
41 GRSG would be improved or preserved where they are applied.



1 Range improvements would be designed to meet both wildlife and range objectives, and  
2 would include building, modifying or marking fences to permit passage of wildlife and  
3 reduce the chance of bird strikes, use of off-site water facilities, and in some cases  
4 modification or removal or improvements not meeting resource needs. Modifications may  
5 involve moving troughs, adding or changing wildlife escape ramps, or ensuring water is  
6 available on the ground for a variety of different wildlife species. Although not directly  
7 created to protect GRSG, these approaches would protect and enhance GRSG habitat by  
8 reducing the likelihood of surface disturbance in sensitive areas and ensuring brood-rearing  
9 habitat is available to GRSG.

### 10 ***Impacts from Fire and Fuels Management***

11 Within the planning area, all LUPs address fire suppression and fuels management and all  
12 federal lands (Forest Service and BLM) are covered under fire management plans, most of  
13 which address GRSG habitat. The more recent LUPs contain more specific objectives and  
14 management action for suppression and management of fires within sagebrush vegetation  
15 communities and GRSG habitat in accordance with local conservation strategies. Each LUP  
16 supports the development and adherence to a more detailed fire management plan that  
17 outlines priorities and levels of suppression for particular vegetation classes, or resource  
18 protection. Most plans support the objective of re-introducing fire into fire-dependent  
19 ecosystems and utilize the FRCC framework to aid in prioritizing response to wildfires and  
20 determining where fire can be used to meet land management plan objectives. Plans place  
21 priority for suppression on the protection of human life, followed by property and other  
22 important resource values including wildlife, including GRSG and big game.

23 In general, current fire suppression activities, fuels management, post-fire emergency  
24 stabilization and fire restoration efforts focus to a large degree on the protection or  
25 improvement of GRSG habitat. Some LUPs promote the use of native seed for stabilization  
26 and restoration, which may help increase native plant diversity and thereby benefit GRSG,  
27 but this guidance is not consistently applied across the decision area. More direction for the  
28 BLM has been provided in IM 2013-128, which provides habitat maps, guidelines, and  
29 BMPs for wildland fire suppression and fuels management in GRSG habitat.

30 Under Alternative A, wildfires would continue to be especially problematic in several of the  
31 population areas, including North Side Snake, South Side Snake, and Southwest Idaho,  
32 primarily due to lightning and spread of cheatgrass. GRSG habitat would subsequently  
33 continue to be degraded or lost. Small and heavily disturbed populations with dominance of  
34 invasive annual grass understory would be particularly susceptible to these impacts.  
35 Additionally, there may be some direct and indirect effects on individual GRSG from direct  
36 mortality or disturbance due to fire suppression or fuels treatment activities in sagebrush  
37 areas, but this is assumed to be relatively minor, given the tradeoffs.

### 38 ***Impacts from Wild Horse and Burro Management***

39 The Idaho and southwestern Montana sub-region does not contain wild burros but does  
40 contain six wild horse HMAs. Under Alternative A, overall management direction is to  
41 manage populations of wild horses to achieve a thriving natural ecological balance with  
42 respect to wildlife and other uses. Wild horses would continue to be managed on 378,200



1 acres of HMAs, which overlap 228,500 acres of PPH and 41,300 acres of PGH in the sub-  
2 region. Wild horses would be managed at AML, with gathers based on gather schedules,  
3 budgets, or other priorities such as emergency gathers during drought periods. Keeping  
4 horses at AML would reduce overall impacts on vegetation, especially nesting cover and  
5 riparian brood-rearing habitats during periods of drought.

6 ***Impacts from Leasable Minerals Management***

7 Within the sub-region, most BLM-administered and National Forest System lands are open  
8 to oil and gas leasing. Specific closures of areas to leasing, such as ACECs or crucial or  
9 essential wildlife habitat, exist throughout the sub-region.

10 Currently, over 9.5 million acres of GRSG habitat are managed as open to fluid minerals  
11 leasing and over 2.7 million acres of GRSG habitat are closed to fluid minerals leasing.  
12 Lands closed to fluid minerals leasing comprise over 1.7 million acres of PPH and nearly 1  
13 million acres of PGH. Closed areas provide an increased level of protection to GRSG  
14 seasonal habitats because they remove the potential for disturbance and impacts on habitat,  
15 as described in **Section 4.2.2** (see **Table 4-8**, Alternative A: Percent of GRSG Habitat and  
16 Occupied Leks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by  
17 Population Area).

**Table 4-8**  
**Alternative A: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or**  
**with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	35.8%	2
Mountain Valleys	36%	30
SW Montana	54.5%	42
North Side Snake	36.2%	83
South Side Snake	21.7%	11
Southwest Idaho	23.6%	34
Sawtooth	75.8%	0
Bear Lake	58.9%	6
Weiser	28.9%	0

Source: BLM GIS 2015

18  
19 ***Impacts from Locatable Minerals Management***

20 BLM-administered and National Forest System lands within the sub-region are generally  
21 open to mineral location, causing effects similar to those described in **Section 4.2.2**. There  
22 are specific locatable mineral withdrawals for particular ROWs, designated wilderness areas,  
23 ACECs, and other administrative needs, but none specific to protecting GRSG habitat. All  
24 locatable mineral activities are managed under the regulations at 43 CFR Part 3800 through  
25 approval of a Notice of Intent or a Plan of Operations. Mitigation of effects on GRSG and  
26 its habitat are identified through the NEPA process approving plans of operation. Goals and  
27 objectives for locatable minerals are to provide opportunities to develop the resource while



1 preventing undue or unnecessary degradation of BLM-administered and National Forest  
2 System lands.

3 Lands closed to locatable mineral entry under the General Mining Act of 1872 comprise  
4 over 1.3 million acres of PPH and 433,200 acres of PGH. Current withdrawals provide an  
5 increased level of protection to GRSG seasonal habitats (see **Table 4-9**, Alternative A:  
6 Percent of GRSG Habitat and Occupied Leks Within Existing and Proposed Locatable  
7 Mineral Withdrawals by Population Area).

**Table 4-9**  
**Alternative A: Percent of GRSG Habitat and Occupied Leks Within Existing and Proposed Locatable Mineral Withdrawals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	5.0%	1
Mountain Valleys	12.7%	30
SW Montana	2.5%	3
North Side Snake	25%	57
South Side Snake	7.7%	8
Southwest Idaho	21.2%	29
Sawtooth	10.6%	0
Bear Lake	8.7%	2
Weiser	5.0%	0

Source: BLM GIS 2015

8  
9 ***Impacts from Salable Minerals Management***  
10 Within the sub-region, most BLM-administered and National Forest System lands are open  
11 to salable mineral material development. Specific closures of areas to salable mineral  
12 materials such as ACECs or crucial or essential wildlife habitat exist throughout the sub-  
13 region.

14 Currently, there are over 1.8 million acres closed to material sales within PPH and PGH  
15 combined. Closed areas provide an increased level of protection to GRSG seasonal habitats  
16 from loss, fragmentation and other impacts discussed in **Section 4.2.2** (see **Table 4-10**,  
17 Alternative A: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable  
18 Minerals by Population Area).

**Table 4-10**  
**Alternative A: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	25.3%	1
Mountain Valleys	23.7%	6
SW Montana	22.1%	0
North Side Snake	15.7%	23

**Table 4-10**  
**Alternative A: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
South Side Snake	8.9%	9
Southwest Idaho	18.9%	29
Sawtooth	12.7%	0
Bear Lake	14.4%	1
Weiser	0%	0

Source: BLM GIS 2015

1

2 ***Impacts from Lands Uses and Realty Management***

3 Under Alternative A, all BLM-administered lands are held in retention unless identified for  
4 disposal. Disposal criteria typically include considerations of sensitive or crucial resources  
5 such as wildlife habitat. While older LUPs in the sub-region do not have specific goals  
6 related to GRSG, some newer plans, such as those in Pocatello and Dillon, do have specific  
7 measures related to GRSG disturbance and habitat. Land tenure adjustments would be  
8 subject to current disposal/exchange/acquisition criteria, which include retaining lands with  
9 threatened or endangered species, high quality riparian habitat, or plant and animal  
10 populations or natural communities of high interest. While not explicitly stated in some  
11 existing RMPs, this would likely include retention of areas with GRSG, and would thus  
12 retain occupied habitats under BLM administration. This would reduce the likelihood of  
13 habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush  
14 habitat. Mitigation is typically developed under the NEPA process, and most ROW and  
15 surface developments are subject to limited operation periods or other stipulations in local  
16 GRSG conservation strategies.

17 This alternative designates 1.9 million acres of ROW avoidance areas within existing  
18 PPH/PGH where certain actions would be considered on a case-by-case basis through  
19 subsequent site specific NEPA analysis, including the consideration of mitigation measures  
20 to reduce impacts. This alternative designates over 1 million acres for ROW exclusion within  
21 PPH/PGH where all development would be prohibited. Acres identified as available for  
22 disposal total 749,900 acres of PPH and PGH under Alternative A. Under this alternative,  
23 avoidance areas provide an increased level of protection to habitat and exclusion areas  
24 provide an increased level of protection occupied leks in the sub-region. These management  
25 actions would be expected to reduce both direct and indirect impacts on GRSG.

26 ***Impacts from Renewable Energy Management***

27 In 2005 and 2008, the BLM programmatically amended its LUPs for renewable energy  
28 resources through the Wind Energy PEIS and Geothermal PEIS, respectively. These  
29 programmatic documents outline BLM-administered or National Forest System lands  
30 available and unavailable for these resource uses and provide direction on processing ROWs  
31 and geothermal lease applications, as well as establishing BMPs for conducting these  
32 activities on BLM-administered lands. The BMPs contain some general guidance for

1 addressing GRSG and its habitat. LUPs would continue to have different stipulations for  
2 geothermal resources and under Alternative A, over 7.9 million acres of PPH and PGH  
3 could be open for wind development.

4 Under Alternative A, 1.9 million acres are managed for exclusion and 1.3 million acres are  
5 managed for avoidance of wind energy within existing PPH/PGH. This represents nearly 30  
6 percent of the available PPH and PGH in the planning area being excluded or avoided.  
7 Outside these areas, there would be more impacts on GRSG and their habitat than inside the  
8 areas excluded or avoided.

9 Impacts on GRSG and their habitat from construction and operation of wind energy  
10 facilities are discussed in **Section 4.2.2** above. Management under Alternative A identified  
11 more acres of GRSG habitat available for wind energy and could lead to more impacts,  
12 including habitat degradation, increased predation, and others discussed in **Section 4.2.2**,  
13 compared to the action alternatives (Alternatives B through F).

14 There are 1,028,500 acres of PPH and PGH managed as ROW exclusion and 1,956,200  
15 acres of PPH and PGH managed as ROW avoidance within the sub-region. Proposed  
16 exclusion and avoidance areas provide an increased level of protection to GRSG seasonal  
17 habitats (see **Table 4-11**, Alternative A: Percent of GRSG Habitat and Occupied Leaks  
18 Affected by ROW Exclusion or Avoidance by Population Area).

**Table 4-11**  
**Alternative A: Percent of GRSG Habitat and Occupied Leaks Affected by ROW Exclusion or**  
**Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leaks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	0.5%	0	11.4%	0	0	0
Mountain Valleys	1.5%	0	14.3%	1	0	17
SW Montana	16.4%	0	30.2%	0	0	1
North Side Snake	6%	0	16.1%	5	0	12
South Side Snake	2.4%	0	21.3%	3	0	27
Southwest Idaho	20.6%	0	8.3%	29	0	9
Sawtooth	0.2%	0	97.2%	0	0	0
Bear Lake	1.2%	0	0.3%	0	0	0
Weiser	58.6%	0	41.3%	1	0	0

Source: BLM GIS 2015

*Impacts from Geothermal Energy Development*

19  
20 Within the sub-region, most BLM-administered and National Forest System lands are open  
21 to geothermal development. Specific closures of areas to geothermal such as ACECs or  
22 critical or essential wildlife habitat exist throughout the sub-region.  
23

1 Under this alternative, over 9.5 million acres of PPH and PGH would be designated as open  
 2 for geothermal development. This alternative leaves the remaining PPH and PGH closed or  
 3 limited for geothermal development. Closed areas provide an increased level of protection to  
 4 GRSG seasonal habitats (see **Table 4-12** Error! Reference source not found. Error!  
 5 **Reference source not found.**).

**Table 4-12**  
**Alternative A: Percent of GRSG Habitat and Occupied Leaks Within Areas Closed or**  
**with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	35.1%	2
Mountain Valleys	36%	30
SW Montana	54.4%	42
North Side Snake	36.3%	83
South Side Snake	21.9%	12
Southwest Idaho	23.6%	34
Sawtooth	75.8%	0
Bear Lake	39.7%	4
Weiser	28.7%	0

Source: BLM GIS 2015

***Impacts from Travel and Transportation Management***

Under current management, Travel Management Areas have not been consistently identified in LUPs beyond the basic allocations of open, closed, and limited. Closed areas are comprised of congressionally designated areas, WSAs, and, as directed, some ACECs. Areas within PPH and PGH that are limited to existing/designated roads include over 2 million acres of National Forest System lands. Under current management, over 700,000 acres of PPH/PGH are closed to motorized vehicles, 7.7 million acres are limited to existing routes for motorized vehicles, and 2.8 million acres are open to all modes of cross country travel (see **Table 4-13**, Alternative A: Percent of GRSG Habitat and Occupied Leaks Affected by Travel Management by Population Area). Lands within the Dillon Field Office are currently restricted to designated routes only.

**Table 4-13**  
**Alternative A: Percent of GRSG Habitat and Occupied Leaks Affected by Travel**  
**Management by Population Area**

Population Area	Habitat Area			Occupied Leaks		
	Open	Limited	Closed	Open	Limited	Closed
East Central Idaho	0.37%	91%	9%	0	2	0
Mountain Valleys	25%	74%	1%	37	99	1
SW Montana	0%	98%	2%	0	40	0
North Side Snake	74%	20%	6%	163	46	5



**Table 4-13**  
**Alternative A: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open	Limited	Closed	Open	Limited	Closed
South Side Snake	15%	82%	3%	21	143	3
Southwest Idaho	0%	80%	20%	0	126	27
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	100%	0.39%	0	7	0
Weiser	71%	28%	0.41%	0	1	0

Source: BLM GIS 2015

**Impacts from Special Designations Management**

Under Alternative A, the BLM would continue to manage 59 ACECs within the sub-region (Table 4-7). The Forest Service would not manage any ZAs under Alternative A. Existing ACECs likely protect GRSG habitat through use restrictions; these impacts are analyzed under each existing RMP within the planning area. As a result, there would be no additional effects from ACEC or ZA management on GRSG under this alternative.

**4.2.1 Impacts Common to All Action Alternatives**

While the nature and type of effects listed below from each alternative are similar, the impacts may differ by intensity, extent, or context.

**GRSG Habitat Designations**

Each action alternative designates GRSG habitat. Table 4-14, Acres of Designated Habitat Types in the Idaho and Southwestern Montana Sub-region, displays the acres of each habitat designation within each alternative.

**Impacts on USFWS Priority Areas for Conservation**

In 2013, the USFWS identified GRSG priority areas for conservation (USFWS 2013a). The relation of priority areas for conservation to the GRSG habitat designations in each alternative is shown in Table 4-15, Acres of Priority Areas for Conservation within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region.

**Mitigation**

Each action alternative includes a mitigation framework. Mitigation does not eliminate direct project effects, its inclusion in projects at the site-specific level is designed to provide an associated benefit to GRSG and eliminate detrimental cumulative effects.

Alternatives B, C, D, and F address mitigation through a Regional Mitigation Strategy (Appendix J). As part of this mitigation strategy, the BLM would establish a Mitigation Implementation Team for each WAFWA MZ. These teams would develop a Mitigation Strategy consistent with the BLM Regional Mitigation Manual Section (1794). The teams will coordinate recommended mitigation strategies between LUP planning areas, WAFWA MZs,

1 and local and state jurisdictions for mitigation consistency. In addition, one of the goals in  
2 Alternative D is to provide for no unmitigated loss to occupied GRSG habitat.

3 Alternative E would utilize an Implementation Task Force to assess project proposals and  
4 their mitigation packages to determine whether to recommend an exemption for the  
5 governor's consideration. This would primarily affect CHZ areas where additional  
6 infrastructure development is restricted with narrow exceptions. Mitigation would be  
7 assessed according to Idaho's Mitigation Framework (**Appendix J**).

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**Table 4-14**  
**Acres of Designated Habitat Types in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ <sup>1</sup>	IHZ	CHZ <sup>1</sup>	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>67,600</b>	<b>12,300</b>	<b>79,800</b>	<b>94,800</b>	<b>7,630</b>	<b>4,670</b>	<b>79,800</b>	<b>0</b>	<b>0</b>	<b>67,600</b>	<b>12,300</b>	<b>0</b>	<b>64,200</b>	<b>0</b>	<b>0</b>
BLM	23,500	12,300	35,800	23,500	7,630	4,670	35,800	0	0	23,500	12,300	0	34,400	0	0
Forest Service	44,100	0	44,100	71,300	0	0	44,100	0	0	44,100	0	0	29,800	0	0
<b>Mountain Valleys</b>	<b>541,600</b>	<b>2,336,900</b>	<b>2,878,400</b>	<b>541,600</b>	<b>427,300</b>	<b>1,909,500</b>	<b>566,100</b>	<b>964,000</b>	<b>1,377,000</b>	<b>541,600</b>	<b>2,336,900</b>	<b>0</b>	<b>218,500</b>	<b>1,019,400</b>	<b>1,342,800</b>
BLM	198,700	1,880,500	2,079,200	198,700	234,600	1,645,900	189,400	782,400	1,130,500	198,700	1,880,500	0	175,300	824,900	1,071,100
Forest Service	342,900	456,400	799,300	342,900	192,700	263,600	376,700	181,600	246,500	342,900	456,400	0	43,154	194,400	271,800
<b>Southwest Montana</b>	<b>456,400</b>	<b>623,500</b>	<b>1,079,900</b>	<b>638,100</b>	<b>160</b>	<b>623,300</b>	<b>456,800</b>	<b>0</b>	<b>622,700</b>	<b>456,400</b>	<b>623,500</b>	<b>0</b>	<b>456,381</b>	<b>0</b>	<b>623,600</b>
BLM	222,000	460,600	682,600	268,200	80	460,500	222,000	0	460,400	222,000	460,600	0	221,950	0	460,600
Forest Service	234,400	162,900	397,300	369,900	70	162,800	234,800	0	162,300	234,400	162,900	0	234,430	0	163,000
<b>North Side Snake</b>	<b>579,800</b>	<b>1,706,700</b>	<b>2,286,500</b>	<b>579,800</b>	<b>246,400</b>	<b>1,460,400</b>	<b>993,100</b>	<b>489,400</b>	<b>808,100</b>	<b>579,800</b>	<b>1,706,700</b>	<b>246,800</b>	<b>928,079</b>	<b>690,400</b>	<b>948,200</b>
BLM	493,900	1,678,100	2,172,000	493,900	228,500	1,449,600	906,600	461,300	808,100	493,900	1,678,100	246,800	839,747	652,800	959,400
Forest Service	85,900	28,600	114,500	85,900	17,900	10,800	86,500	28,000	0	85,900	28,600	0	86,700	28,000	0
<b>South Side Snake</b>	<b>636,200</b>	<b>1,638,100</b>	<b>2,274,300</b>	<b>636,200</b>	<b>567,900</b>	<b>1,070,300</b>	<b>791,200</b>	<b>759,100</b>	<b>729,100</b>	<b>636,200</b>	<b>1,638,100</b>	<b>36,300</b>	<b>504,700</b>	<b>957,500</b>	<b>656,000</b>
BLM	466,500	1,323,700	1,790,200	466,500	520,800	803,000	602,400	595,800	597,000	466,500	1,323,700	36,300	339,400	765,800	525,300
Forest Service	169,700	314,400	484,100	169,700	47,100	267,300	188,700	163,300	132,100	169,700	314,400	0	165,200	191,600	130,700
<b>Southwest Idaho</b>	<b>427,700</b>	<b>1,796,100</b>	<b>2,223,700</b>	<b>427,700</b>	<b>80,700</b>	<b>1,715,300</b>	<b>368,900</b>	<b>514,800</b>	<b>1,345,100</b>	<b>427,700</b>	<b>1,796,100</b>	<b>146,500</b>	<b>290,800</b>	<b>466,100</b>	<b>1,591,000</b>
BLM	427,700	1,796,100	2,223,700	427,700	80,700	1,715,300	368,900	514,800	1,345,100	427,700	1,796,100	146,500	290,800	466,100	1,591,000
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>5,310</b>	<b>45,200</b>	<b>50,500</b>	<b>27,800</b>	<b>1,130</b>	<b>44,000</b>	<b>7,810</b>	<b>16,600</b>	<b>26,300</b>	<b>5,300</b>	<b>45,200</b>	<b>0</b>	<b>1,420</b>	<b>19,900</b>	<b>31,100</b>
BLM	4,690	43,500	48,200	4,700	740	42,800	6,880	15,200	26,300	4,690	43,500	0	1,420	18,400	31,100
Forest Service	610	1,620	2,240	23,100	390	1,230	940	1,370	0	610	1,620	0	0	1,570	0
<b>Weiser</b>	<b>135,000</b>	<b>77,200</b>	<b>212,200</b>	<b>135,000</b>	<b>55,600</b>	<b>21,700</b>	<b>212,200</b>	<b>0</b>	<b>0</b>	<b>135,000</b>	<b>77,200</b>	<b>70,700</b>	<b>275,000</b>	<b>0</b>	<b>0</b>
BLM	135,000	77,200	212,200	135,000	55,600	21,700	212,200	0	0	135,000	77,200	70,600	275,000	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0



**Table 4-14**  
**Acres of Designated Habitat Types in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ <sup>1</sup>	IHZ	CHZ <sup>1</sup>	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
Sawtooth	21,500	0	21,500	21,500	0	0	21,500	0	0	21,500	0	0	21,500	0	0
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	21,500	0	21,500	21,500	0	0	21,500	0	0	21,500	0	0	21,500	0	0
<b>Total</b>	<b>2,870,900</b>	<b>8,235,900</b>	<b>11,106,900</b>	<b>3,102,400</b>	<b>1,386,800</b>	<b>6,849,200</b>	<b>3,497,400</b>	<b>2,743,800</b>	<b>4,908,100</b>	<b>2,870,900</b>	<b>8,235,900</b>	<b>500,300</b>	<b>2,760,500</b>	<b>3,153,300</b>	<b>5,192,600</b>

Source: BLM GIS 2015

<sup>1</sup>Acres in PHMA in Utah and Montana are included with PHMA acres for Idaho. Acres in GHMA in Montana are included in GHMA for Idaho.

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**Table 4-15**  
**Acres of Priority Areas for Conservation within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

GRSG Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Mountain Valleys</b>	<b>2,320,400</b>	<b>115,400</b>	<b>2,205,100</b>	<b>2,320,400</b>	<b>115,400</b>	<b>360,000</b>	<b>1,845,100</b>	<b>1,376,900</b>	<b>4,410</b>	<b>964,000</b>	<b>115,400</b>	<b>2,205,100</b>	<b>0</b>	<b>93,700</b>	<b>876,500</b>	<b>1,203,800</b>
BLM	1,895,900	76,100	1,819,800	1,895,900	76,100	212,200	1,607,600	1,130,500	1,520	782,400	76,100	1,819,800	0	90,900	758,900	1,007,000
Forest Service	424,500	39,300	385,300	424,500	39,300	147,800	237,500	246,500	2,890	181,600	39,300	385,300	0	2,700	117,600	196,900
<b>Southwest Montana</b>	<b>623,500</b>	<b>0</b>	<b>623,500</b>	<b>623,500</b>	<b>0</b>	<b>150</b>	<b>623,300</b>	<b>622,700</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>623,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>623,500</b>
BLM	460,600	0	460,600	460,600	0	80	460,500	460,400	80	0	0	460,600	0	0	0	460,600
Forest Service	162,900	0	162,900	162,900	0	60	162,800	162,300	80	0	0	162,900	0	0	0	162,900
<b>North Side Snake</b>	<b>1,293,500</b>	<b>16,800</b>	<b>1,276,700</b>	<b>1,293,500</b>	<b>16,800</b>	<b>148,500</b>	<b>1,128,200</b>	<b>808,100</b>	<b>60</b>	<b>489,400</b>	<b>16,800</b>	<b>1,276,700</b>	<b>1,290</b>	<b>17,900</b>	<b>367,800</b>	<b>910,200</b>
BLM	1,265,400	15,700	1,249,700	1,265,400	15,700	131,700	1,118,000	808,100	60	461,300	15,700	1,249,700	1,290	15,600	333,400	919,000
Forest Service	28,000	1,030	27,000	28,000	1,000	16,800	10,200	0	0	28,000	1,030	27,000	0	2,300	25,600	0
<b>South Side Snake</b>	<b>1,485,700</b>	<b>82,300</b>	<b>1,403,500</b>	<b>1,485,700</b>	<b>82,300</b>	<b>418,200</b>	<b>985,300</b>	<b>729,100</b>	<b>2,700</b>	<b>759,000</b>	<b>82,300</b>	<b>1,403,500</b>	<b>4,610</b>	<b>52,200</b>	<b>781,600</b>	<b>644,200</b>
BLM	1,190,100	61,400	1,128,700	1,190,100	61,400	402,600	726,100	597,000	2,390	595,700	61,400	1,128,700	4,610	51,700	616,600	513,500
Forest Service	295,600	20,900	274,800	295,600	20,900	15,600	259,200	132,100	300	163,300	20,900	274,800	0	440	164,900	130,700
<b>Southwest Idaho</b>	<b>1,867,600</b>	<b>106,300</b>	<b>1,761,300</b>	<b>1,867,600</b>	<b>106,300</b>	<b>71,400</b>	<b>1,689,900</b>	<b>1,345,100</b>	<b>10,800</b>	<b>514,800</b>	<b>106,300</b>	<b>1,761,300</b>	<b>0</b>	<b>7,020</b>	<b>323,300</b>	<b>1,537,500</b>
BLM	1,867,600	106,300	1,761,300	1,867,600	106,300	71,400	1,689,900	1,345,100	10,800	514,800	106,300	1,761,300	0	7,020	323,300	1,537,500
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>42,800</b>	<b>680</b>	<b>42,000</b>	<b>42,700</b>	<b>730</b>	<b>1,040</b>	<b>41,000</b>	<b>26,300</b>	<b>80</b>	<b>16,600</b>	<b>680</b>	<b>42,000</b>	<b>0</b>	<b>0</b>	<b>15,800</b>	<b>26,300</b>
BLM	41,400	680	40,800	41,400	680	680	40,100	26,300	80	15,200	680	40,800	0	0	14,900	26,300
Forest Service	1,340	0	1,290	1,300	50	360	930	0	0	1,370	0	1,290	0	0	860	0
<b>Weiser</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Sawtooth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>7,633,500</b>	<b>321,400</b>	<b>7,312,000</b>	<b>7,633,400</b>	<b>321,400</b>	<b>999,300</b>	<b>6,312,700</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>321,400</b>	<b>7,312,000</b>	<b>5,890</b>	<b>170,700</b>	<b>2,365,100</b>	<b>4,945,500</b>

**Table 4-15**  
**Acres of Priority Areas for Conservation within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

GRSG Analysis Area	Alternative A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
BLM	6,721,100	260,200	6,460,900	6,721,100	260,200	818,700	5,642,200	0	0	0	260,200	6,460,900	5,890	165,200	2,047,200	4,464,000
Forest Service	912,400	61,200	851,200	912,400	61,200	180,600	670,600	0	0	0	61,200	851,200	0	5,500	309,000	490,400

Source: BLM GIS 2015

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1 ***Adaptive Management***

2 Each action alternative contains an adaptive management strategy. Effects of Alternatives D  
3 and E strategies are described in the associated section within the alternative impacts section  
4 below.

5 For Alternatives B, C, and F an adaptive management framework is described; however,  
6 specific triggers and resulting actions have not been described. A subsequent adaptive  
7 management plan would be developed that:

- 8 • Identifies science based soft and hard adaptive management triggers applicable to  
9 each population or subpopulation within the planning area
- 10 • Addresses how the multiple scale data from the Monitoring Framework Plan  
11 (**Appendix E**) would be used to gauge when adaptive management triggers are  
12 met
- 13 • Charters an adaptive management working group to assist with responding to  
14 soft adaptive management triggers

15 **4.2.2 Alternative B**

16 PHMA and GHMA would be designated under Alternative B (**Table 4-14**). The BLM and  
17 Forest Service would apply a maximum three percent disturbance cap to human activities in  
18 PHMA. The three percent disturbance cap was recommended in the NTT report and is  
19 designed to minimize impacts on GRSG habitat by limiting disturbances in sensitive habitat  
20 areas. The agencies would implement numerous conservation measures, as described under  
21 the resource headings below, to reduce impacts from human activities in PHMA. Restricting  
22 surface-disturbing activities would reduce the likelihood for habitat loss, fragmentation and  
23 direct disturbance to GRSG.

24 ***Impacts from Vegetation and Soils Management***

25 Under Alternative B, restoration projects would be prioritized in seasonal GRSG habitats  
26 thought to be limiting the distribution and abundance of GRSG. Re-establishment of  
27 sagebrush cover and desirable understory plants would be the highest priority for restoration  
28 efforts. Restoration treatments would incorporate habitat parameters defined by Connelly et  
29 al. 2000, Hagen et al. 2007, and state GRSG conservation plans. Native seed would be  
30 required for restoration treatments and the establishment of designated seed harvest areas  
31 for sagebrush seed collection in fire prone areas. Climate change would be a consideration  
32 when proposing native seed collection. In addition, post-restoration management plans  
33 would be implemented to ensure long-term persistence of vegetation treatments.

34 Alternative B management prescriptions for vegetation and soil applied to PHMAs and  
35 GHMAs would provide greater protection and restoration efforts for GRSG habitat  
36 compared with those under Alternative A. This is because prescriptions under Alternative B  
37 are based on the NTT report recommendations, which were designed specifically for GRSG  
38 conservation.

1 Management under Alternative B would ensure the long-term availability and resiliency of  
2 native seed for restoration treatments by establishing native seed harvest areas which  
3 incorporate climate change effects. This and post-treatment management plans would  
4 improve the success of restoration treatments and the future persistence of GRSG and their  
5 habitat.

6 Vegetation treatment rates would be greater than under Alternative A and would further  
7 reduce the impacts of invasive grasses, affecting the population areas where invasive grasses  
8 are a substantial threat. Treatment rates would further reduce the impacts of conifer  
9 encroachment on the population areas where conifer is a substantial threat. Trends for  
10 habitat at 10 and 50 years would improve compared with Alternative A (See **Tables 4-1** and  
11 **4-2**).

### 12 ***Impacts from Livestock Grazing Management***

13 Under Alternative B, the same number of acres would be open to livestock grazing as under  
14 Alternative A. Agencies, in coordination with permittees, would prioritize a number of  
15 management actions in PHMAs to incorporate GRSG habitat objectives and management  
16 considerations into livestock grazing management, though there would be no change to the  
17 acreage open for grazing or available AUMs unless an allotment is retired from grazing.  
18 Management actions would include developing specific vegetation objectives based on  
19 Ecological Site Descriptions to conserve, enhance, or restore PHMAs habitat and riparian  
20 areas would be managed for proper functioning condition. Vegetation treatments to increase  
21 livestock forage would only be allowed if they conserved, enhanced or restored GRSG  
22 habitat. This alternative would also implement modifications to season of use, numbers of  
23 livestock or livestock types to meet seasonal GRSG requirements based on site-specific  
24 conditions during permit renewal. New water developments would only be authorized when  
25 they would benefit PHMAs. In PHMAs, older developments would also be analyzed in  
26 order to determine if modifications of the system are necessary to maintain the integrity of  
27 the riparian area. Removal, modification, or marking of fences would be considered under  
28 this alternative.

29 This alternative would provide long-term benefits to GRSG through improvements in both  
30 upland and riparian GRSG habitats, and would reduce both short and long-term impacts by  
31 reducing direct impacts on GRSG on their seasonal ranges. However, restriction or removal  
32 of water developments could reduce water availability for GRSG on a site-specific basis.  
33 Compared with Alternative A, Alternative B management actions would further reduce, but  
34 would not eliminate, impacts from grazing on GRSG and their habitat.

### 35 ***Impacts from Fire and Fuels Management***

36 Under Alternative B, impacts on GRSG from fire suppression activities would be largely the  
37 same as Alternative A. On BLM-administered and National Forest System lands, 8.2 million  
38 acres of GRSG habitat would be designated as PHMAs, and 2.8 million acres would be  
39 designated as GHMAs. With regard to fuels management projects, GRSG would benefit  
40 from the direction provided to protect important aspects of habitat within PHMAs (e.g.,  
41 canopy cover). Hazardous fuels projects focused on protecting GRSG habitat would be  
42 prioritized in these areas. Any fuels treatment in sagebrush would carefully consider if there



1 is a net benefit for GRSG prior to implementation, and fuels treatments would not be  
2 allowed in winter habitat. Not allowing fuel treatment in winter habitat may greatly limit the  
3 ability to protect winter habitat from fire.

4 Prescribed fire in low precipitation areas (less than 12 inches) would generally not be  
5 allowed. Post-fire rehabilitation would be conducted using primarily native species, based on  
6 availability and adaptation. Rest from grazing would be required for two full growing  
7 seasons, unless vegetation recovery dictates otherwise. These activities may decrease the  
8 likelihood for fire in GRSG habitats and would help restore GRSG habitat in fire-affected  
9 areas. However, relative to the amount of GRSG habitat that is expected to burn based on  
10 current trends and is outside the control of the BLM or Forest Service, these actions may  
11 provide localized but minimal protections and improvements to the populations in the sub-  
12 region where fire contributes significantly to current declining trends.

13 ***Impacts from Wild Horse and Burro Management***

14 Under Alternative B, wild horses and burros would be managed at AML on the same  
15 number of acres as Alternative A, with gathers prioritized based on PHMA's habitat and  
16 emergency environmental issues. HMA plans, when developed or updated, would  
17 incorporate GRSG habitat objectives. Implementation of any range improvements would  
18 follow the same guidance as identified for livestock grazing in this alternative, including  
19 designing and locating new improvements only where they "conserve, enhance, or restore  
20 GRSG habitat through improved grazing management." Design features could include  
21 developing or modifying water developments to mitigate for West Nile virus, removing or  
22 modifying fences to reduce the chance of bird strikes, or monitoring and treating invasive  
23 species associated with range improvements. Additional range improvements would  
24 specifically address the needs of GRSG. Compared with Alternative A, Alternative B would  
25 prioritize GRSG habitat objectives in HMA plans and base assessment of AMLs on  
26 achieving or maintaining GRSG habitat needs.

27 ***Impacts from Leasable Minerals Management***

28 Management under Alternative B would close 9.1 million acres of PHMA's to leasing. Closed  
29 lands would provide an increased level of protection to habitat associated with leks. (See  
30 **Table 4-16, Alternative B: Percent of GRSG Habitat and Occupied Leks Within Areas**  
31 **Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area**).

**Table 4-16**  
**Alternative B: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or**  
**with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	40%	3
Mountain Valleys	93.1%	159
SW Montana	80.8%	47
North Side Snake	82%	261
South Side Snake	80.2%	157
Southwest Idaho	85%	152

**Table 4-16**  
**Alternative B: Percent of GRSG Habitat and Occupied Leaks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leaks
Sawtooth	75.8%	0
Bear Lake	93.3%	7
Weiser	47.4%	0

Source: BLM GIS 2015

1

2

***Impacts from Locatable Minerals Management***

3

Management under Alternative B would include withdrawals and processes for management. In addition, PHMAs would be recommended for mineral withdrawal and existing mining claims would be subject to validity exams or buy-out. For these reasons, Alternative B would be more protective of GRSG than Alternative A.

4

5

6

7

Lands withdrawn or recommended for withdrawal include 9.3 million acres of PHMAs. Withdrawn lands would provide an increased level of protection to habitat associated with leks (see **Table 4-17**, Alternative B: Percent of GRSG Habitat and Occupied Leaks Affected by Mineral Withdrawal by Population Area).

8

9

10

**Table 4-17**  
**Alternative B: Percent of GRSG Habitat and Occupied Leaks Affected by Mineral Withdrawal by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	25.9%	4
Mountain Valleys	83%	138
SW Montana	52.2%	70
North Side Snake	78.3%	228
South Side Snake	75.3%	167
Southwest Idaho	85.1%	152
Sawtooth	17.2%	0
Bear Lake	85.5%	8
Weiser	43.5%	0

Source: BLM GIS 2015

11

12

***Impacts from Salable Minerals Management***

13

Management under Alternative B would be more protective than Alternative A and would close PHMAs to mineral material sales.

14

15

Alternative B closes 8.7 million acres of PHMAs to mineral material sales. Closed lands would provide an increased level of protection to habitat associated with leks (see **Table 4-**

16



1 **18**, Alternative B: Percent of GRSG Habitat and Occupied Leaks Affected by Closure to  
2 Salable Minerals by Population Area).

**Table 4-18**  
**Alternative B: Percent of GRSG Habitat and Occupied Leaks Affected by Closure to**  
**Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	8.6%	3
Mountain Valleys	68.9%	159
SW Montana	31.9%	45
North Side Snake	60.8%	252
South Side Snake	58.2%	155
Southwest Idaho	69.9%	152
Sawtooth	7.8%	0
Bear Lake	42.7%	7
Weiser	18.6%	0

Source: BLM GIS 2015

3

4 ***Impacts from Land Uses and Realty Management***

5 Under Alternative B, more habitat would be managed as ROW avoidance (2.5 million acres)  
6 and exclusion (8.4 million acres) areas than under Alternative A. There is an approximate  
7 503,600-acre difference between Alternatives A and B in terms of acres for disposal in  
8 GRSG habitat, with Alternative B having fewer acres available for disposal within PHMA  
9 and GHMA compared to the acres in PPH and PGH. PHMAs would be managed as  
10 exclusion areas for new ROW permits, with some exceptions. Mitigation and restoration  
11 efforts would take place related to existing ROWs in PHMAs. In general habitat, avoidance  
12 areas would be set up in relation to new ROWs, collocating ROWs as much as possible.  
13 Under Alternative B, PHMAs would be retained unless mitigation or land tenure adjustment  
14 would better benefit GRSG habitat. Avoidance areas provide an increased level of  
15 protection to modeled nesting habitat associated with leks representing 64 percent of the  
16 sub-regional population, and exclusion areas provide an increased level of protection to 30  
17 percent of the sub-regional population. In relation to Alternative A, management under  
18 Alternative B would provide fewer direct impacts on GRSG by greatly increasing acreage  
19 subject to ROW avoidance and exclusion and by protection and acquisition of important  
20 GRSG habitats.

21 ***Impacts from Renewable Energy Management***

22 Under Alternative B, impacts from management of lands for wind and solar energy  
23 development would be the same as for Alternative A.

24 ***Impacts from Wind Energy Development on Sub-populations***

25 Alternative B does not specify acreages to set aside specifically for GRSG conservation.  
26 Because no action is specified under Alternative B, the default is that the same action would  
27 be taken for Alternative B as proposed for Alternative A.



1 Within the sub-region, 8.5 million acres of PHMAs and GHMAs would be excluded and 2.3  
 2 million acres of PHMAs and GHMAs would have ROW avoidance for wind energy  
 3 development. This represents 97 percent of the available PHMAs and GHMAs in the  
 4 planning area being excluded or avoided in the planning area. Proposed ROW exclusion and  
 5 avoidance areas provide an increased level of protection to habitat associated with leks (see  
 6 **Table 4-19**, Alternative B: Percent of GRSG Habitat and Occupied Leks Affected by ROW  
 7 Exclusion or Avoidance by Population Area).

**Table 4-19**  
**Alternative B: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	0%	15.4%	84.6%	0	1	1
Mountain Valleys	1.5%	80.1%	18.1%	1	131	5
SW Montana	33.6%	49.3%	33.6%	0	38	1
North Side Snake	6.1%	69.9%	23%	5	207	2
South Side Snake	27.1%	69.8%	27.1%	3	157	7
Southwest Idaho	14.8%	63.8%	14.8%	29	123	1
Sawtooth	0.2%	0%	99.8%	0	0	0
Bear Lake	0.6%	88.9%	10.5%	0	6	0
Weiser	41.4%	0%	41.4%	1	0	0

Source: BLM GIS 2015

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 9 *Impacts from Geothermal Energy Development on Sub-populations*  
 10 Alternative B does not specify acreage to set aside specifically for GRSG conservation.  
 11 Because no action is specified under Alternative B, the default is that the same action would  
 12 be taken for Alternative B as proposed for Alternative A.

13 Within the sub-region, most BLM-administered and National Forest System lands are open  
 14 to geothermal development. Specific closures of areas to geothermal such as ACECs or  
 15 crucial or essential wildlife habitat exist throughout the sub-region.

16 Under this alternative, 2.3 million acres of GHMA would remain open for geothermal  
 17 development. PHMA would be closed to geothermal development (**Table 4-20**).

**Table 4-20**  
**Alternative B: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	39.3%	3

**Table 4-20**  
**Alternative B: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leks
Mountain Valleys	93.2%	159
SW Montana	80.8%	46
North Side Snake	82.2%	261
South Side Snake	80.3%	157
Southwest Idaho	85%	152
Sawtooth	75.8%	0
Bear Lake	90.3%	7
Weiser	47.4%	0

Source: BLM GIS 2015

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***Impacts from Travel and Transportation Management***

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Under Alternative B, any designated open roads within PHMAs would be managed as limited to existing roads for motorized travel, with the exception of existing closed areas within PHMAs or GHMAs.

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Under Alternative B, over 700,000 acres of PHMA and GHMA would be closed to motorized vehicles, over 10 million acres would be limited to existing roads, and 1,350 acres would be open to all modes of cross-country travel (see **Table 4-21**, Alternative B: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area).

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**Table 4-21**  
**Alternative B: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0.5%	87.4%	12.1%	0	2	0
Mountain Valleys	1.5%	97.4%	1.2%	3	133	1
SW Montana	0%	99%	1%	0	40	0
North Side Snake	18.4%	75.5%	6.2%	2	207	5
South Side Snake	0%	80.4%	19.6%	2	162	3
Southwest Idaho	5.1%	91.6%	3.3%	0	126	27
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.4%	0.6%	0	6	0
Weiser	41.6%	58.0%	0.4%	0	1	0

Source: BLM GIS 2015

<sup>1</sup>Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

11

1       ***Impacts from Special Designations Management***

2       Impacts from ACEC management under Alternative B are the same as those described for  
3       Alternative A (Table 4-7).

4                   **4.2.3 Alternative C**

5       Under Alternative C, the BLM and Forest Service would manage lands to conserve, enhance,  
6       and restore sagebrush ecosystems. Management actions would be applied to all occupied  
7       GRSG habitats (Table 4-14). Management would focus on removing livestock grazing from  
8       occupied habitats, with most other management similar that to Alternative A. The three  
9       percent disturbance cap would be the same as under Alternative B, but would apply to all  
10      occupied habitat.

11      ***Impacts from Vegetation and Soils Management***

12      Given the limited current distribution of suitable GRSG habitat, management plans that  
13      strategically protect intact sagebrush and restore impacted areas to enhance existing habitats  
14      have the best chance of increasing the amount and quality of GRSG habitat (Manier et al.  
15      2013, p. 171). Management under Alternative C would decrease vegetation treatments  
16      needed to increase the amount and quality of GRSG habitat, compared with Alternative A.  
17      Habitat trends for 10 and 50 years indicate a slight decline, from increased influence of  
18      invasive grasses and continued dominance of conifer, in impacted populations and  
19      subpopulations as compared with Alternative A.

20      Under Alternative C, vegetation management would prioritize the restoration of crested  
21      wheat seedings and focus fuels treatments in areas of urban interface and significant existing  
22      disturbances, establish monitoring sites, require risk assessments, minimize or eliminating the  
23      use of herbicides, address vectors of weed infestations, and require the use of mowers to  
24      remove thatch from meadows and to manage existing fuel breaks.

25      Management prescriptions under Alternative C would focus vegetation treatments in  
26      unoccupied GRSG habitats (e.g., crested wheat grass seeding, urban interface, areas where  
27      livestock management infrastructure is removed, and other areas of significant disturbances).  
28      Broad-scale treatment of invasive grasses would be achieved through natural recovery  
29      following the removal of livestock, and juniper removal projects would be limited.

30      ***Impacts from Livestock Grazing Management***

31      Under Alternative C, all PHMA would be unavailable to livestock use. About 100 percent of  
32      the GRSG populations in the sub-region would be affected. Under this alternative, both  
33      passive and active restoration would occur, including removal of livestock, roads, water  
34      developments, fences, and other range infrastructure that may contribute to GRSG  
35      predators or increase habitat for mosquitoes that may carry the West Nile virus. Additional  
36      active restoration would include reseeding of roads and crested wheatgrass seedings with  
37      native shrubs and grasses.

38      Under Alternative C, impacts on GRSG would be reduced compared with Alternative A in  
39      upland sites. This is because of reduced trampling of nests by livestock during nesting season



1 and increased herbaceous understory vegetation. Under this alternative, the removal of  
2 livestock would result in greater amounts of residual upland cover both in the short term  
3 and long term. Reseeding of crested wheatgrass seedings and roads would reduce and  
4 minimize impacts from invasive species and increase cover of native plant species. Removal  
5 of fencing would reduce the potential of GRSG direct strikes, but in areas where wild horses  
6 and burros are present, riparian damage or nest trampling in brood-rearing habitats may  
7 increase from horses and burros accessing riparian sites. Removal of troughs and other  
8 artificial watering devices would make more water available on the ground for GRSG, their  
9 habitats, and other wildlife species. Additional fencing might be required to separate federal  
10 no-grazing areas from private ranchlands, leading to increased risk of GRSG strikes along  
11 those boundaries.

12 A complete grazing exclusion can also promote exotic annual grass invasion in some  
13 situations. Davies et al. (2009) determined that long-term grazing exclusion followed by fire  
14 resulted in exotic annual grass invasion, while fire following moderate levels of grazing did  
15 not promote invasion. Moderate grazing made the perennial herbaceous component of the  
16 sagebrush plant communities more tolerant of fire (Davies et al. 2009), perhaps due to a  
17 reduction in crown litter (Davies et al. 2010a). Targeted grazing may be a critical tool for  
18 breaking the exotic annual grass-fire cycle by decreasing the probability of fire disturbance  
19 (Diamond et al. 2009). Well-managed livestock grazing may have limited impact (Courtois et  
20 al. 2004) or beneficial effects, including decreased risk of conversion to exotic annual grass  
21 communities (Davies et al. 2009, 2010a). If management under Alternative C were to reduce  
22 ranchers' ability to keep ranches maintained or profitable, they may be sold and developed,  
23 causing loss of habitat (Wilkins et al. 2003). Ultimately, the effects of removing grazing in  
24 GRSG habitats on a landscape scale are unknown, and it is unclear whether complete  
25 removal would improve GRSG habitat or increase population levels.

#### 26 ***Impacts from Fire and Fuels Management***

27 Under Alternative C, impacts on GRSG from wildfire suppression and fuels management  
28 would be the same as Alternative B; 11.1 million acres of GRSG habitat would be designated  
29 as PHMAs. However, this alternative adopts a passive restoration approach relying on a  
30 long-term improvement of habitat conditions by closing PHMAs to livestock grazing. The  
31 alternative does not rely on fuel treatments, such as fuel breaks, to limit the impacts of fire  
32 and limits cheatgrass control to natural restoration over chemical treatment, which is  
33 restricted. The combination of reducing the direct measures to combat invasive species and  
34 limit fire spread would increase the likelihood of continued GRSG habitat decline within the  
35 GRSG populations where fire is a threat.

#### 36 ***Impacts from Wild Horse and Burro Management***

37 Under Alternative C, wild horses would be managed on the same HMA acreage as under  
38 Alternative A. Wild horses would be managed at AML. Use of contraceptives and other  
39 population growth suppression to manage wild horse numbers would be similar to actions  
40 under Alternative A. Management under Alternative C would not allow the use of  
41 helicopters for gathers and would be expected to lead to decreased gather efficiency resulting  
42 in increases of wild horses and burros, making it more difficult to manage wild horses and  
43 burros at AML. Combined with the removal of some fences during active restoration

1 processes related to livestock grazing, wild horses would be expected to range over a larger  
2 area than under Alternative A and would necessitate the need for increased gather outside of  
3 HMA boundaries. To the extent wild horses and burros are present in an area, the increase  
4 in access to fenced riparian and upland habitats and the expected temporary increases in  
5 horses and burros over AML would reduce food and cover for GRSG over time. These  
6 increases also would change water-holding capacities of riparian brood-rearing sites  
7 compared with Alternative A.

8 ***Impacts from Leasable Minerals Management***

9 Leasable Minerals Management under Alternative C would afford the highest level of  
10 protection of all alternatives. Leasable mineral entry would be precluded for all ACECs,  
11 including all PHMA, under this alternative. Closed acreage would include all PMUs in the  
12 sub-region, protecting all occupied or potentially occupied GRSG habitat and increasing the  
13 level of protection to all associate, populations and sub-populations.

14 Management under Alternative C would close PHMA, including split estate (over 20 million  
15 acres in total) to oil and gas leasing. Closure would increase protection of all acres of PHMA  
16 within habitat associated with leks (see **Table 4-22**, Alternative C: Percent of GRSG Habitat  
17 and Occupied Leks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing  
18 by Population Area).

**Table 4-22**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or**  
**with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	100%	5
Mountain Valleys	100%	164
SW Montana	100%	47
North Side Snake	100%	263
South Side Snake	100%	162
Southwest Idaho	100%	153
Sawtooth	100%	0
Bear Lake	100%	7
Weiser	100%	0

Source: BLM GIS 2015

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20 ***Impacts from Locatable Minerals Management***

21 Management under Alternative C would afford the highest level of protection of all  
22 alternatives. Mineral entry withdrawal would be recommended for all ACECs, including all  
23 PHMAs, under this alternative, protecting all occupied or potentially occupied GRSG  
24 habitat and increasing the level of protection to all associated GRSG populations and sub-  
25 populations.



1 Management under Alternative C would recommend withdrawing PHMAs, including split  
 2 estate, from locatable mineral entry (13.3 million acres). Closure would increase protection  
 3 of all acres of PHMA within habitat associated with leks (see **Table 4-23**, Alternative C:  
 4 Percent of GRSG Habitat and Occupied Leks Affected by Mineral Withdrawal by  
 5 Population Area).

**Table 4-23**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by Mineral Withdrawal by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	100%	9
Mountain Valleys	100%	143
SW Montana	100%	79
North Side Snake	100%	230
South Side Snake	100%	173
Southwest Idaho	100%	153
Sawtooth	100%	0
Bear Lake	100%	8
Weiser	100%	0

Source: BLM GIS 2015

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***Impacts from Salable Minerals Management***

7 Management under Alternative C would close PHMA to mineral materials sales, providing  
 8 the highest level of protection among the alternatives (same as Alternative B).  
 9

10 Management under Alternative C would close PHMAs, including split estate, to mineral  
 11 materials sales (19.4 million acres in total). Closure would increase protection of all acres of  
 12 PHMA habitat associated with leks (**Table 4-24**, Alternative C: Percent of GRSG Habitat  
 13 and Occupied Leks Affected by Closure to Salable Minerals by Population Area).

**Table 4-24**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	100%	5
Mountain Valleys	100%	164
SW Montana	100%	46
North Side Snake	100%	263
South Side Snake	100%	162
Southwest Idaho	100%	153
Sawtooth	100%	0
Bear Lake	100%	7
Weiser	100%	0

Source: BLM GIS 2015

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**Impacts from Land Uses and Realty Management**

Under Alternative C, ROW avoidance acres would remain the same as under Alternative A. Within PHMA, there are more acres managed as ROW exclusion under Alternative C (11 million acres) than under Alternative A (1 million acres). This difference would provide protections to more of the sub-regional GRSG population than Alternative A. This difference is due to resource use restrictions in all PHMAs as well as potential ACECs. Required buffers of 5 to 10 miles between occupied habitats and wind development in the alternative are also part of the increased acreage. Acres identified for disposal are less than Alternative A. Under Alternative C, all BLM-administered and National Forest System lands in proposed ACECs (all PHMAs) and identified restoration and rehabilitation lands would be retained in public ownership. New corridors or facilities including communication towers would only be allowed in non-habitat areas, with existing towers undergoing reviews for adverse effects. All existing transmission or pipeline corridors would be assessed under this alternative, and ROWs would be amended to require features that enhance GRSG habitat security. This alternative would result in fewer direct or indirect impacts on GRSG and their habitats compared with Alternative A because most effects from the land and realty program would be outside of occupied habitat, and effects within current ROWs would be minimized over time. Additionally, this alternative would prioritize more areas for acquisition compared with Alternative A (see **Table 4-25**, Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area).

**Table 4-25**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	100%	0	0	2	0	0
Mountain Valleys	99.8%	0	0	137	0	0
SW Montana	97.9%	0	0	39	0	0
North Side Snake	99%	0	0	214	0	0
South Side Snake	99.3%	0	0	167	0	0
Southwest Idaho	99.3%	0	0	153	0	0
Sawtooth	100%	0	0	0	0	0
Bear Lake	100%	0	0	6	0	0
Weiser	100%	0	0	1	0	0

Source: BLM GIS 2015

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1 *Impacts from Renewable Energy Management*  
2 Under Alternative C, management of lands for renewable energy development would be the  
3 same as for Alternative B.

4 *Impacts from Wind Energy Development on Sub-populations*  
5 Under Alternative C, management of lands for wind energy development would be the same  
6 as for Alternative B.

7 *Impacts from Geothermal Energy Development on Sub-populations*  
8 Under this alternative, over 20 million acres of PHMA, including split estate, would be  
9 closed to geothermal leasing (Table 4-26).

**Table 4-26**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	100%	5
Mountain Valleys	100%	164
SW Montana	100%	46
North Side Snake	100%	263
South Side Snake	100%	162
Southwest Idaho	100%	153
Sawtooth	100%	0
Bear Lake	100%	7
Weiser	100%	0

Source: BLM GIS 2015

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11 *Impacts from Travel and Transportation Management*

12 Under Alternative C, any designated open areas within PHMAs would be managed as limited  
13 for motorized travel with the exception of existing closed areas within PHMAs (see Table 4-  
14 27, Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by Travel  
15 Management Designations by Population Area).

**Table 4-27**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0%	87.9%	12.1%	0	2	0
Mountain Valleys	0%	98.8%	1.2%	0	136	1
SW Montana	0%	99%	1%	0	40	0
North Side Snake	0.1%	93.8%	6.2%	0	209	5
South Side Snake	0%	80.4%	19.6%	0	126	27
Southwest Idaho	0%	96.7%	3.3%	0	2	0



**Table 4-27**  
**Alternative C: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.4%	0.6%	0	6	0
Weiser	0%	99.6%	0.4%	0	1	0

Source: BLM GIS 2015

<sup>1</sup>Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

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***Impacts from Special Designations Management***

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Under Alternative C, the BLM would designate 39 new ACECs (**Table 4-7**). Impacts from management of ACECs are as described under **Section 4.2.2**.

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**4.2.4 Alternative D**

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Alternative D would delineate GRSG management areas into PHMA, IHMA, and GHMA within the sub-region (see **Table 4-14**). GRSG habitat in Idaho would include all three management areas, while habitat in Montana includes only PHMA and GHMA. Management areas in Utah would be all PHMA. PHMA would receive the highest degree of protection from impacts caused by resource uses. The goal would be to retain priority GRSG habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of GRSG, including no net unmitigated loss of GRSG habitat. These habitats would have to be large enough to stabilize populations in the short term and to enhance populations over the long term. There would be additional provisions to protect larger intact areas of sagebrush to reduce fragmentation.

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***Impacts from Vegetation and Soils Management***

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Vegetation dynamics modeling shows the same general trend under Alternative D compared with Alternative A (see **Tables 4-1** and **4-2**).

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Under Alternative D, the BLM and Forest Service would prioritize vegetation treatment projects to further improve GRSG abundance and distribution. Factors contributing to higher emphasis include the likelihood of conifer encroachment into GRSG habitat. In addition, the vegetation management tools described in Alternative B would help to reduce encroachment in PHMA and avoid the impacts discussed under **Section 4.2.2**.

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***Impacts from Livestock Grazing Management***

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Management under Alternative D includes the same provisions as Alternative B, and also prioritizes land health assessments and managing riparian areas and wet meadows toward PFC in priority and medial habitat. These efforts would improve forage and cover in PHMA and IHMA, to sustain nesting GRSG and protect them from population loss due to predation. Together, these efforts would reduce impacts on GRSG from grazing, such as

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1 loss of nesting cover, described in **Section 4.2.2**, compared with Alternative A. Acreage  
2 closed to grazing under each alternative is shown in **Table 4-5**.

3 ***Impacts from Fire and Fuels Management***

4 Alternative D would implement the same policies as Alternative B to prioritize fire  
5 suppression and restoration in sagebrush areas by using native plants and limiting damage to  
6 sagebrush habitat from wildfire. Alternative D includes additional measures and planning  
7 such as ES&R guidance, preparations in high-risk areas, and additional training for  
8 firefighters to better prepare for fire outbreaks in high-risk areas such as sagebrush. Adaptive  
9 management under Alternative D would expand more restrictive management from PHMAs  
10 to less restrictive IHMAs based on specific and measurable triggers relating to habitat and  
11 population metrics. Overall, Alternative D would reduce impacts from wildfire, similar to  
12 Alternative B.

13 ***Impacts from Wild Horse and Burro Management***

14 Same as Alternative B.

15 ***Impacts from Leasable Minerals Management***

16 Management would be similar to Alternative B but would apply to PHMA, IHMA, and  
17 GHMA (see **Table 2-9**). In unleased areas of PHMA and IHMA, no exploration or leasing  
18 of fluid minerals would be allowed. GHMA would be open to leasing with stipulations.  
19 BMPs and mitigation to protect GRSG would be required in PHMA and IHMA for  
20 locatable minerals and nonenergy leasable minerals. Policies for locatable and salable  
21 minerals are otherwise the same as under Alternative B. In addition, 26 acres of PHMA and  
22 33 acres of IHMA in East-Central Idaho would be closed to nonenergy leasable mineral  
23 leasing in unleased known phosphate lease areas.

24 Management under Alternative D would close 8.8 million acres of PHMA, IHMA and  
25 GHMA to fluid mineral leasing. Closure would increase protection of habitat associated with  
26 leks, which would impact 13 percent of the GRSG population for the sub-region, and by  
27 sub-population (**Table 4-28**, Alternative D: Percent of GRSG Habitat and Occupied Leks  
28 Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area).  
29 These approaches would reduce the impacts of mining on GRSG habitat, as described in  
30 **Section 4.2.2**, in ways similar to Alternative B, by closing nearly 9 million acres to fluid  
31 mineral leasing and protecting additional acreage using timing limitations.

**Table 4-28**

**Alternative D: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or  
with NSO Stipulations for Oil and Gas Leasing by Population Area**

<b>Population Area</b>	<b>Habitat Area</b>	<b>Occupied Leks</b>
East Central Idaho	44.4%	4
Mountain Valleys	93.1%	163
SW Montana	72.7%	46
North Side Snake	82.2%	263
South Side Snake	80.7%	160

**Table 4-28**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
Southwest Idaho	85.2%	153
Sawtooth	76.5%	0
Bear Lake	75%	8
Weiser	48.1%	0

Source: BLM GIS 2015

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***Impacts from Locatable Minerals Management***

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Alternative D would leave areas open for locatable mineral removal and would require operators to include measures to avoid or minimize adverse effects to GRSG and GSG habitat when 3809 Plans and notices are required (**Table 4-29**). BMPs for locatable minerals removal would be applied to priority, medial, and general areas as COAs in plans of operation. As no additional habitat would be withdrawn from mineral entry, there would continue to be effects on GRSG and their habitat, as described in **Section 4.2.2**. Use of BMPs (see **Appendix B**) under this alternative might reduce these impacts as compared with Alternative A.

**Table 4-29**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Mineral Withdrawal by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	5%	1
Mountain Valleys	12.7%	30
SW Montana	2.5%	3
North Side Snake	25%	57
South Side Snake	7.7%	8
Southwest Idaho	21.2%	29
Sawtooth	17.2%	0
Bear Lake	10.6%	2
Weiser	8.7%	0

Source: BLM GIS 2015

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***Impacts from Salable Minerals Management***

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Management under Alternative D would close acres to salable minerals removal. Closure would increase protection on habitat associated with leks (see **Table 4-30**, Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area).



**Table 4-30**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	36.4%	4
Mountain Valleys	38.0%	135
SW Montana	32.3%	43
North Side Snake	40.5%	250
South Side Snake	34.5%	153
Southwest Idaho	40.7%	147
Sawtooth	12.7%	0
Bear Lake	42.8%	7
Weiser	7.0%	0

Source: BLM GIS 2015

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**Impacts from Land Uses and Realty Management (Wind and Geothermal Energy)**

Under Alternative D, PHMA, GHMA, and IHMA would be designated ROW avoidance (but not exclusion) areas to allow for management flexibility (Tables 4-3 and 4-4). In PHMA, the BLM and Forest Service would exclude development of larger transmission facilities (greater than 50 kilovolts); wind and solar developments; commercial geothermal development; nuclear, gas, and oil developments; airports; paved and gravel roads; and landfills. Communication sites would not be excluded. In IHMA and GHMA, the BLM and Forest Service would avoid siting these facilities or would co-locate them when possible in order to minimize impacts (see Table 4-31, Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area).

**Table 4-31**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	0.5%	4.4%	95.1%	0	0	2
Mountain Valleys	1.5%	65.5%	32.8%	1	127	9
SW Montana	16.4%	42.5%	39.1%	0	38	1
North Side Snake	6%	61.9%	31.1%	5	201	8
South Side Snake	2.4%	45.5%	51.4%	3	130	34
Southwest Idaho	20.6%	60.6%	18.1%	29	122	2
Sawtooth	0.2%	0%	99.8%	0	0	0
Bear Lake	1.2%	59.9%	38.9%	0	6	1
Weiser	58.6%	0%	41.4%	1	0	0

Source: BLM GIS 2015

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*Impacts from Geothermal Energy Development on Sub-populations*

Under this alternative, 8.8 million acres of PHMA, IHMA, and GHMA would be closed to geothermal development. This alternative leaves the remaining GRSG management areas open or limited for geothermal development (**Table 4-32** Error! Reference source not found. Error! Reference source not found.).

**Table 4-32**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	37.4%	4
Mountain Valleys	88.4%	156
SW Montana	77.7%	45
North Side Snake	68.1%	255
South Side Snake	31.9%	154
Southwest Idaho	81.5%	153
Sawtooth	76.5%	0
Bear Lake	47.4%	8
Weiser	40.7%	0

Source: BLM GIS 2015

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*Impacts from Travel Management*

Alternative D would limit motorized travel to existing roads, primitive roads and trails on all BLM-administered lands within field offices containing GRSG habitat unless specific open areas have been previously designated to support recreational activities. None of these open areas would overlap PHMA or IHMA areas. Acres where motorized travel would be limited to roads, existing roads, and trails in entire BLM field offices containing GRSG habitat are shown on **Table 4-33**, Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area.

**Table 4-33**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0%	91%	9%	0	2	0
Mountain Valleys	0%	98.8%	1.2%	0	136	1
SW Montana	0%	98.2%	1.8%	0	40	0
North Side Snake	0.1%	93.8%	6.2%	0	209	5
South Side Snake	0%	80.4%	19.6%	0	164	3
Southwest Idaho	0%	96.7%	3.3%	0	126	27



**Table 4-33**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.6%	0.4%	0	7	0
Weiser	0%	99.6%	0.4%	0	1	0

Source: BLM GIS 2015

<sup>1</sup> Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

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This approach would reduce the likelihood of impacts from infrastructure within GRSG habitat (PHMA, IHMA, and GHMA) and would support comprehensive travel management planning for the entire field office subsequent to this planning effort. Impacts from areas limited to existing roads are as described in **Section 4.2.2**.

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***Impacts from Adaptive Management***

Alternative D includes an adaptive management strategy that would apply the more restrictive measures of PHMAs to the IHMA areas if hard adaptive triggers were tripped. In Alternative D, adaptive management is evaluated at the population area scale, so if a population area trips a hard trigger then the IHMA areas within that population area would then be managed as PHMAs on BLM-administered and National Forest System lands, until the habitat or population recovers and the trigger no longer applies. While the management actions and allocations described for this alternative are anticipated to reduce impacts on GRSG, an adaptive management approach is included in the event that habitat or populations continue to decline to the point that hard habitat or population triggers are tripped. **Table 4-34**, Alternative D: Acres of GRSG Habitat and Number of Occupied Leks Affected by Adaptive Management Trigger by Population Area describes the extent of habitat and number of occupied leks on BLM-administered and National Forest System IHMA that would be affected and managed as PHMA, should a trigger be tripped in a particular population area.

**Table 4-34**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Adaptive Management Trigger in IHMA by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	5.8%	1
Mountain Valleys	76.6%	4
Southwest Montana	79.9%	0
North Side Snake	48.9%	6
South Side Snake	83.6%	28
Southwest Idaho	82.3%	1
Sawtooth	0%	0

**Table 4-34**  
**Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Adaptive Management Trigger in IHMA by Population Area**

Population Area	Habitat Area	Occupied Leks
Bear Lake	27.2%	0
Weiser	42.2%	0

Source: BLM GIS 2015

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2 ***Impacts from Special Designations Management***

3 Impacts from ACEC management under Alternative D are the same as those described for  
4 Alternative A (Table 4-7).

5 **4.2.5 Alternative E**

6 Under Alternative E, the BLM and Forest Service would manage to maintain, conserve,  
7 enhance, and restore sagebrush ecosystems. CHZ, IHZ, and GHZ would be designated in  
8 Idaho, with PHMA and GHMA in Montana and PHMA in Utah (Table 4-14). In CHZ and  
9 IHZ, the BLM and Forest Service would incorporate management flexibility to permit high  
10 value infrastructure with appropriate mitigation and best management practices tailored for  
11 the sub-region. Management and impacts are similar to Alternative D, though Alternative E  
12 would require less stringent use restrictions, as the disturbance cap would be applied to fluid  
13 mineral development only and would restrict development to 5 percent disturbance. Further,  
14 Alternative E would designate the least amount of CHZ compared to the other alternatives'  
15 management area designations.

16 ***Impacts from Vegetation and Soils Management***

17 Alternative E categorizes management areas within Idaho into CHZ, IHZ, and GHZ. For  
18 lands within Utah, management areas are categorized as PHMA, and Montana management  
19 areas would be the same as Alternative A (see Table 4-14). CHZ would receive the highest  
20 degree of protection and management would focus on the maintenance and enhancement of  
21 habitats, populations, and connectivity. In important habitat these goals would coexist with  
22 high-value infrastructure projects.

23 Vegetation dynamics modeling shows the same trend under Alternative E compared with  
24 Alternative D; even though habitat condition trends appear to be slightly downward after 50  
25 years, the model projections still show that habitat is meeting desired conditions.

26 Alternative E would maintain the policies described under Alternative A, along with  
27 additional provisions to protect CHZ, IHZ, and GHZ. These habitats would be managed to  
28 prevent invasion. Invasive plants threatening GRSG habitat would be eradicated or  
29 controlled in CHZ and IHZ. Invasive plants would be monitored for three years following a  
30 fire. The policies under Alternative E would reduce the impacts from invasive plants in these  
31 habitats to a limited degree compared with Alternative A, though current management  
32 already addresses this threat.



Under Alternative E, the BLM and Forest Service would prioritize the removal of conifers. This would be accomplished through methods appropriate for the terrain and most likely to facilitate GRSG population and habitat recovery in core and important habitat through methods determined appropriate for the terrain at the site-specific level. In addition, as described in **Section 4.2.6**, CHZ, IHZ, and GHZ would be managed to prevent invasion.

The policies under Alternative E would do more to reduce the impacts from conifer encroachment described under **Section 4.2.2** compared with Alternative A.

**Table 4-35**, Alternative E: Percent of GRSG Habitat Designations and Occupied Leks within each Conservation Area, describes the acres of CHZ, IHZ and GHZ and occupied leks within each conservation area.

**Table 4-35**  
**Alternative E: Percent of GRSG Habitat Designations and Occupied Leks within each Conservation Area**

Population Area	Habitat Area			Occupied Leks		
	CHZ	IHZIH MA	GHZ	CHZ	IHZ	GHZ
Mountain Valleys	41%	32%	27%	64.5	31.8	3.6
Desert	41%	17%	43%	73.3	11.1	15.6
West Owyhee	60%	23%	17%	51.8	39.6	8.6
Southern	29%	33%	38%	82.4	16.9	0.7

Source: BLM GIS 2015

***Impacts from Livestock Grazing Management***

Management under Alternative E would add GRSG guidelines to grazing management plans in core and important habitats. Land health assessments would be prioritized in areas with declining GRSG populations, subject to existing legal requirements, and management changes would be tailored to specifically address GRSG habitat objectives. In core areas, grazing plans could be altered by enhancing grazing in areas with lower habitat value. Acreage closed to grazing is shown in **Table 4-5**. These efforts would reduce impacts from grazing on GRSG, relative to Alternative A.

***Impacts from Fire and Fuels Management***

Alternative E would focus resources to reduce wildfire in sagebrush areas. It would prioritize fire suppression in CHZ, IHZ, and GHZ and would maintain fuel breaks in core and important habitat. Fuels treatments would protect existing sagebrush ecosystems. Fire response times to CHZ and IHZ would be reduced to limit fire damage. Alternative E includes an adaptive management strategy based on population and habitat triggers for each conservation area. These policies may limit the prevalence of wildfire in sagebrush areas and would reduce damage to GRSG habitat; impacts are similar to those described for Alternative B.



1 **Impacts from Wild Horse and Burro Management**

2 Same as Alternative A.

3 **Impacts from Leasable Minerals Management**

4 Alternative E would designate CHZ and IHZ as open to oil and gas leasing subject to an  
5 NSO stipulation. In CHZ in Idaho, Alternative E would stipulate that the Idaho BLM State  
6 Director may waive the stipulation only in situations where the development will not  
7 accelerate and/or cause declines in GRSG populations within the relevant CA, based on the  
8 application of certain criteria. Development would be allowed in important habitat if it  
9 would not cause a decline in GRSG populations. The policy does not state how such an  
10 assurance would be provided in advance of development. Impacts on GRSG from energy  
11 development would be reduced, relative to Alternative A.

12 Under Alternative E, 2.6 million acres would be closed to oil and gas leasing. Closure would  
13 increase protection on habitat associated with leks (**Table 4-36**, Alternative E: Percent of  
14 GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Oil  
15 and Gas Leasing by Population Area).

**Table 4-36**  
**Alternative E: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or**  
**with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	31.9%	2
Mountain Valleys	93%	162
SW Montana	51.1%	42
North Side Snake	72%	244
South Side Snake	73.3%	148
Southwest Idaho	85.5%	152
Sawtooth	75.8%	0
Bear Lake	90.6%	6
Weiser	28.9%	0

Source: BLM GIS 2015

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17 **Impacts from Locatable Minerals Management**

18 Same as Alternative A.

19 **Impacts from Salable Minerals Management**

20 Management under Alternative E would close acres to salable minerals removal. Closure  
21 would increase protection on habitat associated with leks (see **Table 4-30****Table 4-37**,  
22 Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable  
23 Minerals by Population Area).



**Table 4-37**  
**Alternative E: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	57.7%	5
Mountain Valleys	41.7%	164
SW Montana	33.9%	46
North Side Snake	2.3%	264
South Side Snake	18.7%	163
Southwest Idaho	11.5%	153
Sawtooth	0%	0
Bear Lake	56.4%	7
Weiser	0%	0

Source: BLM GIS 2015

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**Impacts from Land Uses and Realty Management (Wind Energy)**

Under Alternative E, CHZ and IHZ would be identified as ROW avoidance areas (Tables 4-3 and 4-4). The BLM and Forest Service would co-locate new ROWs or SUAs with existing infrastructure. They would aim to remove, bury, or modify existing power lines in these areas when possible. In important habitat areas, new infrastructure could be built if habitat protection criteria were met. In CHZ, no new infrastructure would be permitted, except in-place upgrades. (Table 4-38, Alternative E: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area).

**Table 4-38**  
**Alternative E: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	0%	0%	10.5%	0	0	0
Mountain Valleys	1.5%	0%	84.5%	1	0	135
SW Montana	14.6%	0%	27.5%	0	0	1
North Side Snake	6%	0%	59.3%	5	0	185
South Side Snake	2.5%	0%	70.7%	3	0	152
Southwest Idaho	20.6%	0%	65.9%	29	0	123
Sawtooth	0.2%	0%	97.2%	0	0	0
Bear Lake	0.6%	0%	84%	0	0	6
Weiser	58.6%	0%	41.3%	1	0	0

Source: BLM GIS 2015

1 **Impacts from Geothermal Energy**  
 2 Under this alternative, over 2.6 million acres of CHZ, IHZ, and GHZ would be closed to  
 3 geothermal development. This alternative leaves the remaining GRSG management areas  
 4 open or with an NSO stipulation for geothermal development (**Table 4-39**).

**Table 4-39**  
**Alternative E: Percent of GRSG Habitat and Occupied Leaks Within Areas Closed or**  
**with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	31.1%	2
Mountain Valleys	93.2%	162
SW Montana	51%	42
North Side Snake	72.2%	244
South Side Snake	73.5%	149
Southwest Idaho	85.5%	152
Sawtooth	75.8%	0
Bear Lake	88.1%	6
Weiser	28.7%	0

Source: BLM GIS 2015

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 6 **Impacts from Travel Management**  
 7 Alternative E would prioritize travel and transportation planning to minimize impacts on  
 8 GRSG from road travel. It also would reduce the risk of wildfire from cross-country  
 9 motorized travel because motorized vehicles would be restricted to existing routes in CHZ  
 10 and IHZ. Timing and seasonal restrictions would be applied to activities known to disturb  
 11 nesting GRSG while travel management planning is underway. Impacts from roads and  
 12 ROWs in CHZ and IHZ would be reduced, compared with Alternative A. Impacts from  
 13 road construction and use in collocated areas and GHZ are similar to Alternative A. **Table**  
 14 **4-40**, Alternative E: Percent of GRSG Habitat and Occupied Leaks Affected by Travel  
 15 Management Designations by Population Area, describes the percent of habitat and  
 16 occupied leaks affected by travel management decisions in this alternative.

**Table 4-40**  
**Alternative E: Percent of GRSG Habitat and Occupied Leaks Affected by Travel**  
**Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leaks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0.5%	87.4%	12.1%	0	2	0
Mountain Valleys	9.3%	89.6%	1.2%	2	134	1
SW Montana	0%	99%	1%	0	40	0
North Side Snake	48.4%	45.4%	6.2%	42	168	5
South Side Snake	0%	80.5%	19.5%	11	154	3
Southwest Idaho	11.2%	85.5%	3.3%	0	126	27



**Table 4-40**  
**Alternative E: Percent of GRSG Habitat and Occupied Leaks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leaks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.4%	0.6%	0	6	0
Weiser	71.3%	28.3%	0.4%	0	1	0

Source: BLM GIS 2015

<sup>1</sup>Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

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**Impacts from Adaptive Management**

As described in Chapter 2, Alternative E includes an adaptive management strategy composed of soft and hard triggers that are based on population and habitat changes. Each trigger is determined by conservation area, so the strategy is more locally responsive than if triggers were determined on a sub-regional or statewide basis. When a conservation area meets a soft trigger there is no required adaptive response. When a hard trigger is met, the IHZ areas within that conservation area would be managed according to the CHZ regulations primarily impacting the ability to consider infrastructure projects until the habitat or population recovers and the trigger no longer applies. The Implementation Task Force would be engaged in situations where a soft trigger is met or when the cause of meeting the hard trigger is related to wildfire or invasive species or to analyze the secondary threats to determine the appropriate management response. The triggers are based on lek monitoring completed and compiled by IDFG on an annual basis and on habitat change. **Table 4-41**, Alternative E: Percent of GRSG Habitat and Occupied Leaks Affected by Adaptive Management Trigger in IHZ by Population Area, describes the percentage of habitat and percentage of occupied leks that would be affected should a trigger be met in a particular population area.

**Table 4-41**  
**Alternative E: Percent of GRSG Habitat and Occupied Leaks Affected by Adaptive Management Trigger in IHZ by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	0%	0
Mountain Valleys	70.9%	38
SW Montana	0%	0
North Side Snake	43.6%	37
South Side Snake	82.5%	67
Southwest Idaho	81.2%	29
Sawtooth	0%	0
Bear Lake	29.8%	2
Weiser	0%	0

Source: BLM GIS 2015

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***Impacts from Special Designations Management***

Impacts from ACEC management under Alternative E are the same as those described for Alternative A (Table 4-7).

**4.2.6 Alternative F**

Management under Alternative F would be largely similar to that described for Alternative B, though with more stringent guidance and restrictive management in sagebrush ecosystems. PHMA, GHMA and RHMA would be designated (Table 4-14). Impacts from implementing the maximum three percent disturbance cap are similar to those described for Alternative B; however, under Alternative F, all surface disturbances (including human disturbance and fire) would count toward this cap. This would further reduce the acreage of vegetation that would be removed or fragmented within all occupied habitat over the long term.

***Impacts from Vegetation and Soils Management***

Management under Alternative F generally would repeat management actions described under Alternative B with exceptions such as reduced treatment of invasive conifer.

Management under Alternative F would provide about the same level of protection as Alternative B or slightly less. Habitat trends for 10 and 50 years would improve compared with Alternative A and would be similar to Alternative B.

Alternative F would maintain the policies described under Alternative A, along with additional provisions to limit invasive weed spread. It would restrict activities that spread invasives and would ensure the health of vegetation and soil in GRSG habitat. Alternative F also includes post-fire treatment of invasives. Alternative F would prioritize restoration, including reducing invasive plants, as described under Alternative B. These policies would reduce impacts from invasive plants, compared to Alternative A, to a limited degree, though current management already addresses this threat.

***Impacts from Livestock Grazing Management***

Management under Alternative F would retain the same number of acres open and the same number of acres closed to livestock grazing as found under Alternative A and, therefore, would affect the same percentage of the sub-region's GRSG population. However, management under Alternative F would be more restrictive than Alternative A, with a 25 percent reduction of grazing in each population area and new water developments using spring or seep sources restricted within GRSG habitat. In addition, all prescriptions related to livestock management would apply to all GRSG habitats.

Alternative F includes a reduction in AUMs calculated by applying a 25 percent reduction to the three-year average of billed use. Management under Alternative F would also require that water developments be analyzed and modified or removed if they are found to be impacting a riparian area. Similar modification or removal standards would be applied to other existing range developments such as fences. No salt or other supplements would be allowed.

1 Ensuring riparian areas are at PFC would be the same as for Alternative A. Compared with  
2 Alternative A, management under Alternative F would provide more indirect benefits to  
3 GRSG. This is because it would increase upland and riparian nesting and brood-rearing  
4 habitat amount and quality by reducing by 25 percent livestock grazing each year. Also, it  
5 would remove certain livestock-related structures such as fences.

6 ***Impacts from Fire and Fuels Management***

7 Impacts would be similar to those under Alternative B, except that a 25 percent reduction in  
8 grazing may increase fuel loads in those areas where grazing no longer occurs. Although  
9 grazing can be an effective tool to reduce fuel loads, research indicates grazing is not  
10 effective in reducing cheatgrass competition (Hempy-Mayer and Pyke 2008). Therefore, fine  
11 fuel loads and fire frequency in cheatgrass-infested GRSG habitat may not be affected by the  
12 absence of grazing.

13 ***Impacts from Wild Horse and Burro Management***

14 Same as Alternative A.

15 ***Impacts from Leasable Minerals Management***

16 Management under Alternative F would close PHMAs and GHMAs to fluid mineral leasing,  
17 including geothermal energy. Quantitative impacts would be the same as for Alternative B.

18 ***Impacts from Locatable Minerals Management***

19 Impacts from locatable minerals management would be the same as for Alternative B.

20 ***Impacts from Salable Minerals Management***

21 Management under Alternative F would close acres to salable minerals removal. Closure  
22 would increase protection on habitat associated with leks (see **Table 4-42**, Alternative D:  
23 Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by  
24 Population Area).

**Table 4-42**  
**Alternative F: Percent of GRSG Habitat and Occupied Leks Affected by Closure to**  
**Salable Minerals by Population Area**

<b>Population Area</b>	<b>Habitat Area</b>	<b>Occupied Leks</b>
East Central Idaho	40%	3
Mountain Valleys	93.1%	159
SW Montana	80.8%	47
North Side Snake	76.3%	262
South Side Snake	79%	157
Southwest Idaho	80.4%	152
Sawtooth	75.8%	0
Bear Lake	93.3%	7
Weiser	35.4%	0

Source: BLM GIS 2015

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**Impacts from Land Uses and Realty Management**

Under Alternative F, most GHMAs would be managed as avoidance areas for new ROWs and all PHMAs habitats would be managed as ROW exclusion for new permits with exceptions for co-location of projects within existing footprints and valid, existing rights (Table 4-43). Under this alternative, 8.5 million acres would be managed as ROW exclusion. ROW exclusion would protect over eight times more acres of GRSG habitat than under Alternative A. Management under Alternative F would also include actions to reclaim or modify existing ROWs that may impact GRSG directly (e.g., fences) or indirectly benefit their habitat (e.g., restoring a non-used road). Management under Alternative F would retain public ownership of PHMAs where it benefitted overall GRSG habitat and propose priority habitat for mineral withdrawal. Management under Alternative F would be expected to provide greater direct protections to GRSG than Alternative A due to the larger number of acres under Alternative F being in the ROW exclusion category. Indirect impacts on habitat would be expected to also be less than Alternative A.

**Table 4-43  
Alternative F: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion or Avoidance by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Exclusion	Avoid with Exclusions	Avoidance	Exclusion	Avoid with Exclusions	Avoidance
East Central Idaho	15.4%	0%	84.6%	1	0	1
Mountain Valleys	81.7%	0%	18.1%	132	0	5
SW Montana	64.3%	0%	33.6%	38	0	1
North Side Snake	69.3%	0%	21.3%	212	0	2
South Side Snake	71.2%	0%	26.7%	160	0	7
Southwest Idaho	79.4%	0%	14%	152	0	1
Sawtooth	0.2%	0%	99.8%	0	0	0
Bear Lake	89.5%	0%	10.5%	6	0	0
Weiser	48.5%	0%	31.1%	1	0	0

Source: BLM GIS 2015

**Impacts from Renewable Energy Management**

*Impacts from Wind Energy Development*

Same as Alternative B. Under Alternative F, wind energy projects would not be sited within occupied GRSG habitat or within five miles of an active lek. This would result in 8.6 million acres managed as ROW exclusion.

*Impacts from Geothermal Energy Development*

Impacts from geothermal energy management would be the same as presented for Alternative B.



1 **Impacts from Travel and Transportation Management**  
 2 Impacts from travel and transportation management under Alternative F would be similar to  
 3 those described for Alternative B. Acres and leks protected would be slightly different due to  
 4 the management of RHMA under Alternative F (**Table 4-44**).

**Table 4-44**  
**Alternative F: Percent of GRSG Habitat and Occupied Leks Affected by Travel Management Designations by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0%	87.9%	12.1%	0	2	0
Mountain Valleys	0%	98.8%	1.2%	0	136	1
SW Montana	0%	99%	1%	0	40	0
North Side Snake	8.7%	85.6%	5.7%	2	210	5
South Side Snake	0%	81.4%	18.6%	0	165	3
Southwest Idaho	0.1%	96.6%	3.3%	0	126	27
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.4%	0.6%	0	6	0
Weiser	12.3%	87.4%	0.3%	0	1	0

Source: BLM GIS 2015

<sup>1</sup>Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

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 6 **Impacts from Special Designations Management**  
 7 Under Alternative F, the BLM would designate 17 or 18 new ACECs and the Forest Service  
 8 would designate 12 new ZAs (**Table 4-7**). Impacts from management of ACECs are as  
 9 described under **Section 4.2.2**, and impacts from ZAs are expected to be similar.

10 **4.2.7 Proposed Plan**

11 **Impacts from Lands and Realty Management**

12 Under the Proposed Plan, PHMA and IHMA would be identified as ROW/SUA avoidance  
 13 areas to allow for management flexibility (**Table 4-2**). However, PHMA would be exclusion  
 14 areas specifically for wind and solar developments. In practice, new ROWs/SUAs in PHMA  
 15 would not be allowed except in accordance with the Anthropogenic Disturbance Exception  
 16 Criteria outlined in the Proposed Plan. Transmission lines in PHMA would only be allowed  
 17 as incremental upgrades in existing corridors, and perch deterrents would be used to reduce  
 18 avian predation where appropriate. In IHMA new ROWs/SUAs could be considered if in  
 19 accordance with the IHMA Anthropogenic Disturbance Development Criteria. The BLM  
 20 and Forest Service would co-locate new ROWs or SUAs with existing infrastructure when  
 21 possible. The Proposed Plan provides for a protective buffer from disturbance around leks  
 22 in PHMA, IHMA and GHMA, depending on the type of disturbance, based on the latest  
 23 science (USGS 2014), to be applied at implementation. BLM and Forest Service retain  
 24 management flexibility to route ROWs/SUAs to minimize overall impacts on GRSG habitat.  
 25



1 Existing ROW/SUA corridors are preferred for co-location of new ROWs/SUAs, but could  
2 not be widened more than 50 percent greater than the original footprint. These measures  
3 would protect GRSG and their habitats from fragmentation, disturbance/predation, and  
4 other impacts as described in **Section 4.2.2** associated with ROW construction, operations  
5 and maintenance.

6 There is projected to be no impact from exclusion of solar energy development on National  
7 Forest System land in the planning area as there is limited potential for solar energy  
8 development on these lands.

9 Under the Proposed Plan, land tenure adjustments would include retaining lands with GRSG  
10 habitat. PHMA and IHMA would not be available for disposal and would only be available  
11 for exchanges that increase the extent or provide for connectivity of habitat. Retention of  
12 areas with GRSG would reduce the likelihood of habitat conversion to agriculture,  
13 urbanization, or other uses that would remove sagebrush habitat and potentially impact  
14 sensitive plants. **Tables 4-45** and **4-46** show the percentage of GRSG habitat and occupied  
15 leks affected by major and minor ROW/SUA exclusion or avoidance by population area.

**Table 4-44**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within ROW/SUA Exclusion**  
**or Avoidance Areas for Major ROWs/SUAs by Population Area**

Population Area	Habitat Area		Occupied Leks	
	Exclusion	Avoidance	Exclusion	Avoidance
East Central Idaho	0%	52.8%	0	1
Mountain Valleys	1%	92.3%	1	135
SW Montana	14.6%	65.1%	0	38
North Side Snake	6%	64.7%	5	202
South Side Snake	2.8%	81.2%	4	161
Southwest Idaho	20.4%	68.7%	29	124
Sawtooth	0.2%	99.8%	0	0
Bear Lake	0.5%	96.8%	0	7
Weiser	49.4%	31.8%	1	0

Source: BLM GIS 2015

**Table 4-45**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within ROW/SUA Exclusion**  
**or Avoidance Areas for Minor ROWs/SUAs by Population Area**

Population Area	Habitat Area		Occupied Leks	
	Exclusion	Avoidance	Exclusion	Avoidance
East Central Idaho	0%	52.8%	0	1
Mountain Valleys	1%	92.3%	1	135
SW Montana	14.6%	65.1%	0	38
North Side Snake	6%	64.7%	5	202

**Table 4-44**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within ROW/SUA Exclusion or Avoidance Areas for Major ROWs/SUAs by Population Area**

Population Area	Habitat Area		Occupied Leks	
	Exclusion	Avoidance	Exclusion	Avoidance
South Side Snake	2.8%	81.2%	4	161
Southwest Idaho	20.4%	68.7%	29	124
Sawtooth	0%	99.8%	0	0
Bear Lake	1%	96.8%	0	7
Weiser	49.4%	31.8%	1	0

Source: BLM GIS 2015

**Impacts from Habitat Restoration and Vegetation Management**

Results from the VDDT are presented in **Table 4-47** below. This modeling effort is described further in **Appendix X**. Stand replacement wildfire, mosaic wildfire, overgrazing, insects and disease, and conifer encroachment were incorporated into the model to quantify changes in GRSG habitat. The modeling effort did not include changes in habitat conditions associated with climate change or with permitted activities such as infrastructure development, travel management, or mineral development. The model also estimated treatment acres required to meet target sagebrush habitat quality goals. Based on guidelines provided by the GRSG National Technical Team Report (NTT 2011), 70 percent of an area should be in 10 to 30 percent sagebrush canopy cover to meet GRSG sagebrush habitat objectives. The tables included as part of the vegetation impacts for each alternative present the percentage of a given GRSG analysis area meeting GRSG sagebrush habitat objectives by alternative after 10 years and 50 years' time.

The acres of treatment proposed in each of the analysis area are necessary to improve or maintain habitat conditions. The proposed plan provides treatment acres by decade sufficient to meet desired habitat conditions (70 percent of the analysis area meeting 10 to 30 percent sagebrush cover) (NTT 2011). The trends reflect the combined treatment acres in both BLM and Forest Service Proposed Plans compared to the treatment rates and types occurring currently under the No Action alternative.

**Table 4-46**  
**Proposed Plan: Modeled Habitat Trends by Analysis Area**

Analysis Area	No Action Modeled <sup>1</sup> Habitat Condition and Trend <sup>2</sup>			Proposed Plan Modeled <sup>1</sup> Habitat Condition and Trend <sup>2</sup>		
	Initial Condition	10 year Condition	50 year Condition	Initial Condition	10 year Condition	50 year Condition
9 (Bear Lake)	84%	77%	67%	84%	80%	73%
18 (East-Central Idaho)	98%	90%	79%	98%	90%	79%
23 (North Side Snake, Mountain Valleys)	85%	78%	73%	85%	79%	70%

**Table 4-46**  
**Proposed Plan: Modeled Habitat Trends by Analysis Area**

Analysis Area	No Action Modeled <sup>1</sup> Habitat Condition and Trend <sup>2</sup>			Proposed Plan Modeled <sup>1</sup> Habitat Condition and Trend <sup>2</sup>		
	Initial Condition	10 year Condition	50 year Condition	Initial Condition	10 year Condition	50 year Condition
25 (Weiser)	74%	77%	75%	74%	78%	77%
26 (Southwest Idaho)	73%	70%	62%	73%	72%	70%
19 (Southwest Montana)	98%	90%	81%	98%	91%	81%

Source: Forest Service GIS 2015

<sup>1</sup>The outputs are not absolutes and are bound by the assumptions and limitations of the data.

<sup>2</sup>Habitat condition percentages are the amount of the analysis area that meets 10 to 30 percent sagebrush cover.

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In the Alternative A model, results show a declining trend in 5 out of 6 of the analysis areas. In Analysis Areas 9 and 26 at 50 years they would be below the desired conditions, meaning less suitable habitat would be available for GRSG than currently exist, which could result in GRSG population declines in those areas. For the other Analysis Areas (18, 23, 25 and 19), GRSG populations should remain stable, absent other factors that may not have been accounted for in the model.

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In the Proposed Plan, results indicate all areas would meet or exceed desired conditions based on the vegetation treatment objectives. For all areas GRSG populations should remain stable or improve, absent other factors that may not have been accounted for in the model.

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Conifer removal can provide immediate benefit to GRSG by restoring habitat quality, whereas other vegetation management projects aimed at restoring sagebrush may aid GRSG over the long term, but not provide immediate habitat improvement. Under the Proposed Plan, the BLM and Forest Service would include treatment programs to reduce the likelihood of conifer encroachment and further improve GRSG abundance and distribution. A total of 107,000 acres of BLM-administered lands and 22,000 acres of National Forest System lands would be treated with mechanical means or prescribed fire to reduce conifer encroachment. Conifer removal would facilitate GRSG population and habitat recovery through methods determined appropriate for the terrain at the site-specific level. Thus, the vegetation management tools described in the proposed plan would help to reduce encroachment and improve GRSG habitat.

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The policies under the Proposed Plan would also reduce the impacts from invasive plants in these habitats compared with Alternative A, and monitoring and mitigation components of the Proposed Plan would help to ensure GRSG seasonal habitat objectives (**Tables 2-3 and 2-6**) are met.



**Impacts from Wildland Fire Management**

The Proposed Plan would focus resources to reduce wildfire in sagebrush areas. It would maintain fuel breaks in PHMA and IHMA. Fire response times to PHMA and IHMA would be reduced to limit fire damage. The recommendations from the BLM Fire and Invasives Assessment Tool (FIAT) (**Appendix D**) will direct field offices to prioritize landscapes for fire prevention and fuels management within GRSG habitat to minimize the risk of wildfire in PHMA and IHMA. Fuels management treatments and post-fire rehabilitation projects in PHMA would focus on maximizing benefits on GRSG habitats using the resistance and resilience concepts in Chambers et al. (2014) coupled with the FIAT assessments. These concepts would reduce impacts from invasive annual grasses and altered fire regimes on the sagebrush ecosystem as well as reduce the rate of conifer encroachment in order to reduce GRSG habitat fragmentation and maintain or re-establish habitat connectivity over the long-term and at a landscape scale. The use of prescribed fire in GRSG habitat would be avoided unless evaluation of site-specific conditions showed a net benefit to GRSG. All of these measures would serve to reduce habitat loss for GRSG.

The Proposed Plan includes an adaptive management strategy based on population and habitat triggers for each conservation area. Adaptive management would expand more restrictive management based on specific and measurable triggers relating to habitat and population metrics, for example, grazing may be restricted in areas adjacent to burns in order to restore habitat capable of supporting GRSG. Enhanced monitoring would be conducted in restoration areas under the Proposed Plan. These policies are designed to limit the prevalence of wildfire in sagebrush areas and would reduce damage to GRSG habitat more than current management.

**Impacts from Leasable Minerals Management**

Under the Proposed Plan, in unleased areas of PHMA and IHMA, an NSO stipulation would be applied without waivers or modifications. In SFAs, NSO stipulations would apply without waiver, exception, or modification. Outside SFAs, exceptions to NSO would be considered under certain criteria. GHMA would be open to leasing with BMPs, RDF, and buffer zones (**Appendices B and C**). Restrictive stipulations would increase protection of habitat associated with leks by avoiding surface disturbance during sensitive times, and would reduce the impacts of mining on GRSG habitat, as described in **Section 4.1.2**. Mitigation requirements would be implemented to ensure a net conservation gain for GRSG. **Table 4-48** shows the percentage of GRSG habitat and occupied leks within areas closed or with NSO stipulations for oil and gas leasing by population area. **Table 4-49** shows the percentage of GRSG habitat and occupied leks within areas closed or with NSO stipulations for geothermal energy by population area.

**Table 4-47**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	31.5%	2
Mountain Valleys	94.7%	162

**Table 4-47**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leaks Within Areas Closed or with NSO Stipulations for Oil and Gas Leasing by Population Area**

Population Area	Habitat Area	Occupied Leaks
SW Montana	80.8%	47
North Side Snake	72.5%	256
South Side Snake	83.6%	160
Southwest Idaho	89.1%	153
Sawtooth	75.8%	0
Bear Lake	96.3%	8
Weiser	23%	0

Source: BLM GIS 2015

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**Table 4-48**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leaks Within Areas Closed or with NSO Stipulations for Geothermal Energy by Population Area**

Population Area	Habitat Area	Occupied Leaks
East Central Idaho	30.5%	2
Mountain Valleys	94.6%	162
SW Montana	80.8%	46
North Side Snake	72.9%	256
South Side Snake	83.7%	161
Southwest Idaho	89.1%	153
Sawtooth	75.8%	0
Bear Lake	95.2%	8
Weiser	22.9%	0

Source: BLM GIS 2015

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***Impacts from Non-Energy Leasable Minerals Management***

Under the Proposed Plan, PHMA areas outside KPLAs would be closed to leasing, while IHMA would be open to leasing in accordance with the Anthropogenic Disturbance Development Criteria, as well as RDFs, BMPs, buffers (based on the USGS (2014) study, and seasonal timing restrictions (**Appendices B and C**). In GHMA, lands will remain available for leasing subject to RDFs, BMPs, buffers, timing restrictions and stipulations. These provisions may have little impact on GRSG because phosphate resources are located primarily in southeastern Idaho in non-habitat areas for GRSG. To the extent that phosphate resources are located in GRSG habitat, the provisions provided under the Proposed Plan would protect the habitat from impacts associated with mineral exploration.

***Impacts from Locatable Minerals Management***

Currently, BLM-administered and National Forest System lands within the sub-region are generally open to locatable mineral development. Mitigation of effects on GRSG and its habitat are identified through the NEPA process approving plans of operation. Goals and



1 objectives for locatable minerals are to provide opportunities to develop the resource while  
2 preventing undue or unnecessary degradation of BLM-administered and National Forest  
3 System lands.

4 These acreages would not change under the Proposed Plan, except in SFAs, where all  
5 acreage would be recommended for withdrawal from locatable mineral entry. In addition,  
6 the Proposed Plan would require operators to include measures to avoid or minimize  
7 adverse effects to GRSG and their habitat when 3809 Plans and notices are required. BMPs  
8 for locatable minerals removal would be applied to PHMA, IHMA and GHMA areas as  
9 COAs in plans of operation. As no additional habitat would be withdrawn from mineral  
10 entry, there would continue to be effects on GRSG and their habitat. Use of BMPs, RDFs  
11 and buffers (**Appendices B and C**) under the Proposed Plan might reduce these impacts as  
12 compared with Alternative A. **Table 4-50** shows the percentage of GRSG habitat and  
13 occupied leks affected by mineral withdrawal by population area.

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**Table 4-49**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within Existing and**  
**Proposed Locatable Mineral Withdrawals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	6.1%	1
Mountain Valleys	43.7%	87
SW Montana	2.5%	3
North Side Snake	47.2%	191
South Side Snake	31.4%	76
Southwest Idaho	58.7%	120
Sawtooth	17.2%	0
Bear Lake	8.9%	2
Weiser	8.4%	0

Source: BLM GIS 2015

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17 ***Impacts from Salable Minerals Management***

18 Under the Proposed Plan, PHMA would be closed to new development while IHMA would  
19 be open subject to Anthropogenic Disturbance Development Criteria. Closure would  
20 increase protection on habitat associated with leks and GRSG habitat across the broader  
21 landscape (**Table 4-4**). In addition, buffer zones, RDFs and BMPs (**Appendices B and C**)  
22 associated with development in GRSG habitat would provide improved protection from  
23 disturbance associated with salable mineral development. **Table 4-51** shows the percentage  
24 of GRSG habitat and occupied leks affected by closure to salable minerals by population  
25 area.

**Table 4-50**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Affected by Closure to Salable Minerals by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	22.6%	1
Mountain Valleys	61.5%	127
SW Montana	68.9%	45
North Side Snake	44.7%	210
South Side Snake	39.8%	84
Southwest Idaho	68.3%	141
Sawtooth	12.7%	0
Bear Lake	59.4%	5
Weiser	0	0

Source: BLM GIS 2015

***Impacts from Travel and Transportation Management***

The Proposed Plan would prioritize travel planning to designate open and closed areas. In the meantime, it would limit motorized travel to existing roads and trails on all BLM-administered lands within field offices containing GRSG habitat, unless specific open areas have been previously designated to support recreational activities. Negative impacts would occur on a small scale in open areas. Timing and seasonal restrictions would be applied to activities known to disturb nesting GRSG while travel management planning is underway.

Under the Proposed Plan, impacts from roads and ROWs/SUAs in PHMA and IHMA would be reduced, compared with Alternative A. Impacts from road construction and use in co-located areas and GHMA are similar to Alternative A. **Table 4-52** shows the percentage of GRSG habitat and occupied leks affected by travel management designations by population area.

**Table 4-51**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within Each Travel Management Designation by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed
East Central Idaho	0%	84.9%	15.1%	0	2	0
Mountain Valleys	0.1%	98.9%	1%	0	136	1
SW Montana	0%	99%	1%	0	40	0
North Side Snake	0.1%	94.2%	5.8%	0	212	5
South Side Snake	0%	96.5%	3.5%	0	164	4
Southwest Idaho	0%	81.2%	18.8%	0	126	27
Sawtooth	0%	100%	0%	0	0	0
Bear Lake	0%	99.5%	0.5%	0	7	0
Weiser	0%	99.7%	0.3%	0	1	0



**Table 4-51**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Within Each Travel Management Designation by Population Area**

Population Area	Habitat Area			Occupied Leks		
	Open <sup>1</sup>	Limited	Closed	Open <sup>1</sup>	Limited	Closed

Source: BLM GIS 2015

<sup>1</sup>Acres closed to motorized travel represent existing acres closed. No additional areas would be closed under any alternative.

***Impacts from Livestock Grazing Management***

Under current management, 11,073,800 acres of identified GRSG habitat are open for livestock grazing (**Table 4-5**). Livestock grazing is managed through existing grazing plans, with methods and guidelines from the existing plans followed to maintain ecological conditions according to Standards for Rangeland Health, which include maintaining healthy, productive and diverse populations of native plants and animals. Direct impacts on GRSG have been reduced in some areas due to GRSG-specific management found in some conservation strategies or LUPs.

Range improvements are designed to meet both wildlife and range objectives, and include building, modifying or marking fences to permit passage of wildlife and reduce the chance of bird strikes. Modifications may involve moving troughs, adding or changing wildlife escape ramps, or ensuring water is available on the ground for a variety of different wildlife species. Although not directly created to protect GRSG, these approaches would protect and enhance GRSG habitat by diverting livestock away from sensitive areas, thereby reducing the likelihood of surface disturbance in these areas.

Management under the Proposed Plan would add GRSG guidelines to grazing management plans in PHMA, IHMA, and GHMA. Land health assessments would be prioritized in SFAs and PHMA, and management changes would be tailored to specifically address GRSG habitat objectives. When an allotment becomes vacant, voluntary retirement of the allotment or grazing preference would be considered in PHMA if it would benefit GRSG habitat. In addition, the NEPA analysis for renewals and modifications of livestock grazing permits that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG habitat objectives. Defined responses will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. **Table 4-5** shows acres closed to grazing under the Proposed Plan, compared to current management. Allotment retirement would remove any grazing effects to GRSG habitat in the retired allotment.

Structural range improvements not beneficial to GRSG would be limited in GRSG habitat to reduce the likelihood of additional disturbance. Similar efforts would apply to AML re-evaluations in HMA for wild horse and burro populations. HMA would not be increased in PHMA or in IHMA without consideration of GRSG habitat objectives. Together, these efforts would reduce impacts on GRSG from grazing, such as loss of nesting cover, compared with Alternative A.



1 **Impacts from Special Designations Management**

2 Impacts would be the same as under Alternative A (current management); no additional  
3 special designations would be created under the Proposed Plan.

4 **Impacts from Anthropogenic Disturbance Management, Adaptive Management, and**  
5 **Coordination**

6 While the management actions described for the Proposed Plan are anticipated to reduce  
7 impacts on GRSG, the adaptive management approach is included in the event that habitat  
8 or populations continue to decline to the point that triggers are met. In that event, more  
9 restrictive measures could be applied. The goal of adaptive management is to detect effects  
10 on GRSG and take action in an appropriate timeframe to effectively offset impacts.

11 In Idaho, the Proposed Plan would incorporate an adaptive management strategy composed  
12 of soft and hard triggers that are based on population and habitat changes. BLM and Forest  
13 Service would utilize population information collected and maintained by the Idaho  
14 Department of Fish and Game to track and identify population changes to assess the  
15 population trigger in the adaptive management approach. Triggers would be determined by  
16 Conservation Area, making the strategy more locally responsive than if triggers were  
17 determined on a sub-regional or statewide basis. When a soft trigger is met, the response  
18 would be additional evaluation. When a hard trigger is met, IHMA areas within that  
19 Conservation Area would be managed as PHMA, impacting the consideration of  
20 infrastructure projects until the habitat or population recovers and the trigger no longer  
21 applies. Hard triggers include a 20 percent decline of nesting and/or wintering habitat within  
22 PHMA or IHMA compared to an established baseline within a Conservation Area.  
23 **Appendix G** provides more detail on the adaptive management approaches, triggers and  
24 responses. The use of adaptive management would benefit GRSG by limiting disturbance to  
25 habitat in PHMA and IHMA in Idaho. **Table 4-53** shows the percentage of GRSG habitat  
26 and occupied leks affected by adaptive management triggers by population area.

27  
28 **Table 4-52**  
**Proposed Plan: Percent of GRSG Habitat and Occupied Leks Affected by Adaptive**  
**Management Trigger in IHMA by Population Area**

Population Area	Habitat Area	Occupied Leks
East Central Idaho	0%	0
Mountain Valleys	73%	35
SW Montana	0%	0
North Side Snake	54.8%	30
South Side Snake	80.9%	92
Southwest Idaho	37.4%	13
Sawtooth	0%	0
Bear Lake	29%	3
Weiser	0%	0

Source: BLM GIS 2015



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2 To limit overall anthropogenic disturbance to GRSG habitat, BLM and Forest Service would  
3 impose a cap to limit anthropogenic disturbance to 3 percent of habitat, as calculated within  
4 the BSU and project analysis area. This would reduce disturbance on both the local and  
5 landscape scales. The BSU is defined as the nesting and wintering habitat within PHMA and  
6 IHMA within a Conservation Area. The use of BSUs to calculate disturbance is more  
7 protective of GRSG because it assesses disturbance on a finer scale than would be possible  
8 using GRSG PACs.

9 The anthropogenic disturbance cap excludes habitat disturbance from wildfire because  
10 wildfire is already factored into the soft and hard habitat triggers. In Idaho, disturbance is  
11 measured by direct footprint or by ROW/SUA width, while in Montana disturbance is  
12 measured using the Disturbance Density Calculation Tool (**Appendix G**). The management  
13 area map and BSU baseline map would be re-evaluated every five years. In PHMA, the  
14 Anthropogenic Disturbance Exception Criteria would apply stringent criteria to any  
15 potential exceptions to the disturbance cap. These criteria would apply in addition to the  
16 Anthropogenic Disturbance Development Criteria that apply in IHMA. No disturbance cap  
17 would apply in GHMA or GRSG brood-rearing habitat and migration corridors. BSUs  
18 include only nesting and wintering habitat.

19 The impact of the disturbance cap would differ by Conservation Area. In some areas,  
20 projected disturbance would not approach the cap, and would avoid impacts to GRSG  
21 habitat using buffers (**Appendix B**), co-location of disturbance, other management under  
22 the Proposed Plan. The implementation of the anthropogenic disturbance cap represents an  
23 additional regulatory safeguard to maintain GRSG populations and habitat within BSUs. The  
24 mitigation requirements under the Proposed Plan would further reduce harm to GRSG from  
25 development. Adherence to GRSG habitat objectives (**Tables 2-3** and **2-6**) in mitigation and  
26 monitoring would ensure that restoration efforts improve nesting and wintering habitat for  
27 GRSG.

28 Coordination among agencies under the Proposed Plan will allow for effective, integrated  
29 management of GRSG to achieve desired habitat and population conditions and to  
30 maximize available funding. Coordination will occur among federal agencies, between  
31 federal agencies and the States of Idaho and Montana, and between agencies and tribes,  
32 private landowners and communities to develop consistent approaches for monitoring and  
33 facilitate effective GRSG conservation.

#### 34 **4.3 Vegetation**

##### 35 **4.3.1 Methods and Assumptions**

###### 36 ***Indicators***

37 Indicators of impacts on vegetation are as follows:

###### 38 *Upland, Riparian and Wetland Vegetation*

- 39 • Acres and condition of vegetation communities

- Extent of sagebrush fragmentation

*Noxious Weeds and Invasive Species*

- Change (increase, decrease, or no change) in the likelihood for noxious weed or invasive species introduction or spread
- Change (increase, decrease, or no change) in the estimated acres of conifer encroachment

**Assumptions**

The analysis includes the following assumptions:

- All plant communities would be managed to achieve a mix of species composition, cover, and age classes across the landscape, except in site-specific situations where nonnative plantings are used for livestock grazing in order to provide rest or deferment to native vegetation.
- The degree of impact attributed to any one disturbance or series of disturbances would be influenced by several factors. These are location in the watershed; the type, time, and degree of disturbance; existing vegetation; precipitation; and mitigating actions applied to the disturbance.
- Noxious and invasive weeds would continue to be introduced and spread as a result of ongoing vehicle traffic in and out of the planning area, recreation, wildfire, wildlife and livestock grazing and movements, and surface-disturbing activities.
- Activities that would disturb soils could cause wind and/or water erosion, topsoil loss, and soil compaction, which could affect the ability of vegetation to regenerate. Resulting impacts could include lowered plant vigor and growth rate, altered or disrupted pollination, and increased susceptibility to disease. Impacts may vary depending on the sensitivity of certain species, functional group and vegetation community.
- Ecological health and ecosystem functioning depend on vegetative cover, species diversity, nutrient cycling and availability, water infiltration and availability, and percent cover of weeds.
- Climate fluctuation would continue to influence the health and productivity of plant communities annually.

Short-term effects would occur over two years or less, and long-term effects would occur over longer than two years.



1                   **4.3.2 Nature and Type of Effects**

2                   GRSG rely on sagebrush ecosystems for all aspects of their life cycle. Typically, a range of  
3                   sagebrush community composition within the landscape, including variations in subspecies  
4                   composition, codominant vegetation, shrub cover, herbaceous cover, stand age, are needed  
5                   to meet seasonal and interseasonal requirements for food, cover, nesting, and wintering  
6                   habitats. The landscape required for GRSG may be up to 40 square miles. Thus, conserving  
7                   and managing GRSG is as much about the ecology, management, and conservation of large,  
8                   intact sagebrush ecosystems as it is about the dynamics and behaviors of the populations  
9                   themselves (Manier et al. 2013, p. 7).

10                  Historically, sagebrush-dominated vegetation was one of the most widespread habitats in the  
11                  country, but its expanse has been fragmented, lost, or altered by invasive plants and human  
12                  disturbance (NTT 2011, p.4). Protection of GRSG habitat would involve restrictions and  
13                  limitations on activities that contribute to the spread of invasive species, fire, and other  
14                  surface disturbance. It also would involve management of vegetation to promote healthy  
15                  sagebrush and understory vegetation to support GRSG.

16                  ***Vegetation Management and Habitat Protection***

17                  In addition to landscapes with large, intact patches of sagebrush, GRSG require high-quality  
18                  habitat conditions. These conditions are a diversity of herbaceous species, vegetative and  
19                  reproductive health of native grasses, and an abundance of sagebrush. These requirements  
20                  make management for high condition in seasonally important habitats essential (Manier et al.  
21                  2013, pp. 181-182). Management plans that protect intact sagebrush and restore impacted  
22                  areas strategically to enhance existing habitats (for example, connectivity of intact sagebrush)  
23                  have the best chance of increasing the amount and quality of sagebrush cover (Manier et al.  
24                  2013, p.183). This is because of the limited distribution of suitable sagebrush habitats and  
25                  the cost of habitat restoration. Sagebrush-promoting vegetation treatments will enhance  
26                  native vegetation and overall ecosystem productivity, while reducing the distribution of  
27                  invasive species and some woody species.

28                  Invasive plants can alter plant community structure and composition, productivity, nutrient  
29                  cycling, and hydrology. They could competitively exclude native plant populations. In  
30                  particular, invasive plants can reduce and eliminate vegetation that GRSG use for food and  
31                  cover, resulting in habitat loss and when infestations occur on large scales may result in  
32                  fragmentation. They also could increase the risk of wildfire caused by the spread of invasive  
33                  plants such as cheatgrass (*Bromus tectorum*), which has increased the frequency and intensity of  
34                  fires (Balch et al. 2012). An assortment of nonnative annuals and perennials and native  
35                  conifers are currently invading sagebrush ecosystems.

36                  Expansion of conifer woodlands, especially juniper (*Juniperus* spp.) present a threat to GRSG  
37                  because they do not provide suitable habitat; mature trees can displace shrubs, grasses, and  
38                  forbs through direct competition for resources. Juniper expansion is also associated with  
39                  increased bare ground and increased potential for erosion. Mature trees may offer perch and  
40                  nest sites for raptors; thus, woodland expansion may also represent expansion of predation  
41                  threat, similar to perches on power lines and other structures (Manier et al. 2013, pp. 152-  
42                  154).

1 To reduce juniper expansion, current vegetation treatments and active vegetation  
2 management typically focus on manipulation of vegetation composition and/or structure.  
3 These techniques are used to improve fuels management, fire suppression, and habitat  
4 management, by removing invasive plants or using surface soil stabilization to increase  
5 productivity. Conifer removal treatments are more likely to succeed if perennial grasses and  
6 forbs are a component of the pre-treatment understory (Miller et al. 2007, p. 32). Locally and  
7 regionally, the distribution of these treatments can affect the distribution of GRSG and  
8 sagebrush habitats (Manier et al. 2013, pp. 179-185). Vegetation treatments would have  
9 short-term effects on vegetation from vegetation removal and disturbance but would result  
10 in long-term improvements in habitat condition by reducing invasive species and  
11 fragmentation and increasing diversity and productivity

12 Management of vegetation resources to protect GRSG would alter vegetation communities  
13 by promoting diversity, healthy reproductive native grasses and sagebrush productivity and  
14 vigor. Treatments designed to prevent encroachment of nonnative species or conifers would  
15 alter the condition of native vegetation communities. They would do this by changing the  
16 species richness, composition, and frequency of species within plant communities. Habitat  
17 connectivity for GRSG could also be increased through vegetation manipulation designed to  
18 restore vegetation, particularly sagebrush overstory cover.

19 Vegetation manipulation in the riparian zone, such as weed treatments and native plantings,  
20 would improve the condition of the riparian vegetation community. It also would improve  
21 or maintain plant vigor and hydrologic function.

22 Protection of sagebrush habitat through restrictions on uses, such as closure to mineral  
23 development or OHV use, or exclusion of ROWs, would support GRSG. Such use  
24 restrictions would reduce damage to native vegetation communities and individual native  
25 plant species. Likewise, use restrictions would minimize habitat fragmentation and would be  
26 more likely to retain contiguous sagebrush habitat, naturally developed sagebrush growth  
27 form, existing age class distribution, and sagebrush recruitment within these areas. Use  
28 restrictions could also minimize the spread of invasive species by limiting human activities  
29 that cause soil disturbance or seed introductions. Specific impacts from restrictions on  
30 certain uses, such as minerals, lands and realty, and grazing, are described in more detail  
31 under their respective headers below.

### 32 **Wildland Fire**

33 Wildfires likely played an important role historically in creating a mosaic of areas dominated  
34 by herbaceous species (recently disturbed) and mature sagebrush (less-frequently disturbed).  
35 Nevertheless, current and past land use patterns have restricted the system's ability to  
36 support natural wildfire regimes. Slow rates of regrowth and recovery of vegetation,  
37 particularly sagebrush, after wildfire, as well as high rates of anthropogenic disturbance, and  
38 conversion to invasive annual grasses, are largely responsible for the accumulating  
39 displacement and degradation of the sagebrush ecosystem (Manier et al. 2013, pp. 133-144).

40 Fire can be particularly damaging to sagebrush ecosystems. Big sagebrush does not resprout  
41 after a fire but is replenished by wind-dispersed seed from adjacent unburned stands or seeds



1 in the soil. Depending on the species and the size of a burn, sagebrush can reestablish itself  
2 within five years of a burn, but a return to a full pre-burn community cover can take 15 to 30  
3 years or longer (Manier et al. 2013, pp. 133-134). ES&R (for BLM-administered lands) and  
4 BAER (for National Forest System lands) would reduce the potential effects of invasive  
5 species by providing the best opportunities for vegetation to reestablish following wildland  
6 fires and compete with the natural strengths invasive species have compared to native  
7 species. Re-seeding with native plants and long-term monitoring to ensure the production of  
8 GRSG cover and forage plants assists with vegetation recovery (NTT 2011, pp. 25-26).

9 Fire suppression may be used to maintain habitat for GRSG (NTT 2011, pp. 25-26). When  
10 management reduces wildland fire frequency the indirect impact is that vegetation ages  
11 across the landscape, and early successional vegetation communities are diminished. Fire  
12 suppression may preserve the condition of some vegetation communities, as well as habitat  
13 connectivity. This is particularly important in areas where fire frequency has increased as a  
14 result of invasive annual grass invasion and where landscapes are highly fragmented. Fire  
15 suppression can also lead to increased fuel loads, which can lead to more severe or larger  
16 fires in the long term. Fire also increases opportunities for invasive species, such as  
17 cheatgrass, to expand (Brooks et al. 2004); fire suppression can indirectly limit this  
18 expansion.

19 Controlled burning may be prescribed to treat fuel buildup, remove invasive annuals, and  
20 can assist in the recovery of sagebrush habitat in some vegetation types, such as in juniper  
21 woodlands and conifer-encroached mountain sagebrush communities (NTT 2011, pp. 25-26;  
22 Manier et al. 2013, p. 71). Prescribed fire may be an important management option in these  
23 areas, increasing spatial heterogeneity and reducing tree cover and fuel continuity (Manier et  
24 al. 2013, p. 71).

### 25 ***Lands and Realty***

26 Permitted activities, such as construction of utility ROWs or SUAs, involve vegetation  
27 removal. This reduces the condition of native vegetation communities and individual native  
28 plant species, alters age class distribution, increases fragmentation, and encourages the  
29 spread of invasive species. Construction could compact soils, which would inhibit natural  
30 revegetation by hindering root growth in areas without reclamation. It also would reduce  
31 plant vigor, making plants more susceptible to disease, drought, and insect attack. In most  
32 cases soils in reclaimed areas would be ripped and seeded during interim or final reclamation  
33 (NTT 2011, pp. 12-13).

34 Different types of ROWs or SUAs would impact vegetation in different ways. Aboveground  
35 linear and underground ROWs or SUAs, such as transmission lines or pipelines, would  
36 temporarily remove vegetation during construction, but areas would be reclaimed or restored  
37 after construction. Vegetation would be permanently removed for construction of surface  
38 linear ROWs or SUAs, such as roads. Furthermore, since aboveground and surface linear  
39 ROWs or SUAs may extend for many miles, vegetation communities could be fragmented  
40 and encourage the spread of invasive species. Aboveground ROWs or SUAs and wind  
41 energy projects would remove vegetation during the life of the project, often lasting several  
42 decades, but areas would be restored after the ROW or SUA is decommissioned.

1 ROW or SUA exclusion areas would prohibit all development of ROWs or SUAs.  
2 Prohibiting ROWs or SUAs in exclusion areas would directly protect vegetation from  
3 disturbance and removal. In ROW or SUA avoidance areas, the BLM and Forest Service  
4 would consider on a case-by-case basis whether a ROW or SUA should be allowed. This  
5 flexibility may be advantageous where federal and private landownership areas are mixed and  
6 exclusion areas may result in more widespread development on private lands.

7 Acquisitions, disposals, or land exchanges to reduce the fragmentation of GRSG habitat  
8 could improve the BLM and Forest Service's ability to implement management to increase  
9 vegetation diversity, ecological health, and land health standards. In addition, retention of  
10 federal lands would prevent sagebrush removal associated with land conversion to  
11 agricultural or urban uses.

### 12 ***Mineral Resources***

13 While not a large threat in the Idaho and Southwestern Montana Sub-region, mineral  
14 development requires construction of roads, well pads, wells and other infrastructure which  
15 result in the removal of vegetation (Manier et al. 2013, pp. 90-104). Surface disturbance  
16 associated with mineral development often removes vegetation, reduces the condition of  
17 native vegetation communities, increases fragmentation, and encourages the spread of  
18 invasive species, particularly if pre-disturbance vegetation is composed of deep-rooted  
19 perennial bunchgrasses and/or biological soil crusts (NTT 2011, pp. 19-20; Reisner et al.  
20 2013, p. 1047; Deines et al. 2007, p. 31). Vegetation is typically removed for a period of time  
21 during the course of mining. When mining is completed, the areas are reclaimed using seed  
22 mixes chosen by the BLM or Forest Service. The remaining vegetation could have reduced  
23 vigor or productivity due to mechanical damage, soil compaction, and dust. Impacts would  
24 not occur in areas closed to mineral leasing or development.

### 25 ***Recreation***

26 Recreation in GRSG habitat can be benign, but casual use at excessive levels may degrade  
27 sagebrush vegetation from such activities as camping, hiking, bird watching, bicycling, OHV  
28 riding, hunting, and rock climbing site access. Potential impacts from casual recreation  
29 include trampling, soil compaction, erosion, invasive plant spread, and fugitive dust  
30 generation (Knick et al. 2011). Recreation can also increase the potential for wildfire caused  
31 by invasive plant spread or human error (Knick et al. 2011). Most impacts occur in easily  
32 accessible areas and in areas open to cross-country travel, particularly motorized use.  
33 Restrictions on recreation in GRSG habitat would limit damage to the vegetation  
34 communities that comprise this habitat by directly reducing vegetation disturbance from  
35 trampling, motorized vehicles, dust, and spread of invasive species. Such restrictions could  
36 involve seasonal area closures or limitations on the number of users or types of uses  
37 permitted, particularly OHV use (NTT 2011, p. 12).

38 There would likely be negligible impacts on vegetation from management associated with  
39 recreation under all alternatives.



1       ***Travel and Transportation***

2       Road and trail construction divides and fragments vegetation and causes erosion and  
3       nutrient leaching. The use of roads creates soil compaction and allows the spread of human  
4       disturbance, including wildfire and invasive plant species (USFWS 2010a, pp. 19-21; Manier  
5       et al. 2013, pp. 71-90). Invasive species can outcompete sagebrush and other vegetation  
6       essential for GRSG survival. Invasives also increase wildfire frequency, further contributing  
7       to loss of habitat (Balch et al. 2012).

8       The more areas that are seasonally or permanently closed to off-road motorized vehicle use,  
9       the fewer impacts on vegetation from surface disturbance. In areas open to OHV use,  
10       vehicle and human trampling of vegetation, soil compaction, and spread of dust and weeds  
11       would be expected. Impacts would be reduced, but not eliminated, in areas limited to  
12       existing routes.

13       ***Livestock Grazing***

14       Livestock grazing is the most widespread land use across the sagebrush landscape (Connelly  
15       et al. 2004, pp. 7-29). Livestock grazing can affect soils, vegetation health, species  
16       composition, and water and nutrient availability by consuming vegetation, redistributing  
17       nutrients and seeds, trampling soils and vegetation, and disrupting microbial systems  
18       (Connelly et al. 2004 Ch. 7; NTT 2011, p. 14).

19       Livestock grazing has been described as a diffuse form of disturbance that exerts repeated  
20       pressure over many years on a system; unlike point sources of disturbance (e.g., fires). Thus,  
21       effects of grazing are not likely to be detected as disruptions but as differences in the  
22       processes and functioning of the sagebrush, riparian, and wetland systems.

23       Grazing effects are not distributed evenly because historic practices, management plans and  
24       agreements, and animal behavior all lead to differential use of the range (Manier et al. 2013,  
25       pp. 157-168). Livestock often use riparian and wetland areas for water and shade, which  
26       could reduce riparian community condition and hydrologic function.

27       Water developments, roads, and structural range improvements associated with livestock  
28       grazing would remove vegetation over the long term and could introduce weeds to  
29       rangelands. Livestock would congregate around water developments, compacting soil and  
30       trampling nearby vegetation, and making reestablishment of native vegetation difficult in the  
31       surrounding area. However, water developments would divert livestock use away from  
32       riparian and wetland areas and thus reduce such impacts in these areas.

33       At unsustainable levels, grazing can lead to loss of vegetation cover, reduced water  
34       infiltration rates and nutrient recycling, decreased plant litter and water quality, and increased  
35       bare ground and soil erosion (Manier et al. 2013, pp. 157-159). Depending on the level of  
36       utilization and timeframe, livestock grazing can reduce resistance to invasive annual grasses  
37       by decreasing bunchgrass abundance, shifting bunchgrass composition, and reducing  
38       biological soil crusts (Reisner et al. 2013, p. 1044). Land health evaluations are used to assess  
39       rangeland condition and help to identify where changing grazing management would be  
40       beneficial. Grazing may also affect the extent and behavior of fires in sagebrush-dominated



1 ecosystems, both on annual and decadal scales. Over annual timeframes, grazing can reduce  
2 the amount of herbaceous fine fuels, including cheatgrass, forbs, and small twigs of woody  
3 plants. Grazing can reduce fire spread and intensity by removing understory vegetation,  
4 reducing the amount of fuel, and accelerating the decay of litter through trampling. Over  
5 decadal timeframes, livestock grazing can change the relative proportions of shrubs,  
6 perennial grasses, and annual grasses, altering the fuel composition (Strand et al. 2014, p. 50).

7 Management of grazing systems that aim to protect sagebrush and riparian ecosystems  
8 would enhance vegetation by allowing more plant growth, increase plant vigor, reduce  
9 trampling and introduction of exotic and undesirable species. Conversely, livestock grazing  
10 concentrated in certain areas would increase surface-disturbing impacts in those areas.

11 The Forest Service will incorporate grazing guidelines (**Table 2-6**) into term grazing permits  
12 that will likely improve vegetation structures in GRSG seasonal habitat on grazing  
13 allotments.

#### 14 ***Special Designations***

15 Special designations (e.g., ACECs, Wilderness, and WSAs) and other conservation measures  
16 may be established to protect vegetation in GRSG habitat as a relevant or important value.  
17 While existing ACECs, Wilderness, WSAs and other special designations do not have GRSG  
18 habitat as a relevant or important value, some incidental protection may be conferred to  
19 vegetation in existing ACECs by restricting resource uses intended to protect other values.

#### 20 **4.3.3 Impacts on Vegetation Common to All Alternatives**

21 The nature and type of impacts described below are common to all alternatives, but the  
22 context and intensity may vary by alternative.

23 Under all alternatives, the Integrated Vegetation Management Handbook policies would be  
24 followed and would provide guidance on which treatments and chemicals can be used.  
25 Applying these policies would improve vegetation management in sagebrush habitat, thereby  
26 likely improving vegetation conditions in these areas.

27 In general, impacts from recreation are similar among all alternatives, as dispersed casual  
28 recreation would continue throughout the planning area.

29 There would be no impacts common to all alternatives from lands and realty management,  
30 habitat restoration and vegetation management, wildland fire management, mineral resource  
31 management, livestock grazing management, or ACEC management.

#### 32 **4.3.4 Alternative A**

33 While GRSG may be protected under existing provisions of some LUPs, in general,  
34 Alternative A relies on management guidance that does not reflect the most up-to-date  
35 science regarding GRSG. Some of the older land use plans lack a landscape-level approach  
36 to land planning.



1 There is no consistently applied vegetation management across all land use plans, though  
2 Idaho and Montana Standards for Rangeland Health incorporate objectives for maintaining,  
3 improving, or restoring vegetation communities, particularly sagebrush and riparian and  
4 wetland habitats. As a result, there is general direction to preserve and improve vegetation  
5 communities; however, discrete human disturbances, such as road construction and mineral  
6 and ROW development, would continue. This could result in a number of impacts on  
7 vegetation, as described under **Section 4.3.2**.

#### 8 ***Impacts from Lands and Realty Management***

9 Under Alternative A, lands and realty management would continue, with some areas  
10 identified as ROW avoidance and ROW exclusion (**Table 4-54**, Acres of Sagebrush  
11 Vegetation within ROW Avoidance Areas in the Idaho and Southwest Montana Sub-Region,  
12 and **Table 4-55**, Acres of Sagebrush Vegetation within ROW Exclusion Areas in the Idaho  
13 and Southwest Montana Sub-Region). Impacts on areas chosen for ROWs are similar to  
14 those described under Section 4.3.2 and would include loss and degradation of upland  
15 vegetation communities, and the potential for increased spread of noxious weeds.

#### 16 ***Impacts from Habitat Restoration and Vegetation Management***

17 Under Alternative A, the BLM and Forest Service would continue to incorporate habitat  
18 restoration and vegetation objectives in management actions as described in the existing  
19 LUPs. This may improve vegetation conditions and increase the amount of native vegetation  
20 in areas, depending on the application of existing LUPs across the sub-region. In particular,  
21 the BLM and Forest Service would manage for the benefit of vegetation that provides  
22 wildlife forage, forbs, and sagebrush. Native species would be used when possible, but not  
23 required, allowing for some introduced species in areas where they are necessary for site  
24 stabilization. This approach would provide for habitat restoration, reduce noxious weeds,  
25 and improve the condition of vegetation communities to the extent possible under existing  
26 resource allocations.

#### 27 ***Impacts from Wildland Fire Management***

28 Under Alternative A, projects would be designed to minimize the size of wildfires and to  
29 prevent the further loss of sagebrush. In addition, prescribed burning may be used in  
30 support of resource management objectives, such as restoring grassland or shrubland,  
31 reducing conifer encroachment, or increasing age-class variety. As a result, vegetation  
32 condition and desired species composition would be improved in certain areas. Further,  
33 chemical weed treatments applied following prescribed burns would limit the expansion of  
34 weeds or invasive species in the burned area and would facilitate revegetation of native  
35 species. Impacts from fire on vegetation, described under **Section 4.3.2**, would continue  
36 under Alternative A.

**Table 4-53**  
**Acres of Sagebrush Vegetation within ROW Avoidance Areas in the Idaho and Southwest Montana Sub-Region**

Vegetation Type	Alt. A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ <sup>1</sup>	IHZ	CHZ <sup>1</sup>	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>72,300</b>	<b>52,000</b>	<b>0</b>	<b>0</b>	<b>52,000</b>	<b>47,900</b>	<b>621,000</b>	<b>13,100</b>	<b>238,600</b>	<b>420,900</b>	<b>52,000</b>	<b>0</b>	<b>0</b>	<b>10,900</b>	<b>184,300</b>	<b>489,600</b>
BLM	64,300	45,400	0	0	45,400	44,100	609,300	8,820	232,200	412,600	45,400	0	0	7,210	179,600	479,700
Forest Service	8,020	6,600	0	0	6,600	3,700	11,700	4,290	6,350	8,310	6,600	0	0	3,660	4,670	9,880
<b>Mixed Sagebrush</b>	<b>487,400</b>	<b>546,300</b>	<b>0</b>	<b>0</b>	<b>546,300</b>	<b>324,000</b>	<b>1,931,700</b>	<b>183,700</b>	<b>743,300</b>	<b>1,115,600</b>	<b>546,300</b>	<b>0</b>	<b>0</b>	<b>113,200</b>	<b>747,200</b>	<b>1,450,200</b>
BLM	210,400	282,600	0	0	282,600	174,600	1,662,700	28,400	607,400	867,500	282,600	0	0	11,200	620,800	1,181,000
Forest Service	277,000	263,800	0	0	263,800	149,400	269,000	155,300	135,900	248,000	263,800	0	0	102,100	126,300	269,200
<b>Tall Sagebrush</b>	<b>605,700</b>	<b>633,200</b>	<b>0</b>	<b>0</b>	<b>633,200</b>	<b>402,200</b>	<b>2,304,500</b>	<b>215,800</b>	<b>874,000</b>	<b>1,644,100</b>	<b>633,200</b>	<b>0</b>	<b>0</b>	<b>201,200</b>	<b>839,400</b>	<b>1,794,700</b>
BLM	327,000	500,300	0	0	500,300	367,700	2,151,600	93,100	784,000	1,559,400	500,300	0	0	73,200	736,700	1,711,200
Forest Service	278,700	133,000	0	0	133,000	34,500	152,900	122,700	89,900	84,700	133,000	0	0	128,000	102,700	83,500
<b>Total</b>	<b>1,165,300</b>	<b>1,231,600</b>	<b>0</b>	<b>0</b>	<b>1,231,600</b>	<b>774,100</b>	<b>4,857,100</b>	<b>412,600</b>	<b>1,855,800</b>	<b>3,180,500</b>	<b>1,231,600</b>	<b>0</b>	<b>0</b>	<b>325,300</b>	<b>1,770,800</b>	<b>3,734,500</b>
BLM	601,600	828,200	0	0	828,300	586,500	4,423,500	130,300	1,623,600	2,839,500	828,200	0	0	91,500	1,537,200	3,371,900
Forest Service	563,700	403,400	0	0	403,400	187,700	433,600	282,300	232,200	341,000	403,400	0	0	233,700	233,700	362,600

Source: BLM GIS 2015

<sup>1</sup>Acres in PHMA in Utah and Montana are included with CHZ acres for Idaho. Acres in GHMA in Montana are included in GHZ for Idaho.

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**Table 4-54**  
**Acres of Sagebrush Vegetation within ROW Exclusion Areas in the Idaho and Southwest Montana Sub-Region**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>72,300</b>	<b>9,320</b>	<b>763,300</b>	<b>824,700</b>	<b>9,320</b>	<b>15,800</b>	<b>78,700</b>	<b>25,900</b>	<b>23,300</b>	<b>54,600</b>	<b>9,320</b>	<b>763,300</b>	<b>0</b>	<b>25,000</b>	<b>3,320</b>	<b>75,200</b>
BLM	64,300	9,260	747,800	802,500	9,260	15,800	78,700	25,800	23,300	54,600	9,260	747,800	0	25,000	3,300	75,200
Forest Service	8,020	60	15,500	22,200	60	20	40	60	30	30	60	15,500	0	50	30	30
<b>Mixed Sagebrush</b>	<b>487,400</b>	<b>39,000</b>	<b>2,310,400</b>	<b>2,895,800</b>	<b>39,000</b>	<b>710</b>	<b>54,000</b>	<b>39,600</b>	<b>16,300</b>	<b>37,600</b>	<b>39,000</b>	<b>2,310,400</b>	<b>0</b>	<b>32,200</b>	<b>17,900</b>	<b>37,000</b>
BLM	210,400	900	1,856,300	2,139,800	890	490	18,500	1,350	15,800	2,730	900	1,856,300	0	1,040	17,200	290
Forest Service	277,000	38,100	454,100	756,000	38,100	210	35,500	38,300	530	34,900	38,100	454,100	0	31,100	720	36,700
<b>Tall Sagebrush</b>	<b>605,700</b>	<b>93,000</b>	<b>3,107,400</b>	<b>3,833,600</b>	<b>93,000</b>	<b>98,600</b>	<b>302,100</b>	<b>104,100</b>	<b>112,700</b>	<b>277,000</b>	<b>93,000</b>	<b>3,107,400</b>	<b>0</b>	<b>97,300</b>	<b>89,100</b>	<b>302,800</b>
BLM	327,000	93,000	2,920,000	3,513,200	93,000	98,600	302,100	104,100	112,700	277,000	93,000	2,920,000	0	97,300	89,100	302,800
Forest Service	278,700	0	187,400	320,400	0	0	0	0	0	0	0	187,400	0	0	0	0
<b>Total</b>	<b>1,165,300</b>	<b>141,300</b>	<b>6,181,100</b>	<b>7,554,100</b>	<b>141,300</b>	<b>115,100</b>	<b>434,900</b>	<b>169,600</b>	<b>152,300</b>	<b>369,200</b>	<b>141,300</b>	<b>6,181,100</b>	<b>0</b>	<b>154,500</b>	<b>110,300</b>	<b>415,000</b>
BLM	601,600	103,100	5,524,100	6,455,500	103,100	114,800	399,300	131,200	151,800	334,200	103,100	5,524,100	0	123,300	109,500	378,200
Forest Service	563,700	38,200	657,100	1,098,600	38,200	230	35,600	38,300	550	34,900	38,200	657,100	0	31,200	750	36,700

Source: BLM GIS 2015

Administrative  
Cooperating Agency

1       ***Impacts from Nonenergy Leasable Minerals Management***

2       Acres of sagebrush closed to nonenergy leasable mineral leasing under Alternative A are  
3       shown in **Table 4-56**, Acres of Sagebrush Vegetation Closed to Non-energy Leasable  
4       Mineral Leasing in the Idaho and Southwest Montana Sub-Region1. Impacts from  
5       nonenergy leasable development on vegetation, including loss and degradation of upland  
6       vegetation and increased potential for invasive plant spread, as described under **Section**  
7       **4.3.2**, would continue to occur in areas open to leasing and development.

8       ***Impacts from Locatable Minerals Management***

9       Impacts from locatable mineral development on vegetation, as described under **Section**  
10       **4.3.2**, would continue to occur in areas open to development.

11       ***Impacts from Salable Minerals Management***

12       Acres of sagebrush closed to mineral material disposal under Alternative A are shown in  
13       **Table 4-56**, Acres of Sagebrush Vegetation Closed to Mineral Materials Disposal in the  
14       Idaho and Southwestern Montana Sub-region1. Acres are not available for National Forest  
15       System lands. Impacts from salable mineral development on vegetation, as described under  
16       **Section 4.3.2**, would continue to occur in areas open to development.

17       ***Impacts from Fluid Minerals Management***

18       Acres of sagebrush closed to fluid mineral leasing under Alternative A are shown in **Table**  
19       **4-5**Table 4-578, Acres of Sagebrush Vegetation Closed to Fluid Mineral Leasing in the Idaho  
20       and Southwestern Montana Sub-region. Seasonal timing restrictions and lek buffers may be  
21       applied in certain areas, as described in the existing LUPs, to reduce impacts from mineral  
22       leasing or development, but these stipulations would not be applied consistently across the  
23       planning area. Impacts from fluid mineral development on vegetation, as described under  
24       **Section 4.3.2**, may occur in areas open to leasing and development.

25       ***Impacts from Travel and Transportation Management***

26       Impacts from OHV use would continue under Alternative A in areas that would be open to  
27       cross-country use and would be reduced in areas limited to existing roads (**Table 4-59**, Acres  
28       of Sagebrush Vegetation Limited to Existing Roads in the Idaho and Southwest Montana  
29       Sub-Region). Route and trail modifications would be considered on a case-by-case basis.  
30       Impacts on vegetation from travel would continue, including damage to upland vegetation,  
31       fragmentation, and potential for spread of invasive plants, as described under **Section 4.3.2**.

32       ***Impacts from Livestock Grazing Management***

33       Livestock grazing would continue to occur under Alternative A, with no change in acres  
34       open or closed to grazing (**Table 4-60**, Acres of Sagebrush Vegetation Closed to Livestock  
35       Grazing in the Idaho and Southwestern Montana Sub-region). Rangelands would continue  
36       to be managed to conform to the Idaho Standards for Rangeland Health or similar  
37       guidelines; thus, vegetation communities would continue to be maintained and improved to  
38       some extent across the planning area. Changes and adjustments would be considered on a  
39       case-by-case basis and would incorporate grazing standards and guides to evaluate the ability



**Table 4-55**  
**Acres of Sagebrush Vegetation Closed to Non-energy Leasable Mineral Leasing in the Idaho and Southwest Montana Sub-Region<sup>1</sup>**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mixed Sagebrush</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Tall Sagebrush</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>160</b>	<b>130</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	40	160	130	20	20	0	0	0	0	40	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>160</b>	<b>130</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	40	160	130	20	20	0	0	0	0	40	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: BLM GIS 2015

<sup>1</sup> For unleased known phosphate lease areas that are closed to leasing

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**Table 4-56**  
**Acres of Sagebrush Vegetation Closed to Mineral Materials Disposal in the Idaho and Southwestern Montana Sub-region<sup>1</sup>**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>103,000</b>	<b>8,040</b>	<b>765,500</b>	<b>826,400</b>	<b>10,100</b>	<b>6,030</b>	<b>303,900</b>	<b>8,370</b>	<b>24,900</b>	<b>69,700</b>	<b>8,040</b>	<b>765,500</b>	<b>0</b>	<b>4,130</b>	<b>7,310</b>	<b>565,800</b>
BLM	88,400	3,410	749,900	804,400	5,500	3,340	295,300	3,370	21,100	63,900	3,410	749,900	0	1,990	4,650	555,900
Forest Service	14,600	4,640	15,500	212,000	4,650	2,690	8,610	5,000	3,820	5,740	4,640	15,500	0	2,150	2,660	9,910
<b>Mixed Sagebrush</b>	<b>608,600</b>	<b>208,800</b>	<b>2,304,400</b>	<b>2,892,000</b>	<b>219,600</b>	<b>112,300</b>	<b>713,300</b>	<b>230,100</b>	<b>104,200</b>	<b>273,500</b>	<b>208,800</b>	<b>2,304,400</b>	<b>0</b>	<b>82,800</b>	<b>121,800</b>	<b>1,485,800</b>
BLM	88,400	7,040	1,849,400	2,137,500	17,400	9,170	490,700	5,890	21,500	61,000	7,040	1,849,400	0	2,110	29,900	1,180,100
Forest Service	520,200	201,800	455,000	754,500	202,200	103,100	222,600	224,200	82,700	212,500	201,800	455,000	0	80,700	91,900	305,700
<b>Tall Sagebrush</b>	<b>444,200</b>	<b>128,900</b>	<b>3,081,200</b>	<b>3,803,700</b>	<b>160,000</b>	<b>95,100</b>	<b>1,264,400</b>	<b>100,100</b>	<b>66,900</b>	<b>277,200</b>	<b>128,900</b>	<b>3,081,200</b>	<b>0</b>	<b>84,600</b>	<b>53,900</b>	<b>2,094,100</b>
BLM	353,700	65,800	2,914,600	3,512,900	92,700	84,500	1,201,700	33,700	43,800	276,300	65,800	2,914,600	0	23,200	28,200	2,010,700
Forest Service	90,500	63,000	166,600	290,800	67,300	10,600	62,780	66,400	23,200	940	63,000	166,600	0	61,500	25,700	83,400
<b>Total</b>	<b>1,155,800</b>	<b>345,700</b>	<b>6,151,100</b>	<b>7,522,000</b>	<b>389,800</b>	<b>213,400</b>	<b>2,281,600</b>	<b>338,600</b>	<b>196,000</b>	<b>620,400</b>	<b>345,700</b>	<b>6,151,100</b>	<b>0</b>	<b>171,600</b>	<b>183,100</b>	<b>4,145,700</b>
BLM	530,500	76,300	5,513,900	6,454,800	115,600	97,000	1,987,600	43,000	86,400	401,200	76,300	5,513,900	0	27,300	62,800	3,746,700
Forest Service	625,300	269,400	637,100	1,067,300	274,100	116,400	294,000	295,600	109,700	219,200	269,400	637,100	0	144,300	120,300	399,000

Source: BLM GIS 2015

<sup>1</sup> Data not available for the Forest Service. Acres in the table represent BLM-administered lands only

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**Table 4-57**  
**Acres of Sagebrush Vegetation Closed to Fluid Mineral Leasing in the Idaho and Southwestern Montana Sub-region**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F		Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>103,700</b>	<b>8,440</b>	<b>765,500</b>	<b>826,400</b>	<b>8,440</b>	<b>50,000</b>	<b>597,600</b>	<b>8,590</b>	<b>27,900</b>	<b>67,200</b>	<b>8,440</b>	<b>765,500</b>	<b>4,000</b>	<b>3,820</b>	<b>80,800</b>
BLM	87,500	3,600	749,900	804,400	3,600	46,500	587,100	3,380	24,100	60,000	3,600	749,900	1,860	3,660	78,000
Forest Service	16,200	4,840	15,500	22,000	4,840	3,450	10,500	5,220	3,800	7,230	4,840	15,500	2,150	160	2,790
<b>Mixed Sagebrush</b>	<b>787,900</b>	<b>261,600</b>	<b>2,304,500</b>	<b>2,892,100</b>	<b>261,600</b>	<b>294,000</b>	<b>1,798,400</b>	<b>284,900</b>	<b>108,800</b>	<b>393,400</b>	<b>261,600</b>	<b>2,304,500</b>	<b>104,800</b>	<b>45,500</b>	<b>193,200</b>
BLM	203,900	30,900	1,849,500	2,137,500	30,900	144,000	1,502,000	29,700	8,520	165,700	30,900	1,849,500	13,800	23,700	140,900
Forest Service	584,000	230,700	455,100	754,600	230,700	150,000	296,400	255,200	100,300	227,700	230,700	455,100	91,000	21,800	52,300
<b>Tall Sagebrush</b>	<b>778,900</b>	<b>148,500</b>	<b>3,081,100</b>	<b>3,803,600</b>	<b>154,400</b>	<b>187,600</b>	<b>1,829,800</b>	<b>187,700</b>	<b>164,100</b>	<b>427,000</b>	<b>148,500</b>	<b>3,081,100</b>	<b>142,300</b>	<b>70,900</b>	<b>383,700</b>
BLM	692,400	90,800	2,914,600	3,512,900	90,800	175,300	1,807,800	126,300	140,000	426,100	90,800	2,914,600	85,000	70,800	383,700
Forest Service	86,500	57,700	166,500	290,700	63,500	12,200	22,100	61,500	24,100	940	57,700	166,500	57,400	0	0
<b>Total</b>	<b>1,670,500</b>	<b>418,500</b>	<b>6,151,100</b>	<b>7,522,000</b>	<b>424,300</b>	<b>531,500</b>	<b>4,225,800</b>	<b>481,200</b>	<b>300,800</b>	<b>887,600</b>	<b>418,500</b>	<b>6,151,100</b>	<b>251,100</b>	<b>120,200</b>	<b>657,700</b>
BLM	983,700	125,300	5,513,900	6,454,800	125,300	365,900	3,896,800	159,300	172,600	651,800	125,300	5,513,900	100,600	98,200	602,600
Forest Service	686,800	293,200	637,100	1,067,300	299,100	165,700	329,000	321,900	128,200	235,800	293,200	637,100	150,500	22,000	55,100

Source: BLM GIS 2015

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**Table 4-58**  
**Acres of Sagebrush Vegetation Limited to Existing Roads in the Idaho and Southwest Montana Sub-Region**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>494,100</b>	<b>46,900</b>	<b>689,600</b>	<b>747,600</b>	<b>57,900</b>	<b>63,100</b>	<b>626,600</b>	<b>52,200</b>	<b>162,500</b>	<b>423,100</b>	<b>57,900</b>	<b>689,600</b>	<b>0</b>	<b>64,200</b>	<b>186,100</b>	<b>491,400</b>
BLM	471,900	40,200	674,100	725,300	51,200	59,300	614,800	44,700	156,100	414,800	51,200	674,100	0	60,500	181,400	481,400
Forest Service	22,200	6,680	15,500	22,200	6,680	3,760	11,800	7,500	6,380	8,340	6,680	15,500	0	3,710	4,700	9,910
<b>Mixed Sagebrush</b>	<b>2,460,500</b>	<b>559,200</b>	<b>2,312,600</b>	<b>2,896,600</b>	<b>584,000</b>	<b>326,500</b>	<b>1,986,200</b>	<b>584,700</b>	<b>638,600</b>	<b>1,514,400</b>	<b>584,000</b>	<b>2,312,600</b>	<b>0</b>	<b>408,200</b>	<b>759,400</b>	<b>1,489,100</b>
BLM	1,703,200	257,300	1,857,300	2,139,400	282,100	175,600	1,681,700	249,600	500,900	1,231,000	282,100	1,857,300	0	275,000	631,100	1,183,200
Forest Service	757,300	301,900	455,400	757,300	301,900	150,900	304,500	335,100	137,700	283,400	301,900	455,400	0	133,200	128,400	305,900
<b>Tall Sagebrush</b>	<b>2,146,700</b>	<b>413,500</b>	<b>2,759,000</b>	<b>3,440,100</b>	<b>681,100</b>	<b>482,900</b>	<b>2,276,100</b>	<b>494,000</b>	<b>550,600</b>	<b>1,590,500</b>	<b>681,100</b>	<b>2,759,000</b>	<b>20</b>	<b>691,000</b>	<b>897,200</b>	<b>1,744,100</b>
BLM	1,826,500	280,600	2,571,800	3,119,900	548,100	448,500	2,123,200	348,300	460,800	1,505,800	548,100	2,571,800	20	563,000	794,700	1,660,600
Forest Service	320,200	132,900	187,200	320,200	132,900	34,400	152,900	145,700	89,800	84,700	132,900	187,200	0	128,000	102,500	83,500
<b>Total</b>	<b>5,101,300</b>	<b>1,019,600</b>	<b>5,761,300</b>	<b>7,084,300</b>	<b>1,323,000</b>	<b>872,400</b>	<b>4,888,900</b>	<b>1,130,900</b>	<b>1,351,600</b>	<b>3,528,000</b>	<b>1,323,000</b>	<b>5,761,300</b>	<b>20</b>	<b>1,163,400</b>	<b>1,842,700</b>	<b>3,724,600</b>
BLM	4,001,600	578,100	5,103,100	5,984,600	881,500	683,500	4,419,700	642,500	1,117,800	3,151,600	881,500	5,103,100	20	898,500	1,607,100	3,325,300
Forest Service	1,099,700	441,500	658,100	1,099,700	441,500	189,000	469,200	488,300	233,800	376,400	441,500	658,100	0	264,900	235,600	399,300

Source: BLM GIS 2015

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**Table 4-59**  
**Acres of Sagebrush Vegetation Closed to Livestock Grazing in the Idaho and Southwestern Montana Sub-region**

Vegetation Type	Alternative A	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>22,500</b>	<b>810</b>	<b>21,700</b>	<b>829,100</b>	<b>810</b>	<b>120</b>	<b>21,600</b>	<b>870</b>	<b>1,070</b>	<b>20,600</b>	<b>810</b>	<b>21,700</b>	<b>0</b>	<b>330</b>	<b>2,430</b>	<b>19,500</b>
BLM	22,200	650	21,500	806,800	650	70	21,500	780	990	20,400	650	21,500	0	310	2,300	19,400
Forest Service	330	170	160	22,200	170	40	129	90	80	160	170	160	0	20	130	140
<b>Mixed Sagebrush</b>	<b>53,900</b>	<b>25,300</b>	<b>28,600</b>	<b>2,919,500</b>	<b>25,300</b>	<b>1,330</b>	<b>27,300</b>	<b>24,400</b>	<b>13,700</b>	<b>15,700</b>	<b>25,300</b>	<b>28,600</b>	<b>0</b>	<b>13,900</b>	<b>17,800</b>	<b>12,100</b>
BLM	17,100	540	16,500	2,162,200	540	220	16,300	80	9,580	7,410	540	16,500	0	160	12,000	4,420
Forest Service	36,800	24,700	12,000	757,300	24,700	1,110	10,900	24,300	4,120	8,320	24,700	12,000	0	13,700	5,780	7,700
<b>Tall Sagebrush</b>	<b>118,400</b>	<b>19,000</b>	<b>99,400</b>	<b>3,865,500</b>	<b>19,000</b>	<b>1,160</b>	<b>98,200</b>	<b>9,210</b>	<b>2,010</b>	<b>107,200</b>	<b>19,000</b>	<b>99,400</b>	<b>0</b>	<b>3,170</b>	<b>2,200</b>	<b>112,600</b>
BLM	114,700	17,000	97,700	3,545,100	17,000	680	97,000	7,020	530	107,200	17,000	97,700	0	1,230	500	112,600
Forest Service	3,670	1,980	1,690	320,400	1,980	480	1,220	2,200	1,470	0	1,980	1,690	0	1,940	1,700	0
<b>Total</b>	<b>194,700</b>	<b>45,100</b>	<b>149,600</b>	<b>7,614,100</b>	<b>45,100</b>	<b>2,610</b>	<b>147,000</b>	<b>34,400</b>	<b>16,800</b>	<b>143,500</b>	<b>45,100</b>	<b>149,600</b>	<b>0</b>	<b>17,400</b>	<b>22,400</b>	<b>144,300</b>
BLM	154,000	18,200	135,700	6,514,200	18,200	970	134,800	7,900	11,100	135,000	18,200	135,700	0	1,700	14,800	136,400
Forest Service	40,800	26,900	13,900	1,099,900	26,900	1,630	12,300	26,600	5,670	8,480	26,900	13,900	0	15,700	7,610	7,840

Source: BLM GIS 2015

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1 to meet desired conditions. Under current LUPs, riparian and wetland areas would be  
2 managed to maintain or attain PFC or forest plan standards and guidelines, and rangelands  
3 would be managed to attain Rangeland Health Standards. These standards would benefit  
4 vegetation condition and limit fragmentation.

### 5 ***Impacts from Special Designations Management***

6 Under Alternative A, the BLM would continue to manage 59 ACECs within the sub-region  
7 (**Table 4-61**, Acres of Sagebrush Vegetation within BLM ACECs and Forest Service  
8 Zoological Areas in the Idaho and Southwestern Montana Sub-region1). The Forest Service  
9 would not manage any ZAs under Alternative A. Existing ACECs likely protect vegetation  
10 through use restrictions; these impacts are analyzed under each existing RMP within the  
11 planning area. As a result, there would be no additional effects from ACEC or ZA  
12 management on vegetation under this alternative.

### 13 **4.3.5 Alternative B**

14 Under Alternative B, the BLM and Forest Service would manage lands to conserve, enhance,  
15 and restore sagebrush ecosystems. Direct protection of sagebrush habitat to support GRSG  
16 would limit or modify uses in this habitat type, improving the acreage and condition of  
17 desired vegetation communities. Restrictions on resource uses such as ROW and mineral  
18 development would reduce damage to native vegetation communities and individual native  
19 plant species in areas that are important for regional vegetation diversity and quality.  
20 Likewise, use restrictions would minimize loss of connectivity and would be more likely to  
21 retain existing age class distribution within these areas. Use restrictions could also minimize  
22 the spread of invasive species by limiting human activities that disturb soil or introduce  
23 seeds.

24 PHMA and GHMA would be designated (**Table 4-14**). Acres of each vegetation community  
25 within GRSG management areas are presented in **Table 4-62**, Acres of Annual Grassland  
26 within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region through  
27 **Table 4-67**, Acres of Perennial Grassland within GRSG Analysis Areas in the Idaho and  
28 Southwestern Montana Sub-region, and are split out by GRSG analysis area. These tables  
29 demonstrate the differences in the size of GRSG management areas by alternative and the  
30 relative differences in the acreage of each vegetation community within these areas. The  
31 BLM and Forest Service would apply a maximum three percent disturbance cap to human  
32 activities in PHMA. The three percent disturbance cap was recommended in the NTT report  
33 and is designed to minimize impacts on GRSG habitat by limiting disturbances in sensitive  
34 habitat areas. The agencies would implement numerous conservation measures, as described  
35 under the resource headings below, to reduce impacts from human activities in PHMA.  
36 Restricting surface-disturbing activities would reduce the likelihood for vegetation removal,  
37 degradation, or fragmentation and would maintain the acreage and condition of sagebrush  
38 vegetation.



**Table 4-60**  
**Acres of Sagebrush Vegetation within BLM ACECs and Forest Service Zoological Areas in the Idaho and Southwestern Montana Sub-region<sup>1</sup>**

	Alt. A	Alternative B		Alt. C	Alternative D			Alternative E			Alternative F1 <sup>1</sup>		Alternative F2 <sup>1</sup>		Proposed Plan		
		GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	PHMA	GHMA	IHMA	PHMA
<b>Low Sagebrush</b>	<b>36,300</b>	<b>1,500</b>	<b>34,800</b>	<b>415,200</b>	<b>1,470</b>	<b>760</b>	<b>34,100</b>	<b>770</b>	<b>1,270</b>	<b>34,200</b>	<b>2,550</b>	<b>767,200</b>	<b>2,550</b>	<b>197,000</b>	<b>1,010</b>	<b>4,220</b>	<b>30,900</b>
BLM	36,300	1,500	34,800	415,100	1,470	760	34,100	770	1,270	34,200	2,550	751,700	2,550	192,600	1,010	4,220	30,900
Forest Service	0	0	0	180	0	0	0	0	0	0	0	15,500	0	4,400	0	0	0
<b>Mixed Sagebrush</b>	<b>92,700</b>	<b>10,300</b>	<b>82,300</b>	<b>345,200</b>	<b>10,300</b>	<b>7,500</b>	<b>74,800</b>	<b>5,640</b>	<b>27,500</b>	<b>59,500</b>	<b>12,700</b>	<b>2,326,400</b>	<b>12,700</b>	<b>262,800</b>	<b>13,500</b>	<b>33,100</b>	<b>40,100</b>
BLM	92,700	10,300	82,300	310,600	10,300	7,500	74,800	5,640	27,500	59,500	12,700	1,871,100	12,700	229,000	13,500	33,100	40,100
Forest Service	0	0	0	34,600	0	0	0	0	0	0	0	455,400	0	33,800	0	0	0
<b>Tall Sagebrush</b>	<b>196,500</b>	<b>47,900</b>	<b>148,600</b>	<b>1,507,200</b>	<b>47,900</b>	<b>11,300</b>	<b>137,300</b>	<b>18,100</b>	<b>20,300</b>	<b>158,000</b>	<b>56,100</b>	<b>3,126,300</b>	<b>56,100</b>	<b>1,114,400</b>	<b>13,500</b>	<b>18,600</b>	<b>161,200</b>
BLM	196,500	47,900	148,600	1,506,700	47,900	11,300	137,300	18,100	20,300	158,000	56,100	2,938,900	56,100	1,019,700	13,500	18,600	161,200
Forest Service	0	0	0	510	0	0	0	0	0	0	0	187,400	0	94,700	0	0	0
<b>Total</b>	<b>325,430</b>	<b>59,700</b>	<b>265,700</b>	<b>2,267,600</b>	<b>59,700</b>	<b>19,600</b>	<b>246,200</b>	<b>24,500</b>	<b>49,100</b>	<b>251,800</b>	<b>71,300</b>	<b>6,220,000</b>	<b>71,300</b>	<b>1,574,300</b>	<b>28,000</b>	<b>55,900</b>	<b>232,200</b>
BLM	325,430	59,700	265,700	2,232,400	59,700	19,600	246,200	24,500	49,100	251,800	71,300	5,561,700	71,300	1,441,300	28,000	55,900	232,200
Forest Service	0	0	0	35,200	0	0	0	0	0	0	0	658,300	0	132,900	0	0	0

Source: BLM GIS 2015

<sup>1</sup> There are no acres of ACECs or Zoological Areas in RHMA in Alternatives F1 and F2

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**Table 4-61**  
**Acres of Annual Grassland within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ <sup>1</sup>	IHZ	CHZ <sup>1</sup>	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>80</b>	<b>30</b>	<b>110</b>	<b>80</b>	<b>30</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>30</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>0</b>
BLM	80	30	110	80	30	0	110	0	0	80	30	0	110	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SW Montana</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>North Side Snake</b>	<b>7,150</b>	<b>6,860</b>	<b>14,000</b>	<b>7,150</b>	<b>1,150</b>	<b>5,710</b>	<b>8,560</b>	<b>2,960</b>	<b>4,200</b>	<b>7,150</b>	<b>6,860</b>	<b>20,200</b>	<b>13,400</b>	<b>8,750</b>	<b>8,930</b>
BLM	7,070	6,860	13,900	7,070	1,150	5,710	8,480	2,960	4,200	7,070	6,860	20,200	13,300	8,750	8,930
Forest Service	80	0	80	80	0	0	80	0	0	80	0	0	80	0	0
<b>South Side Snake</b>	<b>4,830</b>	<b>24,600</b>	<b>29,400</b>	<b>4,830</b>	<b>15,700</b>	<b>8,920</b>	<b>6,850</b>	<b>15,200</b>	<b>11,900</b>	<b>4,830</b>	<b>24,600</b>	<b>32,200</b>	<b>18,200</b>	<b>36,700</b>	<b>10,900</b>
BLM	4,720	24,300	29,000	4,720	15,600	8,700	6,640	14,900	11,900	4,720	24,300	32,200	18,200	36,300	10,900
Forest Service	110	310	420	110	100	220	210	210	0	110	310	0	0	420	0
<b>Southwest Idaho</b>	<b>6,540</b>	<b>19,200</b>	<b>25,700</b>	<b>6,540</b>	<b>3,070</b>	<b>16,150</b>	<b>7,410</b>	<b>12,900</b>	<b>7,250</b>	<b>6,540</b>	<b>19,200</b>	<b>1,850</b>	<b>2,040</b>	<b>15,200</b>	<b>9,960</b>
BLM	6,540	19,200	25,700	6,540	3,070	16,150	7,410	12,900	7,250	6,540	19,200	1,850	2,040	15,200	9,960
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>2,720</b>	<b>1,050</b>	<b>3,770</b>	<b>2,720</b>	<b>110</b>	<b>940</b>	<b>3,770</b>	<b>0</b>	<b>0</b>	<b>2,720</b>	<b>1,050</b>	<b>3,250</b>	<b>5,240</b>	<b>0</b>	<b>0</b>
BLM	2,720	1,050	3,770	2,720	110	940	3,770	0	0	2,720	1,050	3,250	5,240	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 4-61**  
**Acres of Annual Grassland within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ <sup>1</sup>	IHZ	CHZ <sup>1</sup>	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Sawtooth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>21,300</b>	<b>51,700</b>	<b>73,000</b>	<b>21,300</b>	<b>20,000</b>	<b>31,700</b>	<b>26,700</b>	<b>31,000</b>	<b>23,300</b>	<b>21,300</b>	<b>51,700</b>	<b>57,500</b>	<b>39,000</b>	<b>60,700</b>	<b>29,700</b>
BLM	21,100	51,400	72,500	21,100	19,900	31,500	26,400	30,800	23,300	21,100	51,400	57,500	38,900	60,300	29,700
Forest Service	190	310	500	190	100	220	290	210	0	190	310	0	80	420	0

Source: BLM GIS 2015

<sup>1</sup>Acres in PHMA in Utah and Montana are included with CHZ acres for Idaho. Acres in GHMA in Montana are included in GHZ for Idaho.

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**Table 4-62**  
**Acres of Conifer Encroachment within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>270</b>	<b>10</b>	<b>280</b>	<b>270</b>	<b>0</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>270</b>	<b>10</b>	<b>280</b>	<b>0</b>	<b>0</b>
BLM	170	10	180	170	0	0	180	0	0	170	10	180	0	0
Forest Service	100	0	100	100	0	0	100	0	0	100	0	100	0	0
<b>Mountain Valleys</b>	<b>2,380</b>	<b>3,390</b>	<b>5,770</b>	<b>2,378</b>	<b>630</b>	<b>2,760</b>	<b>1,900</b>	<b>1,780</b>	<b>2,050</b>	<b>2,380</b>	<b>3,390</b>	<b>300</b>	<b>1,780</b>	<b>1,710</b>
BLM	840	2,380	3,220	840	220	2,170	490	1,180	1,530	840	2,380	220	1,490	1,160
Forest Service	1,540	1,010	2,550	1,540	410	600	1,410	600	510	1,540	1,010	80	290	540
<b>SW Montana</b>	<b>890</b>	<b>440</b>	<b>1,330</b>	<b>890</b>	<b>0</b>	<b>440</b>	<b>890</b>	<b>0</b>	<b>430</b>	<b>890</b>	<b>440</b>	<b>890</b>	<b>0</b>	<b>440</b>
BLM	370	230	600	370	0	230	370	0	230	370	230	370	0	230
Forest Service	520	200	720	520	0	200	520	0	200	520	200	520	0	200
<b>North Side Snake</b>	<b>1,260</b>	<b>2,120</b>	<b>3,380</b>	<b>1,260</b>	<b>340</b>	<b>1,780</b>	<b>1,280</b>	<b>1,290</b>	<b>800</b>	<b>1,260</b>	<b>2,120</b>	<b>1,230</b>	<b>1,110</b>	<b>1,010</b>
BLM	510	1,870	2,370	510	180	1,690	540	1,030	800	510	1,870	480	870	1,010
Forest Service	750	260	1,010	750	160	100	740	260	0	750	260	750	240	0
<b>South Side Snake</b>	<b>28,100</b>	<b>105,400</b>	<b>133,500</b>	<b>28,100</b>	<b>22,500</b>	<b>82,900</b>	<b>41,400</b>	<b>85,400</b>	<b>6,710</b>	<b>28,100</b>	<b>105,400</b>	<b>23,000</b>	<b>101,900</b>	<b>8,340</b>
BLM	16,200	65,700	81,900	16,200	21,100	44,600	35,900	45,300	630	16,200	65,700	18,200	61,100	2,260
Forest Service	11,900	39,700	51,600	11,900	1,400	38,300	5,500	40,100	6,070	11,900	39,700	4,770	40,800	6,080
<b>Southwest Idaho</b>	<b>99,100</b>	<b>108,400</b>	<b>207,400</b>	<b>99,100</b>	<b>5,850</b>	<b>102,500</b>	<b>88,600</b>	<b>68,500</b>	<b>50,400</b>	<b>99,100</b>	<b>108,400</b>	<b>57,100</b>	<b>69,100</b>	<b>81,200</b>
BLM	99,100	108,400	207,400	99,100	5,850	102,500	88,600	68,500	50,400	99,100	108,400	57,100	69,100	81,200
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>0</b>
BLM	0	10	10	0	0	10	0	10	0	0	10	0	10	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>740</b>	<b>110</b>	<b>850</b>	<b>740</b>	<b>110</b>	<b>0</b>	<b>850</b>	<b>0</b>	<b>0</b>	<b>740</b>	<b>110</b>	<b>840</b>	<b>0</b>	<b>0</b>
BLM	740	110	850	740	110	0	850	0	0	740	110	840	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>320</b>	<b>0</b>	<b>320</b>	<b>320</b>	<b>0</b>	<b>0</b>	<b>320</b>	<b>0</b>	<b>0</b>	<b>320</b>	<b>0</b>	<b>320</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	320	0	320	320	0	0	320	0	0	320	0	320	0	0

**Table 4-62**  
**Acres of Conifer Encroachment within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
<b>Total</b>	<b>133,000</b>	<b>219,900</b>	<b>352,800</b>	<b>133,000</b>	<b>29,400</b>	<b>190,400</b>	<b>135,500</b>	<b>157,000</b>	<b>60,300</b>	<b>133,000</b>	<b>219,900</b>	<b>84,000</b>	<b>173,900</b>	<b>92,700</b>
BLM	117,800	178,700	296,500	117,800	27,400	151,200	126,900	116,000	53,600	117,800	178,700	77,500	132,600	85,900
Forest Service	15,100	41,200	56,300	15,100	1,980	39,200	8,600	40,900	6,700	15,100	41,200	6,520	41,300	6,830

Source: BLM GIS 2015

<sup>1</sup>There are no acres of conifer encroachment in RHMA under Alternative F.

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**Table 4-63**  
**Acres of Crested Wheatgrass within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>190</b>	<b>10</b>	<b>200</b>	<b>190</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>190</b>	<b>10</b>	<b>130</b>	<b>0</b>	<b>0</b>
BLM	30	10	40	30	0	0	40	0	0	30	10	30	0	0
Forest Service	160	0	160	160	0	0	160	0	0	160	0	100	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SW Montana</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>North Side Snake</b>	<b>42,800</b>	<b>36,900</b>	<b>79,700</b>	<b>42,800</b>	<b>9,310</b>	<b>27,600</b>	<b>69,200</b>	<b>1,330</b>	<b>9,210</b>	<b>42,800</b>	<b>36,900</b>	<b>43,700</b>	<b>21,900</b>	<b>8,490</b>
BLM	40,800	36,900	77,600	40,800	9,240	27,600	67,150	1,250	9,210	40,800	36,900	41,700	21,900	8,490
Forest Service	2,000	90	2,090	2,000	70	10	2,010	80	0	2,000	90	2,010	80	0
<b>South Side Snake</b>	<b>16,000</b>	<b>27,900</b>	<b>43,800</b>	<b>16,000</b>	<b>18,900</b>	<b>9,010</b>	<b>18,400</b>	<b>22,100</b>	<b>3,330</b>	<b>16,000</b>	<b>27,900</b>	<b>9,080</b>	<b>23,300</b>	<b>2,620</b>
BLM	15,500	25,400	40,900	15,500	17,600	7,810	16,800	20,800	3,310	15,500	25,400	9,050	20,500	2,600
Forest Service	410	2,500	2,910	410	1,300	1,200	1,610	1,280	20	410	2,500	30	2,870	20
<b>Southwest Idaho</b>	<b>2,540</b>	<b>950</b>	<b>3,490</b>	<b>2,540</b>	<b>80</b>	<b>870</b>	<b>2,340</b>	<b>580</b>	<b>570</b>	<b>2,540</b>	<b>950</b>	<b>1,710</b>	<b>190</b>	<b>1,450</b>
BLM	2,540	950	3,490	2,540	80	870	2,340	580	570	2,540	950	1,710	190	1,450
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>4,480</b>	<b>2,020</b>	<b>6,500</b>	<b>4,480</b>	<b>1,790</b>	<b>230</b>	<b>6,500</b>	<b>0</b>	<b>0</b>	<b>4,480</b>	<b>2,020</b>	<b>6,500</b>	<b>0</b>	<b>0</b>
BLM	4,480	2,020	6,500	4,480	1,790	230	6,500	0	0	4,480	2,020	6,500	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>65,900</b>	<b>67,800</b>	<b>133,700</b>	<b>65,900</b>	<b>30,000</b>	<b>37,700</b>	<b>96,600</b>	<b>24,000</b>	<b>13,100</b>	<b>65,900</b>	<b>67,800</b>	<b>61,100</b>	<b>45,500</b>	<b>12,600</b>

**Table 4-63**  
**Acres of Crested Wheatgrass within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
BLM	63,300	65,200	128,500	63,300	28,700	36,500	92,800	22,600	13,100	63,300	65,200	58,900	42,500	12,500
Forest Service	2,580	2,590	5,160	2,580	1,370	1,220	3,780	1,370	20	2,580	2,590	2,150	2,940	20

Source: BLM GIS 2015

<sup>1</sup> There are no acres of crested wheatgrass in RHMA under Alternative F.

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**Table 4-64**  
**Acres of Low Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>30</b>	<b>10</b>	<b>40</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>10</b>	<b>40</b>	<b>0</b>	<b>0</b>
BLM	30	10	40	30	0	0	40	0	0	30	10	40	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mountain Valleys</b>	<b>7,910</b>	<b>280,200</b>	<b>288,100</b>	<b>7,910</b>	<b>30,400</b>	<b>249,800</b>	<b>9,780</b>	<b>103,900</b>	<b>174,400</b>	<b>7,910</b>	<b>280,200</b>	<b>4,760</b>	<b>106,100</b>	<b>171,200</b>
BLM	4,730	266,700	271,400	4,730	27,100	239,600	6,050	99,100	166,300	4,730	266,700	4,670	103,200	161,500
Forest Service	3,180	13,500	16,700	3,180	3,340	10,200	3,730	4,810	8,150	3,180	13,500	90	2,940	9,760
<b>SW Montana</b>	<b>1,730</b>	<b>4,230</b>	<b>5,970</b>	<b>1,730</b>	<b>0</b>	<b>4,230</b>	<b>1,730</b>	<b>0</b>	<b>4,230</b>	<b>1,730</b>	<b>4,230</b>	<b>1,730</b>	<b>0</b>	<b>4,230</b>
BLM	1,570	4,130	5,710	1,570	0	4,130	1,570	0	4,130	1,570	4,130	1,570	0	4,130
Forest Service	160	100	260	160	0	100	160	0	100	160	100	160	0	100
<b>North Side Snake</b>	<b>3,760</b>	<b>66,000</b>	<b>69,700</b>	<b>3,760</b>	<b>2,570</b>	<b>63,400</b>	<b>4,510</b>	<b>14,800</b>	<b>50,400</b>	<b>3,760</b>	<b>66,000</b>	<b>3,700</b>	<b>6,670</b>	<b>69,700</b>
BLM	740	65,700	66,400	740	2,370	63,300	1,480	14,600	50,400	740	65,700	680	6,410	59,400
Forest Service	3,020	270	3,290	3,020	200	70	3,030	260	0	3,020	270	3,020	260	0
<b>South Side Snake</b>	<b>1,920</b>	<b>45,100</b>	<b>47,000</b>	<b>1,920</b>	<b>6,050</b>	<b>39,100</b>	<b>9,690</b>	<b>4,550</b>	<b>32,800</b>	<b>1,920</b>	<b>45,100</b>	<b>4,610</b>	<b>8,600</b>	<b>33,300</b>
BLM	1,590	43,400	45,000	1,590	5,830	37,600	9,100	3,240	32,700	1,590	43,400	4,180	7,100	33,300
Forest Service	330	1,660	1,990	330	220	1,440	590	1,310	90	330	1,660	440	1,500	50
<b>Southwest Idaho</b>	<b>33,600</b>	<b>354,200</b>	<b>387,900</b>	<b>33,600</b>	<b>10,850</b>	<b>343,400</b>	<b>28,200</b>	<b>140,200</b>	<b>219,400</b>	<b>33,600</b>	<b>354,200</b>	<b>20,900</b>	<b>67,500</b>	<b>299,300</b>
BLM	33,600	354,200	387,900	33,600	10,850	343,400	28,200	140,200	219,400	33,600	354,200	20,900	67,500	299,300
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>12,900</b>	<b>17,500</b>	<b>30,300</b>	<b>12,900</b>	<b>13,700</b>	<b>3,720</b>	<b>30,300</b>	<b>0</b>	<b>0</b>	<b>12,900</b>	<b>17,500</b>	<b>30,300</b>	<b>0</b>	<b>0</b>
BLM	12,900	17,500	30,300	12,900	13,700	3,720	30,300	0	0	12,900	17,500	30,300	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>61,900</b>	<b>767,200</b>	<b>829,100</b>	<b>61,900</b>	<b>63,700</b>	<b>703,500</b>	<b>84,300</b>	<b>263,600</b>	<b>481,200</b>	<b>61,900</b>	<b>767,200</b>	<b>66,100</b>	<b>188,800</b>	<b>567,500</b>

**Table 4-64**  
**Acres of Low Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>		Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	GHMA	IHMA	PHMA
BLM	55,200	751,700	806,800	55,200	59,900	691,800	76,800	257,200	472,800	55,200	751,700	62,400	184,100	557,600
Forest Service	6,690	15,500	22,200	6,690	3,760	11,800	7,500	6,380	8,340	6,690	15,500	3,710	4,700	9,910

Source: BLM GIS 2015

<sup>1</sup>There are no acres of low sagebrush in RHMA.

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**Table 4-65**  
**Acres of Mixed Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mountain Valleys</b>	<b>319,400</b>	<b>1,795,900</b>	<b>2,115,300</b>	<b>319,400</b>	<b>325,700</b>	<b>1,470,100</b>	<b>354,400</b>	<b>748,500</b>	<b>1,011,000</b>	<b>319,400</b>	<b>1,795,900</b>	<b>0</b>	<b>140,500</b>	<b>753,400</b>	<b>988,900</b>
BLM	131,200	1,430,800	1,562,000	131,200	175,200	1,255,600	133,200	611,800	816,400	131,200	1,430,800	0	120,600	625,800	770,800
Forest Service	188,300	365,100	553,300	188,300	150,500	214,600	221,200	136,700	194,600	188,300	365,100	0	19,900	127,600	218,100
<b>SW Montana</b>	<b>254,800</b>	<b>489,300</b>	<b>744,100</b>	<b>254,800</b>	<b>100</b>	<b>489,300</b>	<b>254,900</b>	<b>0</b>	<b>488,900</b>	<b>254,800</b>	<b>489,300</b>	<b>0</b>	<b>254,800</b>	<b>0</b>	<b>489,300</b>
BLM	156,000	400,200	556,200	156,000	50	400,200	156,000	0	400,100	156,000	400,200	0	156,000	0	400,200
Forest Service	98,800	89,100	187,900	98,800	50	89,100	98,900	0	88,800	98,800	89,100	0	98,800	0	89,100
<b>North Side Snake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>South Side Snake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Southwest Idaho</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>4,420</b>	<b>41,200</b>	<b>45,700</b>	<b>4,420</b>	<b>870</b>	<b>40,400</b>	<b>6,670</b>	<b>14,900</b>	<b>24,100</b>	<b>4,420</b>	<b>41,200</b>	<b>0</b>	<b>970</b>	<b>15,600</b>	<b>28,100</b>
BLM	4,060	40,000	44,100	4,060	560	39,500	6,130	13,900	24,100	4,060	40,000	0	970	14,800	28,100
Forest Service	360	1,200	1,570	360	310	890	550	1,020	0	360	1,200	0	0	750	0
<b>Weiser</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 4-65**  
**Acres of Mixed Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F <sup>1</sup>			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>Sawtooth</b>	<b>14,500</b>	<b>0</b>	<b>14,500</b>	<b>14,500</b>	<b>0</b>	<b>0</b>	<b>14,500</b>	<b>0</b>	<b>0</b>	<b>14,500</b>	<b>0</b>	<b>0</b>	<b>14,500</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	14,500	0	14,500	14,500	0	0	14,500	0	0	14,500	0	0	14,500	0	0
<b>Total</b>	<b>593,100</b>	<b>2,326,400</b>	<b>2,919,500</b>	<b>593,100</b>	<b>326,700</b>	<b>1,999,700</b>	<b>630,500</b>	<b>763,400</b>	<b>1,523,900</b>	<b>593,100</b>	<b>2,326,400</b>	<b>0</b>	<b>410,700</b>	<b>769,000</b>	<b>1,506,400</b>
BLM	291,200	1,871,100	2,162,200	291,200	175,800	1,695,200	295,300	625,700	1,240,600	291,200	1,871,100	0	277,500	640,600	1,199,100
Forest Service	301,900	455,400	757,300	301,900	150,900	304,500	335,100	137,700	283,400	301,900	455,400	0	133,200	128,400	307,300

Source: BLM GIS 2015

<sup>1</sup>There are no acres of mixed sagebrush in RHMA.

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**Table 4-66**  
**Acres of Tall Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>28,200</b>	<b>8,660</b>	<b>36,900</b>	<b>28,200</b>	<b>5,310</b>	<b>3,350</b>	<b>36,900</b>	<b>0</b>	<b>0</b>	<b>28,200</b>	<b>8,660</b>	<b>0</b>	<b>31,300</b>	<b>0</b>	<b>0</b>
BLM	13,500	8,660	22,200	13,500	5,310	3,350	22,200	0	0	13,500	8,660	0	21,600	0	0
Forest Service	14,700	0	14,700	14,700	0	0	14,700	0	0	14,700	0	0	9,730	0	0
<b>Mountain Valleys</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SW Montana</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>North Side Snake</b>	<b>267,800</b>	<b>1,135,500</b>	<b>1,403,200</b>	<b>267,800</b>	<b>145,600</b>	<b>989,900</b>	<b>378,900</b>	<b>416,000</b>	<b>608,300</b>	<b>267,800</b>	<b>1,135,500</b>	<b>0</b>	<b>254,300</b>	<b>312,400</b>	<b>733,100</b>
BLM	212,300	1,114,100	1,326,400	212,300	133,000	981,200	322,700	395,400	608,300	212,300	1,114,100	0	254,300	312,400	733,100
Forest Service	55,500	21,400	76,900	55,500	12,600	8,740	56,300	20,600	0	55,500	21,400	0	56,600	19,200	0
<b>South Side Snake</b>	<b>226,700</b>	<b>795,000</b>	<b>1,021,600</b>	<b>226,700</b>	<b>275,400</b>	<b>519,600</b>	<b>298,500</b>	<b>358,500</b>	<b>364,600</b>	<b>226,700</b>	<b>795,000</b>	<b>20</b>	<b>196,000</b>	<b>443,800</b>	<b>326,500</b>
BLM	163,900	628,900	792,800	163,900	253,500	375,400	223,700	289,100	279,900	163,900	628,900	20	134,400	360,300	243,000
Forest Service	62,800	166,100	228,800	62,800	21,900	144,100	74,800	69,300	84,700	62,800	166,100	0	61,700	83,500	83,500
<b>Southwest Idaho</b>	<b>159,900</b>	<b>1,146,500</b>	<b>1,306,400</b>	<b>159,900</b>	<b>46,100</b>	<b>1,100,400</b>	<b>128,100</b>	<b>215,500</b>	<b>962,800</b>	<b>159,900</b>	<b>1,146,500</b>	<b>0</b>	<b>70,600</b>	<b>155,700</b>	<b>1,054,100</b>
BLM	159,900	1,146,500	1,306,400	159,900	46,100	1,100,400	128,100	215,500	962,800	159,900	1,146,500	0	70,600	155,700	1,054,100
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>56,600</b>	<b>40,700</b>	<b>97,400</b>	<b>56,600</b>	<b>29,800</b>	<b>11,000</b>	<b>97,400</b>	<b>0</b>	<b>0</b>	<b>56,600</b>	<b>40,700</b>	<b>0</b>	<b>97,300</b>	<b>0</b>	<b>0</b>
BLM	56,600	40,700	97,400	56,600	29,800	11,000	97,400	0	0	56,600	40,700	0	97,300	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Table 4-66**  
**Acres of Tall Sagebrush within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>739,100</b>	<b>3,126,400</b>	<b>3,865,500</b>	<b>739,100</b>	<b>502,200</b>	<b>2,624,200</b>	<b>939,800</b>	<b>990,000</b>	<b>1,935,800</b>	<b>739,100</b>	<b>3,126,400</b>	<b>20</b>	<b>706,200</b>	<b>931,000</b>	<b>2,113,600</b>
BLM	606,200	2,939,000	3,545,100	606,200	467,700	2,471,300	794,100	900,000	1,851,100	606,200	2,939,000	20	578,200	828,300	2,030,100
Forest Service	133,000	187,400	320,400	133,000	34,500	152,900	145,700	89,900	84,700	133,000	187,400	0	128,000	102,700	83,500

Source: BLM GIS 2015

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**Table 4-67**  
**Acres of Perennial Grassland within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
<b>East-Central Idaho</b>	<b>490</b>	<b>10</b>	<b>500</b>	<b>490</b>	<b>10</b>	<b>0</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>490</b>	<b>10</b>	<b>0</b>	<b>450</b>	<b>0</b>	<b>0</b>
BLM	430	10	450	430	10	0	450	0	0	430	10	0	440	0	0
Forest Service	50	0	50	50	0	0	50	0	0	50		0	0	0	0
<b>Mountain Valleys</b>	<b>2,390</b>	<b>29,600</b>	<b>32,000</b>	<b>2,390</b>	<b>1,010</b>	<b>28,600</b>	<b>3,260</b>	<b>9,130</b>	<b>19,600</b>	<b>2,390</b>	<b>29,600</b>	<b>0</b>	<b>1,260</b>	<b>8,800</b>	<b>20,300</b>
BLM	1,390	27,300	28,700	1,390	620	26,600	2,260	7,110	19,300	1,390	27,300	0	1,200	7,180	20,000
Forest Service	1,000	2,350	3,350	1,000	390	1,960	1,010	2,010	320	1,000	2,350	0	60	1,620	300
<b>SW Montana</b>	<b>3,470</b>	<b>590</b>	<b>4,060</b>	<b>3,470</b>	<b>0</b>	<b>590</b>	<b>3,470</b>	<b>0</b>	<b>590</b>	<b>3,470</b>	<b>590</b>	<b>0</b>	<b>3,470</b>	<b>0</b>	<b>590</b>
BLM	1,750	530	2,280	1,750	0	530	1,750	0	530	1,750	530	0	1,750	0	530
Forest Service	1,720	60	1,780	1,720	0	60	1,720	0	60	1,720	60	0	1,720	0	60
<b>North Side Snake</b>	<b>158,900</b>	<b>346,000</b>	<b>504,900</b>	<b>158,900</b>	<b>58,200</b>	<b>287,700</b>	<b>376,800</b>	<b>22,900</b>	<b>105,100</b>	<b>158,900</b>	<b>346,000</b>	<b>0</b>	<b>171,500</b>	<b>197,400</b>	<b>110,300</b>
BLM	156,900	344,100	500,900	156,900	56,800	287,200	374,800	21,000	105,100	156,900	344,100	0	169,500	195,500	110,300
Forest Service	1,980	1,930	3,910	1,980	1,400	530	2,020	1,890	0	1,980	1,930	0	1,990	1,920	0
<b>South Side Snake</b>	<b>191,400</b>	<b>418,000</b>	<b>609,300</b>	<b>191,400</b>	<b>162,200</b>	<b>255,800</b>	<b>218,400</b>	<b>165,400</b>	<b>225,500</b>	<b>191,400</b>	<b>418,000</b>	<b>10</b>	<b>91,500</b>	<b>194,500</b>	<b>189,700</b>
BLM	178,700	400,200	578,900	178,700	157,600	242,600	200,500	154,000	224,300	178,700	400,200	10	76,900	179,900	188,500
Forest Service	12,700	17,800	30,500	12,700	4,570	13,200	17,900	11,300	1,230	12,700	17,800	0	14,600	14,600	1,230
<b>Southwest Idaho</b>	<b>53,100</b>	<b>78,900</b>	<b>132,100</b>	<b>53,100</b>	<b>5,160</b>	<b>73,800</b>	<b>52,500</b>	<b>37,000</b>	<b>42,500</b>	<b>53,100</b>	<b>78,900</b>	<b>0</b>	<b>11,400</b>	<b>48,300</b>	<b>59,100</b>
BLM	53,100	78,900	132,100	53,100	5,160	73,800	52,500	37,000	42,500	53,100	78,900	0	11,400	48,300	59,100
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bear Lake</b>	<b>0</b>	<b>520</b>	<b>520</b>	<b>0</b>	<b>0</b>	<b>520</b>	<b>10</b>	<b>20</b>	<b>500</b>	<b>0</b>	<b>520</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>500</b>
BLM	0	520	520	0	0	520	10	20	500	0	520	0	0	20	500
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Weiser</b>	<b>28,300</b>	<b>4,460</b>	<b>32,800</b>	<b>28,300</b>	<b>2,780</b>	<b>1,670</b>	<b>32,800</b>	<b>0</b>	<b>0</b>	<b>28,300</b>	<b>4,460</b>	<b>0</b>	<b>32,700</b>	<b>0</b>	<b>0</b>
BLM	28,300	4,460	32,800	28,300	2,780	1,670	32,800	0	0	28,300	4,460	0	32,700	0	0
Forest Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sawtooth</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>

**Table 4-67**  
**Acres of Perennial Grassland within GRSG Analysis Areas in the Idaho and Southwestern Montana Sub-region**

Analysis Area	Alternative B		Alternative C	Alternative D			Alternative E			Alternative F			Proposed Plan		
	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	GHZ	IHZ	CHZ	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA
BLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Service	20	0	20	20	0	0	20	0	0	20	0	0	20	0	0
<b>Total</b>	<b>438,000</b>	<b>878,100</b>	<b>1,316,100</b>	<b>438,000</b>	<b>229,400</b>	<b>648,700</b>	<b>687,800</b>	<b>234,500</b>	<b>393,900</b>	<b>438,000</b>	<b>878,100</b>	<b>10</b>	<b>312,400</b>	<b>454,000</b>	<b>380,500</b>
BLM	420,600	855,900	1,277,000	420,600	223,000	632,900	665,100	219,200	392,300	420,600	855,900	10	294,000	435,900	379,000
Forest Service	17,400	22,100	39,600	17,400	6,360	15,800	22,700	15,200	1,610	17,400	22,100	0	18,400	18,100	1,590

Source: BLM GIS 2015

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1       ***Impacts from Lands and Realty Management***

2       Identifying GHMA as ROW avoidance and PHMA as ROW exclusion areas would reduce  
3       impacts on vegetation, as described under **Section 4.3.2**. In addition, the BLM and Forest  
4       Service would restore ROWs that are no longer in use. This would increase the extent and  
5       connectivity of sagebrush habitats and reduce the spread of weeds to these areas over the  
6       long term. Lands would be retained in federal ownership, with limited exceptions, which  
7       would reduce fragmentation, as described under **Section 4.3.2**.

8       ***Impacts from Habitat Restoration and Vegetation Management***

9       Under Alternative B, habitat restoration and vegetation management actions would improve  
10       GRSG habitat. It would do this by restricting activities that degrade sagebrush communities,  
11       while promoting and prioritizing those activities that improve sagebrush communities and  
12       prioritizing restoration to benefit GRSG habitat. The BLM and Forest Service would require  
13       the use of native seeds as a component and would design post-restoration management to  
14       ensure the long-term persistence of restoration. In addition, the BLM and Forest Service  
15       would consider climate change when determining species for restoration. Together, these  
16       management actions would alter vegetative communities by increasing sagebrush height,  
17       herbaceous cover, and vegetation productivity.

18       Treatments designed to prevent encroachment of trees and nonnative species would alter the  
19       condition of native vegetation communities by changing the density, composition, and  
20       frequency of species within plant communities. Habitat connectivity for GRSG could be  
21       increased over the planning timeframe through vegetation manipulation designed to restore  
22       vegetation, particularly sagebrush overstory cover.

23       Vegetation manipulations in riparian areas, such as weed treatments, native plantings, and  
24       erosion control in the channel, would improve the acreage and condition of the riparian  
25       vegetation community, individual riparian species, and hydrologic functionality. The result of  
26       this would be to attain PEC or forest plan standards and guidelines.

27       ***Impacts from Wildland Fire Management***

28       Fuels treatments under Alternative B would be designed to protect sagebrush ecosystems by  
29       maintaining sagebrush cover, applying seasonal restrictions and protections for winter range,  
30       and requiring use of native seeds as a component of restoration. Post-fuels treatments, ESR,  
31       and BAER management would be designed to ensure long-term persistence of seeded areas  
32       and native plant restoration areas. While the risk of wildfire in sagebrush areas would  
33       continue, these management actions would help to restore sagebrush vegetation and prevent  
34       degradation or destruction of sagebrush from wildfire. Furthermore, emphasizing the use of  
35       native seeds and noninvasive species would reduce the likelihood for weed invasion in  
36       burned or treated areas.

37       The BLM and Forest Service would also prioritize suppression in PHMA, which would  
38       retain the existing conditions and trends of vegetation in these areas. Impacts from fuels  
39       treatments, ESR/BAER, and suppression are similar to those described under **Section 4.3.2**.

1       ***Impacts from Nonenergy Leasable Minerals Management***

2       Under Alternative B, PHMA would be closed to future nonenergy leasable mineral leasing  
3       (**Table 4-56**) and RDFs would be required on existing leases. This would prevent removal,  
4       fragmentation, and other impacts on vegetation associated with nonenergy leasable mineral  
5       development in unleased areas and would reduce impacts in leased areas.

6       ***Impacts from Locatable Minerals Management***

7       In addition to withdrawing acres from locatable mineral entry, the BLM and Forest Service  
8       would make applicable BMPs (see **Appendix B**) required design features on 3809 plans and  
9       Plans of Operation in PHMA. These actions would reduce the likelihood that vegetation  
10      would be removed, degraded, or fragmented in these areas and would reduce the likelihood  
11      that weeds could be introduced or spread as a result of locatable mineral development.

12      ***Impacts from Salable Minerals Management***

13      In addition to closing PHMA to mineral material sales, the BLM and Forest Service would  
14      restore salable mineral pits no longer in use. Over the long term, closures would protect  
15      existing vegetation from removal, degradation, fragmentation, and nonnative invasive species  
16      introduction or spread. Restoration would increase the extent of vegetation and depending  
17      on the location could remove nonnative invasive species and reduce fragmentation.

18      ***Impacts from Fluid Minerals Management***

19      In addition to acres closed to fluid mineral leasing (**Table 4-57**), the BLM and Forest Service  
20      would require numerous conservation measures in PHMA. Impacts are similar to those  
21      described for Locatable Minerals Management, above. Over the long term, closures and  
22      NSO stipulations would protect vegetation from removal, degradation, fragmentation, and  
23      nonnative invasive species introduction or spread in unleased areas. Conservation measures  
24      would help to reduce such impacts in leased areas. Restoration would improve the condition  
25      and increase the extent of vegetation and depending on the location could remove nonnative  
26      invasive species and reduce fragmentation. Geophysical exploration could disturb vegetation  
27      or spread weeds, but it would be unlikely to remove substantial amounts of vegetation.

28      ***Impacts from Travel and Transportation Management***

29      Under Alternative B, motorized travel would be limited to existing roads, primitive roads,  
30      and trails within PHMA (**Table 4-59**). Management actions would also reduce new route  
31      construction and restore roads, primitive roads, and trails not designated under future travel  
32      management plans. These actions would reduce the likelihood of impacts caused by roads, as  
33      described under **Section 4.3.2**, and would increase the acreage and connectivity of sagebrush  
34      vegetation.

35      ***Impacts from Livestock Grazing Management***

36      Under Alternative B, the BLM and Forest Service would not change permitted AUMs  
37      compared to Alternative A (**Table 4-60**). However, the BLM and Forest Service would  
38      implement a number of management actions in PHMA, including prioritizing land health  
39      assessments or similar grazing evaluations in GRSG habitat, to incorporate GRSG habitat  
40      objectives and management considerations into livestock grazing management and to  
41      improve the condition of vegetation in GRSG habitat areas. These actions include

1 completing land health assessments or similar grazing evaluations, taking into consideration  
2 grazing methods and systems to reduce impacts on GRSG habitat, improving management  
3 of riparian areas and wet meadows, and evaluating existing introduced perennial grass  
4 seedings, water developments, and structural range improvements. Such measures would  
5 help to improve vegetation condition of rangeland and riparian and wetland areas. They also  
6 could reduce the likelihood of nonnative invasive species introduction or spread. Together,  
7 these efforts would improve consistency of management across the sub-region and would  
8 reduce impacts from grazing on vegetation, described in **Section 4.3.2**.

9 ***Impacts from Special Designations Management***

10 Impacts from ACEC management under Alternative B are the same as those described for  
11 Alternative A (**Table 4-61**).

12 **4.3.6 Alternative C**

13 Under Alternative C, the BLM and Forest Service would manage lands to conserve, enhance,  
14 and restore sagebrush ecosystems. Management actions would be applied to all occupied  
15 GRSG habitats (**Table 4-14**). Management would focus on removing livestock grazing from  
16 occupied habitats, with most other management similar that to Alternative A. A three  
17 percent disturbance cap would be the same as under Alternative B but would be applied to  
18 all occupied habitat.

19 ***Impacts from Lands and Realty Management***

20 Lands and realty management under Alternative C would be similar to that described for  
21 Alternative B, but ROW exclusion areas would be designated in all occupied habitats and  
22 ACECs (**Table 4-55**). In addition, all occupied habitat, ACECs, and restoration areas would  
23 be retained in federal ownership. These actions would protect vegetation from removal,  
24 degradation, and fragmentation in protected areas. Impacts from ROW exclusion areas and  
25 retention of federal lands would be as described under **Section 4.3.2**.

26 ***Impacts from Habitat Restoration and Vegetation Management***

27 Management under Alternative C would be similar to that described under Alternative A,  
28 though with an increased focus on restoration. Impacts are similar to those described for  
29 Alternative A, though impacts may be reduced in areas where vegetation is restored to the  
30 reference state of the appropriate ecological site description.

31 ***Impacts from Wildland Fire Management***

32 Impacts from wildland fire management under Alternative C are similar to those described  
33 for Alternative A.

34 ***Impacts from Nonenergy Leasable Minerals Management***

35 Impacts from nonenergy leasable minerals management under Alternative C are the same as  
36 those described under Alternative B, but would include more acres in PHMA (**Table 4-56**).  
37 These management changes would prevent impacts on vegetation associated with nonenergy  
38 leasable mineral development in unleased areas, described in **Section 4.3.2**, and reduce  
39 impacts in leased areas.



1       ***Impacts from Locatable Minerals Management***

2       Impacts from locatable minerals management under Alternative C are the same as those  
3       described under Alternative A.

4       ***Impacts from Salable Minerals Management***

5       Impacts from salable minerals management under Alternative C are the same as those  
6       described under Alternative A (**Table 4-56**).

7       ***Impacts from Fluid Minerals Management***

8       Impacts from fluid minerals management under Alternative C are similar to those described  
9       for Alternative B, although all occupied habitat would be closed to leasing (**Table 4-57**).

10       ***Impacts from Travel and Transportation Management***

11       Impacts from travel and transportation management under Alternative C are the same as  
12       those described under Alternative A (**Table 4-59**).

13       ***Impacts from Livestock Grazing Management***

14       Under Alternative C, livestock grazing would be removed from all occupied GRSG habitats  
15       (**Table 4-60**). The effects of livestock exclusion would depend on climate, soils, fire history,  
16       and disturbance and grazing history (Strand and Launchbaugh 2013, p. 10). While studies  
17       have examined the effects of reducing or changing livestock grazing, limited literature is  
18       available on the effects of completely removing livestock grazing. Grazing is associated with  
19       direct and indirect impacts on vegetation, as described under **Section 4.3.2**. Grazing may  
20       reduce resistance to invasion from cheatgrass (Reisner et al. 2013, p. 9), reduce water  
21       infiltration, increase soil compaction and erosion, and decrease water quality (Braun 1998  
22       and Dobkin et al. 1998 in USFWS 2010, p. 13939).

23       Ceasing grazing could relieve these impacts and allow for recovery of native understory  
24       perennials and an increase in sagebrush and herbaceous vegetation cover (Strand and  
25       Launchbaugh 2013, pp. 6-7). This recovery would enhance habitat components important to  
26       nest success, including cover and forage by increasing the insect population. Other research  
27       suggests that understory herbaceous productivity may not increase in depleted sagebrush  
28       ranges when grazing is removed (Beck and Mitchell 2000, p. 995). Furthermore, in some  
29       areas, passive restoration may not be sufficient to improve GRSG habitat and active  
30       restoration may be necessary (Davies et al. 2011).

31       Riparian and wetland areas that have been altered by grazing-associated water developments  
32       would be restored, potentially increasing the acreage and improving the condition of these  
33       vegetation communities. However, impacts from wildlife use and from wild horses and  
34       burros, where present, on riparian and wetland areas would continue.

35       In the short term, this alternative would result in more residual herbaceous biomass, which  
36       may result in some smaller fires under less severe conditions. It may also result in more  
37       crown die-out of bunchgrasses that burn hotter due to retained crown fuel. Evidence  
38       suggests that the potential role of grazing on fire behavior is limited under extreme burning  
39       conditions, such as low fuel moisture and relative humidity, high temperature, and wind

1 speed (Strand and Launchbaugh 2013, p. 16). Ultimately, the effect of removing grazing on  
2 fire spread, severity, and intensity would depend on weather, fuel characteristics, landscape  
3 features, and other factors.

#### 4 ***Impacts from Special Designations Management***

5 Under Alternative C, the BLM would designate 39 new ACECs (**Table 4-61**). Impacts from  
6 management of ACECs are as described under **Section 4.3.2**.

#### 7 **4.3.7 Alternative D**

8 Under Alternative D, the BLM and Forest Service would manage lands to conserve,  
9 enhance, and restore sagebrush ecosystems. Management and impacts would be similar to  
10 Alternative B, though Alternative D would incorporate more flexibility and adaptive  
11 management applied to resource uses to account for sub-regional conditions. PHMA,  
12 IHMA, and GHMA would be designated (**Table 4-14**). The BLM and Forest Service would  
13 require a no net unmitigated loss of PHMA and IHMA and would implement numerous  
14 conservation measures to reduce impacts from human activities in PHMA. This would  
15 reduce the likelihood for vegetation removal, degradation, or fragmentation.

16 However, by including a rule set to release areas from PHMA, IHMA, GHMA protection,  
17 some vegetation communities that do not provide habitat for GRSG could receive less  
18 protection under this alternative and could be subject to removal, damage, or reduced  
19 condition caused by human disturbances. At the implementation level, impacts would be  
20 analyzed on a site-specific basis.

#### 21 ***Impacts from Lands and Realty Management***

22 Under Alternative D, PHMA would be ROW avoidance, with exclusions for wind and solar  
23 development. A number of uses would not be allowed, such as large transmission facilities,  
24 fluid mineral development, and paved and graded gravel roads. IHMA and GHMA would be  
25 designated as ROW avoidance areas for all infrastructure (**Table 4-54**). Impacts from  
26 designating ROW exclusion and avoidance areas are as described under **Section 4.3.2**;  
27 impacts from land tenure decisions are similar to those described for Alternative B.

#### 28 ***Impacts from Habitat Restoration and Vegetation Management***

29 Management under Alternative D would be similar to that described for Alternative B,  
30 though with additional measures to prioritize vegetation rehabilitation. They would  
31 incorporate design features that would improve the success of rehabilitation projects and  
32 strategically plan for wildfire suppression. Together, these management actions would  
33 improve the likelihood for sagebrush rehabilitation and prevention of catastrophic wildfires  
34 that would destroy sagebrush vegetation over the long term.

#### 35 ***Impacts from Wildland Fire Management***

36 Wildfire management under Alternative D would be similar to that described for Alternative  
37 B, with additional management flexibility to respond to sub-regional conditions and  
38 management, and guidance incorporated to tailor management to specific vegetation  
39 communities. The BLM and Forest Service would prioritize wildfire suppression planning



1 and would consider targeted grazing to reduce fine fuels throughout the decision area.  
2 Together, these actions would improve wildfire management, given the limited resources  
3 available, and would target those areas that need most protection. As a result, the likelihood  
4 for wildfire would be reduced and subsequent impacts on vegetation from wildfire described  
5 under **Section 4.3.2** would also be reduced.

#### 6 ***Impacts from Nonenergy Leasable Minerals Management***

7 Under Alternative D, PHMA and IHMA would be closed to nonenergy leasable mineral  
8 leasing with exceptions for modifications (**Table 4-56**). GHMAs are available for leasing  
9 subject to applicable timing restrictions and lease stipulations. RDFs and restoration would  
10 be required on existing leases in all GRSG habitat. This would reduce impacts on vegetation  
11 associated with nonenergy leasable mineral development in unleased and leased areas, as  
12 described under **Section 4.3.2**.

#### 13 ***Impacts from Locatable Minerals Management***

14 Acres open to locatable mineral development under Alternative D would be the same as  
15 those described for Alternative A. However, no net unmitigated loss of habitat would be  
16 allowed under this alternative. This measure, along with BMPs (see **Appendix B**), would  
17 reduce impacts on vegetation and would restore habitat, thereby reducing the impacts  
18 described under Alternative A.

#### 19 ***Impacts from Salable Minerals Management***

20 Under Alternative D, no new authorizations would be approved within 1.86 miles (3 km) of  
21 an occupied lek. RDFs and timing limitations would be applied to newly authorized  
22 disposals throughout the decision area, and reclamation bonding would be required (**Table**  
23 **4-56**). Impacts on vegetation, such as those described under **Section 4.3.2**, could occur from  
24 authorizations outside of the 1.86-mile (3 km) buffer from leks, although RDFs would  
25 reduce impacts.

#### 26 ***Impacts from Fluid Minerals Management***

27 Under Alternative D, low or no potential areas in PHMA and IHMA would be closed to  
28 fluid mineral leasing (**Table 4-57**). Areas of moderate and high potential would be open to  
29 leasing, subject to CSU, timing limitations, and an NSO stipulation within 0.6 miles (1 km)  
30 of an occupied lek. Geophysical exploration would be allowed, subject to timing limitations.  
31 Impacts on vegetation, such as those described under **Section 4.3.2**, could occur from  
32 development on leases outside of the 0.6-mile (1 km) buffer from leks, although RDFs  
33 would reduce impacts.

#### 34 ***Impacts from Travel and Transportation Management***

35 Impacts from travel and transportation management under Alternative D are similar to those  
36 described under Alternative B, though with increased flexibility to provide for high quality  
37 and sustainable travel routes and administrative access (**Table 4-59**). As such, there may be  
38 increased impacts on the acreage of vegetation in areas where new routes are created.  
39 Impacts in these areas are as described under **Section 4.3.2**.



1       ***Impacts from Livestock Grazing Management***

2       Under Alternative D, the BLM and Forest Service would maintain the same number of acres  
3       open to grazing as under Alternative A (**Table 4-60**). Impacts from livestock grazing  
4       management under Alternative D are similar to those described for Alternative B. However,  
5       under Alternative D, PHMA would receive the highest priority, subject to legal  
6       requirements, for completion of land health assessments. Also, the BLM and Forest Service  
7       would restrict authorizations of new water developments and would evaluate introduced  
8       perennial grass seedings. The BLM and Forest Service would incorporate measures to reduce  
9       impacts from trailing and would consider using grazing to achieve fuels management  
10       objectives throughout the decision area. Together these measures would reduce the impacts  
11       from grazing described under **Section 4.3.2**.

12       ***Impacts from Special Designations Management***

13       Impacts from ACEC management under Alternative D are the same as those described for  
14       Alternative A (**Table 4-61**).

15               **4.3.8 Alternative E**

16       Under Alternative E, the BLM and Forest Service would manage to maintain, conserve,  
17       enhance, and restore sagebrush ecosystems. CHZ, IHZ, and GHZ would be designated  
18       (**Table 4-14**). In CHZ and IHZ, the BLM and Forest Service would incorporate  
19       management flexibility to permit high value infrastructure with appropriate mitigation and  
20       best management practices tailored for the sub-region. Management and impacts are similar  
21       to Alternative D, though Alternative E would require less stringent use restrictions and  
22       would designate the least amount of CHZ, compared to the other alternatives' management  
23       area designations.

24       ***Impacts from Lands and Realty Management***

25       Under Alternative E, CHZ and IHZ would be designated as ROW avoidance areas, although  
26       the BLM and Forest Service would allow for more exceptions for development in IHZ  
27       (**Table 4-54**). This could increase the likelihood for impacts on vegetation, such as  
28       disturbance, removal, or fragmentation. Impacts from designation of ROW avoidance areas  
29       are as described under **Section 4.3.2**. Alternative E does not provide guidance for land  
30       tenure decisions in GRSG habitat, so there would be no associated effects on vegetation.

31       ***Impacts from Habitat Restoration and Vegetation Management***

32       Development of a restoration strategy for vegetation management at the implementation  
33       stage would help focus priorities on the areas and communities identified as most pertinent  
34       to restoring sagebrush and GRSG habitat. Native vegetation would be used for restoration  
35       to the extent practicable. These measures would increase the acreage and extent of sagebrush  
36       vegetation over the long term. Invasive species would be controlled for three years after  
37       wildfire treatments, which would reduce the likelihood of invasive weeds to be introduced or  
38       spread into recently burned areas.

1       ***Impacts from Wildland Fire Management***

2       Alternative E provides guidance to reduce wildfire response time, create fuel breaks, and  
3       improve the wildfire suppression baseline. The goal is to maintain habitat to support 73 to  
4       95 percent of breeding male GRSG by implementing fire breaks, re-seeding burned areas,  
5       establishing Rangeland Fire Protection Associations within CHZ and IHZ, and offsetting  
6       habitat losses to wildfire, according to the Governor's Office of Species Conservation letter  
7       dated July 1, 2013 (Governor's Office of Species Conservation 2013). Completion of a  
8       response time analysis would help focus suppression resources and activities to help reduce  
9       the size and extent of wildfires in CHZ. Targeted grazing would be allowed in IHZ. These  
10      actions would improve the likelihood for fire suppression and would reduce the likelihood  
11      for fire, thereby protecting existing vegetation. However, this alternative does not provide  
12      much guidance regarding other fuel treatments and ESR, which could limit the success of  
13      fire suppression and regrowth of desired vegetation after a fire.

14      ***Impacts from Nonenergy Leasable Minerals Management***

15      Alternative E does not provide guidance on nonenergy leasable minerals management, and  
16      as such, impacts on vegetation are expected to be similar to those described for Alternative  
17      A (Table 4-56).

18      ***Impacts from Locatable Minerals Management***

19      Alternative E does not provide guidance on locatable minerals management, and as such,  
20      impacts on vegetation are expected to be similar to those described for Alternative A.

21      ***Impacts from Salable Minerals Management***

22      Alternative E does not provide guidance on salable minerals management, and as such,  
23      impacts on vegetation are expected to be similar to those described for Alternative A (Table  
24      4-56).

25      ***Impacts from Fluid Minerals Management***

26      Under Alternative E, the BLM and Forest Service would apply an NSO stipulation on leases  
27      in CHZ, which would reduce the likelihood of surface-disturbing activities and vegetation  
28      removal in these areas. No additional areas would be closed to leasing (Table 4-57), but a  
29      five percent disturbance cap would apply to fluid mineral impacts only. Fluid mineral leasing  
30      would be authorized in IHZ under certain conditions, and vegetation could be disturbed,  
31      removed, or fragmented in the areas where development would occur.

32      ***Impacts from Travel and Transportation Management***

33      Under Alternative E, the completion of travel management planning would be prioritized  
34      and would seek to minimize disturbance to GRSG and their habitat. Prior to completion of  
35      travel planning, vehicles would be restricted to existing routes and new roads would be  
36      discouraged or re-routed where possible (State of Idaho 2012). No immediate road closures  
37      would occur (Table 4-59).

38      ***Impacts from Livestock Grazing Management***

39      Impacts from livestock grazing management under Alternative E are similar to those  
40      described for Alternative D, though with an increased emphasis on flexibility to respond to

1 sub-regional conditions and adaptive management in grazing management (**Table 4-60**).  
2 These measures could further reduce impacts on vegetation, depending on where and how  
3 they were applied.

#### 4 ***Impacts from Special Designations Management***

5 Impacts from ACEC management under Alternative E are the same as those described for  
6 Alternative A (**Table 4-61**).

#### 7 **4.3.9 Alternative F**

8 Management under Alternative F would be largely similar to that described for Alternative B,  
9 though with more stringent guidance and restrictive management in sagebrush ecosystems.  
10 PHMA, GHMA and RHMA would be designated (**Table 4-14**). Unique to Alternative F, an  
11 area would be considered successfully restored only if GRSG used the area.

12 Impacts from implementing the maximum three percent disturbance cap are similar to those  
13 described for Alternative B; however, under Alternative F, all surface disturbances (including  
14 human disturbance and fire) would count toward this cap. This would further reduce the  
15 acreage of vegetation that would be removed or fragmented within all occupied habitat over  
16 the long term.

#### 17 ***Impacts from Lands and Realty Management***

18 Impacts from designation of ROW exclusion areas are similar to those described under  
19 Alternative B (**Table 4-55**). Impacts from land tenure decisions are similar to those  
20 described under Alternative B, though Alternative F would not allow for exceptions to  
21 disposal criteria. This would reduce management flexibility and could have implications for  
22 vegetation connectivity.

#### 23 ***Impacts from Habitat Restoration and Vegetation Management***

24 Impacts from habitat restoration and vegetation management under Alternative F are similar  
25 to those described for Alternative B.

#### 26 ***Impacts from Wildland Fire Management***

27 Impacts from wildland fire management under Alternative F are similar to those described  
28 for Alternative B. Alternative F would require exclusions of grazing post-fire. This would  
29 reduce grazing pressure on and trampling of ESR seedings, thus improving the likelihood of  
30 native vegetation restoration post-fire.

#### 31 ***Impacts from Nonenergy Leasable Minerals Management***

32 Impacts from nonenergy leasable minerals management under Alternative F are the same as  
33 those described for Alternative B (**Table 4-56**).

#### 34 ***Impacts from Locatable Minerals Management***

35 Impacts from locatable minerals management under Alternative F are the same as those  
36 described for Alternative B.

1       ***Impacts from Salable Minerals Management***

2       Impacts from salable minerals management under Alternative F are the same as those  
3       described for Alternative B (**Table 4-56**).

4       ***Impacts from Fluid Minerals Management***

5       Impacts from fluid minerals management under Alternative F are the same as those  
6       described for Alternative B (**Table 4-58**).

7       ***Impacts from Travel and Transportation Management***

8       Impacts from travel and transportation management under Alternative F are similar to those  
9       described for Alternative B, though there would be fewer impacts on vegetation under  
10       Alternative F (**Table 4-59**), because no new road construction would be allowed within 4  
11       miles (6.4 km) of leks in PHMA, and mitigation of impacts from route construction would  
12       be required.

13       ***Impacts from Livestock Grazing Management***

14       Impacts from livestock grazing management under Alternative F are similar to those  
15       described for Alternative B, though Alternative F would require a 25 percent reduction in  
16       AUMs and would incorporate more stringent guidance and restrictive measures. This  
17       reduction could further reduce impacts on vegetation by reducing grazing pressure across  
18       the decision area. The total acreage open to grazing would be the same as for Alternative B  
19       (**Table 4-60**).

20       ***Impacts from Special Designations Management***

21       Under Alternative F, the BLM would designate one of two sub-alternatives: F1, which would  
22       designate all PPH as an ACEC, and F2, which would designate a subset of PPH as an ACEC  
23       (**Table 4-61**). Impacts from management of ACECs are as described under **Section 4.3.2**  
24       and impacts from ZAs are expected to be similar.

25       **4.3.10 Proposed Plan**

26       Under the Proposed Plan, the BLM and Forest Service would manage lands to conserve,  
27       enhance and restore GRSG habitat and the sagebrush ecosystem upon which GRSG  
28       populations depend. Direct protection of sagebrush habitat to support GRSG would limit or  
29       modify uses in this habitat type, improving the acreage and condition of desired vegetation  
30       communities. Restrictions on resource uses such as ROW and mineral development would  
31       reduce damage to native vegetation communities and individual native plant species in areas  
32       that are important for regional vegetation diversity and quality. Likewise, use restrictions  
33       would minimize fragmentation and would be more likely to retain existing age class  
34       distribution within these areas. Use restrictions could also minimize the spread of invasive  
35       species by limiting human activities that disturb soil or introduce seeds.

36       Management and impacts would be similar to Alternatives D and E, though the Proposed  
37       Plan would incorporate robust strategies and approaches to GRSG management, including  
38       wildfire management, adaptive management, mitigation, and monitoring (**Appendices D, G,**  
39       **J, and E**). PHMA, IHMA, and GHMA would be designated, and 3.8 million acres of SFAs  
40       would be managed. Acres of each vegetation community within GRSG habitat management

1 areas are presented in **Table 4-62** through **4-68**. Limiting anthropogenic  
2 disturbances to 3 percent at both the BSU and project levels would reduce the likelihood for  
3 vegetation removal, degradation, or fragmentation and would maintain the acreage and  
4 condition of sagebrush vegetation on both the local and landscape scales. Anthropogenic  
5 disturbances in PHMA and IHMA would be mitigated to a no net loss of Key habitat  
6 standard, thereby preserving the potential for these areas to provide GRSG habitat. In  
7 addition, the BLM and Forest Service would implement numerous conservation measures  
8 such as BMPs, RDFs, and buffers (**Appendix B**) to reduce impacts from human activities in  
9 PHMA and IHMA. This would reduce the likelihood for vegetation removal, degradation, or  
10 fragmentation and reduce the likelihood for weed introduction or spread.

### 11 ***Impacts from Lands and Realty Management***

12 Under the Proposed Plan, PHMA would be designated as ROW exclusion areas and IHMA  
13 would be ROW avoidance areas for solar, wind, nuclear, and hydropower energy  
14 development as well as commercial service airports and landfills. ROW avoidance areas  
15 would also be designated for major and minor ROWs in PHMA and IHMA. GHMA in  
16 Montana would have similar protections. Such restrictions would have impacts on vegetation  
17 as described under **Section 4.3.2** (**Tables 4-54 and 4-55**). Additional requirements to meet  
18 the Anthropogenic Disturbance Exception Criteria (for PHMA in Idaho), Anthropogenic  
19 Disturbance Development Criteria (for PHMA and IHMA in Idaho), the project/action  
20 screen and mitigation process in Montana, mitigation requirements, and application of the  
21 disturbance cap, RDFs, BMPs, and buffers would further reduce the likelihood for impacts  
22 on vegetation by requiring additional conditions to be met and reducing overall disturbance.

23 Retention and acquisition of GRSG habitat would reduce fragmentation of vegetation  
24 communities, as described under **Section 4.3.2**.

### 25 ***Impacts from Habitat Restoration and Vegetation Management***

26 Under the Proposed Plan, habitat restoration and vegetation management actions would aim  
27 to achieve certain vegetation objectives to improve GRSG habitat. It would do this by  
28 restricting activities that have the potential to degrade sagebrush communities, such as  
29 prescribed fire, while promoting and prioritizing those activities that improve sagebrush  
30 communities and prioritizing restoration and rehabilitation to benefit GRSG habitat. The  
31 BLM and Forest Service would require the use of native seeds as a component of most  
32 restoration activities and would design post-restoration management to ensure the long-term  
33 persistence of restoration. Together, these management actions would alter vegetative  
34 communities by increasing herbaceous cover and vegetation productivity. Strategically  
35 planning for wildfire suppression would prevent catastrophic wildfires that would destroy  
36 sagebrush vegetation over the long term.

37 Over a 10-year period, mechanical treatments on 77,000 acres, prescribed fire on 30,000  
38 acres, and grass restoration treatments on 620,000 acres designed to prevent and reduce  
39 encroachment of conifers and nonnative species would alter the condition of native  
40 vegetation communities by changing the density, composition, and frequency of species  
41 within plant communities. Habitat connectivity for GRSG could be increased over the

1 planning timeframe through vegetation manipulation designed to restore vegetation,  
2 particularly sagebrush overstory cover.

### 3 ***Impacts from Wildland Fire Management***

4 A comprehensive strategy for wildland fire management would be implemented under the  
5 Proposed Plan, including the FIAT (**Appendix D**). The assessment would identify priority  
6 habitat areas and management strategies to reduce the threats to GRSG from invasive annual  
7 grasses, wildfires, and conifer expansion. It would incorporate recent scientific research on  
8 resistance and resilience of Great Basin ecosystems as well as interdisciplinary team  
9 knowledge. Potential management strategies include proactive measures such as fuels  
10 management and habitat restoration and recovery, and reactive measures such as fire  
11 operations and post-fire rehabilitation. Together, these actions would improve wildland fire  
12 management, given the limited resources available, and would target those areas that need  
13 most protection. As a result, the likelihood for wildfire would be reduced and subsequent  
14 impacts on vegetation from wildfire, particularly vegetation that meets GRSG habitat  
15 requirements, described under **Section 4.3.2** would also be reduced. Further, providing  
16 adequate rest from livestock grazing would improve the likelihood that ESR seedlings would  
17 stabilize the site, compete effectively against invasive annuals, and successfully establish  
18 native vegetation over the long term.

### 19 ***Impacts from Non-Energy Leasable Minerals Management***

20 Acres of sagebrush closed to non-energy leasable mineral leasing under the Proposed Plan  
21 are shown in **Table 4-56**. Application of the disturbance cap, mitigation requirements, and  
22 closures in PHMA and restrictions in IHMA and GHMA outside of KPLAs would prevent  
23 or reduce the removal, fragmentation, and other impacts as described in **Section 4.3.2** on  
24 vegetation associated with non-energy leasable mineral development. Impacts, including loss  
25 and degradation of upland vegetation and an increased potential for invasive plant spread, as  
26 described under **Section 4.3.2**, would continue to occur in areas open to non-energy leasable  
27 mineral leasing and development.

### 28 ***Impacts from Locatable Minerals Management***

29 Under the Proposed Plan, SFAs would be recommended for withdrawal from the General  
30 Mining Act of 1872; if withdrawn, this action would result in the protection of vegetation in  
31 these areas from removal and disturbance caused by locatable minerals management. In  
32 addition, RDFs and BMPs would be applied as Conditions of Approval, which would reduce  
33 impacts on vegetation and would restore habitat, thereby reducing the impacts described  
34 under Alternative A.

### 35 ***Impacts from Salable Minerals Management***

36 Acres of sagebrush closed to salable mineral development under the Proposed Plan are  
37 shown in **Table 4-57**. Prohibitions on new salable mineral development in PHMA would  
38 prevent new impacts on vegetation in these areas. Requirements to meet the anthropogenic  
39 disturbance criteria in IHMA, adhere to the disturbance cap, and implement mitigation,  
40 RDFs, BMPs, and buffers in IHMA and GHMA would reduce vegetation removal,  
41 fragmentation, and other impacts associated with salable mineral development as described

1 in **Section 4.3.2**. Restoration would increase the extent of vegetation and depending on the  
2 location could remove nonnative invasive species and reduce fragmentation.

### 3 ***Impacts from Fluid Minerals Management***

4 Acres of sagebrush closed to fluid mineral leasing under the Proposed Plan are shown in  
5 **Table 4-58**. Protections for vegetation would be greatest in SFAs which would be subject to  
6 an NSO stipulation without waivers, exceptions, or modifications. Vegetation would also be  
7 highly protected in PHMA and IHMA, which would be subject to an NSO stipulation with  
8 one exception. As a result, the NSO stipulation, anthropogenic disturbance criteria,  
9 mitigation requirement, disturbance cap, RDFs, BMPs, and buffers would be the primary  
10 mechanisms to prevent or reduce the removal, fragmentation, and other impacts on  
11 vegetation associated with fluid mineral development in unleased areas. Impacts, including  
12 loss and degradation of upland vegetation and an increased potential for invasive plant  
13 spread, as described under **Section 4.3.2**, would continue to occur in areas open to fluid  
14 mineral leasing and development.

### 15 ***Impacts from Travel and Transportation Management***

16 Under the Proposed Plan, motorized travel would be limited to existing roads, primitive  
17 roads, and trails within Idaho BLM field offices (**Table 4-59**). Management actions would  
18 also close areas adversely affected by off-highway vehicles and Travel Management Plans  
19 would be developed. These actions would reduce the likelihood of impacts caused by roads,  
20 as described under **Section 4.3.2**, and would increase the acreage and connectivity of  
21 sagebrush vegetation.

### 22 ***Impacts from Livestock Grazing Management***

23 Under the Proposed Plan, the BLM and Forest Service would maintain the same number of  
24 acres open to grazing as under Alternative A (**Table 4-60**). However, the BLM and Forest  
25 Service would implement a number of management actions to meet vegetation objectives in  
26 SFAs and PHMAs, including prioritizing the review and processing of grazing  
27 permits/leases in SFAs, particularly in areas not meeting land health standards that also  
28 contain riparian areas, including wet meadows. Further, BLM would prioritize land health  
29 assessments in GRSG habitat, incorporate GRSG habitat objectives and management  
30 considerations into livestock grazing management, improve the condition of vegetation in  
31 GRSG habitat areas, and incorporate grazing into adaptive management considerations.  
32 Such measures would help to improve vegetation condition of rangeland and riparian and  
33 wetland areas. They also could reduce the likelihood of nonnative invasive species  
34 introduction or spread through improved grazing management and changes implemented  
35 resulting from land health assessments. Together, these efforts would improve consistency  
36 of management across the sub-region and would reduce impacts from grazing on vegetation,  
37 described in **Section 4.3.2**.

38 The Forest Service will incorporate grazing guidelines (**Table 2-6**) into term grazing permits  
39 that will likely improve vegetation structures in GRSG seasonal habitat on grazing  
40 allotments.

1       ***Impacts from Special Designations Management***

2       Under the Proposed Plan, the BLM would continue to manage 59 ACECs within the sub-  
3       region (**Table 4-61**). The Forest Service would not manage any ZAs under the Proposed  
4       Plan. Existing ACECs likely protect vegetation through use restrictions; these impacts are  
5       analyzed under each existing RMP within the planning area. As a result, there would be no  
6       additional effects from ACEC or ZA management on vegetation under this alternative.

7       ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and***  
8       ***Coordination***

9       Implementing an anthropogenic disturbance cap at both the BSU and project levels would  
10      limit vegetation removal in GRSG habitat at the site and landscape scales. The BLM and  
11      Forest Service would also require no net loss of Key habitat. This would help to maintain the  
12      extent and condition of sagebrush habitat throughout the sub-region, but could displace  
13      development into other vegetation types, causing increased impacts to these communities.  
14      Co-location requirements in the Anthropogenic Disturbance Exception and Development  
15      Criteria would limit fragmentation and may also limit weed spread since development would  
16      occur in previously disturbed areas.

17   **4.4 Wild Horse and Burro Management**

18           **4.4.1 Methods and Assumptions**

19           ***Indicators***

20           Indicators of impacts on wild horses and burros are as follows:

- 21           • Changes in permitted Appropriate Management Levels (AMLs)
- 22           • Changes in allotted forage (AUMs)
- 23           • Prohibitions or limitations on the construction or maintenance of structural and  
24           nonstructural range improvements
- 25           • Modifications to or removal of structural range improvements

26           ***Assumptions***

27           The analysis includes the following assumptions:

- 28           • Horses and burros depend on the herbaceous component of a shrub/grass plant  
29           community. Declines in grasses and forbs are adverse and increases are  
30           beneficial. Vegetation treatments, such as prescribed burns or weed control, can  
31           enhance the plant community composition and forage availability.
- 32           • Water is the primary resource associated with wild horse distribution, and water  
33           developments can improve wild horse distribution.



- 1 • Fences and other disturbances can restrict wild horse movement and access.  
2 Fences are sometimes necessary to restrict horse distribution to areas inside  
3 HMAs or to protect sensitive resources within HMAs.
  
- 4 • No forage is allocated to wild horses and burros found on lands outside of  
5 HMAs. The BLM has the responsibility to remove wild horses and burros found  
6 outside of HMAs
  
- 7 • The scheduling for wild horse and burro gathers to remove excess animals is  
8 influenced by a national priority process. Factors affecting gather priorities are  
9 determinations of excess horses and overpopulations, wild horse and range  
10 condition, annual appropriations, litigation and court orders, emergency  
11 situations, such as disease, weather, and fire, availability of contractors, the  
12 market for adoption, and long-term holding availability for unadoptable excess  
13 horses.
  
- 14 • Wild horse and burro distribution is influenced by season, climatic conditions,  
15 water and forage availability, and population size.
  
- 16 • There are no HMAs in the southwest Montana portion of the sub-region.  
17 Therefore, impacts described apply to Idaho only.
  
- 18 • There are no wild burros in Idaho or southwest Montana, so impacts apply only  
19 to wild horses.

#### 20 4.4.2 Nature and Type of Effects

21 All HMAs are managed for AML. Initially, AML is established in RMPs at the outset of  
22 planning and is adjusted based on monitoring data through revision of HMA Plans and  
23 subsequent land use plan amendment. Priorities for gathering excess wild horses and burros  
24 to maintain AML are based on population inventories, resource monitoring objectives,  
25 gather schedules, and budgets. Gathers are also conducted in emergency situations when the  
26 health of the population is at risk due to lack of forage or water and, in some situations,  
27 wildland fire.

28 Development activities such as mineral extraction, recreation, and construction within ROW  
29 may impact wild horse populations in the following ways:

- 30 • Reduce forage availability
- 31 • Disturb wild horses
- 32 • Prohibit the ability of wild horses to move freely across HMAs
- 33 • Limit ability to perform management activities (for example, energy  
34 development infrastructure may impact the ability to conduct helicopter  
35 gathers)

1 Implementing management to protect GRSG generally involves reducing or otherwise  
2 restricting land uses and activities. Limiting these activities to protect GRSG would also  
3 protect forage for wild horses and would limit human and surface disturbance.

4 Conversely, there could be impacts on wild horses and the ability to support AMLs when  
5 management options for HMAs are restricted. Impacts from range improvement restrictions  
6 vary based on type of range improvement affected. Restrictions on fences would improve  
7 wild horse habitat by allowing free range, while limiting projects that could enhance forage  
8 and water availability could limit future options to manage for current AML.

9 Implementing management for the following resources would have negligible or no impact  
10 on wild horse and burro management and are therefore not discussed in detail: air quality,  
11 visual resources, cultural resources, wilderness characteristics, socioeconomics, special  
12 designation management, and tribal interests.

#### 13 **4.4.3 Impacts Common to All Alternatives**

14 Under all alternatives except Alternative F, management actions for wild horses and burros  
15 would not result in direct changes to HMA status, to AMLs within designated HMAs, or  
16 acreage designated as HMAs. Impacts under all alternatives, with the exception of  
17 Alternative F, would be limited to any future changes that may result in AML and/or acreage  
18 adjustment as well as reconsideration of HMA status that are based on achievement of  
19 GRSG habitat objectives for improving habitat conditions.

20 Under all alternatives, management actions would not result in direct acreage designated as  
21 HMAs. Approximately 269,700 acres of HMAs would fall within GRSG habitat, although  
22 the acres within a specific GRSG management area designation (such as a PHMA) with  
23 associated management varies by alternative.

24 The Forest Service does not manage any wild horses or burros within the planning area, so  
25 no impacts would occur on National Forest System lands.

#### 26 ***Impacts from Energy and Mineral Development***

##### 27 *Impacts from Nonenergy Leasable Minerals Management*

28 There are expected to be minimal impacts from nonenergy leasable minerals on wild horses  
29 and burros across all alternatives due to a lack of leases in GRSG habitat.  
30

##### 31 *Impacts from Coal Management*

32 No economically viable coal resources are found in Idaho. Under the Dillon RMP, a plan  
33 amendment would be required to lease coal. As a result, coal development in the project area  
34 and related impacts on wild horses and burros are likely to be limited under all alternatives.

##### 35 ***Impacts from Recreation and Visitor Services Management***

36 Under all alternatives, motorized vehicles would be limited to existing roads and trails,  
37 thereby limiting the impacts on wild horses and burros from dispersed travel. Site-specific

1 travel management planning could, when completed, reduce the potential for conflicts  
2 between wild horses and burros and travel management.

#### 3 **4.4.4 Alternative A**

4 No PHMA or GHMA would be designated for GRSG under this alternative. Wild horse and  
5 burro management would be determined by management in current RMPs in the planning  
6 area.

##### 7 ***Impacts from Vegetation Management***

8 Under Alternative A, restoration would continue in the planning area, with long-term  
9 benefits to forage for horses and burros. Vegetation could be managed to improve forage,  
10 and impacts on WHB from vegetation management would likely be minimal. Management  
11 actions for invasive species would continue under the direction of current management  
12 plans, with the focus on areas not meeting land health standards or desired conditions.

##### 13 ***Impacts from Wild Horse and Burro Management***

14 Under Alternative A, all HMAs are managed for AML and for healthy populations to  
15 achieve a thriving natural ecological balance with respect to wildlife, livestock use, and other  
16 multiple uses. All adjustments to HMAs, HMA plans, and priorities of gathers would  
17 continue to be based on monitoring data. As a result, impacts on wild horses under  
18 Alternative A would depend on the site-specific conditions as reported in monitoring data.

19 While most HMAs in the sub-region contain GRSG habitat within a sagebrush vegetation  
20 community, prioritizing wild horses and burro gathers to maintain AML is not based on  
21 GRSG habitat needs. Nevertheless, this is implicit in the congressional directive to maintain  
22 a thriving natural ecological balance.

##### 23 ***Impacts from Wildland Fire Management***

24 Under Alternative A, mechanical treatments, prescribed fires, and other treatments would be  
25 used to prevent conifer encroachment and remove undesirable annual grass and weed  
26 species. These actions could improve forage for wild horses and burros in the long term.  
27 Although most of the LUPs do not provide specific direction for fire suppression in GRSG  
28 habitat, protection of GRSG habitat during suppression has taken center stage in planning  
29 and operational discussions due to large fire in PPH and PGH in 2007 and 2012. Therefore,  
30 the risk of forage loss in these areas may be lower than in non-GRSG habitats.

##### 31 ***Impacts from Livestock Grazing/Range Management***

32 Under Alternative A, grazing permits, including grazing systems, permitted AUMs, and  
33 allotment boundaries, would be modified as necessary to conform to Standards and  
34 Guidelines for Livestock Grazing Management. Range improvements, including fences,  
35 vegetation treatments, and water developments, would be allowed in the decision area when  
36 needed to support grazing or to improve livestock distribution.

37 Levels of conflict with wild horses and burros would vary throughout the planning area  
38 based on individual RMP management and levels of grazing. Water developments for



1 livestock would likely be maintained and may provide a source of water for horses and  
2 burros.

### 3 ***Impacts from Recreation Management***

4 Under this alternative, there would be no new restrictions to SRPs in the decision area;  
5 therefore, horses and burros could be disturbed by recreation in the planning area. Some  
6 limited potential for disturbance from general recreation is possible, as described under  
7 nature and type of impacts, above.

### 8 ***Impacts from Travel Management***

9 Under Alternative A, as under all alternatives, motorized travel would be limited to  
10 designated routes, and site-specific travel management planning on BLM-administered lands  
11 would be developed, limiting disturbance to horses and burros.

### 12 ***Impacts from Lands and Realty Management***

13 Under Alternative A, the impacts on wild horses and burro management continue to be the  
14 same as those identified in the individual RMP documents. Under Alternative A, there would  
15 be approximately 1 million acres of ROW exclusion and 1.9 million acres of avoidance areas  
16 in the decision area; no new ROW exclusion or avoidance areas would be created. Wild  
17 horses and burros could be disturbed from development of ROWs. For these reasons, this  
18 alternative would have the highest potential for impacts from lands and realty on WHB  
19 management; however, access to HMAs for gathers would be the least restricted.

### 20 ***Impacts from Mineral Materials (Salables) Management***

21 In general, Alternative A is the least restrictive on energy and mineral development of all  
22 alternatives. As a result, the indirect impacts of development on wild horses and burros,  
23 including spread of noxious weeds and disturbance of horses or burros, are the greatest  
24 under this alternative.

## 25 **4.4.5 Alternative B**

### 26 ***Impacts from Vegetation Management***

27 Under Alternative B, restoration projects in PH would be designed to benefit GRSG and  
28 based on the likelihood of success, with reestablishment of sagebrush cover as the highest  
29 priority. Projects to remove nonnative species and improve habitat would likely improve  
30 forage conditions and water quality for wild horses in the long term. However, should  
31 management require increased fences to protect vegetation for GRSG, this could limit wild  
32 horse and burro movement and access to riparian areas and reduce water availability. This  
33 could result in potential need for reduction of wild horses and burro numbers within an  
34 HMA in order to meet vegetation objectives for GRSG.

### 35 ***Impacts from Wild Horse and Burro Management***

36 Under Alternative B, management actions would require examination of herd management  
37 plans, AML levels, and range improvements or other NEPA and management activities for  
38 wild horses and burros in light of GRSG habitat objectives and potential impacts on GRSG  
39 habitat, particularly in PHMA. This could potentially result in changes to wild horse and  
40 burro management and AMLs should objectives for GRSG habitat not align with

1 management objectives for wild horse management. In many cases, however, management  
2 actions to improve GRSG habitat would also improve wild horse rangeland conditions (for  
3 example, conifer removal and noxious weed control would improve forage conditions for  
4 wild horses and burros).

5 If water developments required modification to meet GRSG objectives or new  
6 developments were not permitted, water availability could be reduced. This could result in  
7 the potential need to reduce wild horse and burro numbers or develop alternative water  
8 sources within the HMA, particularly during periods of drought.

9 ***Impacts from Wildland Fire Management***

10 Fuels projects and fire suppression to protect sagebrush ecosystems and associated PHMA  
11 would benefit wild horses and burros where HMAs overlap this habitat. This would be due  
12 to a reduction in the likelihood of high intensity wildfire. However, temporary or long-term  
13 management changes to wild horses and burros, such as reduction in AML, or fencing  
14 blocking access to forage may be necessary to achieve and maintain the desired project  
15 objectives post-fire.

16 ***Impacts from Livestock Grazing/Range Management***

17 Management to conserve, enhance, or restore GRSG habitat that benefit livestock forage  
18 would generally also benefit wild horses and burros within GRSG in the long term.  
19 Modifying or eliminating livestock watering sites could reduce water availability for wild  
20 horses and burros. This could result in the need to reduce wild horse and burro numbers or  
21 develop alternative water sources within specific HMAs, especially during periods of  
22 drought.

23 ***Impacts from Recreation and Visitor Services Management***

24 In PHMA, motorized travel would be limited to existing roads and trails on BLM-  
25 administered and National Forest System lands. Travel plans (to be completed) would  
26 analyze PHMA for the need for road closures, and limitations would be implemented during  
27 development of new roads. Some reduction in routes, and limitations on new routes would  
28 occur compared to Alternative A in PHMA. This could impact the ability to conduct gathers  
29 of wild horses and burros for population control. These limits also could increase the time  
30 and costs of gathers if they are not covered by administrative exceptions. However, limits to  
31 travel would also decrease any disturbance of horses and burros from OHV use.

32 Under Alternative B, limits on SRPs in PHMA would reduce any conflicts between  
33 recreation and wild horse and burro management.

34 ***Impacts from Lands and Realty Management***

35 Under Alternative B, no new ROW authorizations would be permitted in PHMA unless the  
36 development would occur within the existing developed footprint This action would likely  
37 reduce devolvement in HMAs overlapping PHMA as compared to Alternative A, indirectly  
38 reducing related disturbance to wild horses and burros.



1       ***Impacts from Energy and Mineral Management***

2       Under Alternative B, additional restrictions would be put on mineral development, as  
3       compared to Alternative A. Lands in PHMA would be recommended for withdrawal from  
4       mineral entry for locatable minerals, closed to mineral materials removal, and closed to new  
5       leasing for fluid minerals. For currently leased parcels, NSO stipulations would be applied in  
6       PHMA and around leks. As a result, disturbance of wild horses and burros from mineral  
7       development would be minimized in PHMA.

8                   **4.4.6   Alternative C**

9       ***Impacts from Vegetation Management***

10       Habitat restoration actions and related impacts in PHMA would be similar to that described  
11       in Alternative B. In addition, restoration proposed under Alternative C includes removing  
12       water developments. This could reduce available water in HMAs and result in the need to  
13       reduce wild horse and burro AML within an HMA in occupied habitat in order to meet  
14       vegetation objectives for GRSG.

15       ***Impacts from Wild Horse and Burro Management***

16       Impacts are as discussed under Alternative A.

17       ***Impacts from Wildland Fire Management***

18       Impacts are similar to those discussed under Alternative B.

19       ***Impacts from Livestock Grazing/Range Management***

20       Elimination of livestock grazing in occupied habitat would provide additional forage for wild  
21       horses and burros where HMAs overlap these habitats. This would occur by reducing  
22       competition for forage in these areas.

23       Elimination of livestock watering sites or failure to maintain water developments could  
24       reduce water availability. As a result, developments would be limited, and ability to manage  
25       for AML could be impacted for HMAs in occupied habitat, particularly in drought  
26       conditions.

27       ***Impacts from Recreation and Visitor Services Management***

28       Impacts from recreation management are similar to those discussed under Alternative A.  
29       Travel management impacts would be as discussed under Alternatives B.

30       ***Impacts from Lands and Realty Management***

31       Under Alternative C, new ROWs for corridors would be sited in non-habitat and bundled  
32       with existing corridors to the maximum extent possible. As a result, disturbance from  
33       development and related impacts on wild horses and burros management would be reduced  
34       compared to Alternative A.

35       ***Impacts from Energy and Mineral Management***

36       Impacts from mineral materials would be similar to those described under Alternative B for  
37       existing fluid mineral leases and locatable saleable and nonenergy leasable minerals. No new  
38       fluid-mineral leases would be issued in PHMA. As a result, the chance of disturbance of wild

1 horses and burros form development of these resources would be reduced as compared to  
2 Alternative A.

#### 3 4.4.7 Alternative D

##### 4 ***Impacts from Vegetation Management***

5 Under Alternative D, vegetation rehabilitation would emphasize projects to achieve the  
6 greatest improvement in GRSG abundance and distribution. This includes sites with greater  
7 likelihood of success. Reconnecting and expanding native plant communities would be an  
8 objective across all GRSG habitat types; restoring seasonal habitats would be emphasized in  
9 both PHMA and IHMA. As discussed in Alternative B, these management actions could  
10 improve wild horse and burro forage in the long term. For example, measures to replace  
11 annual grasses with perennial grasses would also reduce interannual variability in forage  
12 quantity.

13 Impacts would likely occur if wild horses and burros are found to be factors in GRSG  
14 habitat not achieving or moving toward achieving objectives, in which case the adjustment  
15 of wild horse and burro populations would be considered and could result in the reduction  
16 of AMLs in some HMAs in the long term. Post-restoration management requirements could  
17 impact horse movement if fences were installed. In addition, should access to water sources  
18 be restricted, ability to manage for AML could be affected.

##### 19 ***Impacts from Wild Horse and Burro Management***

20 Under Alternative D, as in Alternative B, HMPAs would be amended to incorporate GRSG  
21 habitat objectives; therefore changes may be required to AMLs or wild horse and burro  
22 management in the long term in PHMA, IHMA and GHMA should these objectives not be  
23 met by current AMLs or management.

24 In addition, under Alternative D, no HMA expansion would be permitted in PHMA. Under  
25 IHMA habitat expansion may be permitted if impacts on GRSG as well as alternative areas  
26 of expansion are examined first. These actions would limit the ability to sustainably manage  
27 for increasing population of horses and potentially necessitate additional gathers to reduce  
28 herd sizes, at increased cost for management of the program.

##### 29 ***Impacts from Wildland Fire Management***

30 Under Alternative D, post-fire and restoration management would be undertaken to ensure  
31 long-term persistence of seeded or pre-burn native plants. It may also require short- or long-  
32 term change to wild horse and burro management. Fencing to exclude livestock from post-  
33 burn areas could impact the ability of horses to roam freely. If exclusion reduces horses'  
34 ability to access water sources, ability to manage for AML could be affected. The degree of  
35 impacts would be determined by the location, size, and intensity of fires in GRSG habitat  
36 but would be increased over those in Alternative B. because all GRSG habitat types would  
37 be included.

1       ***Impacts from Livestock Grazing/Range Management***

2       Grazing management actions and impacts on wild horses and burros would be similar to  
3       those described in Alternative B. Under Alternative D, however, allotments containing  
4       PHMA would be prioritized for permit renewal, followed by IHMA and finally GHMA;  
5       impacts on wild horse and burro would occur in HMAs overlapping these habitat areas in  
6       this sequence.

7       Water developments under Alternative D would be limited as compared to Alternative A, as  
8       only projects that would maintain, benefit or have neutral effect on PHMA would be  
9       allowed and modification or removal of existing developments may be required. As  
10      described for Alternative B, this could result in impacts on the ability to manage for AML,  
11      particularly under drought conditions.

12      ***Impacts from Recreation Management and Visitor Services***

13      Under Alternative D, motorized travel would be limited to designated roads, primitive roads,  
14      and trails, at a minimum. However, any play area designated for OHV use would remain  
15      open, with the potential to disturb or disrupt wild horse and burro movement in these areas.  
16      Seasonal restrictions for authorized activities could impact the ability of to-access herds for  
17      gatherers.

18      ***Impacts from Lands and Realty Management***

19      Under Alternative D, new ROW and land use authorizations would be avoided whenever  
20      possible, with a goal of no net loss of GRSG habitat. ROW avoidance areas in PHMA,  
21      IHMA, and GHMA, as well as the exclusion of larger facilities in PHMA, would somewhat  
22      limit the indirect impacts of development on wild horses and burros in the avoidance and  
23      exclusion areas. Impacts would still occur in non-habitat HMAs.

24      Similarly, management actions prohibiting solar and wind development in PHMA and  
25      imposing restrictions on development in IHMA and avoidance areas in GHMA would limit  
26      any impacts of disturbance from development of these resources. However, this may shift  
27      impacts to non-habitat HMAs.

28      ***Impacts from Mineral Materials (Salables) Management***

29      Under Alternative D, some degree of mineral development would be allowed, with measures  
30      to avoid or mitigate impacts on GRSG. Specifically, new fluid minerals and undeveloped  
31      nonenergy mineral leases would be allowed in all GRSG habitat types, with BMPs applied.  
32      Similarly, mineral materials would be allowed to be leased in all habitat types, with  
33      stipulations. As a result of the flexibility in management for PHMA, unlike that in  
34      Alternative B, there is some potential for mineral development in PHMA and related  
35      impacts on disturbance of wild horses and burros; however, the impacts would likely be  
36      minimal and lower than those under Alternative A. Within IHMA and GHMA, the degree of  
37      disturbance from or conflicts with wild horses and burros from energy and mineral  
38      development would also be lower than that under Alternative A.



1                   **4.4.8 Alternative E**

2                   ***Impacts from Vegetation Management***

3                   Impacts from habitat restoration are as described under Alternative A. Similarly,  
4                   management actions of invasive species would likely be similar to Alternative A, with a focus  
5                   on actions in CHZ and IHZ. Short-term impacts on wild horses and burros would be  
6                   minimal, with a chance for long-term improvement of forage.

7                   ***Impacts from Wild Horse and Burro Management***

8                   Under Alternative E, management actions for wild horses and burros and related impacts  
9                   would be as discussed under Alternative A.

10                  ***Impacts from Wildland Fire Management***

11                  Under Alternative E, management actions for wildfire include an emphasis on fire  
12                  suppression and reduction in fire risk in CHZ, IHZ, and GHZ. As a result, the risk of  
13                  ignition and spread of fire in occupied GRSG habitat would be reduced, thereby reducing  
14                  the impacts of fire on HMAs in GRSG habitat. The risk of fire spread in HMAs in other  
15                  habitat could increase, should limited resources be allocated for GRSG habitat.

16                  ***Impacts from Livestock Grazing/Range Management***

17                  Under Alternative E, management actions for livestock grazing would be based on GRSG  
18                  population trends and focused on CHZ and IHZ. Adjustments would be applied at a site-  
19                  specific level and specifically tailored to achieve objectives. As a result, changes to  
20                  management and associated impacts would be limited. Impacts on wild horse and burro  
21                  management would therefore be most likely to occur in CHZ and IHZ but would be limited  
22                  in nature.

23                  Avoiding construction of new fences within 1.2 miles (2 km) of leks could reduce barriers to  
24                  wild horse and burro movement as compared to Alternative A. Considering GRSG habitat  
25                  needs and risks when designing and locating new water developments may limit water  
26                  developments which could result in a need to reduce AMLs in HMAs where alternative water  
27                  sources are not available, especially in drought situations.

28                  ***Impacts from Recreation Management and Visitor Services***

29                  Impacts would be similar to those described under Alternative B. Seasonal and site-specific  
30                  limits on OHV travel in GRSG habitat could impact management options for gathers;  
31                  however, administrative access allowances may limit impacts. These restrictions also could  
32                  limit disturbances on wild horses and burros from other recreational users.

33                  ***Impacts from Lands and Realty Management***

34                  Under Alternative E, ROW avoidance areas in CHZ and IHZ, as well as the exclusion of  
35                  new infrastructure in CHZ, would somewhat limit the indirect impacts of development and  
36                  associated disturbance on wild horses and burros.

1       ***Impacts from Energy and Minerals Mineral Management***

2       Impacts from mineral and energy development are generally the same as those described  
3       under Alternative A. Fluid mineral development would have some additional restrictions  
4       applied to limit disturbance; therefore, the likelihood of development and associated  
5       disturbance would be reduced in areas with potential for these resources.

6                       **4.4.9 Alternative F**

7       ***Impacts from Vegetation Management***

8       Management actions under this alternative are similar to those described under Alternative  
9       B. For invasive species management, activities that spread invasives would be restricted. As  
10      described under the range management section, restrictions on water developments may  
11      apply, with potential impacts on wild horses and burros. However, there is the potential that  
12      less water would be necessary under Alternative F, due to the reduction in AMLs in the  
13      planning area.

14      ***Impacts from Wild Horse and Burro Management***

15      Under Alternative F, AMLs would be directly reduced by 25 percent for all HMAs within  
16      PHMA and GHMA. This would result in a reduction of the established AMLs for all HMAs  
17      that are located entirely or partially within mapped occupied GRSG habitat. As a result of  
18      AML reduction under Alternative F, costs of wild horse and burro management would  
19      increase, due to a need for additional horse gathers for removal and/or population growth  
20      suppression treatments. Location specific population reductions and impacts on particular  
21      HMAs would be determined at implementation and likely related to land health and current  
22      population size.

23      Other management actions for horse and burros and related impacts are similar in nature to  
24      those described under Alternative B.

25      ***Impacts from Wildland Fire Management***

26      Impacts from Wildland Fire Management are similar to those described under Alternative B  
27      and all action alternatives; actions to suppress and control the spread of wildfire under  
28      Alternative F could decrease the risk of disturbance from wildfire for HMAs in GRSG  
29      habitat. HMAs outside of GRSG habitat would be at a lower priority level for fire  
30      suppression efforts, and may have higher risk of loss of forage from fire.

31      Closures in place for livestock grazing post-fire until woody and herbaceous cover achieve  
32      GRSG habitat objectives could result in long-term (10 to 50 years or longer) exclusion from  
33      burned sites and barrier to movement for wild horses and burros, as it would generally take  
34      more than a decade to reestablish adequate Wyoming sage cover in low precipitation areas.  
35      The level of impacts would depend on locations, size, and intensity of wildfire in GRSG  
36      habitat in relation to location of HMAs.

37      ***Impacts from Livestock Grazing/Range Management***

38      Under Alternative F, 25 percent of the area in PHMA/GHMA open to livestock grazing  
39      would be rested each year and utilization would be limited to 25 percent of current levels;  
40      therefore AUMs for livestock would correspondingly be reduced. As described in

1 Alternative C, a reduction in areas available for livestock grazing could result in additional  
2 forage available for wild horses and burros. In addition, a prohibition on new water  
3 developments and requirements to make modifications, including potential dismantling of  
4 developments would be in place. As a result, there would likely be impacts on the availability  
5 of water sources for wild horses and burros. This could result in impacts on the ability to  
6 manage for AML, particularly for those HMAs with no alternate water source. Alternative F  
7 also calls for avoiding all new structural range developments in occupied GRSG habitat,  
8 unless independent peer-reviewed studies show that the range improvement structure  
9 benefits GRSG. In practice, this would result in few range developments being approved.  
10 The lack of new fences would benefit wild horses and burros by reducing barriers to  
11 movement across the range.

#### 12 ***Impacts from Recreation and Visitor Services Management***

13 Impacts are similar to those described under Alternative B.

#### 14 ***Impacts from Energy and Minerals Management***

15 Under Alternative F, no new mining claims would be allowed, and salable minerals sales  
16 would be prohibited in PHMA. Therefore, there would be limited potential from  
17 development-related disturbance of these resources on wild horses and burros. Impacts  
18 from leased fluid minerals are the same as those described under Alternative A. New leasing  
19 in PHMA and GHMA would be limited, so there is some limited opportunity for  
20 disturbance from development of these resources.

### 21 **4.4.10 Proposed Plan**

#### 22 ***Impacts from Lands and Realty Management***

23 Under the Proposed Plan, restrictions on disturbance would be prioritized based on GRSG  
24 habitat. The greatest restrictions on ROW development would occur in the HMAs within  
25 SFAs followed by PHMAs and IHMAs. While these restrictions would provide for the  
26 greatest protection of wild horse forage and water sources and would limit disturbance in  
27 SFAs, it would still allow development in areas outside of occupied GRSG habitat.

28 Under the Proposed Plan, PHMA and IHMA would be managed as ROW avoidance areas,  
29 but would be subject to RDFs, BMPs buffers, and a seasonal timing limitation, resulting in  
30 limited new development in GRSG habitat. As a result, disturbance of wild horses and  
31 forage from development activities, as discussed under *Nature and Type of Effects*, would be  
32 limited in GRSG habitat.

33 Implementing the GRSG mitigation strategy and monitoring framework under the Proposed  
34 Plan would ensure that this increased level of protection of forage and water resources and  
35 reduction of wild horse harassment would be maintained for HMAs within GRSG habitat.

#### 36 ***Impacts from Habitat Restoration and Vegetation Management***

37 Under the Proposed Plan, vegetation rehabilitation would emphasize projects in areas with  
38 potential to improve GRSG habitat. Conifer removal and noxious weed control as identified  
39 in **Tables 2-5** and **2-7** or the prioritization for treatment/restoration projects as identified in

1 the Wildfire, Invasive Annual Grasses and Conifer Expansion Assessment approach would  
2 improve forage conditions for wild horse in the long-term. In the short term, prescribed  
3 burns or other treatments may temporarily reduce available forage or disturb horses, but due  
4 to the restrictions on these activities, impacts are likely to be limited.

5 Implementing the GRSG mitigation strategy and monitoring framework responses under the  
6 Proposed Plan would ensure that this increased level of protection of forage and water  
7 resources and reduction of wild horse and burro harassment would be maintained.

8 Management changes in restoration or rehabilitation area could be required to maintain or  
9 improve GRSG habitat. This could result in potential need for reduction of wild horses and  
10 burro numbers within an HMA in order to meet vegetation objectives for GRSG.

### 11 ***Impacts from Wildland Fire Management***

12 Fuels projects and fire suppression to protect sagebrush ecosystems and associated GRSG  
13 habitat would benefit wild horses where HMAs overlap this habitat due to a reduction in the  
14 likelihood of high intensity wildfire.

15 Under the Proposed Plan, management actions for wildfire include an emphasis on fire  
16 suppression and reduction in fire risk in PHMA and IHMA with potential for reduction in  
17 fire risk and related disturbance of wild horses and forage in these areas. Wildland Fire,  
18 Invasive Annual Grasses and Conifer Expansion Assessments' identification of priority  
19 areas/treatment opportunities for fuels management, fire management, and restoration  
20 would further define areas for fire management activities. These actions may result in site-  
21 specific temporary exclusions of wild horses or reduced forage, but would help to reduce the  
22 likelihood of catastrophic wildfire and subsequent disturbance of wild horses and reduction  
23 of forage in the long-term.

24 Should HMAs contain high fire risk areas that are outside of the identified priority treatment  
25 areas, then these non-priority areas could be at an increased risk for wildfire, as treatment  
26 and suppression activities would be focused elsewhere. Impacts to forage or herd dispersal  
27 could occur in these areas if fires occur. Temporary or long-term management changes to  
28 wild horse management, such as emergency gathers, reduction in AML, or fencing blocking  
29 access to forage or water may be necessary to achieve and maintain the desired GRSG  
30 objectives post-fire. The degree of impacts would be determined by the location, size, and  
31 intensity of fires in GRSG habitat. Fencing to exclude livestock from post-burn areas could  
32 impact the ability of horses to roam freely. If exclusion reduces horses' ability to access water  
33 sources, ability to manage for AML could be affected, and animals may be removed from the  
34 range temporarily if adequate forage and alternate water sources cannot be supplied.

### 35 ***Impacts from Energy and Minerals Development***

36 Under the Proposed Plan energy and mineral development would have additional  
37 restrictions applied to limit disturbance on GRSG habitat as compared to Alternative A.  
38 Restrictions on development would be prioritized with the greatest restrictions in SFAs  
39 followed by PHMA, IHMA and GHMA. As a result the likelihood of development and  
40 associated disturbance of wild horses would be reduced in areas with potential for these

1 resources (with the most reduction in SFAs followed by PHMA, IHMA and GHMA) as  
2 compared with Alternative A. Due to the limited conflicts between wild horse management  
3 and energy development under existing conditions, however, impacts would be negligible.

4 ***Impacts from Travel and Transportation Management***

5 Under the Proposed Plan motorized travel would be limited to existing roads, primitive  
6 roads, and trails in PHMA and IHMA unless already designed as limited or closed. As a  
7 result, disturbance of wild horses and their forage and water sources from recreational traffic  
8 would be reduced as compared to Alternative A. Under the Proposed Plan, temporary  
9 closures would also be permitted as determined necessary for resource protection which  
10 would further reduce disturbance to wild horses and forage.

11 Specific implementation-level criteria to protect GRSG would also be applied, further  
12 limiting location of new roads and volume of traffic on new and existing roads. Site-specific  
13 travel management planning could, when completed, reduce the potential for conflicts  
14 between wild horses and recreation.

15 ***Impacts from Livestock Grazing Management***

16 Management to conserve, enhance, or restore GRSG habitat that benefits livestock forage  
17 would generally also benefit wild horses within GRSG habitat in the long term.

18 Livestock grazing permits and leases would be processed and land health assessment would  
19 occur in allotments most in need of habitat improvement with an emphasis on allotments in  
20 GRSG habitat, with SFAs prioritized over PHMA and then IHMA. As a result, range  
21 conditions for both livestock and wild horses overlapping these allotments should be  
22 improved concurrent with this priority order.

23 Modifying or eliminating livestock watering sites could reduce water availability for wild  
24 horses. This could result in the need to reduce wild horse numbers or develop alternative  
25 water sources within specific HMAs, especially during periods of drought.

26 ***Impacts from Wild Horse and Burro Management***

27 Under the Proposed Alternative, HMAPs would be amended to incorporate GRSG habitat  
28 objectives; therefore changes may be required to AMLs or wild horse and burro  
29 management in the long term in SFAs, PHMA and IHMA should these objectives not be  
30 met by current AMLs or management. The level of such changes or the specific HMA(s) in  
31 which changes may occur would be determined at implementation and would be influenced  
32 by site specific habitat conditions and land health.

33 Acres of SFA, PHMA, IHMA and GHMA in each HMA are displayed in **Table 4-69**,  
34 Proposed Plan GRSG Management Areas by HMA, below.

**Table 4-68**  
**Proposed Plan GRSG Management Areas by HMA**

HMA	Associated Conservation Area	SFA (acres)	PHMA (acres)	IHMA (acres)	GHMA (acres)
Black Mountain	West Owyhee	0	0	46,300	0
Challis	Mountain Valleys	109,400	104,800	51,400	250
Fourmile	Mountain Valleys	0	0	0	16,000
Hardtrigger	West Owyhee	0	0	60,200	0
Sands Basin	West Owyhee	0	0	9,500	0
Saylor Creek	West Owyhee	0	0	0	0

Source: BLM GIS 2015

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Prioritization of gathers within HMAs would directly and indirectly impact wild horses. SFAs would take priority for gathers, followed by PHMA and IHMA. The Challis HMA is the only HMA that falls within a SFA and would have the highest standing priority for gathers each year to maintain animals within the established AML. This focused management strategy would ensure that AML is maintained along with the necessary forage for the horses in this HMA; however it may increase the number of gathers needed and other intensive management to maintain AML thereby potentially increasing the disturbance to the populations as well as possible disruption of herd dynamics. This prioritized management strategy could also reduce ability to gather animals from lower prioritized HMAs and puts HMAs that fall within the lowest priority at risk for overpopulation; however, under this LUPA, provisions would allow for exceptions as needed for herd health-limiting impacts.

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Authorization of new or modification of existing livestock watering sites that benefit or conserve PHMAs, IHMAs, and GHMAs within conservation areas would be expected to provide alternate sources of water for wild horses. Elimination of fencing or existing water sources that may be identified as impacting PHMAs and IHMAs could reduce or eliminate water availability resulting in a change in horse distribution and potential need for reduction of wild horse and burro numbers within an HMA. In addition, without adequate water sources, wild horses would be expected to stray outside HMAs in search of water, increasing cost of gathers for removal of nuisance animals outside HMAs or that occupy private land.

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Finally, the BLM would continue to coordinate with professionals from other federal and state agencies, researchers at universities and others to utilize and evaluate new management tools (e.g. population growth suppression, inventory techniques and telemetry) for implementing the wild horse and burro program in order to ensure practical and efficient management of wild horses within AML while protecting GRSG habitat.

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***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination***

Placing a 3 percent cap on anthropogenic disturbance at the BSU and project levels would generally result in a reduction in development in GRSG habitat and a related reduction in disturbance of wild horses. Anthropogenic disturbances in PHMA and IHMA would

1 additionally be mitigated to ensure a net conservation gain to GRSG habitat which indirectly  
2 protects wild horse forage.

3 Within a Conservation Area, if adaptive management soft triggers are met and wild horses  
4 are found to be factors in GRSG habitat not achieving or moving toward achieving  
5 objectives, the adjustment of wild horse and burro populations would be considered and  
6 could result in the reduction of AMLs in some HMAs in the long term.

7 Increased coordination between the BLM and Forest Service and adjacent land owners,  
8 federal and state agencies, local governments, tribes, communities, other agencies, Resource  
9 Advisory Councils, public land permit holders and non-governmental organizations would  
10 directly impact the conservation of GRSG habitat which would indirectly conserve forage  
11 for wild horses.

## 12 4.5 Wildland Fire Management

### 13 4.5.1 Methods and Assumptions

#### 14 *Indicators*

15 Indicators of impacts on wildland fire management are as follows:

- 16 • Alteration of vegetative cover that is likely to result in a  
17 substantial shift in fire regime condition class (FRCC) across the  
18 planning area
- 19 • A substantial change in the likelihood or severity of wildfire,  
20 based on level of restrictions on uses that may introduce sources  
21 of ignition
- 22 • Management actions that substantially inhibit a response to  
23 wildfire or appropriate treatments to prevent wildfire

#### 24 *Assumptions*

25 The analysis includes the following assumptions:

- 26 • The spread of invasive annuals (e.g., cheatgrass) has lengthened  
27 the fire season in many parts of the planning area. These species  
28 often cure sooner than native perennial species and are more  
29 prone to ignition. Therefore, actions that reduce the spread or  
30 footprint of invasive annuals or restore perennial vegetation  
31 communities would reduce the frequency and intensity of  
32 wildfires, while reducing wildfire management costs.
- 33 • Fuels treatments using chemical methods to control invasive  
34 annuals are likely to be the most effective in reducing fine fuels  
35 and fire intensity and severity.
- 36 • Fire is an important functional natural disturbance in many of  
37 the ecological systems found in the planning area.

- In many cases, a direct relationship exists between fuel loading and potential fire intensity and severity.

#### 4.5.2 Nature and Type of Effects

Impacts on wildfire management result from changes in fire frequency and intensity and the ability to employ fire-suppression methods, both of which would affect management of fire and related costs within the planning area. As discussed in **Section 3.7**, most of the lands in the decision area have moderate to high levels of departure from historic conditions and related fire risk. Actions that change condition class from highly altered ecosystems to one closer to historical conditions could reduce the risk of key ecosystem loss, as well as decrease fire risk and management costs in the long term.

Many different resource uses may introduce additional ignition sources into the planning area. This increases the probability of wildfire occurrence and the need for fire-suppression activities. Fire intensity can be affected by activities that decrease fuel loading, such as vegetation treatments and timber product harvesting, and activities that alter the composition and structure of vegetation communities. High-intensity fires generally result in a greater loss of vegetation cover, changes to soil chemistry, damage to root structures, and a greater ability for nonnative species to become established (Verma and Jayakumar 2012).

Transportation and travel management can impact fire frequency by changing the level of risk of human-caused ignitions. The risk of ignition is increased where travel is less restrictive, particularly where motorized vehicles travel cross-country. All forms of travel encourage the spread of invasive weeds, particularly cheatgrass, which can shift fire regimes and increase fire behavior potential. Conversely, if management were to restrict access, wildfire risk may decrease. In addition, transportation management may impact fire suppression; when routes are closed and rehabilitated, they become unavailable for response to wildfires, limiting access opportunities.

Similarly, the level and type of recreation permitted can impact fire risk. Increased recreation may increase the probability of unintentional fires from human-caused ignitions and the need for fire suppression. Recreation management may reduce this risk by providing targeted activities and outcomes.

Surface disturbance caused by development would generally contribute to the modification of the composition and structure of vegetation communities (including increases in noxious weed proliferation) around developed areas. This would then be more likely to fuel high-intensity fires, which could increase program costs because of the increased potential for fire.

Lands and realty actions may indirectly result in development and associated fire risk. For example, issuing ROWs can result in indirect impacts by increasing the risk of human-caused ignition should transmission lines, renewable energy projects, or other development be constructed.

Likewise, the development of energy and minerals may increase the risk of wildfires by introducing new ignition sources (Shlisky et al. 2007). Associated facilities, infrastructure, and



1 transmission lines can increase fire and fuels program costs, while decreasing fire  
2 management flexibility to respond to sub-regional conditions with regard to suppression  
3 options. Energy development also poses hazards to firefighters, including unknown toxins,  
4 facility protection, evacuation of industry personnel, and dangerous overhead power lines.  
5 Fire programs could incur additional costs to train firefighting personnel for emergency  
6 situations associated with energy development.

7 Additional limitations on mineral development would have an indirect effect of decreased  
8 fire. This would be due to less development, fewer vehicles, and less construction  
9 equipment, all of which would serve to decrease the chance of human ignition. Development  
10 of federal minerals underlying nonfederal lands may impact fire management on BLM-  
11 administered and National Forest System lands when developed. This is particularly the case  
12 when ownership is in a patchwork pattern, as fires ignited on nonfederal lands may quickly  
13 spread onto and impact BLM- administered and National Forest System lands.

14 Invasive species establishment or increase may follow construction and could impact fire  
15 management actions through increased risk of fire and need for fire management. If  
16 treatments in annual infested areas use an approved herbicide, those treatments would  
17 generally experience greater levels of success.

18 Prioritizing fuels treatments in areas dominated by invasive species would reduce the  
19 frequency and intensity of wildfire. The spread of invasive species, which cure earlier in the  
20 spring or summer, has lengthened the fire season in many parts of the planning area. If these  
21 areas revert to a perennial dominated community, the fire season would generally be  
22 shortened by two to four months, depending on moisture, weather, and other factors.

23 Biological treatments can impact the ability to manage fire as a natural process through  
24 changes in fine fuels availability (e.g., grasses). For example, livestock grazing temporarily  
25 reduces fuel loads, so retiring allotments may increase fuels in specific sites. Conversely,  
26 increasing AUMs could reduce fuel loads. However, grazing could spread invasive species.  
27 Mowing or herbicide applications may be better suited for long-term fuels management  
28 goals.

29 Vegetation and weed treatments that decrease standing vegetation could decrease the  
30 intensity of wildfires and allow fires to be more easily controlled. For example, efforts to  
31 reduce incursion of nonnative annual grasses (primarily cheatgrass) and proliferation of other  
32 noxious and invasive weeds would promote healthy plant communities and an associated  
33 lower risk of high-intensity wildfire (USGS 2006). Used appropriately, prescribed fire would  
34 be compatible with noxious weed control; however, the presence of noxious weeds and the  
35 potential of weeds to spread after a prescribed fire would need to be monitored on a site-  
36 specific basis; herbicide applications may be warranted to assist in successful treatments.  
37 Conversely, management actions that retain shrub and cover may increase fuel loading and  
38 the likelihood and intensity of wildfire.

39 Management actions that are intended to improve, create, or reestablish healthy ecological  
40 conditions in various vegetation types benefit the fire and fuels program in the long term.

1 They do this by promoting the most efficient use of fire and fuels management program  
2 resources. Conversely, prioritizing fire suppression can limit management options and  
3 increase costs for fire management programs.

4 Special designations, such as ACECs and sensitive resource management, can restrict fuels  
5 treatments on a site-specific basis. For example, in areas where preservation of particular  
6 species or habitats is emphasized, management options and fuels treatments may be limited.  
7 Conversely, restrictions on resource uses, such as travel and mineral extraction, in special  
8 designations areas could reduce fire risk in these locations.

9 Implementing management for the following resources would have negligible or would have  
10 no impact on wildfire management; therefore they are not discussed in detail: air quality, soil  
11 resources, water resources, cultural resources, paleontological resources, visual resources,  
12 wilderness characteristics, cave and karst resources, forestry, socioeconomics, and  
13 environmental justice.

#### 14 **4.5.3 Impacts on Wildland Fire Management Common to All Alternatives**

15 The nature and type of impacts described below are common to all alternatives, but the  
16 context and intensity may vary by alternative.

17 Impacts on wildland fire management common to all alternatives include changes in fire  
18 frequency and intensity, and the ability to use fire suppression methods, all of which would  
19 affect management of fire within the planning area. Many different resource uses may  
20 introduce additional ignition sources into the planning area, which increases the probability  
21 of wildfire occurrence and the need for fire suppression.

22 Fire intensity can be affected by activities that decrease fuel loading, such as vegetation  
23 treatments and timber product harvesting, and activities that alter the composition and  
24 structure of vegetation communities. High-intensity fires generally result in a greater loss of  
25 vegetation cover, changes to soil chemistry, damage to root structures, and a greater ability  
26 for nonnative species to become established. Resource and special designation restrictions  
27 may limit fire suppression tactics and fuels treatment methods.

#### 28 ***Impacts from Lands and Realty Management***

29 Under all alternatives, issuance of power line ROWs would increase access and program  
30 costs because of the increased potential for fire in the ROW. There may also be slightly  
31 higher risk of human-caused ignitions from construction, maintenance, and use of power  
32 line ROWs. As new ROWs are developed, additional fuels treatments are necessary to  
33 address potential impacts from wildland fires.

34 Critical infrastructure ROW corridors would need maintenance throughout their life to keep  
35 vegetation at a level that would moderate fire behavior and allow for some protection from  
36 an unplanned wildfire. Vegetation maintenance would ensure that critical infrastructure  
37 would not fail at a time of need, such as during a wildfire.

1       ***Impacts from Habitat Restoration and Vegetation Management***

2       Under all alternatives, the BLM and Forest Service would manipulate vegetation, use  
3       prescribed fire or manage unplanned wildfire for LUP objectives. This would affect the  
4       wildfire management program by reducing costs and potential for large, damaging wildland  
5       fires.

6       Vegetation treatments could also reduce fuel loading, which would affect fire intensity and  
7       allow fires to be more easily controlled.

8       ***Impacts from Invasive Species Management***

9       Under all alternatives, invasive species treatments could reduce fuel loading, which would  
10      affect fire intensity and allow fires to be more easily controlled.

11      ***Impacts from Wildland Fire Management***

12      Under all alternatives, management actions that are intended to improve, create, or  
13      reestablish healthy ecological conditions in various vegetation types would benefit the fire  
14      and fuels program. They would do this by promoting the most efficient use of fire and fuels  
15      fire management program resources. In addition, allowing a range of fuel treatment options  
16      and the possibility of unplanned wildfire for resource benefit provides needed management  
17      flexibility to reduce large fire costs and achieve fire and fuels goals and objectives.

18      ***Impacts from Minerals Management***

19      The development of minerals resources may increase the risk of wildfires by introducing new  
20      ignition sources, although initial mine development also removes fuel sources by stripping  
21      the immediate area of vegetation. Facilities, infrastructure, and transmission lines can  
22      increase fire and fuels program costs, while decreasing fire management flexibility with  
23      regard to suppression options. Energy development also poses hazards to firefighters,  
24      including unknown toxins, facility protection, evacuation of industry personnel, and  
25      dangerous overhead power lines. Fire programs could incur additional costs to train  
26      firefighting personnel for emergencies associated with energy development.

27      The road infrastructure supporting energy and minerals development would provide  
28      increased accessibility to remote areas for fire suppression. Roads also provide fuel breaks in  
29      the event of wildfire.

30      ***Impacts from Recreation and Visitor Services Management***

31      Under all alternatives, restrictions on recreation use would decrease the potential for human-  
32      caused ignition.

33      Transportation and recreation access also increase the risk of human-caused ignitions. All  
34      forms of travel encourage the spread of invasive weeds, particularly cheatgrass, which can  
35      shift fire regimes and increase fire behavior potential. When routes are closed and  
36      rehabilitated, they become unavailable for response to wildfires, limiting access opportunities  
37      and potentially delaying fire management actions.

1 ***Impacts from Livestock Grazing Management***

2 Under all alternatives, livestock grazing may reduce fuels loading in certain areas. The impact  
3 would be greatest where grass fuel types are the main carrier of the fire.

4 **4.5.4 Alternative A**

5 ***Impacts from Lands and Realty Management***

6 Current impacts would continue as would the increased risk of human-caused ignitions  
7 where power line ROWs are developed and operated.

8 ***Impacts from Habitat Restoration and Vegetation Management***

9 Vegetation management and weed treatments would continue to decrease both standing and  
10 downed vegetation (i.e., fuel load) across the planning area. This would decrease the intensity  
11 of wildfires and allow them to be more easily controlled. These activities would also modify  
12 the composition and structure of vegetation communities by creating mosaic vegetation  
13 patterns and natural fuel breaks and by promoting healthy, diverse vegetation communities  
14 that generally fuel low-intensity fires. Specifically, efforts to reduce the incursion of  
15 nonnative annual grasses (primarily cheatgrass), the encroachment of shrubby vegetation, the  
16 buildup of biomass in forested areas, and the proliferation of noxious and invasive weeds  
17 would help to achieve this effect. Similarly, treatments for habitat improvement and forage  
18 would reduce fuels and reduce the likelihood for stand-replacing fire.

19 ***Impacts from Invasive Species Management***

20 On average, the planning area would continue to experience a five- to seven-month fire  
21 season due to invasive annuals curing earlier than the perennial vegetation and being prone  
22 to ignition. Without targeted management actions in GRSG habitat to convert vegetation  
23 communities back to a perennial dominated community, there would continue to be an  
24 increased risk of wildfire over a longer period of time each year.

25 ***Impacts from Wildland Fire Management***

26 The wildland fire management program would continue to be impacted by the spread of  
27 invasive annuals, which results in a longer fire season and the need for more resources to  
28 respond. There would also be a continued decrease in the hazardous fuels reduction  
29 program's ability to maintain reactive suppression and rehabilitation efforts in the wildland-  
30 urban interface (WUI).

31 ***Impacts from Nonenergy Leasable Minerals Management***

32 Current impacts would continue and nonenergy mineral development would continue to  
33 pose an ignition risk.

34 ***Impacts from Locatable Minerals Management***

35 Current impacts would continue and locatable mineral extraction would continue to pose an  
36 ignition risk.

37 ***Impacts from Salable Minerals Management***

38 Current impacts would continue and mineral material disposal activities would continue to  
39 pose an ignition risk.

1       ***Impacts from Unleased Fluid Minerals Management***

2       Unleased fluid minerals management would continue to have no detrimental impact on fire  
3       risk or management because there would be no surface-disturbing activities from fluid  
4       mineral leasing or development.

5       ***Impacts from Leased Fluid Minerals Management***

6       Current impacts would continue and fluid mineral development would continue to pose an  
7       ignition risk.

8       ***Impacts from Recreation and Visitor Services Management***

9       Recreation use would continue to increase the risk of human-caused ignitions, especially in  
10      areas with high visitation.

11      ***Impacts from Livestock Grazing Management***

12      Grazing would continue to reduce fuels loading in certain areas. Impacts on the wildland fire  
13      management program would continue to be greatest where grass fuel types are the main  
14      carrier of the fire.

15      ***Impacts from Special Designations Management***

16      Current impacts would continue, and there would be less management flexibility for fuels  
17      treatments and wildfire response in existing ACECs.

18                   **4.5.5 Alternative B**

19      Management under Alternative B would focus on restrictions on resource uses and  
20      protection for and enhancement of sagebrush habitat. In general, this would reduce the risk  
21      of human-caused ignitions and would encourage a return to historic FRCC in sagebrush  
22      habitat. Use restrictions could also minimize the spread of invasive species by limiting  
23      human activities that disturb the soil disturbance or introduce seeds. This would likely  
24      reduce the frequency and intensity of wildfire. However, restrictions on response to wildfire  
25      could limit management options and increase costs for fire management programs.

26      ***Impacts from Lands and Realty Management***

27      Limiting new development in PHMA to existing footprints would reduce opportunities for  
28      human-caused ignitions. The rest of the decision area would continue to experience current  
29      levels of risk for human-caused ignitions and the resultant shift in FRCC.

30      ***Impacts from Habitat Restoration and Vegetation Management***

31      Prioritizing the reestablishment of sagebrush cover would promote a shift towards historic  
32      FRCC in sagebrush ecosystems. Vegetation treatments could reduce fuel loading, which  
33      would affect fire intensity and allow fires to be more easily controlled. Vegetation treatments  
34      also create early seral stage vegetation communities, which generally fuel low-intensity fires.

35      Active restoration of cheatgrass infestation areas in PHMA would result in less frequent or  
36      intense wildfires as native perennial species are reestablished.

1       ***Impacts from Invasive Species Management***

2       An increased potential for invasive species treatments in grazing allotments in PHMA would  
3       decrease the intensity of wildfires and allow fires to be more easily controlled.

4       ***Impacts from Wildland Fire Management***

5       Designing and implementing fuel breaks to protect existing sagebrush would discourage  
6       further shifts away from historic FRCC in these areas.

7       Using livestock in certain cases to reduce fine fuels would reduce the likelihood and severity  
8       of wildfire.

9       In PHMA, prioritizing suppression in GRSG habitat immediately after fire, and then  
10      property, could limit management options and increase costs for the fire management  
11      program. However, the focus on suppression could also limit expansion of cheatgrass  
12      because fire increases opportunities for invasive species, such as cheatgrass, to expand  
13      (Brooks et al. 2004).

14     As a last resort in PHMA, the use of prescribed fire for fuel breaks that would disrupt the  
15     fuel continuity across the landscape could be considered in stands where cheatgrass is a  
16     minor component in the understory. Although this action would only be undertaken if all  
17     other treatment options have been explored, it would reduce the likelihood and severity of  
18     wildfire.

19     If livestock grazing, travel management, and other activities were to affect the success of  
20     restoration projects, management could be changed to encourage a higher success rate. This  
21     would help stabilize shifts in FRCC and reduce the likelihood and severity of wildfire by  
22     implementing more successful restoration projects across the planning area.

23     ***Impacts from Nonenergy Leasable Minerals Management***

24     Prohibiting new leases in PHMA would reduce opportunities for human-caused ignitions.  
25     The rest of the decision area would continue to experience current levels of risk for human-  
26     caused ignitions and the resultant shift in FRCC.

27     ***Impacts from Locatable Minerals Management***

28     If PHMA is withdrawn from mineral entry, there would be fewer opportunities for human-  
29     caused ignitions.

30     ***Impacts from Salable Minerals Management***

31     Restoring salable mineral pits in PHMA would result in a temporary increase in the potential  
32     for human-caused ignitions. However, prohibiting mineral material sales in PHMA would  
33     reduce opportunities for human-caused ignitions over the long term.

34     Indirect impacts would reduce invasive species when salable mineral pits are restored. This  
35     would reduce the frequency and intensity of wildfire and promote the establishment of  
36     native perennial species that are less combustible.

1 ***Impacts from Unleased Fluid Minerals Management***

2 Closing PHMA to leasing and letting existing leases expire would reduce future  
3 opportunities for human-caused ignitions. Geophysical exploration, especially when using  
4 overland travel, could temporarily increase the potential human-caused ignitions.

5 Over the long term, closures would protect against nonnative invasive species introduction,  
6 which would reduce the frequency and intensity of wildfire.

7 ***Impacts from Leased Fluid Minerals Management***

8 Conservation measures in PHMA, including prohibiting new surface occupancy, would limit  
9 increased risk for human-caused ignitions.

10 ***Impacts from Recreation and Visitor Services Management***

11 Limiting special uses in PHMA to those that are neutral or beneficial to GRSG could result  
12 in use restrictions that may reduce the risk of human-caused ignitions.

13 ***Impacts from Livestock Grazing Management***

14 Potential restrictions on grazing, including retiring allotments, in PHMA could increase fine  
15 fuels and thus the severity of wildfires.

16 Evaluating, and potentially introducing, exotic grass seedings could increase the risk of  
17 wildfire, depending on the attributes of and range where the grass species is introduced.

18 Limiting the types of range improvements allowed in PHMA would decrease opportunities  
19 for human-caused ignitions during construction or maintenance.

20 ***Impacts from Special Designations Management***

21 Impacts are the same as under Alternative A.

22 **4.5.6 Alternative C**

23 The complete removal of livestock grazing would reduce weed spread via livestock vector  
24 and could increase fire intensity due to heavier fuel loads from lack of fuel removal. In the  
25 short term, fuel buildup might lead to bigger fires, while in the long term, if weed spread  
26 were reduced, fewer fires may result. Ultimately, the effect of no grazing on fire frequency  
27 would be dependent on weather conditions at the time of ignition.

28 ***Impacts from Lands and Realty Management***

29 Limiting development in occupied habitat to existing footprints would reduce opportunities  
30 for human-caused ignitions. The rest of the decision area would continue to experience  
31 current levels of risk for human-caused ignitions and the resultant shift in FRCC.

32 ***Impacts from Habitat Restoration and Vegetation Management***

33 Impacts are similar to those under Alternative B.

1       ***Impacts from Invasive Species Management***

2       There are no management actions for invasive species management, and impacts are the  
3       same as under Alternative A.

4       ***Impacts from Wildland Fire Management***

5       Impacts are similar to those under Alternative B, except that occupied habitat would be  
6       managed in good or better ecological condition to reduce the unnatural frequency and  
7       intensity of wildfire. In addition, removing grazing from GRSG habitat would limit the  
8       effectiveness of RFPAs because there would be fewer ranchers to serve as first responders  
9       and engage in implementing comprehensive fuel break strategies.

10       ***Impacts from Nonenergy Leasable Minerals Management***

11       Impacts are the same as under Alternative B.

12       ***Impacts from Locatable Minerals Management***

13       Impacts are the same as under Alternative B.

14       ***Impacts from Salable Minerals Management***

15       Impacts are similar to those under Alternative B.

16       ***Impacts from Unleased Fluid Minerals Management***

17       Impacts are similar to those under Alternative B.

18       ***Impacts from Leased Fluid Minerals Management***

19       Impacts are similar to those under Alternative B.

20       ***Impacts from Recreation and Visitor Services Management***

21       Impacts are similar to those under Alternative A.

22       ***Impacts from Livestock Grazing Management***

23       Eliminating grazing from the decision area would increase some pressures on the wildland  
24       fire management program, while lessening others. In either case, the impact would be  
25       greatest where grass fuel types are the main carrier of the fire. For example, in areas  
26       dominated by grass fuel types, there would be no reduction in fine fuels, and the frequency  
27       and intensity of wildfires would increase. However, because the prohibition on grazing  
28       would reduce weed spread, some areas, in conjunction with efforts to reintroduce perennial  
29       vegetation, may experience a shorter fire season and less frequent or intense wildfires.

30       ***Impacts from Special Designations Management***

31       Restrictions associated with the management of 39 new ACECs (covering 3.1 million acres  
32       of GRSG habitat) may limit fire suppression tactics and fuels treatment methods. ACEC  
33       designations may also result in fewer human ignitions due to restrictive management actions.

34               **4.5.7 Alternative D**

35       With an emphasis on balancing resources and resource use among competing human  
36       interests, land uses, and the conservation of natural resources, this alternative would reduce



1 FRCC shift and would result in a more natural (i.e., historic) frequency and intensity of  
2 wildfire.

### 3 ***Impacts from Lands and Realty Management***

4 Certain uses would be excluded in PHMA, reducing the type of development allowed in  
5 those areas. This restriction would limit opportunities for human-caused ignitions. There  
6 would be no similar restrictions in IHMA or GHMA, meaning the reduction in ignitions  
7 would be confined to a smaller area than under other alternatives.

### 8 ***Impacts from Habitat Restoration and Vegetation Management***

9 Alternative D proposes a more defined set of tools for wildfire management than other  
10 alternatives. In most instances, Alternative D allows for management flexibility to respond to  
11 sub-regional conditions in designing fuels treatments and response to wildfire. For example,  
12 in PHMA the use of chemical, mechanical, and seeding treatments with appropriate plant  
13 materials is emphasized to prevent the dominance of invasive weeds. This would allow a  
14 greater success of those treatments. Using mechanical and chemical treatments to prepare  
15 areas in FRCC2 and FRCC3 for prescribed fire would have a similar impact.

16 Strategic wildland fire planning would help return PHMA to historic FRCC and natural fire  
17 intensities and intervals. Key actions driving this impact are as follows:

- 18 • Strategically placed fire-resistant vegetation or green-strip  
19 seedings
- 20 • Strategically placed pretreated areas that reduce fine fuels by  
21 such practices as mowing vegetation along roadsides,  
22 implementing grazing strategies, and applying herbicides
- 23 • Planned wildfire suppression tactics in important GRSG habitat

24 Prioritizing wildfire suppression in PHMA and conducting burn-out/backfiring operations  
25 in a manner that minimizes the loss of sagebrush may have limited ability to restore historic  
26 FRCC in PHMA.

### 27 ***Impacts from Invasive Species Management***

28 Education, inventory, prevention, control, rehabilitation, and monitoring would be  
29 emphasized. By limiting the spread of invasive species, more GRSG-occupied habitat would  
30 be retained as a perennial-dominated community, which has a shorter fire season than those  
31 communities characterized by invasive annuals (which cure earlier in the year and are more  
32 prone to ignition).

### 33 ***Impacts from Wildland Fire Management***

34 Wildland fire management under Alternative D is similar to Alternative B, with additional  
35 management flexibility and guidance incorporated to tailor management to specific  
36 vegetation communities. The BLM and Forest Service would prioritize wildfire suppression  
37 planning and would consider targeted grazing to reduce fine fuels in PHMA. As a result,  
38 FRCC shift would be reduced and the frequency and intensity of wildland fire would be



1 more natural. This is because post-fuel, restoration, and ESR management would be  
2 designed to ensure long term persistence of seeded or pre-burn native plants.

3 Likewise, several actions would improve the success of fuels treatments in PHMA.  
4 Specifically, ensuring chemical applications are used in fuels treatments and pretreating areas  
5 to reduce fine fuels through mechanical treatments, grazing strategies, chemical or biological  
6 application would dramatically improve the fuel program's ability to improve GRSG habitat  
7 conditions.

8 When reseeding following fire, using species varieties that are adapted to a warmer climate  
9 may, in combination with potential climate change, reduce potential for unnatural levels of  
10 fire frequency and intensity.

11 Stationing first response firefighting resources to higher fire occurrence areas would reduce  
12 response time.

13 ***Impacts from Nonenergy Leasable Minerals Management***

14 Seasonal limitations and restrictions on development near leks would reduce the potential  
15 for human-caused ignitions.

16 ***Impacts from Locatable Minerals Management***

17 Valid claims would require additional mitigation within GRSG habitat, likely resulting in site-  
18 specific improvements to FRCC and wildfire intensity and frequency.

19 ***Impacts from Salable Minerals Management***

20 The types of impacts are similar to those under Alternative B, except that prohibitions on  
21 mineral material disposal would extend only to areas around occupied leks. This would  
22 reduce the area where there would be lower risk of human-caused ignitions.

23 ***Impacts from Unleased Fluid Minerals Management***

24 There would be several measures (e.g., TL and NSO stipulations and RDFs) restricting  
25 surface disturbance that would reduce the potential for human-caused ignitions.

26 ***Impacts from Leased Fluid Minerals Management***

27 Allowing exploration and drilling on leased areas in IHMA from July through November  
28 would increase the risk of human-caused ignitions. Off-site mitigation requirements for new  
29 developments in PHMA could encourage a return to historic FRCC in areas where  
30 mitigation is implemented.

31 ***Impacts from Recreation and Visitor Services Management***

32 Restricting SRPs in sensitive seasons or in PHMA could result in temporary and site-specific  
33 reductions in human-caused ignitions.

34 Minimizing adverse recreation effects on GRSG within recreation management areas that  
35 overlap PHMA could result in use restrictions that may reduce the risk of human-caused  
36 ignitions.

1       ***Impacts from Livestock Grazing Management***

2       Impacts are similar to those under Alternative B.

3       ***Impacts from Special Designations Management***

4       Impacts are the same as under Alternative A.

5                   **4.5.8   Alternative E**

6       Alternative E focuses primarily on management for the threats of wildfire, invasive species,  
7       and large infrastructure projects. Secondly it focuses on the threats of livestock grazing  
8       management and infrastructure, West Nile virus, and recreation. It recommends use of an  
9       adaptive management approach and implementation of triggers or thresholds that adjust  
10      zone criteria. Guidance to reduce wildfire response time, create fuel breaks, and improve the  
11      wildfire suppression baseline would increase demand on the wildland fire management  
12      program; however, it would result in long-term improvements in FRCC and lowered risk of  
13      wildfire.

14      ***Impacts from Lands and Realty Management***

15      Impacts are similar to those under Alternative B.

16      ***Impacts from Habitat Restoration and Vegetation Management***

17      Development of a restoration strategy for vegetation management would help focus  
18      priorities on the areas and communities identified as most pertinent to restoring sagebrush  
19      and GRSG habitat. This would constrain or reverse the current trend toward areas becoming  
20      dominated by invasive annuals that are more prone to ignition.

21      Native vegetation would be used for restoration to the extent practicable. In addition,  
22      invasive species would be controlled for three years after wildfire treatments. Together, these  
23      actions would reduce the likelihood for weed invasion in burned or treated areas, thus  
24      reducing the frequency and intensity of wildland fires.

25      In Utah, reducing or eliminating the spread of invasive species, particularly cheatgrass, after a  
26      wildfire, is a high priority. If the spread of cheatgrass is slowed or stopped, these areas would  
27      be at lower risk for intense large-scale fires.

28      ***Impacts from Invasive Species Management***

29      This alternative promotes active and aggressive control of invasive species, which would  
30      likely reduce the likelihood of large-scale wildfires.

31      Eradicating or controlling invasive weeds in GHMA may help some areas revert to perennial  
32      vegetation types, which would shorten the fire season and reduce the risk of large-scale  
33      wildfires.

34      Weed treatments in IHMA and GHMA would decrease fuel loads and vegetation density  
35      across these areas. Management flexibility would decrease the intensity of wildfires and allow  
36      them to be more easily controlled. Likewise, in IHMA, the use of chemical and mechanical

1 methods to eradicate or control invasive species would result in more successful treatments  
2 and long-term reduction in fire frequency and intensity.

3 ***Impacts from Wildland Fire Management***

4 Reducing the number and size of wildfires in PHMA (in accordance with updated IM 2013-  
5 128) would allow for more efficient management of wildfire program resources and would  
6 reduce risks to firefighters and public safety. The adaptive construct of Governor's  
7 Alternative provides a mechanism to protect GRSG from habitat loss due to wildfire. The  
8 short-term use of triggers and zones will provide the time to develop more proactive  
9 measures that demonstrate long-term success on the landscape. Fuel breaks will be  
10 implemented in priority areas to minimize the size of wildfires and reduce need for  
11 firefighting resources.

12 Close coordination with federal, state, and private firefighting personnel, local fire  
13 departments and local expertise, such as RFPAs, will improve strategies for initial attack and  
14 developing comprehensive fuel break strategies to minimize and reduce the size of wildfires  
15 threatening the PHMA and IHMA following ignition. The employment of specific, more  
16 aggressive wildlife and invasive species management practices to prevent further  
17 encroachment into the PHMA and IHMA should be driven by local planning efforts at the  
18 field office and ranger district level. The creation of RFPAs will ensure better and faster  
19 initial attack on wildfires threatening the PHMA and IHMA through the employment of  
20 additional trained firefighters and resources in rural parts of the GRSG Management Area.  
21 This management action is more likely to be used on areas with high fuel loads that are at a  
22 high risk of fire threatening PHMA and IHMA.

23 ***Impacts from Nonenergy Leasable Minerals Management***

24 There would be over 2 million acres of GRSG habitat closed to leasing and nonenergy  
25 minerals development. This would prevent any human-caused ignitions in this area. In areas  
26 open to leasing there would be multiple restrictions (e.g., timing, locational, and a five  
27 percent disturbance cap within nesting, winter, or other habitat in priority habitats) on  
28 development that would reduce the potential for human-caused ignitions.

29 ***Impacts from Locatable Minerals Management***

30 Impacts are the same as under Alternative A.

31 ***Impacts from Salable Minerals Management***

32 Impacts in Idaho are the same as under Alternative A. In Utah, restrictions near leks and  
33 during certain times of the year would reduce the potential for human-caused ignitions.

34 ***Impacts from Unleased Fluid Minerals Management***

35 Impacts in Idaho are the same as under Alternative A. In Utah, restrictions near leks and  
36 during certain times of the year would reduce the potential for human-caused ignitions.

1       ***Impacts from Leased Fluid Minerals Management***

2       Impacts in Utah are similar to those under Alternative A. In PHMA and IHMA in Idaho,  
3       restrictions on development would result in the same type of impacts as described under  
4       Alternatives B and D.

5       ***Impacts from Recreation and Visitor Services Management***

6       There would be numerous site-specific and seasonal restrictions on recreation facilities and  
7       activities near leks and during nesting, winter, and other priority habitats. These restrictions  
8       would limit human activity and the associated ignition risks.

9       ***Impacts from Livestock Grazing Management***

10       Targeted grazing would be allowed to reduce fine fuels, resulting in less need for mechanical  
11       or chemical fuels treatments. However, efforts to reduce grazing in PHMA and IHMA may  
12       increase fuels loading if they overlap with areas where grass fuel types are the main carrier of  
13       fire.

14       In Idaho PHMA, improving management of livestock in existing disturbed sites (e.g.,  
15       seedings or cheatgrass sites) would complement hazardous fuels reduction program efforts,  
16       especially if the targeted grazing were to occur in the WUI.

17       ***Impacts from Special Designations Management***

18       Impacts are the same as under Alternative A.

19               **4.5.9 Alternative F**

20       Alternative F closely mirrors management direction proposed in Alternative B but prescribes  
21       additional and more restrictive conservation measures. These measures would generally  
22       reduce the risk of human-caused ignitions but may reduce management flexibility for fuels  
23       treatments and other actions to reduce the long-term risk of wildfire.

24       ***Impacts from Lands and Realty Management***

25       Impacts are similar to those described under Alternative B; however, Alternative F would  
26       not allow for exceptions to disposal criteria, which would reduce management flexibility and  
27       could have implications for fuels treatment effectiveness. Managing priority areas as  
28       exclusion areas for new ROW permits would reduce the amount of ROW development and  
29       associated risk for human-caused ignitions.

30       ***Impacts from Habitat Restoration and Vegetation Management***

31       Impacts are the same as those described under Alternative C.

32       ***Impacts from Invasive Species Management***

33       There would be little emphasis on treatments or other methods of invasive species control  
34       and consequently a greater risk for increased fuel load and vegetation density across the  
35       decision area. Areas dominated by invasive annuals would experience a longer fire season,  
36       increasing wildfire management costs.

1       ***Impacts from Wildland Fire Management***

2       Wildland fire management under Alternative F would be similar to Alternative B, though  
3       Alternative F would require post-fire exclusion of grazing. Constructing livestock enclosures  
4       to monitor fire restoration progress would lead to more efficient fire restoration methods  
5       and associated improvements in wildland fire program resource allocations. Mowing grass in  
6       any fuel break may be less effective than other mechanical methods. This could result in less  
7       of a reduction in large fire costs than under other alternatives where there is greater  
8       management flexibility.

9       Impacts from RFPAs would be similar to those described under Alternative E, but their  
10      effectiveness may be limited due to a 25 percent reduction in grazing that will result in fewer  
11      ranchers to serve as first responders.

12      ***Impacts from Nonenergy Leasable Minerals Management***

13      Impacts are the same as under Alternative B.

14      ***Impacts from Locatable Minerals Management***

15      Impacts are the same as under Alternative B.

16      ***Impacts from Salable Minerals Management***

17      Impacts are the same as under Alternative B.

18      ***Impacts from Unleased Fluid Minerals Management***

19      Allowing existing leases to expire would reduce the long-term potential for human-caused  
20      ignitions. Geophysical exploration, especially when using overland travel, could temporarily  
21      increase the potential human-caused ignitions.

22      ***Impacts from Leased Fluid Minerals Management***

23      Impacts are the same as under Alternative B.

24      ***Impacts from Recreation and Visitor Services Management***

25      Impacts are the same as under Alternative B.

26      ***Impacts from Livestock Grazing Management***

27      Impacts are the same as Alternative B except that AUMs would be reduced, meaning  
28      impacts from livestock grazing may decrease in intensity. The exact location of reduction in  
29      AUMs and related impacts from livestock grazing would be determined at project  
30      implementation.

31      ***Impacts from Special Designations Management***

32      Designating 17 or 18 new ACECs and 12 new ZAs encompassing up to over 1 million acres  
33      of GRSG habitat would result in impacts similar to those under Alternative C, but they  
34      would occur over a larger area.

1       **4.5.10 Proposed Plan**

2       With an emphasis on balancing resources and resource use among competing human  
3       interests, land uses, and the conservation of natural resources, the proposed plan would  
4       reduce FRCC shift and would result in a more natural (i.e., historic) frequency and intensity  
5       of wildfire.

6       ***Impacts from Lands and Realty Management***

7       Certain uses would be excluded in PHMA and avoided in IHMA, reducing the type of  
8       development allowed in those areas. These restrictions would limit opportunities for human-  
9       caused ignitions. There would be no similar restrictions in GHMA, meaning the reduction in  
10      ignitions would be confined to a smaller area than under some other alternatives.

11      ***Impacts from Habitat Restoration and Vegetation Management***

12      The proposed plan uses a more defined set of tools for wildfire management than other  
13      alternatives. In most instances, the proposed plan allows for management flexibility to  
14      respond to sub-regional conditions in designing fuels treatments and response to wildfire.  
15      For example, in PHMA the use of chemical, mechanical, prescribed fire and seeding  
16      treatments with appropriate plant materials is emphasized to prevent the dominance of  
17      invasive weeds. This would allow a greater success of those treatments.

18      Strategic wildland fire planning would help return PHMA to historic FRCC and natural fire  
19      intensities and intervals. Key actions driving this impact are as follows:

- 20           • Strategically placed fuel breaks instead of fire-resistant vegetation or green-strip  
21           seedings
- 22           • Strategically placed pretreated areas that reduce fine fuels by such practices as  
23           mowing vegetation along roadsides, implementing biological treatments, seeding  
24           perennial species, and applying herbicides
- 25           • Planned wildfire suppression tactics in important GRSG habitat

26      Prioritizing wildfire suppression in PHMA and conducting burn-out/backfiring operations  
27      in a manner that minimizes the loss of sagebrush may have limited ability to restore historic  
28      FRCC in PHMA.

29      Education, inventory, prevention, control, rehabilitation, and monitoring would be  
30      emphasized. By limiting the spread of invasive species, more GRSG-occupied habitat would  
31      be retained as a perennial-dominated community, which has a shorter fire season than those  
32      communities characterized by invasive annuals (which cure earlier in the year and are more  
33      prone to ignition).

34      ***Impacts from Wildland Fire Management***

35      Wildland fire management under the proposed plan is similar to Alternatives B and D, with  
36      additional management flexibility and guidance incorporated to tailor management to  
37      specific vegetation communities. The BLM and Forest Service would prioritize wildfire  
38      suppression planning and would consider fuels management treatments to reduce invasive

1 species in GRSG habitat. As a result, FRCC shift would be reduced and the frequency and  
2 intensity of wildland fire would be more natural. This is because post-fuel, restoration, and  
3 ESR management would be designed to ensure long term persistence of seeded or pre-burn  
4 native plants.

5 The Proposed Plan would include GRSG Wildfire, Invasive Annual Grasses and Conifer  
6 Expansion Assessment (**Appendix D**). This assessment process sets the stage for identifying  
7 important GRSG occupied habitats and baseline data layers important in defining and  
8 prioritizing GRSG habitats. It would determine potential landscape scale management  
9 strategies by considering resilience to disturbance, resistance to invasive annual grasses, and  
10 GRSG landcover requirements. The management strategies considered in the assessment to  
11 increase GRSG habitat at landscape scales included; conservation, prevention, restoration,  
12 and monitoring and adaptive management. The strategies are adapted for fire operations  
13 (preparedness, suppression, and prevention activities), fuels management, post-fire  
14 rehabilitation, and habitat restoration.

15 Creating and maintaining effective fuel treatments in strategic locations, prioritizing  
16 suppression of fires, in accordance with the GRSG Wildfire, Invasive Annual Grasses and  
17 Conifer Expansion Assessment (**Appendix D**), for conservation and protection during fire  
18 operations and fuels management decision-making. Compared to Alternative D, this would  
19 reduce the size and intensity of wildland fires but would result in an increase in both fuels  
20 management and fire suppression costs.

21 Likewise, several actions would improve the success of fuels treatments in PPMA.  
22 Specifically, ensuring chemical applications are used in fuels treatments and pretreating areas  
23 to reduce invasive species through biological and mechanical treatments and chemical or  
24 biological application would dramatically improve the fuel program's ability to improve  
25 GRSG habitat conditions.

26 When reseeding following fire, using species varieties that are adapted to a warmer climate  
27 may, in combination with potential climate change, reduce potential for unnatural levels of  
28 fire frequency and intensity.

29 Stationing first response firefighting resources closer to higher fire occurrence areas would  
30 reduce response time.

31 Rural fire protection coordination would be stronger under the proposed plan than under  
32 any other alternative. Developing and implementing Rangeland Fire Protection Associations  
33 in coordination with the state would result in a more consistent inter-agency approach to  
34 wildland fire management. As a result, each agency's fire management team would deploy  
35 resources in a consistent manner, helping the BLM's fire and fuels program operate more  
36 efficiently.

37 Management under the Proposed Plan would prescribe added measure for analysis of  
38 prescribed fire and alternate uses of prescribed fire through site specific NEPA analysis. The  
39 proposed plan includes added measures for fuels treatment effectiveness and post fire



1 rehabilitation activities and monitoring. These added measures would increase both fuels  
2 management planning and post fire rehabilitation costs, but would increase the awareness  
3 and encourage partnerships with other agencies and resource programs.

4 ***Impacts from Non-Energy Leasable Minerals Management***

5 Seasonal limitations and restrictions on development in PHMA and in IHMA and GHMA  
6 outside of known phosphate leasing areas would reduce the potential for human-caused  
7 ignitions.

8 ***Impacts from Locatable Minerals Management***

9 Valid claims would require additional mitigation within GRSG habitat, likely resulting in site-  
10 specific improvements to FRCC and wildfire intensity and frequency. Recommending SFAs  
11 for withdrawal from mineral entry would have similar impacts if those lands are withdrawn.

12 ***Impacts from Salable Minerals Management***

13 Restoring salable mineral pits in GRSG habitat would result in a temporary increase in the  
14 potential for human-caused ignitions. Restoration would reduce invasive species, though.  
15 Over the long term, this would reduce the frequency and intensity of wildfire and promote  
16 the establishment of native perennial species that are less combustible.

17 ***Prohibiting mineral material sales in PHMA would also reduce opportunities for***  
18 ***human-caused ignitions over the long term.***  
19 ***Impacts from Fluid Minerals***  
20 ***Management***

21 There would be several measures (e.g., TL and NSO stipulations and RDFs) restricting  
22 surface disturbance that would reduce the potential for human-caused ignitions. These  
23 restrictions would be most effective in SFAs where waivers, exceptions, and modifications  
24 would not be allowed for the NSO stipulation. Not allowing modifications or waivers to  
25 NSO stipulations in PHMA would also likely reduce the potential for human-caused  
26 ignitions in those areas. COAs on post-leasing activity would have a similar impact on the  
27 fire and fuels program. Applying CSU stipulations and timing limitations in GHMA would  
28 be less effective at reducing the potential for ignitions because development would be  
restricted but not prohibited.

29 ***Impacts from Livestock Grazing Management***

30 Potential restrictions on grazing, including retiring allotments, in PHMA could increase fine  
31 fuels and thus the severity of wildfires.

32 Evaluating, and potentially introducing, exotic grass seedings could increase the risk of  
33 wildfire, depending on the attributes of and range where the grass species is introduced.

34 Limiting the types of range improvements allowed in PHMA would decrease opportunities  
35 for human-caused ignitions during construction or maintenance.

36 ***Impacts from Special Designations Management***

37 Current impacts would continue, and there would be less management flexibility for fuels  
38 treatments and wildfire response in existing ACECs.

1       ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and***  
2       ***Coordination***

3       Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels  
4       management activities; therefore the wildland fire and fuels program will retain management  
5       flexibility and a greater chance to meet goals and objectives over the life of the plan. The 3  
6       percent anthropogenic disturbance cap should limit human-caused ignitions in GRSG  
7       habitat over the long-term and decrease the probability of wildfire occurrence and the need  
8       for fire-suppression activities. Coordination with other land management agencies and  
9       landowners may promote improved habitat conditions across land management boundaries,  
10      thus improving the efficiency and effectiveness of fire and fuels treatments across the  
11      landscape. Additionally, implementation of the Wildfire, Invasive Annual Grasses and  
12      Conifer Expansion Assessment will improve wildland fire management across the landscape  
13      via improved coordination across agencies.

14   **4.6   Livestock Grazing/Range Management**

15               **4.6.1   Methods and Assumptions**

16               ***Indicators***

17               Indicators of impacts livestock grazing/range management are as follows:

- 18                       • Changes in permitted AUMs in areas open to livestock grazing
- 19                       • Changes in the kind of livestock permitted on allotments
- 20                       • Prohibitions or limitations on the construction or maintenance  
21                       of structural and nonstructural range improvements
- 22                       • Modifications to or removal of structural range improvements
- 23                       • Closures of areas to livestock grazing for the life of the plan
- 24                       • Changes to the timing, duration, intensity or frequency of  
25                       permitted use, including temporary closures
- 26                       • Changes in livestock management requirements
- 27                       • Changes in quality or availability of forage and water for  
28                       livestock

29               ***Assumptions***

30               The analysis includes the following assumptions:

- 31                       • All new and renewed leases and permits would be subject to  
32                       terms and conditions determined to be necessary by the  
33                       authorizing officer to achieve the applicable management and  
34                       GRSG habitat objectives for BLM and National Forest System  
35                       lands and to meet land health standards for BLM lands and  
36                       desired conditions on National Forest System lands (see **Tables**  
37                       **2-3** and **2-6**).

- The construction and maintenance of range improvements would continue in the decision area, and would vary according to the constraints imposed by each alternative. New range improvements would be subject to limitations and may require additional maintenance, as defined in the plan. Range improvements are generally intended to improve livestock distribution and management, which would maintain or improve rangeland health and could benefit the forage base and wildlife and GRSG habitat.
- By definition in this plan, livestock grazing and construction and maintenance of associated range improvements are not considered to be surface-disturbing activities and are not included in the calculations for the disturbance threshold under Alternatives B, C, F, and the Proposed Plan, but it could affect the surface in areas where livestock concentrate, such as near water sources. Construction and maintenance of range improvements may result in limited temporary vegetation disturbance.
- If the ability to construct range improvements is limited, livestock grazing management options would be reduced.
- Livestock grazing directly affects specific GRSG habitat objective attributes, and does not affect, or only indirectly affects other GRSG habitat objectives. Modification of livestock grazing to benefit GRSG would be designed and implemented based upon meeting or making progress towards habitat objectives that are affected by livestock grazing. Modification or cessation of livestock grazing alone may not be adequate to make progress towards meeting habitat objectives, depending upon site history, current conditions, and the habitat objectives not being met.

#### 4.6.2 Nature and Type of Effects

Impacts on livestock grazing are generally the result of activities that affect forage production, areas open to grazing, the class of livestock, the season of use and timing, the ability to construct and maintain range improvements, and impacts from human disturbance, including disruption of livestock movement or unwanted dispersal. Key types of impacts are detailed below.

Protecting GRSG habitat may directly affect livestock grazing if management requires limitations to areas open to grazing or available AUMs, modification of grazing strategies, or changes to season of use. This could increase the time and costs to permittees and lessees. For example, management actions to enhance habitat for GRSG could affect livestock

1 grazing by restricting grazing intensity or season of use, closing areas to grazing, or changing  
2 livestock rotation patterns in order to maintain residual herbaceous cover in sagebrush  
3 habitat (NTT 2011). The listed restrictions could also decrease opportunities for grazing, or  
4 even overall grazing operation viability (e.g., if no spring grazing areas are available).

5 However, managing vegetation to benefit GRSG may indirectly benefit livestock grazing by  
6 increasing herbaceous vegetation productivity and improving forage in the long term. This  
7 would be the case especially where current conditions are not meeting land health standards.  
8 For example, in allotments with a history of intensive grazing, transitions in the composition  
9 of sagebrush communities may have occurred that have reduced cover or forage for GRSG  
10 (Cagney et al. 2010) and forage for livestock. When grazing management is modified to  
11 promote health and vigor of the herbaceous community and meet sage-grouse habitat  
12 objectives, this may also result in increased amounts of palatable livestock forage. In general,  
13 when forage is abundant and easily available, livestock performance is higher; diverse or  
14 heterogeneous rangeland vegetation is also associated with improved livestock performance  
15 (Bailey 2005).

16 Some areas would not make progress towards meeting sage-grouse habitat objectives  
17 through modification or even cessation of livestock management due to dominance of non-  
18 native vegetation, recurring wildfire, and/or inadequate seedbanks of desirable species, and  
19 would require additional active restoration, such as reseeding native grasses and forbs or  
20 controlling invasive species or fire suppression. Effects of restoration and fire suppression  
21 actions on livestock grazing are addressed in the corresponding sections of this EIS.

22 Managing livestock grazing so that riparian and wetland systems maintain proper functioning  
23 condition (PFC) is required for BLM lands. Unregimented livestock grazing can have  
24 adverse impacts on riparian and wetland ecosystems (Armour et al. 1991); therefore,  
25 managing these ecosystems can directly impact livestock grazing through excluding livestock  
26 at specific sites, increasing herding, adding range improvements (such as cross fences and  
27 water gaps), and adjusting season of use and livestock numbers. Improvements in riparian  
28 and wetland conditions benefit grazing livestock by indirectly providing cleaner and more  
29 reliable water sources and more dependable forage availability. The BLM has been  
30 implementing grazing management to make progress towards PFC in riparian and wetland  
31 areas since at least 1997; however additional impacts to livestock grazing could occur as  
32 additional riparian/wetland management needs are identified and implemented.

33 Protecting water quality and watershed health is a requirement of standards and guidelines as  
34 well as state and federal water quality standards. If additional management needs are  
35 identified and implemented, changes could be required in livestock management, such as  
36 deferring or shortening grazing periods, adding range improvements, excluding grazing from  
37 riparian areas, establishing riparian pastures, and increasing livestock herding. In areas  
38 requiring exclusion of livestock or other restriction on livestock management, these  
39 limitations could have economic impacts to permittees and lessees as a result of reduced  
40 AUMs or livestock numbers, changes in season that impact overall ranch operations, or  
41 increased livestock management costs such as increased herding.

1 Recreation can affect livestock grazing directly through human disturbance and indirectly  
2 through rangeland degradation. Direct disturbance can include undesired animal dispersing  
3 or trespassing due to recreationists leaving gates open as well as animal displacement,  
4 harassment, or injury from collisions or shooting. Direct disturbance can also include  
5 damage to range improvements, particularly from the use of recreational vehicles or from  
6 sport shooting. Disturbance could occur during the hunting season due to increased  
7 presence of people, vehicles, and noise. Limitations on recreation in GRSG habitat could  
8 indirectly benefit livestock by reducing direct disturbances, but could also concentrate use in  
9 grazing allotments outside GRSG habitat, leading to more conflicts in those areas.

10 Other direct long-term recreation impacts include disturbance caused by increased levels of  
11 human activities. The degree of impacts would vary with the intensity of recreation (that is,  
12 large numbers of people attending an event under a special recreation permit (SRP) use  
13 would likely have a higher level of disturbance than frequent use by a small number of  
14 visitors), the timing of recreation (for example, livestock could be more susceptible to  
15 disturbance during calving or lambing periods), and location of recreation in the allotment  
16 (for example, disturbance could be more problematic if it occurs near areas frequented by  
17 livestock, such as water sources or salt licks). As stated above, limitations on recreation in  
18 GRSG habitat could indirectly benefit livestock by reducing direct disturbances.

19 Limits on construction or use of transportation routes may affect livestock grazing practices.  
20 Road construction may cause loss of forage, harassment, and displacement; thus, reduction  
21 of these activities may benefit livestock by reducing disturbances. Closing roads or trails not  
22 used for livestock management would also increase forage availability when the area is  
23 rehabilitated or when natural rehabilitation occurs. Limitations on cross-country travel may  
24 impact permittees' and lessees' ability to effectively manage livestock if administrative access  
25 is not granted for allotment management purposes. Travel management actions for GRSG  
26 protection generally involve increased limitations or restrictions on vehicular travel.

27 Wildfire alters sagebrush habitat because sagebrush takes a long time to regenerate and  
28 invasive annual grasses such as cheatgrass are adapted to frequent wildfire. In the absence of  
29 a robust perennial grass component, invasive annual grasses are likely to dominate these  
30 systems following wildfire (NTT 2011). Wildland or prescribed fire would remove vegetation  
31 and forage over the short term; however, they can increase forage a few years post-fire as  
32 herbaceous vegetation increases and woody vegetation is removed or reduced. Impacts on  
33 livestock operations could also occur when agency policies require a rest period following  
34 post-fire rehabilitation and before grazing is reintroduced.

35 Changes in wildfire suppression and fuels management to protect GRSG habitat would have  
36 varying effects on livestock grazing. Measures to protect sagebrush habitat might reduce the  
37 spread of wildfire and the associated disruption to grazing during suppression and post-fire  
38 rehabilitation activities. Use of livestock to manage fuel loads may provide some increased  
39 opportunities for grazing at a site-specific scale and on a temporary basis.

40 The management of habitat for GRSG using natural disturbance regimes, such as fire, and  
41 using vegetative treatments to achieve biodiversity objectives and improve plant community

1 resilience could also benefit livestock grazing in the long term by maintaining a balance of  
2 seral stages that provide a heterogeneous forage base. In general, removing encroaching  
3 junipers benefits livestock grazing by maintaining the herbaceous components of the treated  
4 area.

5 Restrictions on ROWs or land transfers may indirectly impact grazing by reducing  
6 construction impacts from developing these ROWs (such as dust, displacement, and  
7 introduction of noxious weeds). Lands and realty actions taken to protect GRSG habitat  
8 would involve avoiding or excluding ROWs (e.g., for power lines, pipelines, and other  
9 structures) or land transfers in GRSG habitat. These measures could slightly decrease  
10 disturbance in these areas. However, the areas outside of GRSG habitat to which ROWs  
11 development may be relocated could see an increase in construction-related effects and  
12 associated disturbance or displacement of livestock.

13 Energy and mineral development could impact grazing. During the exploration and testing  
14 phase of mineral development, the footprint of disturbance is usually small and localized;  
15 therefore, minimal acres available for grazing would be directly impacted. However, during  
16 the exploration phase, impacts on livestock dispersal and trespass could occur, increasing  
17 time and cost to permittees and lessees. Outside of the exploration and testing phase,  
18 surface-disturbing mineral development directly affects areas of grazing in the short term  
19 during construction of well pads, roads, pipelines, and other facilities. A potential impact is  
20 an increased potential for the introduction and proliferation of noxious weeds that lack the  
21 nutritional value needed for productive grazing practices. Mining can also introduce heavy  
22 metals into the environment, where they can concentrate in forage plants, or contaminate  
23 waters, possibly impacting livestock health (Fessler 2003). Other potential impacts are  
24 changes in available forage, limits on livestock movement, harassment, and temporary  
25 displacement of livestock. In the long term, a smaller amount of grazing acreage is  
26 permanently lost from mining following rehabilitation. Improving roads associated with  
27 mineral development could facilitate livestock management operations by maintaining or  
28 improving access to remote locations within allotments. Properly implemented BMPs and  
29 reclamation mitigation measures would likely maintain rangeland health and forage levels for  
30 livestock. Reducing mineral development in GRSG habitat could reduce potential impacts  
31 on grazing, described above.

32 Changes in livestock grazing management could impact grazing opportunities in a variety of  
33 ways. For example, implementing particular livestock grazing management requirements to  
34 benefit GRSG could affect livestock grazing by increasing operators' costs or changing  
35 required management actions. Some management requirements may result in short-term and  
36 long-term increased costs or decreased AUMs for some permittees and lessees due to the  
37 following:

- 38 • Implementation of modification of a grazing strategy
- 39 • Change in season-of-use or livestock class
- 40 • Construction or modification of range improvements, when ability to  
41 disperse livestock is impacted

- Viability of existing operations could be compromised if seasons or areas of use are eliminated or severely restricted from grazing

These management requirements could result in economic impacts on individuals and the community at large, both direct and indirect. For example, if a ranch were dependent seasonally on forage on BLM and National Forest System lands, a reduction or elimination of AUMs on BLM and National Forest System lands may affect the entire ranching operation by reducing the total amount of available forage (Torell et al. 2002). Socioeconomic effects of changes in livestock grazing are discussed in more detail in the socioeconomics section of this EIS.

Some management changes may require a short-term output of cost for permittees and lessees and/or agencies but will result in long-term benefits. For example, construction of range improvements to improve livestock distribution and allow for uniform use of the rangeland would generally enhance rangeland health in the long term; however, it would have short-term costs. Constructing off-site water sources and fencing riparian and spring sources could keep livestock away from sensitive riparian areas and provide a cleaner more reliable source of water for livestock; however, it would represent an increased cost for permittees and lessees. Other requirements could increase annual operating costs, such as increased time feeding animals on private land, transporting animals to alternate grazing lands, more complex pasture rotations or herding requiring increased labor and fuels costs for moving animals, or annually maintaining let-down fences. In instances where an allotment is closed to grazing or AUMs reduced to meet GRSG objectives, the permittee or lessee may be eligible for compensation for the value of range improvement projects constructed under a range improvement permit or cooperative agreement, in accordance with 43 CFR 4120.3-6(c), and 36 CFR 222.6 (a).

ACECs may be designated to protect sensitive habitat for the benefit of GRSG. Grazing availability would depend on the designated ACEC management objectives. Restrictions could include reducing grazing in the ACEC and limiting the class of livestock animal or the season of use, duration, or location that livestock are allowed to graze.

#### **4.6.3 Impacts on Livestock Grazing Common to All Alternatives**

The nature and type of impacts described below are common to all alternatives, but the context and intensity may vary by alternative. Impacts on livestock grazing as described below are the same regardless of the alternative selected.

##### ***Impacts from Energy and Mineral Development***

###### *Impacts from Nonenergy Leasable Minerals Management*

There are expected to be minimal impacts from nonenergy leasable minerals on livestock grazing across all alternatives due to a lack of leases in GRSG habitat.

1 *Impacts from Coal Management*

2 No economically viable coal resources are found in Idaho. Under the Dillon RMP, a plan  
3 amendment would be required to lease coal. As a result, coal development in the project area  
4 and related impacts on range management are likely to be limited under all alternatives.

5 *Impacts from Recreation and Visitor Services Management*

6 Under all alternatives, motorized vehicles would be limited to existing roads and trails,  
7 thereby limiting the impacts on livestock grazing from dispersed travel as discussed under  
8 **Section 4.5.2**. Access to authorized agency uses, such as grazing allotments, would not be  
9 impacted under any alternative. Site-specific travel management planning could, when  
10 completed, reduce the potential for conflicts between range management and travel  
11 management.

12 **4.6.4 Alternative A**

13 No management areas would be designated for GRSG under this alternative. In general  
14 Alternative A would be the least restrictive alternative on resource uses, including livestock  
15 grazing. This alternative would also be the least restrictive for other resource uses and  
16 associated development. Therefore, there is an increased chance of disturbance from mineral  
17 development, recreation, and other uses, as compared to action alternatives.

18 *Impacts from Lands and Realty Management*

19 Under Alternative A, there would be approximately 1 million acres of ROW exclusion and  
20 1.9 million acres of avoidance areas in the decision area; no new ROW exclusion or  
21 avoidance areas would be created. Livestock could be disturbed from development of  
22 ROWs, as discussed under **Section 4.5.2**. For these reasons, this alternative would have the  
23 highest potential for impacts from lands and realty on range management; however, access  
24 to range improvements for maintenance would be the least restricted.

25 *Impacts from Habitat Restoration and Vegetation Management, Including Invasive*  
26 *Species Management*

27 Under Alternative A, restoration would continue in the planning area, with long-term  
28 benefits to livestock forage. Vegetation could be managed to improve forage, and impacts  
29 on range management from vegetation management would be minimal; however, these  
30 actions could require adjustment to livestock grazing management. Management actions for  
31 invasive species would continue under the direction of current management plans, with the  
32 focus on areas not meeting land health standards or desired conditions.

33 *Impacts from Wildland Fire Management*

34 Under Alternative A, mechanical treatments, prescribed fires, and other treatments would be  
35 used to prevent conifer encroachment and remove undesirable annual grass and weed  
36 species. These actions could improve forage in the long term. Although most of the LUPs  
37 do not provide specific direction for fire suppression in GRSG habitat, protection of GRSG  
38 habitat during suppression has become a priority in planning and operational discussions due  
39 to large fires in GRSG habitat in 2007 and 2012. Therefore, the risk of forage loss in these  
40 areas may be lower than in non-GRSG habitats.



1 A minimum rest period from livestock grazing of two growing seasons would typically be  
2 required after any major vegetative disturbance, including wildfire, for BLM-administered  
3 and National Forest System lands. Specific timing and the type of rest would be determined  
4 at the site-specific environmental assessment phase for all lands in the planning area. As a  
5 result, livestock grazing would typically be excluded from areas following a fire to some  
6 extent. Impacts on and costs and time for permittees and lessees would depend on the  
7 location of the fire in relation to grazing allotments, as well as the size and severity of the  
8 fire. Overall, impacts of required rest are likely to be minimal, compared to the action  
9 alternatives.

#### 10 ***Impacts from Energy and Mineral Development***

11 In general, Alternative A is the least restrictive on energy and mineral development of all  
12 alternatives. As a result, the indirect impacts of development on livestock grazing, including  
13 spread of noxious weeds and disturbance of livestock, are the greatest under this alternative.

#### 14 ***Impacts from Locatable Minerals Management***

15 Under Alternative A, 1.7 million acres of the decision area would be withdrawn from mineral  
16 entry. Impacts on range management would not occur in this area.

#### 17 ***Impacts from Salable Minerals Management***

18 Under Alternative A, 1.8 million acres of the decision area would be closed to mineral  
19 materials disposal. Impacts on range management would not occur in this area.

#### 20 ***Impacts from Unleased Fluid Minerals Management***

21 Under Alternative A, 2.7 million acres in the decision area would be closed to leasing.  
22 Alternative A would have the highest number of BLM-administered and National Forest  
23 System lands open to fluid mineral leasing with standard terms and conditions; therefore,  
24 conflicts between grazing and mineral development would be more likely to occur in this  
25 area.

#### 26 ***Impacts from Leased Fluid Minerals Management***

27 The Idaho BLM has four federal oil and gas leases. No drilling or exploration has occurred  
28 on any of the leases, nor has any activity been proposed; therefore, minimal impacts on  
29 livestock grazing are anticipated.

#### 30 ***Impacts from Recreation and Visitor Services Management***

31 Under this alternative, there would be no new restrictions to SRPs in the decision area;  
32 therefore, livestock could be disturbed by recreation in the planning area. Some limited  
33 potential for disturbance from general recreation is possible, as described under **Section**  
34 **4.5.2.**

35 Under Alternative A, as under all alternatives, motorized travel would be limited to  
36 designated routes, and site-specific travel management planning on BLM-administered lands  
37 would be developed, limiting disturbance to livestock. In addition, OHV use on National  
38 Forest Lands within the planning area is limited to roads, trails, and areas that have been  
39 designated through a transportation planning process; therefore, impacts on disturbance of



1 livestock or access to allotments from travel management are the same across all alternatives  
2 for National Forest System lands.

### 3 ***Impacts from Livestock Grazing Management***

4 Under Alternative A, livestock grazing would be allowed on approximately 11,730,785 acres  
5 in the planning area. This includes approximately 8,898,400 acres and 1,080,200 AUMs on  
6 BLM-administered lands within GRSG Habitat and 1,915,900 acres of National Forest  
7 System lands in GRSG habitat (see **Table 4-70**, Overview Comparison of Impacts on Range  
8 Management by Alternative within GRSG Habitat). AUM calculations are not available for  
9 National Forest System lands. While livestock grazing is currently permitted throughout the  
10 planning area, the population areas with the most acres open to grazing are Mountain  
11 Valleys, North Side Snake, and Southwest Idaho. Each has close to 2 million acres of BLM-  
12 administered lands open to grazing within occupied GRSG habitat in the planning area.

13 Note that outside of GRSG habitat in the planning area there are an additional  
14 approximately 2,832,339 acres and 374,202 permitted AUMs on BLM-administered lands  
15 and 7,700,600 acres on National Forest System lands. Livestock management decisions on  
16 these lands are not made in this document.

17 All leases and permits under Alternative A would continue to be required to meet or make  
18 progress toward meeting standards defined in the Idaho Standards for Rangeland Health and  
19 Guidelines for Livestock Grazing Management and the Standards for Rangeland Health and  
20 Guidelines for Livestock Grazing Management for Public Lands Administered by the  
21 Bureau of Land Management for Montana and the Dakotas for BLM-administered lands.  
22 Achievement or significant progress toward achievement would continue to be evaluated.  
23 Grazing permits, including grazing systems, permitted AUMs, and allotment boundaries,  
24 would be modified as necessary at this point to conform to Standards and Guidelines for  
25 Livestock Grazing Management. This would be the case if grazing were determined to be the  
26 causal factor for a standard not being achieved, as required by regulation on BLM-  
27 administered lands. As a result, any changes to grazing management would occur on a rolling  
28 basis following the determination.

29 On National Forest System lands, allotments with grazing permits would be required to  
30 meet or be moving toward desired conditions, as defined in the LRMP, or as described in an  
31 agency NEPA decision for the allotment. Permits would be reviewed and amended as  
32 needed and rangeland conditions would be assessed during site-specific NEPA analysis  
33 based on the Forest Allotment NEPA schedule.

**Table 4-69**  
**Overview Comparison of Impacts on Range Management by Alternative within GRSG Habitat**

	BLM-Administered Lands by GRSG Population Area																
	Alt. A	Alt. B		Alt. C	Alternative D			Alternative E		Alternative F			Proposed Plan				
	All GRSG Habitat	GHMA	PHMA	PHMA	GHMA	IHMA	PHMA	PHMA	GHMA	IHMA	GHMA	PHMA	RHMA	GHMA	IHMA	PHMA	SFA
<b>BLM</b>																	
Acres open to grazing	8,898,400	1,831,200	7,024,000	0	1,874,400	1,109,700	5,914,200	2,444,600	2,314,300	4,124,600	1,831,200	7,024,000	482,600	2,111,900	2,669,000	1,000,400	3,397,000
Permitted AUMs	1,080,200	253,700	821,600	0	258,600	146,800	674,800	338,900	259,700	480,600	253,700	821,600	57,200	258,500	314,500	138,800	372,000
<b>Forest Service</b>																	
Open to grazing <sup>1</sup>	1,915,900	824,800	924,900	0	991,500	254,900	667,000	446,300	880,500	356,400	825,800	925,200	140				

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<sup>1</sup> AUMs are not available for National Forest System lands

34

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1 Lands would be maintained and restored to maintain healthy native plant and animal species.  
2 Changes to rangeland management would be directed first to allotments not meeting one or  
3 more of the land health standards or desired conditions. On approximately 61 of the 2,220  
4 allotments assessed on BLM-administered lands, on 660,900 acres, standards are not being  
5 achieved due to livestock management. Management actions have not yet been taken to  
6 make progress toward meeting standards. See **Section 3.8**, Livestock Grazing. Similarly, the  
7 focus in riparian areas and wetlands would be to improve functioning-at-risk and  
8 nonfunctioning riparian areas and wetlands toward PFC. As described under **Section 4.5.2**,  
9 managing riparian habitat can directly impact livestock grazing by excluding livestock at  
10 specific sites, increasing herding, adding range improvements (such as cross fences and water  
11 gaps), and adjusting season and duration of use and livestock numbers. Such changes in  
12 grazing management options may increase time or costs for lessees and permittees.

13 Measures for GRSG and other sensitive species habitat under Alternative A are limited to  
14 requirements for “habitat suitable to maintain suitable viable populations” (under the Idaho  
15 standard), or “habitat as necessary to maintain a viable and diverse population of native plant  
16 and animal species, including special status species,” (under the Montana standards). This  
17 alternative would not direct the BLM or Forest Service to manage certain areas more  
18 intensively for GRSG habitat objectives; therefore, impacts on grazing in GRSG habitat are  
19 similar to those throughout the planning area.

20 Range improvements, including fences, vegetation treatments, and water developments,  
21 would be allowed in the decision area when needed to support grazing or to improve  
22 livestock distribution, allowing for management options for lessees and permittees. Fences  
23 would be constructed to protect and benefit livestock and wildlife, but no specific provisions  
24 are included for GRSG, so additional costs could be limited.

25 Under drought conditions under Alternative A, grazing use could be adjusted, as necessary,  
26 in accordance with BLM IM 2013-094. There would be potential impacts on authorized  
27 AUMs and management options, with increased time and costs for permittees and lessees if  
28 any changes were implemented on BLM-administered lands.

### 29 ***Impacts from Special Designations Management***

30 Under Alternative A, 59 existing ACECs containing over 460,000 acres of occupied GRSG  
31 habitat would be maintained. Impacts on range management would be as described under  
32 **Section 4.5.2**.

#### 33 **4.6.5 Alternative B**

34 Occupied GRSG habitat would be classified into PHMA and GHMA under this alternative,  
35 and impacts would primarily occur on range management in PHMA due to restrictions on  
36 resource uses.

### 37 ***Impacts from Lands and Realty Management***

38 Under Alternative B, no new ROW authorizations would be permitted in PHMA unless the  
39 development would occur within the existing developed footprint. As a result, indirect

1 impacts on livestock grazing from disturbance would be limited in this area and would  
2 decrease, compared to Alternative A.

3 ***Impacts from Habitat Restoration and Vegetation Management, Including Invasive***  
4 ***Species Management***

5 Under Alternative B, restoration projects in PHMA would be designed to benefit GRSG and  
6 based on the likelihood of success, with reestablishment of sagebrush cover as the highest  
7 priority. Projects to remove nonnative species and improve habitat would likely be in line  
8 with current grazing management practices and could improve livestock forage in the long  
9 term. Impacts could occur on range management when objectives for range management did  
10 not match those for GRSG habitat. Post-restoration management requirements could also  
11 result in changes to grazing systems or range management, with a resulting potential for an  
12 increase in costs and time for permittees and lessees.

13 Actions for invasive species management are similar to that described under Alternative A,  
14 with a greater focus on restoration and potential for impacts on grazing management in  
15 PHMA.

16 ***Impacts from Wildland Fire Management***

17 Under Alternative B, fire suppression would be prioritized when PHMA is threatened. As a  
18 result, there is potential for fewer disturbances to grazing due to fewer wildfires. Fires  
19 burning outside of PHMA or GHMA may increase in size when they are prioritized for  
20 suppression after fires burning in PHMA and GHMA. This could slightly increase the  
21 disturbance to grazing outside of GRSG habitat.

22 Post-fire management actions to restore habitat could result in impacts on range  
23 management. Under this alternative, management activities may be adjusted to support  
24 successful restoration, which could temporarily or permanently reduce grazing in areas  
25 reseeded post-fire. The level of impacts would depend on size, location, and intensity of fire  
26 and on the related level of restoration needed.

27 Fuels management projects to reduce fine fuels include the use of targeted livestock grazing.  
28 This could result in site-specific temporary increases in available forage in PHMA, but  
29 impacts are likely to be minimal overall.

30 ***Impacts from Energy and Mineral Development***

31 Under Alternative B, additional restrictions would be put on mineral development, as  
32 compared to Alternative A. Lands in PHMA would be recommended for withdrawal from  
33 mineral entry for locatable minerals, closed to mineral materials removal, and closed to new  
34 leasing for fluid minerals. For currently leased parcels, NSO stipulations would be applied in  
35 PHMA and around leks. As a result, disturbance of range management from mineral  
36 development would be minimized in PHMA.

37 ***Impacts from Recreation and Visitor Services Management***

38 In PHMA, motorized travel would be limited to existing roads and trails on BLM-  
39 administered and National Forest System lands. Travel plans (to be completed) would

1 analyze PHMA for the need for road closures, and limitations would be implemented during  
2 development of new roads. Some reduction in routes, limitations on new routes, and  
3 upgrades to existing routes would be added, compared to Alternative A. This could  
4 indirectly reduce livestock disturbance in PHMA. If restrictions on cross-county travel were  
5 to apply to permittees and lessees, access to allotments and the ability to effectively manage  
6 livestock may be impacted.

7 SRPs in PHMA would be limited when they were found to have negative impacts on GRSG;  
8 therefore, overall SRPs may be reduced with potential benefits to livestock grazing due to  
9 decreased disturbance.

### 10 ***Impacts from Livestock Grazing Management***

11 Under Alternative B, no management actions would result in direct changes to acres open to  
12 grazing and permitted AUMs (**Table 4-69**, Overview Comparison of Impacts on Range  
13 Management by Alternative within GRSG Habitat). In the long term, livestock grazing in  
14 PHMA may be reduced under Alternative B, compared to Alternative A, in order to  
15 conform to GRSG habitat objectives. However, the impacts would be site-specific and likely  
16 occur gradually.

17 This alternative provides GRSG habitat objectives, which will be incorporated into permit  
18 and lease renewals; therefore, impacts would occur at a site-specific level during the renewal  
19 process. Completion of land health assessments would be prioritized within PHMA on  
20 BLM-administered allotments. As a result, impacts on range management would be most  
21 likely to occur in these areas. Retirement of allotments would be an option in PHMA,  
22 resulting in potential reductions in AUMs in the planning area. Compensation for authorized  
23 range improvements would be provided, as appropriate.

24 Vegetation treatments that benefit livestock forage could only be completed if these  
25 treatments would also conserve, enhance, or improve GRSG habitat; therefore, the  
26 management options in PHMA could be reduced and the ability to fully use permitted  
27 AUMs could be impacted. On BLM-administered lands, land health assessments using  
28 ecological site descriptions (where available) would be required to determine if standards of  
29 rangeland health and GRSG habitat objectives were being met.

30 Under drought conditions, as under Alternative A, grazing management changes may be  
31 implemented; however, under Alternative B the focus would be on adjusting management in  
32 PHMA; therefore, impacts would be more likely to occur in this area.

33 Under Alternative B, riparian areas would be managed for PFC or similar standards at a  
34 minimum within PHMA. There could be limitations on grazing within these areas, increased  
35 use of fencing and herding, seasonal limitations on grazing, creation of water developments,  
36 or other measures to manage distribution of livestock so that pressure on these systems is  
37 limited. This could increase costs or time for permittees and lessees.

1 In the long term, livestock grazing in PHMA is likely to be reduced under Alternative B in  
2 order to conform to GRSG habitat objectives and other resource concerns. The timing and  
3 degree of reduction would depend on permit renewal timing and site-specific conditions.

4 Structural range improvements, such as fences and enclosures, in PHMA under Alternative  
5 B would be allowed but would have to be designed to conserve or enhance GRSG habitat.  
6 In addition, some fences would require marking, alternative siting, or other design features  
7 to lessen risk for GRSG impacts, so the cost of building or maintaining these structures may  
8 be increased, compared to Alternative A.

9 Similarly, new water developments from diverting spring or seep sources would be permitted  
10 only when GRSG habitat would also benefit and so would be limited. Permittees and lessees  
11 may not be able to fully use permitted AUMs if water were limited on a given allotment.  
12 Overall, water improvements and fences are likely to be removed or modified to some  
13 extent under this alternative, resulting in decreased grazing or shifts in grazing use patterns in  
14 the long term.

#### 15 ***Impacts from Special Designations Management***

16 No new ACECs or ZAs would be designated under Alternative B, so impacts would be as  
17 described under Alternative A.

#### 18 **4.6.6 Alternative C**

19 Alternative C would be the most restrictive on grazing management; no grazing would be  
20 authorized in occupied GRSG habitat following a two-year notice to cancel existing permits  
21 and leases, or portions thereof. Impacts from all other resources and resource uses on  
22 livestock grazing under Alternative C would be limited due to the limited permitted grazing  
23 outside of occupied habitat.

#### 24 ***Impacts from Lands and Realty Management***

25 Impacts are as described under Alternative B but would apply to all occupied habitat.  
26 Impacts on livestock grazing are minimal due to lack of grazing in all occupied GRSG  
27 habitat.

#### 28 ***Impacts from Habitat Restoration and Vegetation Management, Including Invasive 29 Species Management***

30 Management actions and impacts are similar to that described in Alternative B, with some  
31 additional restrictions on removing sagebrush cover to improve forage production. Impacts,  
32 however, are limited due to the lack of authorized grazing in occupied habitat.

#### 33 ***Impacts from Wildland Fire Management***

34 Impacts from wildland fire management are minimal under Alternative C due to the lack of  
35 permitted grazing in occupied habitat.

#### 36 ***Impacts from Energy and Mineral Development***

37 Management would be similar to that described under Alternative B. Impacts from all energy  
38 and mineral development would be minimal due to lack of grazing in occupied habitat.

1       ***Impacts from Recreation and Visitor Services Management***

2       Management would be the same as Alternative B but would apply to all occupied habitat.  
3       Impacts are minimal due to lack of grazing in occupied habitat.

4       ***Impacts from Livestock Grazing Management***

5       Alternative C would remove livestock grazing from all allotments in occupied habitat, a 100  
6       percent reduction from Alternative A (see **Table 4-69**, Overview Comparison of Impacts on  
7       Range Management by Alternative within GRSG Habitat). Grazing would be permitted  
8       outside of GRSG habitat on a total of approximately 2,875,600 acres, with 379.100  
9       permitted AUMs on BLM -administered lands. Acres and AUMs are not available for  
10       National Forest System lands.

11       Removing grazing from all occupied habitat would result in economic impacts on permittees  
12       and lessees. As discussed under **Section 4.5.2**, permittees and lessees would be faced with  
13       reducing AUMs for their operations or locating replacement forage. This could have higher  
14       costs or limited availability with related impacts on individual leases and permits as well as  
15       the local community. Closures to grazing would also disrupt the viability of current seasonal  
16       rotations or other management strategies that use combinations of federal, state, and private  
17       lands and potentially reduce the value of private lands used for grazing. If ranches are not  
18       maintained or profitable, they could be sold and may be developed (Wilkins et al. 2003).

19       Existing structures under Alternative C could be required to be modified or removed if they  
20       are determined to have a high risk of GRSG strike. In addition, management actions would  
21       allow no new water developments, and existing water developments could be removed. It is  
22       unclear if there would be a concerted effort to remove any or all livestock management  
23       infrastructure under this alternative. However, permittees and lessees who have investments  
24       on federal lands in occupied habitat that would be impacted could be compensated.  
25       Compensation for BLM permittees and lessees with authorized range improvements would  
26       be provided as appropriate, based on requirements specified in 43 CFR 4120.3-6(c). Under  
27       certain limited circumstances, Forest Service permittees would be compensated in  
28       accordance with 36 CFR 222.6(a). BLM and Forest Service investments in range  
29       infrastructure could also be impacted under this alternative, as structures no longer are  
30       maintained and go into disrepair. Furthermore, fencing may be required to prevent livestock  
31       from trespassing onto lands where grazing is excluded.

32       Removing range improvements and water developments on occupied habitat would also  
33       further restrict management options. Permittees and lessees who rotate pastures between  
34       private and federal lands may need to construct additional water developments and realign  
35       fences to keep livestock on private pastures, thereby increasing time and costs. Fencing  
36       density could increase in areas where federal, state, and private lands are interspersed and are  
37       grazed in common.

38       As a result of removing grazing from occupied habitat, there is also the potential for  
39       increased conflicts between grazing and other resources and resource uses on lands of other  
40       surface ownership, should livestock grazing increase in this area.



1       ***Impacts from Special Designations Management***

2       Under Alternative C, 39 new ACECs encompassing approximately 3.1 million acres of  
3       occupied GRSG habitat would be designated in the planning area, a tenfold increase over  
4       Alternative A. Impacts would, however, be limited since grazing would be prohibited from  
5       occupied habitat on BLM-administered and National Forest System lands.

6                       **4.6.7   Alternative D**

7       Occupied habitat is categorized into three categories, PHMA, IHMA and GHMA medial,  
8       and general, with associated management. Impacts for livestock grazing would be focused in  
9       PHMA and IHMA.

10       ***Impacts from Lands and Realty Management***

11       Under Alternative D, new ROW and land use authorizations would be avoided whenever  
12       possible, with a goal of no net loss in GRSG habitat. ROW avoidance areas in PHMA,  
13       IHMA, and GHMA, as well as the exclusion of larger facilities in PHMA, would somewhat  
14       limit the indirect impacts of development on grazing in the avoidance and exclusion areas.  
15       Impacts would still occur in nonhabitat allotments.

16       Similarly, management actions prohibiting solar and wind development in PHMA and  
17       imposing restrictions on development in IHMA and avoidance areas in GHMA would limit  
18       any impacts of disturbance from development of these resources. However, this may shift  
19       impacts on nonhabitat allotments.

20       ***Impacts from Habitat Restoration and Vegetation Management, Including Invasive***  
21       ***Species Management***

22       Under Alternative D, vegetation rehabilitation would emphasize projects to achieve the  
23       greatest improvement in GRSG abundance and distribution. This includes sites with greater  
24       likelihood of success, as discussed under Alternative B. Reconnecting and expanding native  
25       plant communities would be an objective across all GRSG habitat types; restoring seasonal  
26       habitats would be emphasized in both PHMA and IHMA.

27       As discussed in Alternative B, these management actions would likely be in line with current  
28       grazing management practices and could improve livestock forage in the long term. Impacts  
29       could occur on range management when objectives for range management do not match  
30       those for GRSG habitat. Post-restoration management requirements could also change  
31       grazing or other range management systems. This could increase costs and time for  
32       permittees and lessees. Most management actions and related impacts on grazing would be  
33       applied across all three habitat types, so they would be similar to those discussed in  
34       Alternative B but increased in intensity.

35       Cooperative planning would be used to develop and implement habitat restoration projects,  
36       so local permittees and lessees would have the opportunity to provide input into the  
37       implementation process. This would allow for results that could limit impacts on grazing  
38       management or improve habitat for both GRSG and livestock.

1 ***Impacts from Wildland Fire Management***

2 Under Alternative D, post-fire and restoration management would be undertaken to ensure  
3 long-term persistence of seeded or pre-burn native plants. It may also require short- or long-  
4 term change to grazing management. Management actions for post-fire restoration may  
5 reduce livestock grazing, with related impacts on permittees' and lessees' ability to fully use  
6 permitted AUMs. The degree of impacts would be determined by the location, size, and  
7 intensity of fires in GRSG habitat but would be increased over those in Alternative B. This is  
8 because all GRSG habitat types (priority, medial, and general) would be included.

9 Using grazing to manage fine fuels would also be considered in PHMA, IHMA, and GHMA,  
10 following certain conditions. Grazing management would be implemented strategically on  
11 the landscape. It would directly involve the minimum footprint and grazing intensity  
12 required to meet fuels management objectives and to conform to grazing standards and  
13 guidelines. As a result, additional site-specific opportunities for targeted grazing may be  
14 available, but these are likely to be limited and short term; thus, the overall impact in the  
15 planning area would be minimal.

16 ***Impacts from Energy and Mineral Development***

17 Under Alternative D, some degree of mineral development would be allowed, with measures  
18 to avoid or mitigate impacts on GRSG. Specifically, new fluid minerals and undeveloped  
19 nonenergy mineral leases would be allowed in all GRSG habitat types, with BMPs applied.  
20 Similarly, mineral materials would be allowed to be leased in all habitat types, with  
21 stipulations. As a result of the flexibility in management for PHMA, unlike that in  
22 Alternative B, there is some potential for mineral development in PHMA and related  
23 impacts on disturbance of livestock; however, the impacts would likely be minimal and lower  
24 than that under Alternative A. Within IHMA and GHMA, the degree of disturbance from or  
25 conflicts with grazing from energy and mineral development would also be lower than that  
26 under Alternative A.

27 ***Impacts from Recreation and Visitor Services Management***

28 Under Alternative D, motorized travel would be limited to existing roads, primitive roads,  
29 and trails, at a minimum. All open play areas designated for OHV use are outside GRSG  
30 habitat; these would remain open, with the potential to disturb livestock or disrupt livestock  
31 movement in these areas. This would be due to gates left closed or open inappropriately.  
32 Seasonal restrictions for authorized activities could impact the ability of permittees and  
33 lessees to access and manage allotments.

34 ***Impacts from Livestock Grazing Management***

35 Grazing would be allowed on all lands identified as available, as under Alternative A (see  
36 **Table 4-69**, Overview Comparison of Impacts on Range Management by Alternative within  
37 GRSG Habitat).

38 Grazing management action and impacts are similar to those described in Alternative B.  
39 There would be prioritized implementation of grazing systems or permit modifications to  
40 meet habitat objectives in areas that are not meeting these objectives. This would result in a  
41 moderate decline in permitted grazing over time as permits are modified to incorporate

1 GRSG objectives at renewal. Under Alternative D, however, allotments containing PHMA  
2 would be prioritized for permit renewal, followed by IHMA and finally GHMA; impacts on  
3 range management would occur in this sequence. In addition, all allotments with federally  
4 threatened and endangered species may also be prioritized for permit renewal ahead of  
5 GRSG habitat; therefore, impacts on range management could also occur in these areas.

6 Under Alternative D, additional measures would be applied to limit impacts of trailing  
7 livestock on leks and structural range improvements on GRSG. This would result in some  
8 additional potential for increased time and costs for management.

9 Retiring grazing permits, as described under Alternative B, would be considered where  
10 grazing privileges are relinquished or the allotment is vacant in all GRSG habitat types. As a  
11 result, total areas open to grazing may be reduced in the long term.

12 During droughts, under Alternative D, grazing management would be adjusted, as under  
13 Alternatives A and B, with the emphasis on providing sufficient food and cover for GRSG.  
14 Impacts would depend on site-specific resource conditions.

#### 15 ***Impacts from Special Designations Management***

16 No new ACECs or ZAs would be designated under Alternative D, so impacts are as  
17 described under Alternative A.

#### 18 **4.6.8 Alternative E**

19 Under Alternative E, GRSG habitat would be separated into CHZ, IHZ, and GHZ, with the  
20 priority on allotment renewal in CHZ and IHZ where populations are declining.  
21 Management changes, if required, would be tailored to specifically address habitat objectives  
22 that need improvement, and the impacts on other resources or resource uses, such as  
23 wildland fire management, would be examined. As a result, impacts on livestock  
24 management may be limited, compared to other action alternatives, due to the increased  
25 flexibility to address site-specific needs.

#### 26 ***Impacts from Lands and Realty Management***

27 Under Alternative E, ROW avoidance areas in CHZ and IHZ, as well as the exclusion of  
28 new infrastructure in CHZ, would somewhat limit the indirect impacts of development on  
29 grazing.

#### 30 ***Impacts from Habitat Restoration and Vegetation Management, Including Invasive*** 31 ***Species Management***

32 Impacts from habitat restoration are as described under Alternative A. Similarly,  
33 management actions of invasive species would likely be similar to Alternative A, with a focus  
34 on actions in CHZ and IHZ. Short-term impacts on grazing are minimal, with a change for  
35 long-term improvement of forage.

#### 36 ***Impacts from Wildland Fire Management***

37 Under Alternative E, management actions for wildfire include an emphasis on fire  
38 suppression and reduction in fire risk in CHZ, IHZ, and GHZ, with potential for reduction

1 in fire risk and related disturbance in these areas. As under Alternatives B and D, actions  
2 include targeted livestock grazing to reduce fine fuels and invasive species and to maintain  
3 fuel breaks, particularly in areas with high fuel loads with high risk of wildfire threatening the  
4 CHZ and IHZ. This action could result in some site-specific temporary increases in available  
5 forage, but location and levels would be unpredictable; thus, impacts are minimal overall.

#### 6 ***Impacts from Energy and Mineral Development***

7 Impacts from mineral and energy development are generally the same as those described  
8 under Alternative A. Fluid mineral development would have some additional restrictions  
9 applied to limit disturbance; therefore, the likelihood of development and associated  
10 disturbance would be reduced in areas with potential for these resources.

#### 11 ***Impacts from Recreation and Visitor Services Management***

12 Impacts are similar to those described under Alternative B. On BLM-administered and  
13 National Forest System lands, restrictions on motorized use on existing routes before travel  
14 planning and seasonal restrictions on activities that could disturb nesting GRSG could  
15 impact the ability of permittees and lessees to access and manage allotments.

#### 16 ***Impacts from Livestock Grazing Management***

17 Under Alternative E, Grazing would be allowed on all lands identified as available, as under  
18 Alternative A (see **Table 4-70**, Overview Comparison of Impacts on Range Management by  
19 Alternative within GRSG Habitat). Management actions and impacts would be based on  
20 GRSG population trends and focused on CHZ and IHZ. Allotments would be prioritized  
21 for permit renewal where populations of GRSG are. Changes to grazing management and  
22 associated impacts are most likely to occur in these areas.

23 Existing grazing management would be maintained unless the current grazing system does  
24 not meet GRSG habitat objectives and there is compelling information that changing the  
25 system would enhance habitat. Specifically, management actions in this alternative state that  
26 where population and habitat triggers are being maintained within a Conservation Area, this  
27 shows that the current grazing system is adequate to maintain viable GRSG populations and  
28 therefore absent compelling information, no further changes to BLM grazing systems would  
29 be required pursuant to Standard 8 (Threatened And Endangered Plants And Animals) of  
30 the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing  
31 Management, with respect to GRSG. Modifications to grazing management would continue  
32 to be implemented, however, where Standards 2 (Riparian Areas and Wetlands) and 4  
33 (Native Plant Communities) are not being met, or where Standard 8 is not being met for  
34 other species.

35 Adjustments would be applied at a site-specific level and specifically tailored to achieve  
36 objectives. As a result, changes to management and associated impacts would be limited. In  
37 addition, altering grazing systems within allotments may be possible under this alternative.  
38 This includes enhanced grazing opportunities in some areas with introduced seedings or  
39 areas with lower value to GRSG, such as GHZ. This limits overall impacts.

1 Under Alternative E, some additional limitations would apply to structural range  
2 improvements, as compared to Alternative A. This could increase the time or costs for  
3 construction and maintenance of improvements or could impact the ability to distribute  
4 livestock. These restrictions are more flexible than those under other action alternatives.  
5 They include avoiding construction of new fences within 1.2 miles (2 km) of leks and  
6 considering GRSG habitat needs and risks when designing and locating new water  
7 developments.

8 The location and level of adjustment needed to management cannot be determined and may  
9 change over time, lending some instability to the range management program. This is  
10 because of the unpredictable nature of areas that may be targeted for grazing management  
11 revision under this alternative (based on local GRSG population levels).

#### 12 ***Impacts from Special Designations Management***

13 No new ACECs or ZAs would be designated under Alternative E, so impacts are as  
14 described under Alternative A.

#### 15 **4.6.9 Alternative F**

16 As in Alternative B, all occupied habitat would be categorized into PHMA and GHMA, with  
17 potentially other restoration areas, each with associated management. Although grazing  
18 would be permitted under this alternative, the level of authorized grazing would be reduced  
19 by removing 25 percent of average billed AUMs in occupied GRSG habitat, following a two-  
20 year notice to cancel existing permits and leases, or portions thereof. In addition, the ability  
21 to construct improvements and other management options would be limited, with impacts  
22 on permittees and lessees.

#### 23 ***Impacts from Lands and Realty Management***

24 The type of impacts are as described under Alternative A, although the level of impacts  
25 would be reduced due to the reduction in authorized grazing.

#### 26 ***Impacts from Habitat Restoration and Vegetation Management, Including Invasive 27 Species Management***

28 Management actions under this alternative are similar to those described under Alternative B  
29 but include additional restrictions on removing sagebrush cover to improve forage. As such,  
30 management options may be further limited. However, there is the potential that less forage  
31 improvement would be necessary under Alternative F for livestock grazing purposes, due to  
32 the reduction in authorized grazing in the planning area.

33 For invasive species management, activities that spread invasives would be restricted. As  
34 described under the range management section for this alternative, restrictions on range  
35 improvements may apply, with potential impacts on permittees and lessees.

1 ***Impacts from Wildland Fire Management***

2 As for all action alternatives, actions to suppress and control the spread of wildfire under  
3 Alternative F could decrease the risk of disturbance from wildfire in GRSG habitat. Fires  
4 outside of GRSG habitat would be at risk of decreased suppression efforts.

5 Under Alternative F, measures to protect GRSG habitat post-fire could impact range  
6 management. Livestock grazing would be excluded from burned areas until woody and  
7 herbaceous vegetation meet GRSG objectives, which could result in long-term (10 to 50  
8 years or longer) exclusion from burned sites. It would generally take more than a decade to  
9 reestablish adequate Wyoming sage cover in low precipitation areas. The level of impacts  
10 would depend on locations, size, and intensity of wildfire in GRSG habitat in relation to the  
11 location and level of authorized grazing. Requirements to include livestock exclosures to  
12 monitor fire restoration progress are anticipated to have negligible impacts, due to the  
13 limited size of exclosures.

14 ***Impacts from Energy and Mineral Development***

15 Under Alternative F, no new mining claims would be allowed, and salable minerals sales  
16 would be prohibited in PHMA. Therefore, there would be limited potential from  
17 development-related disturbance of these resources.

18 Impacts from leased fluid minerals are the same as those described under Alternative A.  
19 New leasing in PHMA and GHMA would be limited, so there is some limited opportunity  
20 for disturbance from development of these resources.

21 ***Impacts from Recreation and Visitor Services Management***

22 Impacts are similar to that described under Alternative B. In addition, seasonal camping  
23 closures within 4 miles (6.4 km) of active leks could impede implementation of required  
24 livestock movement and trailing activities.

25 ***Impacts from Livestock Grazing Management***

26 Under Alternative F, management actions and impacts would occur in all occupied habitat.  
27 The reduction in authorized grazing in GRSG occupied habitat, while not as complete as  
28 under Alternative C, would include a 25 percent reduction below AUMs levels typically  
29 billed by permittees. While allotment-specific impacts would be determined at the  
30 implementation level, overall, livestock grazing levels would be reduced in the decision area.  
31 Estimated AUMs under Alternative F are 689,962.

32 In some cases, this may involve loss of permitted grazing for individual allotments and, in  
33 other cases, may involve reduction of permitted grazing levels for allotments. These  
34 management actions would potentially require permittees to reduce grazing or locate  
35 alternative sources of forage, with potential for economic impacts on as discussed in  
36 Alternative C.

37 Where grazing is permitted, management would be similar to that described in Alternative B,  
38 with the addition of other protective measures for GRSG habitat (such as increased  
39 prohibitions on grazing after fire and restriction on all vegetation treatments). As a result,

1 management options would be limited and time and costs for permittees would be increased  
2 as compared to Alternative A.

3 In addition, management actions would allow no new water developments or other  
4 structural range improvements. Prohibitions on new improvements could also limit the  
5 ability to effectively distribute livestock, resulting in indirect increases in time and costs for  
6 permittees. These actions are likely to further limit the abilities of permittees and lessees to  
7 fully use permitted AUMs and would increase time and cost for management.

#### 8 ***Impacts from Special Designations Management***

9 Under Alternative F, 17 or 18 new ACECs and 12 new ZAs encompassing up to over 1  
10 million acres of occupied GRSG habitat, would be designated in the planning area. This  
11 would be a 22-fold increase over Alternative A. Impacts would, however, be reduced in areas  
12 where grazing is reduced.

#### 13 **4.6.10 Proposed Plan**

14 Under the Proposed Plan, GRSG habitat would be separated into SFAs, PHMA, IHMA, and  
15 GHMA, with the priority on allotment renewal in SFAs and PHMA in areas not currently  
16 meeting land health standards. Management changes, if required, would be tailored to meet  
17 GRSG habitat objectives.

#### 18 ***Impacts from Lands and Realty Management***

19 Under the Proposed Plan, PHMA and IHMA would be managed as ROW avoidance areas,  
20 but would be subject to RDFs, BMPs and a seasonal timing limitation, resulting in limited  
21 new development in GRSG habitat. Similarly, management actions would prohibit solar and  
22 wind development in PHMA, impose restrictions on development in IHMA, and classify  
23 GHMA as avoidance areas.

24 The Proposed Plan would include a cap on anthropogenic disturbance; the 3-percent  
25 disturbance cap on discrete anthropogenic disturbances would be applied in PHMAs at both  
26 the BSU and project levels. Anthropogenic disturbances in PHMA and GHMA would be  
27 also mitigated to ensure a net conservation gain to GRSG. In addition, conservation  
28 measures would be implemented in PHMA and GHMA such as adaptive management and  
29 defined monitoring protocols (**Appendices G and E**), RDFs, and lek buffers (**Appendix B**).

30 As a result, disturbance of livestock from development activities, as discussed in **Section**  
31 **4.6.2**, including disturbance of forage or unwanted dispersal of livestock, would be limited in  
32 GRSG habitat.

33 Under the Proposed Plan on National Forest System lands, special use authorizations, land  
34 ownership adjustments, and land withdrawals would limit the direct and indirect impacts of  
35 development and surface disturbance on rangelands where livestock grazing is permitted,  
36 thereby maintaining forage availability.

1       ***Impacts from Habitat Restoration and Vegetation Management***

2       Impacts under the Proposed Plan habitat from vegetation management would be similar to  
3       those discussed under Alternative D. The Proposed Plan would also include additional  
4       measures such as conifer removal, improved management of wet meadows, and  
5       implementation of RDFs. In addition, specific vegetation objectives in PHMA have been  
6       identified in the Proposed Plan based on vegetation modeling, including targets of  
7       approximately 77,000 acres identified for mechanical treatments, 30,000 acres of prescribed  
8       fire and 620,000 acres for annual grass treatment to meet GRSG objectives on BLM Lands  
9       (see **Table 2-5**). As vegetation treatments are implemented, livestock grazing may be  
10      modified temporarily or permanently to help ensure treatment success and progress towards  
11      meeting GRSG habitat objectives. However, in most cases, treatments (e.g., conifer  
12      removal) would maintain or improve forage conditions in the long term. Conversion of  
13      cheatgrass to sagebrush-steppe may reduce overall amounts of forage available, but would  
14      increase perennial bunchgrasses, which provide higher nutritional quality, and produce more  
15      consistent amounts of forage from year to year.

16      ***Impacts from Wildland Fire Management***

17      Under the Proposed Plan, impacts from wildland fire management would be similar to those  
18      described for Alternative D. Management actions would include an emphasis on fire  
19      suppression and reduction of fire risk in PHMA and IHMA, with potential for reduction in  
20      long term fire risk and related loss of livestock forage in these areas. Specific requirements  
21      include burn plans prior to use of prescribed fire in GRSG habitat and assessment of  
22      management needs based on local conditions as detailed in **Appendix D**. Wildfire, Invasive  
23      Annual Grasses and Conifer Expansion Assessments would also identify priority  
24      areas/treatment opportunities for fuels management, fire management, and restoration.

25      As discussed under Alternative D, targeted grazing could result in some site-specific  
26      temporary increases in available forage, but location and levels would be unpredictable and  
27      temporary; thus, impacts overall impacts on available forage would be minimal.

28      Under the Proposed Plan, GRSG habitat objectives would be incorporated into Emergency  
29      Stabilization and Burned Area Emergency Rehabilitation plans in accordance with the  
30      Restoration/Rehabilitation Strategy developed as a result of the Wildfire, Invasive Annual  
31      Grasses and Conifer Expansion Assessments. Management activities may be altered to meet  
32      objectives. As a result, grazing could be modified or excluded from restoration sites until  
33      GRSG objectives were met. However, incorporation of objectives would be based on site  
34      capability and potential and therefore would vary on a site-specific basis; site-specific  
35      changes to grazing management required would be determined at implementation.

36      In addition, grazing management may be adjusted on sites adjacent to burned areas to  
37      mitigate the impact of a wildfire on GRGS populations. As a result, some permittees may be  
38      impacted by both exclusion of livestock from a burned area and reduction of grazing or  
39      changes to management in adjacent allotments. Specific management changes and intensity  
40      of impacts would vary based on site specific conditions and wildfire occurrences.



1 As discussed in **Section 4.6.2**, fuels projects and fire suppression to protect sagebrush  
2 ecosystems and associated GRSG habitat would benefit livestock grazing where areas  
3 available to grazing overlap this habitat, due to a long term reduction in the likelihood of  
4 high intensity wildfire. Short term fuels reduction projects may result in temporary reduction  
5 in available forage on a site-specific basis. Under the Proposed Plan on National Forest  
6 System lands, measures to protect GRSG habitat from fire and associated fire operations  
7 would be beneficial to livestock grazing, especially in the 12-inch or less precipitation zone,  
8 because it would help prevent expansion of non-native invasive species such as cheatgrass.  
9 Although management to suppress and control the spread of wildfire under the Proposed  
10 Plan would decrease the risk of disturbance from wildfire in GRSG habitat, fires outside of  
11 GRSG habitat would possibly be at risk of decreased suppression efforts. Management  
12 direction to protect GRSG habitat from fire in higher elevation sagebrush habitats (i.e.,  
13 mountain big sagebrush) could indirectly negatively impact livestock grazing in the long-term  
14 as sagebrush potentially increases and forage production decreases.

### 15 ***Impacts from Energy and Mineral Development***

16 Similar to Alternative D, under the Proposed Plan, fluid mineral development would be  
17 permitted in GRSG habitat, with measures limiting surface disturbance. Specifically, SFAs,  
18 PHMA and IHMA would be available for leasing with NSO stipulations. GHMAs would be  
19 available with CSU stipulations. SFAs would be recommended for withdrawal from locatable  
20 mineral entry and PHMAs would be closed to mineral material leasing.

21 In addition, the Proposed Plan would include a 3 percent cap on anthropogenic disturbance  
22 applied in PHMAs at both the BSU and project levels. These measures, combined with the  
23 RDFs, buffers, and mitigation, would help to reduce potential disturbance of livestock  
24 forage and livestock as compared to Alternative A. Due to the limited conflicts between  
25 livestock grazing management and energy development under existing conditions, impacts  
26 would be minimal.

27 On National Forest System lands, management direction prohibiting solar and wind  
28 development in PHMA and imposing restrictions on development in IHMA would limit any  
29 impacts associated with ground disturbances from development of these resources. This  
30 management direction would limit the direct impacts of development and surface  
31 disturbances on existing rangelands, which would be beneficial to livestock grazing.

32 Under the Proposed Plan on National Forest System lands, new fluid mineral leases would  
33 require a no surface occupancy stipulation in priority habitat and controlled surface use and  
34 timing restrictions in general habitat. New leases would be prioritized in non-habitat first and  
35 then in the least suitable habitat for GRSG.

36 For existing leases under the Proposed Plan on National Forest System lands, leaseholders  
37 would be required to avoid and minimize surface disturbing and disruptive activities in  
38 priority habitat for leases that are not yet developed. In addition, reclamation plans would be  
39 designed to restore habitat to desired conditions described in **Table 2-6**. Fluid mineral

1 operations would be mitigated in priority habitat to reduce soil compaction to improve  
2 vegetation reestablishment and keep GRSG habitat disturbance to a minimum.

3 Surface disturbances would also be prohibited for unleased coal mines in priority habitat as  
4 well as other mitigation measures to reduce disturbances for leased coal mines and associated  
5 facilities. Locatable mineral, non-energy leasable, and mineral material operations in priority  
6 habitat would be mitigated to protect GRSG habitat.

7 Minerals management direction under the Proposed Plan on National Forest System lands  
8 would not impact livestock grazing in priority and general GRSG habitats because  
9 development and surface disturbance would be limited and the potential from development  
10 related disturbance of rangeland and forage resources would be reduced.

### 11 ***Impacts from Travel and Transportation Management***

12 Under the Proposed Plan, motorized travel would be limited to existing roads, primitive  
13 roads, and trails. Ability of permittees to access range improvements for maintenance or to  
14 utilize motorized vehicles to gather livestock could be impacted, as exceptions for  
15 administrative access would generally be granted only at permit renewal if not provided for  
16 within existing grazing permits or leases, potentially increasing time and costs of these  
17 management activities. Seasonal restrictions on motorized use could further impact ability of  
18 permittees to access allotments for management. Limitations on motorized travel could also  
19 reduce any conflicts between livestock and recreation, as discussed in **Section 4.6.2**,

20 Under the Proposed Plan, temporary closures would also be permitted as determined  
21 necessary for resource protection. Closures would further reduce disturbance livestock but  
22 have the potential to impact ability of permittees to access allotments and livestock using  
23 motorized vehicles. Under the Proposed Plan on National Forest System lands new road or  
24 trail and construction would be prohibited in GRSG habitat, and road construction within  
25 riparian and mesic meadows would be restricted. This direction would be beneficial to  
26 livestock grazing, indirectly improving forage production and improving overall rangeland  
27 conditions. However, impacts from roads and transportation would still occur in areas  
28 outside of priority and general GRSG habitats, which could indirectly impact grazing  
29 conditions through increased development.

### 30 ***Impacts from Livestock Grazing Management***

31 Grazing would be allowed on all lands identified as available as under Alternative A (see  
32 **Table 4-70**, Overview Comparison of Impacts on Range Management by Alternative within  
33 GRSG Habitat), although limited areas may be closed through site-specific decisions to meet  
34 habitat objectives.

35 Grazing management actions and impacts are similar to those described in Alternatives B  
36 and D. As described in Alternative D, the effect of grazing management practices on  
37 attainment of GRSG habitat objectives would be determined through the range health  
38 evaluation process. Management designed to meet applicable habitat objectives would be  
39 incorporated into BLM into grazing permits and leases through allotment management  
40 plans, permit renewals, and into Forest Service permits through the Forest Service NEPA

1 processes, with consideration for local objectives and site potential. Similar to Alternatives B  
2 and D, a moderate decline in permitted grazing is anticipated over time as permits are  
3 modified to meet objectives. In addition, the proposed plan would require analysis of  
4 management thresholds based upon habitat objectives within SFAs and PHMA, which may  
5 trigger modifications to annual grazing authorizations and/or grazing permits or leases  
6 within the term of the renewed grazing permit if monitoring data indicate that grazing  
7 management implementation is not resulting in expected progress towards meeting habitat  
8 objectives. When alternatives that implement thresholds and triggers are selected for grazing  
9 permits, implementation of the identified modifications within the life of 10-year grazing  
10 permits reduces operational certainty for permittees, and may impact their ability to plan and  
11 implement an economically feasible ranch or business plan. Because of this, magnitude of  
12 impacts to livestock grazing would be relatively higher for allotments within SFAs and  
13 PHMA.

14 Under the Proposed Plan, priority for land health assessment and permit renewal would  
15 include SFAs first followed by PHMAs outside the SFAs. Precedence will be given to  
16 existing permits/leases in these areas not meeting Land Health Standards, with focus on  
17 those containing riparian areas, including wet meadows. Changes in management would  
18 follow this priority order.

19 Existing grazing management would be maintained unless the current grazing system does  
20 promote applicable GRSG habitat objectives (**Table 2-6**, desired Seasonal Habitat  
21 Conditions), or if changes are needed to meet Standards and Guidelines or other resource  
22 objectives. Adjustments to grazing management or authorized grazing use level would be  
23 applied on a site specific basis and tailored to achieve objectives for GRSG based on habitat  
24 type in the areas assessed (i.e. breeding, nesting, wintering, etc.) as detailed in **Table 2-6**.  
25 Site-specific review of seasonal habitat type would be required as part of the land assessment  
26 process; quantitative analysis of current GRSG seasonal habitat conditions of allotments is  
27 not available and is likely to change over time based on precipitation patterns, wildfire  
28 occurrence, and other factors. Acres within nesting habitat may be likely to require changes  
29 to grazing management, due to the desired conditions for this habitat type, including  
30 perennial grass height of at least 7 inches, while acres in brood-rearing habitat may require  
31 adjustments to meet PFC and promote diversity and abundance of GRSG preferred forbs.  
32 The level and intensity of impacts would vary on a site-specific basis; changes in  
33 management would be commensurate with the scale and magnitude of deficiencies in  
34 meeting habitat objectives as caused or contributed to by ongoing livestock management.  
35 The scale and extent of modifications to grazing would also vary based upon the  
36 relationships of allotments and pastures to seasonal habitat patches and the scale of grazed  
37 areas not meeting habitat objectives. Modifications in use of grazing areas outside of the  
38 target habitat may also occur in order to develop logical and feasible grazing systems (e.g. if  
39 the season of use is modified in one pasture containing nesting habitat, this may necessitate  
40 changes in season of use in all pastures in the allotment to coordinate grazing use and  
41 livestock movements).

1 Under the Proposed Plan, as under other alternatives, BLM grazing preference may be  
2 voluntarily relinquished, and grazing on Forest Service allotments may be waived without  
3 preference. Under the Proposed Plan, the BLM or Forest Service may determine whether  
4 AUMs associated with relinquished grazing preference or waived allotments should be  
5 retired, remain available for livestock grazing or be used for other resource management  
6 objectives per WO IM 2013-184. This may result in long term reduction of overall available  
7 AUMs, with potential for economic impacts on local communities that depend on livestock  
8 grazing. Economic impacts are further discussed in **Section 4.22**, Socioeconomic impacts. If  
9 AUMs associated with relinquished grazing preference are maintained as a forage reserve for  
10 use by permittees who are displaced by wildfire or restoration activities, disruption of  
11 livestock operations could be decreased over the long-term.

12 Under the Proposed Plan some additional limitations would apply to structural range  
13 improvements, as compared to Alternative A, including limitations on fence construction  
14 and tall structures near occupied leks, as detailed in project RDFs and BMPs (**Appendix B**).  
15 New and existing structural range improvements would be required to have a neutral effect  
16 or conserve, enhance, or restore GRSG. These restrictions could increase the time or costs  
17 for construction and maintenance of improvements but should allow sufficient flexibility  
18 that permittees could utilize range improvements to effectively manage livestock.

19 Under the Proposed Plan on National Forest System lands, livestock grazing would be  
20 managed to achieve or maintain desired conditions in GRSG seasonal habitats as described  
21 in **Table 2-6**. Livestock grazing would also be managed in order to maintain residual  
22 perennial grass height to provide for adequate GRSG nesting cover according to the  
23 guidelines described in **Table 2-6**.

24 Current direction for livestock grazing under Alternative A is generally less restrictive than  
25 direction described under the Proposed Plan, therefore, grazing use guidelines under the  
26 Proposed Plan would directly impact livestock grazing management on National Forest  
27 System lands. Impacts could include modification of grazing strategies or rotation schedules,  
28 changes to the season of use, changes to kind and class of livestock, closure of a portion of  
29 an allotment, or reduction of livestock numbers. Implementation of this management  
30 direction could result in the reduction of AUMs on some allotments, and possibly overall  
31 operation viability. The level and intensity of impacts could vary on a site specific basis with  
32 permitted grazing likely decreasing moderately over time as permits are modified to achieve  
33 desired conditions and meet annual grazing use guidelines.

34 Implementation of Forest Service grazing guidelines could also directly impact permittees by  
35 increasing the amount of time permittees spend to manage livestock on National Forest  
36 System lands as well as the total costs to a livestock operation. Impacts would occur at the  
37 allotment scale as management direction is incorporated into permits, allotment management  
38 plans, and annual operating instructions.

39 Grazing use guidelines under the Proposed Plan on National Forest System lands would  
40 impact about 264 allotments, 1,409,546 acres, and 454,376 AUMs in nesting and brood  
41 rearing seasonal habitats within active grazing allotments. Under the Proposed Plan on

1 National Forest System lands sheep camps would not be located within 1.2 miles from the  
2 perimeter of a lek during lekking season and trailing of livestock during breeding and nesting  
3 seasons would be minimized during breeding and nesting seasons. This management  
4 direction would result in the need to modify grazing practices with increased costs for  
5 permittees in these areas.

6 Additional constraints under the Proposed Plan on National Forest System lands would also  
7 apply to structural range improvements in priority GRSG habitat compared to Alternative A.  
8 These include prohibiting fence construction or reconstruction within 1.2 miles from the  
9 perimeter of occupied leks unless the collision risk can be mitigated through design features  
10 or markings, not constructing new permanent livestock facilities (e.g., windmills, water tanks,  
11 corrals) within 1.2 miles from the perimeter of occupied leks, and not constructing water  
12 developments in priority habitat unless they are beneficial to GRSG.

13 Prohibitions on new structural improvements could limit the ability of permittees to  
14 effectively distribute livestock resulting in increases in time and costs to permittees and  
15 potentially the full use permitted AUMs. Although these constraints could increase the  
16 amount of time permittees spend to manage livestock on National Forest System lands, it  
17 should allow sufficient flexibility that permittees could continue to utilize structural range  
18 improvements to effectively distribute livestock.

19 Under the Proposed Plan, the Forest Service would consider closure of grazing allotments,  
20 pastures, or portions of pastures, or managing the allotment as a forage reserve as  
21 opportunities as opportunities arise where removal of livestock would enhance the ability to  
22 achieve desired habitat conditions as described in **Table 2-6**. These actions would occur  
23 according to applicable regulations and, if implemented, would result in the reduction of  
24 overall available AUMs.

25 Managing livestock grazing to achieve the desired conditions in **Table 2-6** and livestock use  
26 guidelines in **Table 2-8** may indirectly benefit rangeland conditions by increasing vegetation  
27 productivity and increasing forage in the long term. This in turn would provide managers  
28 and permittees better management options, especially on those allotments where livestock  
29 numbers are approaching a sustainability threshold or during drought and other disturbances  
30 such as wildfire.

### 31 ***Impacts from Special Designations Management***

32 No new special designation areas are proposed under the Proposed Action, therefore no  
33 impacts would occur to livestock grazing management.

### 34 ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and*** 35 ***Coordination***

36 Livestock grazing and related range improvements are not included as anthropogenic  
37 disturbances in calculation of the anthropogenic disturbance cap, therefore, no direct  
38 impacts would occur to livestock grazing management as a result of the cap. Limitations of  
39 Anthropogenic disturbance would generally result in a reduction in development in GRSG

1 habitat and a related reduction in disturbance of livestock and would maintain livestock  
2 forage.

3 If adaptive management triggers are met and livestock management is identified as a  
4 contributing factor, then short-term adjustment of management would be required as  
5 identified in the Adaptive Grazing Management Response, **Appendix G**. Accelerated  
6 assessment of suspected habitat deficiencies would be conducted and used to identify  
7 management actions that would be implemented to ensure that livestock grazing is not  
8 contributing to further declines in the long-term within the affected Conservation Area  
9 While management changes may be implemented in the short-term on allotments where  
10 habitat is meeting GRSG habitat objectives, as discussed under livestock grazing  
11 management impacts, impacts would be limited in scale to that determined necessary to  
12 mitigate impacts in the short-term while site-specific assessments and management actions  
13 are identified and implemented. Conservation areas that have tripped adaptive management  
14 triggers would be prioritized for HAF, rangeland health assessments and review of grazing  
15 permits.

#### 16 **4.7 Travel Management**

17 This section discusses impacts on travel and transportation management from proposed  
18 BLM and Forest Service management actions. Existing conditions concerning travel and  
19 transportation management are described in **Section 3.10**.

20 Travel and transportation management supports and helps achieve the objectives of other  
21 resource programs, particularly such resource uses as recreation, mineral development, and  
22 lands and realty. At the resource management planning level, impacts on travel and  
23 transportation management occur when management restricts travel access, such as by  
24 closing an area to motorized travel.

25 Since travel management decisions impact other resource areas—for example, closing or  
26 limiting travel to protect sensitive soil resources—impacts of travel management actions on  
27 other resources and uses are discussed in the respective resource sections of this chapter.  
28 Accordingly, while impacts on travel and transportation management from other program  
29 areas do occur and are considered as part of transportation management planning, this  
30 section does not address the impacts on travel and transportation management from other  
31 resources and resource uses.

##### 32 **4.7.1 Methods and Assumptions**

###### 33 ***Indicators***

34 Indicators of impacts on travel and transportation management from BLM and Forest  
35 Service management to protect GRSG are changes in the following:

- 36 • The acreages designated as open, limited, or closed to motorized  
37 travel
- 38 • The types and timing of transportation activities occurring on  
39 routes that could impact GRSG or its habitat

1        ***Assumptions***

2        In addition to the assumptions in **Section 4.1.1**, this analysis includes the following  
3        assumptions:

- 4                    • The BLM recognizes roads, primitive roads, and trails as the  
5                    three types of linear features that comprise the existing  
6                    transportation system. These features are formally recognized  
7                    based on an inventory of the planning area. Some routes may be  
8                    designated for specific uses in a travel management plan. Other  
9                    linear features used for transportation but not formally  
10                    designated or recognized are considered linear disturbances.  
11                    These features are not part of the BLM transportation system  
12                    (BLM 2006b).
- 13                    • Some primitive roads and trails in the northern portion of the  
14                    planning area and higher elevations may not be used during  
15                    GRSG lekking and wintering seasons because they are not  
16                    passable, while those in the southern part of planning area and  
17                    in lower elevation areas may receive higher use.
- 18                    • The demand for general access to travel routes on BLM-  
19                    administered and National Forest System lands would remain  
20                    steady or increase over the life of the LUPs.
- 21                    • The BLM and Forest Service acknowledge that snow machines  
22                    and mechanized access in the snow is expanding, but generally  
23                    occurs in higher elevations areas where there is consistent snow  
24                    pack and less GRSG habitat.
- 25                    • Administration of updated agency travel management policy,  
26                    rules, and planning and design guidelines is improving public  
27                    land travel systems, making them more sustainable while  
28                    decreasing potential impacts on resources.
- 29                    • OHV use will continue to increase and with this increase the  
30                    potential for resource and user conflict may increase.
- 31                    • The designation of individual routes is an implementation level  
32                    process and typically follows the planning process.
- 33                    • Travel systems are dynamic and will be changed through  
34                    subsequent implementation-level planning.
- 35                    • Implementation of a travel management plan would include  
36                    increased public education, signing, enforcement, and resource  
37                    monitoring in regard to travel management.

1 **4.7.2 Nature and Type of Effects**

2 Impacts on travel and transportation management are those that restrict or enhance travel,  
3 such as managing areas as closed or limited to off-highway motorized travel or restrict where  
4 new routes can be created and existing ones expanded.

5 **Table 4-71**, OHV Area Designations by Alternative, summarizes motorized travel  
6 designation by alternative.

**Table 4-70**  
**OHV Area Designations by Alternative**

		Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Proposed Plan
BLM	Open	2,880,300	254,800	50	50	1,783,000	254,800	3,360
	Limited to existing routes	5,725,000	8,798,000	8,563,300	8,605,300	6,815,800	8,798,000	8,856,100
	Closed	711,400	716,800	706,200	711,400	707,900	716,800	710,600
Forest Service	Limited to designated routes	2,040,700	1,861,800	1,861,900	2,040,700	1,867,000	1,861,800	1,560,700

Source: BLM GIS 2015

7  
8 Management actions that prohibit cross-country motorized travel would minimize the  
9 creation of new transportation linear disturbances, enabling BLM and Forest Service travel  
10 management actions to manage and improve access on linear features in the transportation  
11 system.

12 Restrictions on new route construction or expansion of existing routes would direct users  
13 elsewhere in the transportation network, potentially impacting those areas from the added  
14 activity. Additionally, management actions that restrict future route construction, including  
15 adaptive management strategies that prohibit future disturbance upon reaching a disturbance  
16 cap, would arbitrarily limit the ability of the transportation system manager to accommodate  
17 increased travel demands over time or address minimization techniques (i.e. affects to  
18 wildlife per criteria b, 8340.1). Conflicts among route users could increase if the existing  
19 network becomes congested.

20 Implementing management for all other resources and uses would have negligible or no  
21 impact on comprehensive travel and transportation management; therefore they are not  
22 discussed in detail.



### 4.7.3 Impacts on Travel Management Common to All Alternatives

The nature and type of impacts described below are common to all alternatives, but the context and intensity may vary by alternative.

Under all alternatives the BLM would defer travel management route designations to a separate process following the current LUPA process. As such, for each alternative, the BLM would maintain current management of areas closed to cross-country motorized travel and would manage varying acreages as limited to existing routes. The Forest Service has already undertaken a route designation process. As a result, motorized travel is limited to designated routes on National Forest System lands under all alternatives. Areas of disturbance associated with these designated routes vary slightly by alternative. **Table 4-71, OHV Area Designations by Alternative**, summarizes the total areas open, limited, and closed to cross-county motorized travel by alternative.

### 4.7.4 Alternatives Analysis

In accordance with 43 CFR 8342.1, current BLM management limits motorized travel to existing roads and trails within portions of the planning area, while allowing cross-country travel in other areas. Under Alternative A, the BLM and Forest Service would maintain current levels of travel management, as identified in the existing planning documents. For example, BLM-administered lands currently designated as open to cross-country OHV use (over 2.8 million acres) would continue to be managed as such. Motorized travel on National Forest System lands would continue to be limited to designated routes. There would be no new restrictions on GRSG habitat management and no change in impacts on travel management.

Under Alternative B, the BLM would limit motorized travel to existing roads and trails in PHMA. Motorized travel on National Forest System lands would continue to be limited to designated routes with a total disturbance area of over 2 million acres. The area designation change on BLM-administered lands from open to limited would reduce cross-country access in those portions of PHMA that were previously managed as open. Applications for upgrading or realigning routes would be required to meet certain design, location, and mitigation criteria intended to protect GRSG habitat. These requirements may preclude the construction of some new routes but would be unlikely to reduce access across the decision area.

Alternative B would also require increased signs and education alerting OHV users of limitations on cross-country travel. It would add processing requirements for transportation-related projects in GRSG habitat. Signs and education would likely improve travel management by reducing user and resource conflicts; added processing requirements could increase the time needed to approve new projects and result in site-specific increases in congestion if portions of the current route system become overcrowded. Alternative B's restrictions on OHV travel would make active livestock management more difficult because of the difficulty of access to the allotments.

1 Alternative C would result in the greatest reduction in access, when compared to Alternative  
2 A. For example, under Alternative C, motorized cross-country travel would be prohibited in  
3 all GRSG habitats. Additionally, in PHMA, new road construction within 4 miles (6.4 km) of  
4 active leks would be prohibited. Upgrading existing routes where it would damage occupied  
5 GRSG habitat would also be precluded. Together, these actions would result in site-specific  
6 losses of opportunity for motorized travel, future route construction, and improved access.  
7 Similar to Alternative B, Alternative C's restrictions on OHV travel would make active  
8 livestock management more difficult because of the difficulty of access to the allotments.

9 Under Alternative D, motorized travel in PHMA would be limited to existing routes on  
10 BLM-administered lands and designated routes on National Forest System lands.  
11 Undesignated routes would be designated as part of a future travel management planning  
12 process. There would be no areas within GRSG habitat managed as open to cross-country  
13 OHV travel under Alternative D, which would reduce cross-country access in areas  
14 previously managed as open. In those areas managed as limited to existing routes, impacts  
15 on travel and transportation management under Alternative D are the same as Alternative B  
16 and are consistent with **Section 4.6.2**. Similar to Alternative B, Alternative D's restrictions  
17 on OHV travel would make active livestock management more difficult because of the  
18 difficulty of access to the allotments.

19 Impacts under Alternative E are the same as under Alternative A, while impacts under  
20 Alternative F are the same as under Alternative B.

### 21 ***Impacts from Travel and Transportation Management***

22 Impacts from limiting motorized travel to existing routes on 99 percent (10,416,800 acres) of  
23 the planning area would be consistent with those described in the ***Nature and Types of***  
24 ***Effects***.  
25

26 During subsequent travel management planning, the designation of individual routes would  
27 allow BLM to manage the types of travel on individual routes to avoid impacts on GRSG  
28 and its habitat. Restricting motorized travel on roads and primitive roads in lower elevations  
29 of the planning area would result in greater effects on travel opportunities because these  
30 routes are passable year-round and have higher traffic volumes.

31 Seasonal restrictions to minimize impacts on GRSG and its habitat would prevent road  
32 maintenance and could make certain roads impassable until the required maintenance could  
33 be performed.

34 RDFs for roads and travel management would likely limit the number of routes in GRSG  
35 habitat, but would enhance the long-term condition of routes available for public and/or  
36 permitted use by requiring design features to ensure routes accommodate their anticipated  
37 uses. Best practices for decommissioning routes would likewise direct traffic to higher-  
38 quality routes that remain open for use and will adequately facilitate access over the long  
39 term.

1       ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and***  
2       ***Coordination***

3       If there is a future decline in GRSG or its habitat and the decline is attributable to travel  
4       management, the BLM would evaluate management alternatives that could result in more  
5       restrictions on travel and decrease travel opportunities.

6       Where re-routing new roads is required to avoid GRSG impacts (habitat and/or  
7       disturbance), those actions could result in longer roads with overall greater surface  
8       disturbance.

9       If the 3 percent disturbance cap within a BSU is reached, new surface disturbance within the  
10      BSU would be prohibited, thus preventing new road development. In these areas, the BLM  
11      and Forest Service would be unable to accommodate additional travel demand until the  
12      disturbance falls below the disturbance cap.

13   **4.8   Lands and Realty**

14      BLM-administered and National Forest System lands are used for a variety of purposes.  
15      Major focus areas for the lands and realty program include land use authorizations, land  
16      tenure adjustments, and land withdrawals. The Forest Service completes landownership  
17      adjustments (purchase, exchange, donation, and ROW acquisition), while the BLM conducts  
18      land tenure adjustments (exchanges, disposals, and acquisitions).

19      This section discusses impacts on lands and realty from proposed management actions of  
20      other resources and resource uses. Existing conditions concerning lands and realty are  
21      described in **Section 3.11**.

22                   **4.8.1   Methods and Assumptions**

23           ***Indicators***

24           Indicators of impacts on lands and realty are as follows:

- 25                   • Acres of BLM-administered and National Forest System surface  
26                   ownership, which include federal surface with private minerals,  
27                   in the planning area.
- 28                   • Acres of BLM-administered and National Forest System surface  
29                   ownership affected by ROW and Special Use Authorization  
30                   (SUA) allocations (i.e., exclusion, avoidance, open).
- 31                   • Acres of BLM-administered and National Forest System surface  
32                   ownership affected by ROW and SUA restrictions (e.g., BMPs,  
33                   RDFs, seasonal restrictions, buffers).
- 34                   • Acres/miles of designated ROW corridors open to ROW and  
35                   SUA development in the planning area.
- 36                   • Number, acres, type, and density of surface-disturbing ROWs,  
37                   SUAs, and leases in the planning area.

- Acres of potential land tenure adjustments (i.e., lands identified as suitable for disposal, acquisition, or exchange) in the planning area.

#### ***Assumptions***

This analysis includes the following assumptions:

- Authorized ROWs, SUAs, permits and leases would continue to be managed subject to valid existing rights.
- Mitigation by burying power lines, collocation, or including design features (e.g., perch deterrents) reduces impacts on GRSG.
- The demand for both energy- and non-energy ROWs/SUAs is anticipated to remain steady or gradually increase over time.
- No utility-scale (20 MW) solar energy ROWs/SUAs are anticipated due to low solar energy potential.
- Activities proposed or approved for mineral exploration or development have potential implications for lands and realty decisions for associated ROWs/SUAs.
- Collocation does not eliminate the potential for new temporary or permanent surface disturbance.
- The BLM and Forest Service would continue to manage all previously withdrawn lands as withdrawn from entry, appropriation, or disposal under the public land laws. Withdrawals would be reviewed as needed and recommended for extensions, modifications, revocations, or terminations. All existing withdrawals initiated by other agencies would be continued unless the initiating agency, BLM, or the Forest Service requests that the withdrawal be extended, modified, revoked, or terminated.
- Any lands that become unencumbered by withdrawals or classifications will be managed according to the decisions made in this LUPA. If the LUPA has not identified management prescriptions for these lands, they will be managed the same as adjacent or comparable public lands within the decision area.
- Designated utility corridors have a higher probability for development because of their designation in existing land use plans.
- Upgrades to existing power lines will occur within existing designated corridors, unless an alternate route benefits GRSG.

1                   **4.8.2 Nature and Type of Effects**

2           BLM and Forest Service management of resources and uses affects the lands and realty  
3           program by increasing or decreasing the BLM and Forest Service lands and realty programs'  
4           ability to carry out land use authorization or land tenure/land ownership adjustment actions.  
5           Effects on the lands and realty program are typically the result of management that excludes  
6           or avoids ROWs or SUA in certain areas, requires stipulations on land use activities, or  
7           applies criteria for land tenure actions.

8           Forest Service land use plan prescriptions are similar to BLM exclusion and avoidance areas.  
9           Prescriptions can restrict or prohibit certain uses in a planning area. The Forest Service  
10          grants SUAs, while the BLM grants ROWs on their respective agency lands. In addition,  
11          each agency issues permits, easements and leases. The Forest Service completes  
12          landownership adjustments (purchase, exchange, donation, and ROW acquisition), while the  
13          BLM conducts land tenure adjustments (withdrawals, disposals through sale or exchange,  
14          and acquisitions through purchase or exchange)

15          Within a BLM ROW exclusion area, the authorization of new ROWs is not allowed under  
16          any conditions; SUA authorizations would be prohibited on National Forest System lands. A  
17          ROW avoidance area may be available for ROW location but requires special stipulations  
18          such as resource surveys and reports, construction and reclamation engineering, long-term  
19          monitoring, special design features, special siting requirements, timing limitations, regional  
20          mitigation, and rerouting. Such stipulations could restrict project location or delay the  
21          availability of an energy supply by delaying or restricting construction of pipelines,  
22          transmission lines, or renewable energy projects. Additionally, such stipulations could limit  
23          future access, delay or increase the cost of energy supplies, or delay or restrict  
24          communications service availability. As a result of such stipulations, alternative routes may  
25          need to be identified and selected to protect GRSG habitat and there may be increased  
26          processing time and costs due to the potential need to relocate facilities or due to greater  
27          design, mitigation, and siting requirements.

28          Management that restricts ROW development in a certain area will eventually increase the  
29          concentration of ROW development in adjacent areas where restrictions are not present.  
30          Increased ROW density can limit new siting options in non-restricted areas, decrease service  
31          reliability to rural areas, increase conflict among facilities, and intensify impacts on other  
32          resources and uses.

33          Co-locating infrastructure in existing ROWs, corridors, or existing disturbed areas reduces  
34          land-use conflicts, limits disturbance to the smallest footprint, and limits impacts to greater  
35          sage-grouse or their habitats. Co-location policies also clarify the preferred locations for  
36          utilities, and potentially simplifying processing on BLM-administered and National Forest  
37          System lands. However, collocating can limit options for infrastructure development and  
38          could reduce network redundancy and potentially affect service reliability in some areas.

39          Land tenure and landownership adjustments are intended, among other things, to maintain  
40          or improve the landownership pattern for the protection and management of resources,

1 including management of GRSG habitat. Land disposal, exchange, purchase, or sale can  
2 result in a more contiguous decision area, thus increasing the efficiency of BLM and Forest  
3 Service management. However, while consolidation may be beneficial for certain resources  
4 and uses, it may not necessarily reduce effects on GRSG habitat.

5 Implementing management for the following resources would have negligible or no impact  
6 on lands and realty management and are not discussed in detail: travel and transportation  
7 management, recreation, range management, locatable minerals, non-energy leaseables,  
8 mineral split estate, fire and fuels management, habitat restoration and vegetation  
9 management, and ACECs.

#### 10 **4.8.3 Impacts on Lands and Realty Common to All Alternatives**

11 The nature and type of impacts described below are common to all alternatives, but the  
12 context and intensity may vary by alternative.

##### 13 ***Impacts from Recreation and Visitor Services***

14 BLM and Forest Service management goals and objectives are to preserve a desired setting  
15 and recreation experience for users within SRMAs and developed recreation sites. Land uses  
16 in the SRMAs and developed recreation sites should not conflict with recreation uses. Under  
17 all alternatives, the BLM and Forest Service would continue to evaluate land use  
18 authorizations on a case-by-case basis in the special recreation areas and near recreation sites  
19 so as to avoid conflicting uses.

##### 20 ***Impacts from Special Designations Management***

21 Under all alternatives, the BLM and Forest Service would continue to manage existing  
22 special designation areas according to the existing LUP designations. Limiting ROW  
23 development in special designation areas impacts the ability of the BLM and Forest Service  
24 to accommodate ROW authorization demands within the planning area. This is particularly  
25 the case in locations where special designation areas separate energy sources (e.g., wind or  
26 geothermal) from likely demand centers. Routing transmission lines around exclusion areas  
27 could result in longer ROWs with greater surface disturbance and extended processing times.

#### 28 **4.8.4 Alternative A**

##### 29 ***Sage-Grouse Management***

30 GRSG management actions have been incorporated in the Dillon Field Office and for the  
31 Beaverhead/Deerlodge and Caribou National Forests. Within these areas, impacts on the  
32 lands and realty program are as follows:

- 33 • Additional siting criteria for ROWs proposed next to leks or within breeding or  
34 nesting habitat
- 35 • Required design features for certain types of infrastructure
- 36 • Extended processing times to review ROW applications for compliance with  
37 GRSG habitat management objectives

1 In the portions of the planning where land use plans do not contain GRSG management  
2 actions, there would be no impacts on lands and realty under Alternative A.

### 3 ***Impacts from Travel and Transportation Management***

4 Under Alternative A, existing transportation routes would continue to provide motorized  
5 access to ROW infrastructure and communication sites for construction and maintenance.  
6 Refer to **Section 4.6** for further analysis.

### 7 ***Impacts from Lands and Realty***

#### 8 *Land Use Authorizations*

9 Under Alternative A, 1,956,200 acres on both BLM-administered and National Forest  
10 System would continue to be managed as ROW avoidance areas, and 1,028,500 acres would  
11 continue to be managed as ROW exclusion. Within exclusion areas, new ROW development  
12 would be prohibited, which would prevent the lands and realty program from approving  
13 new applications within these areas. All other lands within the decision area would continue  
14 to be open for ROW development. Alternative A would not prevent the BLM or Forest  
15 Service from accommodating future demand for ROW development within the planning  
16 area.  
17

18 BLM-administered and National Forest System lands would continue to be available for  
19 multiple-use and single-use communication sites and road access ROW authorizations on a  
20 case-by-case basis, in accordance with Title V of FLPMA, 43 CFR Part 2800 regulations, and  
21 Section 704(c) of the Telecommunications Act of 1996 (47 USC 332). All ROW applications  
22 would be reviewed using the criteria of collocating new ROWs within or next to existing  
23 ROWs wherever practical to avoid the proliferation of separate ROWs.

#### 24 *Wind and Solar ROWs*

25 Wind and solar energy projects would be permitted through the ROW permitting process.  
26 For wind and solar energy development under Alternative A, the BLM would manage  
27 1,715,800 acres as ROW exclusion and 320,200 acres as ROW avoidance. The Forest Service  
28 would continue to manage 227,700 acres as closed to new wind and solar use authorizations,  
29 while new wind and solar development would be avoided on 1,018,900 acres on National  
30 Forest System lands.

31 ROW exclusion and avoidance designations decrease the amount of BLM-administered and  
32 National Forest System land available for new development. Under Alternative A, the BLM  
33 and Forest Service management would provide sufficient opportunities to accommodate  
34 future wind and solar energy development within the planning area. Therefore, there would  
35 be little to no impacts on wind or solar energy development under Alternative A. (Refer to  
36 **Section 4.8.2** for impact analysis regarding geothermal resources)

#### 37 *Withdrawals*

38 There would continue to be 4,032,400 acres of land withdrawals in the planning area,  
39 including 2,224,100 acres in GRSG habitats.

1       ***Impacts from Special Designations Management***

2       Under Alternative A, nine ACECs would continue to be managed primarily as ROW  
3       exclusion. This would affect ROW permit application processing times, available  
4       development locations, and design standards for proposed ROWs on approximately 426,700  
5       acres within the planning area. Refer to **Section 4.12**, Special Designations, for further  
6       analysis.

7                       **4.8.5 Alternative B**

8       ***Sage-Grouse Management***

9       Management actions under Alternative B to protect GRSG habitat would impact lands and  
10      realty by closing areas to ROW authorizations, additional criteria for land exchanges, and  
11      limitations on new mineral development and road construction. Primary impacts under  
12      Alternative B are from the designation of an additional 7.3 million acres as ROW exclusion  
13      and an additional 582,800 acres as ROW avoidance, compared to Alternative A.

14     In exclusion areas, the BLM and Forest Service would be prohibited from approving new  
15     ROW development. In avoidance areas, development would be allowed only if certain siting  
16     and design requirements could be met. ROW restrictions under Alternative B would  
17     substantially reduce the ability of the BLM and Forest Service to accommodate demand for  
18     interstate and intrastate gas pipelines and electric transmission lines, wind and solar energy  
19     development, fiber optic lines, and communication sites.

20      ***Impacts from Travel and Transportation Management***

21      Impacts from travel and transportation management under Alternative B are the same as  
22      under Alternative A. Proposed action under Alternative B to prioritize travel management  
23      planning in PHMA, which would design and designate a travel system that minimizes  
24      adverse effects on GRSG habitat, is an activity-level process and would be accompanied by  
25      separate environmental review and documentation. Refer to **Section 4.6** for further analysis.

26      ***Impacts from Lands and Realty***

27                       ***Land Use Authorizations***

28      Under Alternative B, 8.3 million acres would be designated as ROW exclusion. Neither the  
29      BLM nor the Forest Service would authorize new ROWs in these areas unless the  
30      infrastructure could be located entirely within an existing ROW footprint. Additionally, 2.5  
31      million acres would be designated ROW avoidance. As noted above in **Section 4.7.2**,  
32      managing GRSG habitat as ROW exclusion or avoidance would prevent the BLM and  
33      Forest Service from accommodating new ROW development in those areas.

34      With a continuing demand for new ROWs in the planning area, including major interstate  
35      and intrastate electrical transmission lines, gas pipelines, and communication ROWs,  
36      developments would be diverted to adjacent private or state lands or would be prevented  
37      altogether. Development on adjacent lands could result in direct and indirect impacts on  
38      GRSG populations and habitat (e.g., vehicle traffic on roads crossing BLM-administered and  
39      National Forest System lands). This would be the case especially if the development is close  
40      to GRSG habitat on BLM-administered or National Forest System lands.  
41



1 If new ROW development, particularly interstate electrical transmission, fiber optic, and gas  
2 pipelines, could not be feasibly developed due to ROW exclusions on BLM-administered  
3 and National Forest System lands in the planning area, then energy and communication  
4 development opportunities needed to meet a growing demand would be reduced until  
5 alternative routes or technology could be developed.

6 Within avoidance areas, the BLM and Forest Service would continue to process ROW  
7 applications but would require additional requirements before authorizing the ROW.  
8 Supplemental design criteria and siting limitations would decrease the level of future ROW  
9 development in avoidance areas.

10 Additionally, under Alternative B, the BLM and Forest Service would take advantage of  
11 opportunities to remove, bury, or modify existing power lines. Limitations on new ROWs  
12 and aboveground lines, such as transmission lines and pipelines, could restrict the availability  
13 of energy or service availability and reliability for communication systems.

#### 14 *Wind and Solar ROWs*

15 Under Alternative B, utility-scale wind and solar energy would be excluded on 8.5 million  
16 acres and would be avoided on 2.3 million acres. ROW exclusion and avoidance decreases  
17 the BLM's and Forest Service's ability to accommodate new wind and solar energy  
18 development in GRSG habitats. However, impacts would occur only in areas statewide that  
19 are considered developable, such as locations where wind speeds are greater than 23 feet [7  
20 meters] per second). Therefore, excluding or avoiding wind and solar energy development in  
21 GRSG habitat would reduce but not eliminate renewable energy development potential  
22 within the sub-region.

#### 23 *Land Tenure and Landownership*

24 The BLM and Forest Service would retain administration of public land in PHMA.  
25 Exceptions would be where land tenure adjustments would result in more contiguous federal  
26 ownership patterns or where disposal accompanied by a habitat mitigation agreement or  
27 conservation easement would result in more effective management of GRSG habitat.  
28 Impacts would be consistent with those described in **Section 4.7.2**.

#### 29 *Withdrawals*

30 Under Alternative B, land withdrawals in PHMA and GHMA would total 2,223,100 acres.  
31 Additionally, the BLM or Forest Service would recommend all PHMA for mineral  
32 withdrawal. However, withdrawal would be subject to Congress's approval. The BLM or  
33 Forest Service would not recommend approval of withdrawals for reasons other than  
34 mineral activity. In withdrawn areas, BLM-administered or National Forest System lands  
35 would not be available for mineral extraction for a defined period. Impacts on mineral  
36 development are described in **Sections 4.8** through **4.11**.

#### 37 *Impacts from Special Area Designations*

38 Under Alternative B there would be no impacts from ACECs or ZAs on lands and realty.

1                                   **4.8.6 Alternative C**

2                   ***Sage-Grouse Management***

3 Management actions under Alternative C to protect GRSG habitat would impact lands and  
4 realty through by designating over 10 million additional acres as ROW exclusion, compared  
5 to Alternative A. A ten-fold increase in ROW exclusion area would result in the most ROW  
6 restrictions of any alternative. It would prevent the BLM and Forest Service from  
7 accommodating demand for new transmission lines, gas pipelines, communication sites,  
8 wind energy facilities, and other types of ROWs. Additional management prescriptions for  
9 land tenure and road construction would further constrain BLM-administered and National  
10 Forest System lands and realty program functions in GRSG habitat.

11                   ***Impacts from Travel and Transportation Management***

12 Impacts from travel and transportation management under Alternative C would prohibit  
13 new road construction within four miles (6.4 km) of active leks. The proposed management  
14 under Alternative C would limit new road construction on BLM-administered and National  
15 Forest System lands throughout occupied habitat. Limitations on road construction would  
16 reduce the number of new road ROW applications submitted to the BLM. The limitations  
17 would make certain areas impractical for new ROW authorizations, particularly in areas  
18 where there are few or no ROWs or roadways. Refer to **Section 4.6** for further analysis.

19                   ***Impacts from Lands and Realty***

20  
21                   ***Land Use Authorizations***

22 Under Alternative C, all occupied habitat (11.1 million acres) would be designated as ROW  
23 exclusion. The BLM and Forest Service would not authorize new ROWs in exclusion areas  
24 unless the infrastructure could be located in an existing ROW. Impacts under Alternative C  
25 are similar to Alternative B except that under Alternative C exclusion areas would apply to a  
26 larger land area. Therefore, Alternative C would further reduce opportunities for  
27 communication facilities, gas pipelines, fiber optic cables, electrical transmission lines, and  
28 similar ROW development. There is a continuing demand for these ROWs in the planning  
29 area to meet energy and communication needs outside the planning area; Alternative C  
30 would reduce the ability of the BLM and Forest Service lands and realty programs from  
31 meeting those needs.

32                   ***Wind and Solar ROWs***

33 Management of 11.1 million acres as exclusion for utility-scale wind and solar energy  
34 development would eliminate the BLM and Forest Service's ability to accommodate any new  
35 wind or solar energy demand on that portion of GRSG habitat. ROW exclusions would also  
36 inhibit development on adjacent private and state land where transmission infrastructure  
37 would be needed across BLM-administered or National Forest System lands.

38                   ***Land Tenure and Landownership***

39 Under Alternative C, the BLM and Forest Service would retain public ownership in PHMA,  
40 with no exceptions. Impacts would be consistent with those described in **Section 4.7.2**.

1        *Withdrawals*

2        Under Alternative C, the total acres of land withdrawals are the same as under Alternative A.  
3        However, GRSG-occupied habitat, would be withdrawn from mineral entry. Impacts under  
4        Alternative C from withdrawals are the same as under Alternative B, except that mineral  
5        withdrawal would apply to all GRSG habitat. Refer to **Sections 4.8** through **4.11** for further  
6        analysis related to mineral development.

7        ***Impacts from Special Designations Management***

8        Under Alternative C, the BLM would designate 39 new ACECs, equivalent to approximately  
9        3.1 million acres. No Forest Service ZAs would be designated. Management for the ACECs  
10       would be tailored to protect the relevant and important values (i.e., GRSG habitat) for which  
11       the ACECs would be designated. All lands within the ACECs would be managed as ROW  
12       exclusion, which would prohibit new ROW development in those areas. Under Alternative  
13       C, infrastructure development and other ROWs would be directed to adjacent BLM-  
14       administered or National Forest System lands or to private lands. Alternative F would result  
15       in an overall reduction in new land use authorizations. New land use authorizations would  
16       be further reduced if ROW applicants could not find suitable alternative development  
17       locations outside ACECs. Refer to **Section 4.12**, Special Designations, for further analysis.

18                    **4.8.7 Alternative D**

19        ***Sage-Grouse Management***

20        Management proposed under Alternative D would enable the BLM and Forest Service to  
21        accommodate certain types of ROW development, because there would be no exclusion  
22        areas. However, it would exclude ROWs for large infrastructure development, such as  
23        electrical transmission lines greater than 50kV, and renewable energy testing and generation,  
24        on over 6.2 million acres. In addition, there would also be 2 million more acres of ROW  
25        avoidance areas, compared to Alternative A. Under Alternative D, the BLM-administered  
26        and National Forest System lands and realty programs would be prevented from  
27        accommodating any new demand for electrical transmission or renewable energy  
28        development in exclusion areas. A large increase in avoidance areas, even if Alternative D  
29        would require no absolute exclusion areas, would affect the ability of the BLM and Forest  
30        Service to grant new ROWs in GRSG habitat.

31        ***Impacts from Travel and Transportation Management***

32        Impacts from travel and transportation management under Alternative D are the same as  
33        under Alternative B. Refer to **Section 4.6** for further analysis.

34        ***Impacts from Lands and Realty***

35                    *Land Use Authorizations*

36        Alternative D would designate over 1 million acres as ROW exclusion for all ROW types,  
37        similar to Alternative A. However, it would also exclude large transmission lines, renewable  
38        energy ROWs, and new roadways on 6.2 million acres. An additional 3.9 million acres would  
39        be managed as ROW avoidance for all ROW types.  
40

1 Alternative D would impact the BLM-administered and National Forest System lands and  
2 realty programs by reducing their ability to authorize ROWs, such as electrical transmission  
3 lines greater than 50kV, within PHMA. Within avoidance areas, additional stipulations for  
4 the development of electrical transmission lines could result in the denial of projects that  
5 cannot meet ROW grant requirements to protect GRSG habitat. Limitations on electrical  
6 transmission line development, renewable energy development, and new roadways under  
7 Alternative D would be similar to Alternative C and are consistent with **Section 4.7.2**.  
8 Impacts on other types of ROWs and land use permits, such as electrical distribution lines,  
9 communication sites, fiber optic lines, pipelines, and water infrastructure, would result when  
10 an applicant could not find a suitable location outside avoidance or exclusion areas or could  
11 not meet the design and placement criteria for an ROW or other land use permit within an  
12 avoidance area. For communication facilities in particular, stipulations in avoidance areas  
13 could diminish the effectiveness of the communication infrastructure to the point where the  
14 development would not be practical, resulting in an impact on that type of infrastructure  
15 development and the communication network.

#### 16 *Wind and Solar ROWs*

17 Alternative D would exclude wind and solar energy testing and generation facilities on 6.7  
18 million acres in GRSG habitat. These types of ROWs would be avoided on an additional 4.3  
19 million acres in GRSG habitat. Impacts on wind energy ROWs would be consistent with  
20 **Section 4.7.2**. While excluding or avoiding wind and solar energy development in GRSG  
21 habitat would reduce development potential, impacts are concentrated primarily in areas  
22 south of Twin Falls and near Pocatello, where average wind speeds are greater than 23 feet  
23 (7 meters) per second (NREL 2009). This is the typical threshold for utility-scale wind  
24 energy to occur (NREL 2012). Therefore, Alternative D would reduce but not eliminate  
25 wind energy development potential within the sub-region. Impacts on solar energy  
26 development would be negligible due to a lack of solar potential in the planning area.

#### 27 *Land Tenure and Landownership*

28 Under Alternative D, the BLM and Forest Service would retain public ownership in all  
29 GRSG habitats, except where there is mixed ownership and land tenure adjustment would  
30 promote a more contiguous land pattern in GRSG habitat. Management actions to retain  
31 public ownership would increase land management efficiency, as described in **Section 4.7.2**.

#### 32 *Withdrawals*

33 There are no impacts from withdrawals under Alternative D.

#### 34 ***Impacts from Special Designations Management***

35 Under Alternative D, there are no impacts from ACECs or ZAs on lands and realty.

### 36 **4.8.8 Alternative E**

#### 37 ***Sage-Grouse Management***

38 Management actions under Alternative E to protect GRSG habitat would impact lands and  
39 realty through a 5.3 million-acre increase in ROW avoidance areas, compared to Alternative  
40 A. ROW avoidance criteria would impact the lands and realty program by limiting the areas  
41 where new ROW authorizations could be approved without supplemental siting and design

1 criteria to protect GRSG habitat. Avoidance criteria would reduce the number of ROW  
2 applications, increase processing times for applications submitted for projects in avoidance  
3 areas, and direct new development to adjacent lands, where fewer restrictions would be  
4 present.

### 5 ***Impacts from Travel and Transportation Management***

6 Impacts from travel and transportation management under Alternative E are the same as  
7 Alternative A. Refer to **Section 4.6** for further analysis.

### 8 ***Impacts from Lands and Realty***

#### 9 *Land Use Authorizations*

10 Under Alternative E, 7.3 million acres in CHZ and IHZ would be designated as ROW  
11 avoidance, while 979,100 acres would continue to be managed as ROW exclusion. New  
12 infrastructure would be prohibited in priority habitat, unless the infrastructure could be  
13 collocated in an existing ROW footprint and the infrastructure is critical for meeting  
14 increasing demands. Limitations on new infrastructure outside existing ROWs and ROW  
15 stipulations for avoidance areas would prevent the BLM and Forest Service from  
16 accommodating additional demand for ROW development within CHZ and in IHZ. This  
17 could result in ROW applications being denied. With the expected demand for new ROWs  
18 in the planning area, particularly interstate and intrastate electrical transmission and gas  
19 pipeline ROW developments, new ROW development could be diverted to adjacent private  
20 or state lands. If new ROW development could not be feasibly developed there would be a  
21 reduction in energy and communication development opportunities to meet growing  
22 demand.  
23

#### 24 *Wind and Solar ROWs*

25 Alternative E would continue to exclude wind and solar energy testing and generation  
26 facilities on 1.8 million acres, while avoiding these types of ROWs on 2.6 million acres.  
27 Alternative E would further restrict wind and solar ROWs through the use of triggers,  
28 stipulations, and BMPs. Avoiding or excluding wind and solar energy development would  
29 reduce or eliminate development potential, especially in areas considered to have  
30 developable (i.e., average wind speeds greater than 23 feet [7 meters] per second) wind  
31 resources. Impacts on solar energy development are negligible due to a lack of solar potential  
32 in the planning area.

#### 33 *Land Tenure and Landownership*

34 There are no impacts on lands and realty from land tenure requirements under Alternative E.

#### 35 *Withdrawals*

36 There are no impacts from withdrawals under Alternative E.

### 37 ***Impacts from Special Designations Management***

38 Under Alternative E, there are no impacts from ACECs or ZAs on lands and realty.

1                   **4.8.9 Alternative F**

2                   ***Sage-Grouse Management***

3 Management actions under Alternative F to protect GRSG habitat would impact lands and  
4 realty by designating over 7 million additional acres as ROW exclusion, compared to  
5 Alternative A. Similar to Alternative B and consistent with **Section 4.7.2**, ROW exclusion  
6 areas under Alternative F would restrict the BLM and Forest Service from accommodating  
7 demand for new transmission lines, gas pipelines, communication sites, wind energy  
8 facilities, and other types of ROWs.

9                   ***Impacts from Travel and Transportation Management***

10 Impacts from travel and transportation management under Alternative F are the same as  
11 under Alternative A. Refer to **Section 4.6** for further analysis.

12                   ***Impacts from Lands and Realty***

13 Alternative F would designate 8.4 million acres as ROW exclusion and 2.5 million acres as  
14 avoidance. By not authorizing new ROWs in exclusion areas, the ability of the BLM and  
15 Forest Service to accommodate the demand for land use authorizations would be  
16 diminished. Impacts are consistent with **Section 4.7.2** and would result in an overall decline  
17 in energy or service availability and reliability, when compared to Alternative A.

18                   ***Wind and Solar ROWs***

19 Alternative F would exclude wind and solar energy testing and generation facilities on 2.3  
20 million acres in GRSG habitat. These types of ROWs would be avoided on 486,100 acres.  
21 Impacts on wind energy ROWs under Alternative F are similar to Alternative B and are  
22 consistent with **Section 4.7.2**. While excluding or avoiding wind and solar energy  
23 development in GRSG habitat would reduce development potential, impacts would be  
24 concentrated in areas with average wind speeds greater than 23 feet (7 meters) per second  
25 since this is the typical threshold needed for utility-scale wind energy to occur (NREL 2012).  
26 Therefore, Alternative F would reduce but not eliminate wind energy development potential  
27 within the sub-region. Impacts on solar energy development are negligible due to a lack of  
28 solar potential in the planning area.

29                   ***Land Tenure and Landownership***

30 There are no impact on lands and realty from land tenure requirements under Alternative F.

31                   ***Withdrawals***

32 There are no impacts from withdrawals under Alternative F.

33                   ***Impacts from Special Designations Management***

34 Under Alternative F, the BLM would designate 17 or 18 new ACECs and Forest Service  
35 would designate 12 new ZAs, encompassing up to 1 million acres. Management for the  
36 ACECs and ZAs would be tailored to protect the relevant and important values (i.e., GRSG  
37 habitat) for which the ACECs and ZAs would be designated. All lands within the ACECs  
38 and ZAs would be managed as ROW exclusion, which would prohibit new ROW  
39 development in those areas. Under Alternative F, infrastructure development and other  
40 ROWs would be directed to adjacent BLM-administered or National Forest System lands or

1 to private lands. Alternative F would result in an overall reduction in new land use  
2 authorizations. These would be further reduced if ROW applicants could not find suitable  
3 alternative development locations outside ACECs or ZAs. Refer to **Section 4.12**, Special  
4 Designations, for further analysis.

#### 5 **4.8.10 Proposed Plan**

6 The Proposed Plan would enable the BLM and Forest Service to accommodate a portion of  
7 the anticipated future demand for ROW development, while conserving and enhancing  
8 GRSG habitat. The most notable impacts on the Lands and Realty program under the  
9 Proposed Plan would occur in PHMA. In addition to managing PHMA as avoidance areas  
10 for future land use authorizations, including ROWs, leases, and permits, the Proposed Plan  
11 would require land use authorizations to:

- 12 • Achieve a net conservation gain to GRSG,
- 13 • Incorporate RDFs,
- 14 • Avoid tall structures within key GRSG habitat areas,
- 15 • Meet noise requirements,
- 16 • Abide by lek buffer requirements, and
- 17 • Avoid disturbing more than 3 percent of any BSU in PHMA (and IHMA in  
18 Idaho).

19 Collectively, these GRSG conservation management actions would increase mitigation  
20 requirements for land use authorizations that could result in more complex project designs,  
21 potentially exclude infrastructure placement in the most cost effective locations, and  
22 potentially result in overall greater development costs. A corresponding effect could be a  
23 reduction in the number of authorization applications received for activities in PHMA (and  
24 IHMA in Idaho) and longer, more complicated review periods for those that are proposed in  
25 PHMA. Implementation of the GRSG habitat conservation management actions listed  
26 above would also place NSO stipulations on fluid mineral development in PHMA and  
27 IHMA, which would further reduce the demand for new ROW development in those areas.

28 Less restrictive management for new land use authorizations in GHMA and in GRSG  
29 habitat outside BLM-administered and National Forest System lands would allow for more  
30 ROW/SUA development, leases, and permits in those areas compared to PHMA. However,  
31 because the Proposed Plan would still require discretionary surface-disturbing land use  
32 actions to achieve a net conservation gain, incorporate RDFs, and abide by lek buffers,  
33 project proponents in GHMA could seek less restrictive locations outside GRSG habitat or,  
34 if located in GHMA, potentially incur added costs and longer project review periods.

#### 35 ***Impacts from Lands and Realty Management***

##### 36 *Land Use Authorizations*

37 Unless a new ROW/SUA is proposed within an existing designated corridor (**Figure 2-7**),  
38 which the BLM and Forest Service would manage as open (but still subject to the

1 disturbance cap), new major and minor ROW/SUA development would be avoided in  
2 PHMAs and IHMAs (8,365,000 acres). Within PHMA and IHMA, there are a total of 59,900  
3 acres of designated corridors. New development proposed within and outside corridors  
4 would be subject to RDFs, and disturbance mitigation requirements.

5 Management of PHMA and IHMA as avoidance, combined with RDFs have the potential to  
6 increase project costs and could result in a greater proportion of new development occurring  
7 outside PHMA and IHMA. Concentrating new development in corridors, GHMA, and non-  
8 habitat areas could lead to higher density of ROW/SUA development in those areas with  
9 impacts consistent with the **Nature and Types of Effects**.

10 The Boardman to Hemingway and Gateway West projects are exempt from the proposed  
11 plan decision to designate PHMA/GHMA as an avoidance area (Proposed Plan decisions  
12 LR-1, LR-5 and LR-13). The projects are also exempt from the proposed GRSG screening  
13 criteria, RDFs, buffers, tall structure requirements, and disturbance cap requirements  
14 identified in Chapter 2.

15 The Obama Administration identified these transmission projects as priority projects, as part  
16 of the President's commitment to job creation and modernizing America's Infrastructure.  
17 These transmission projects were two of seven projects identified for expedited permit  
18 review and federal agency coordination among an interagency Rapid Response Team for  
19 Transmission (RRTT) established to foster coordination, expedite simultaneous permitting  
20 processes and resolve permitting challenges, while ensuring appropriate environmental  
21 reviews.

22 The BLM is currently processing the application for the Boardman to Hemingway and  
23 Gateway West projects, both high-voltage transmission lines, which include alternatives  
24 through this avoidance area/GRSG habitat. The BLM is analyzing conservation measures  
25 for GRSG as part of the review process for Boardman to Hemingway and Gateway West.

26 Boardman to Hemingway and Gateway West are analyzed in detail in the cumulative impacts  
27 section of this plan.

28 Although existing designated corridors would be considered first for new ROW  
29 development in GRSG habitat areas, because corridors are typically located adjacent to  
30 existing infrastructure, power companies are reluctant to locate new infrastructure in those  
31 areas given redundancy concerns. New ROW development would be likely in corridors  
32 where those corridors provide a cost effective, direct route to demand centers that also avoid  
33 conflicts with populated areas. If an area outside PHMA and IHMA provide this option,  
34 then a developer would likely pursue that route instead of placing within a corridor.

35 In GHMA, 1,764,500 acres on BLM-administered lands would be open for proposals for  
36 new major and minor ROW/SUA development, while only major ROWs in Montana  
37 (828,100 acres) would be avoided. RDFs for new ROW/SUAs in general habitat could  
38 further deter development in those areas resulting in a greater likelihood for development in



1 non-habitat areas. Any decline in new ROW and SUA development applications in general  
2 habitat would be less than in PHMA and IHMA.

3 The overall proposed increase in ROW restrictions under the Proposed Plan could affect the  
4 BLM and Forest Service's ability to accommodate the demand for new linear energy-related  
5 ROW development. Compared to Alternative A, energy suppliers under the Proposed Plan  
6 could have fewer options to place new transmission lines without costly route adjustments  
7 or design modifications.

#### 8 *Wind and Solar*

9 BLM and Forest Service management of PHMA as ROW/SUA exclusion areas for wind  
10 and solar would prevent the development of new utility-scale wind and solar energy  
11 generation facilities on 6,352,300 acres of GRSG habitat. Due to low solar energy potential  
12 in the planning area, there would be negligible to no impacts on solar energy development.  
13 Because wind resources in the planning area are sufficient to support utility-scale wind  
14 energy development, excluding wind energy ROW/SUAs in PHMA would restrict the BLM  
15 and Forest Service ability to accommodate future demand. Projects currently proposed  
16 would not be authorized. Excluding wind energy development in PHMA and avoiding it in  
17 IHMA would distribute new development to GHMA and non-habitat areas where fewer  
18 restrictions would apply. Demand for new transmission lines, access roads, and related  
19 ancillary features to serve new wind generation projects on non-habitat or private lands  
20 could result in new ROW/SUA applications in GRSG habitat. Where transmission lines,  
21 access roads, and related ancillary features would cross PHMA and IHMA, management of  
22 those areas as ROW/SUA avoidance areas could deter or prevent wind energy development  
23 on non-habitat or private lands.

24 Although GHMA would be open for proposals for new wind development on BLM-  
25 administered lands, RDFs and requirements to achieve a net conservation gain to GRSG  
26 (e.g. buffers, disturbance mitigation, and tall structure restrictions) could affect wind  
27 development by limiting the number of turbines per project and the ability to access  
28 generation sites. Where wind development on private land or non-habitat requires new  
29 access roads, RDFs for roadways, including requirements to use existing roads, could limit  
30 access and subsequent energy development opportunities on private land or non-habitat  
31 areas.

#### 32 *Other Land Use Authorizations*

33 Excluding landfills and commercial service airports in PHMAs and avoiding them in IHMA  
34 would shift any new development and associated disturbance to GHMA or non-habitat  
35 areas. However, because there is little to no demand for these uses within GRSG habitat,  
36 managing PHMA as exclusion for these uses is not anticipated to affect the BLM lands and  
37 realty program or hinder future refuse disposal or air services opportunities in the planning  
38 area. Landfill areas, even if transferred to non-federal ownership, would be considered a  
39 disturbance.

40 In all GRSG habitat areas, restrictions on temporary (less than 3 years on BLM-administered  
41 lands and limited to 1 year on National Forest System lands) authorizations (e.g., apiaries and

1 filming) would be subject to seasonal or timing restrictions and mitigation requirements  
2 regarding habitat loss. Seasonal or timing restrictions on temporary uses could prevent those  
3 uses during certain times of year (e.g., lekking season) and could prevent the BLM and the  
4 Forest Service from accommodating demand for those uses.

5 Impacts from management of water development ROW/SUAs would be minimal. Seasonal  
6 timing restrictions may temporarily limit the use of some water developments with minimal  
7 to no long-term impacts.

#### 8 *Land Tenure*

9 Land tenure actions would be allowed in PHMA and IHMA if they can demonstrate a net  
10 conservation gain to GRSG. Allowing certain land tenure actions could create a more  
11 contiguous decision area and increase short- and long-term land management efficiency, as  
12 described in the **Nature and Types of Effects**. Land exchanges or disposal to remove low-  
13 quality habitat from BLM-administered land and National Forest System land would also  
14 increase efficiency where those lands are isolated and difficult to manage.

15 Recommending SFAs for mineral withdrawal would decrease the overall long-term demand  
16 for ROWs/SUAs to support mineral development. The recommended withdrawal would be  
17 for locatable minerals only and not result in a land withdrawal. The BLM and Forest Service  
18 would retain their respective ownership and primary management responsibilities.

#### 19 *Impacts from Salable Minerals Management*

20 Closing PHMAs to new salable mineral authorizations would decrease the need for new  
21 ROWs/SUAs to serve those uses. It also would require source material for maintenance of  
22 existing gravel road ROWS to be obtained from existing sites in PHMA and IHMA, or  
23 existing or expanded sites in GHMA or non-habitat. If the amount of source material is  
24 insufficient to properly maintain the road, access via those roadways to valid existing  
25 ROW/SUAs (e.g., transmission lines) and leases (e.g., communication sites) could be  
26 impacted. Requiring existing sites to be subject to RDFs and GRSG conservation measures  
27 (e.g. buffers, disturbance mitigation, and seasonal timing restrictions) could impact the ability  
28 of the sites to remain open and the availability of source material.

#### 29 *Impacts from Leased Fluid Minerals Management*

30 Restrictions on surface occupancy for new fluid mineral development in PHMAs and  
31 IHMAs could decrease the potential for new fluid mineral development in those areas and  
32 subsequently the demand for associated ROWs/SUAs to serve those uses. Surface-  
33 disturbing activities could be shifted, additional protective measures could be required, and  
34 extraction delays could occur.

#### 35 *Impacts from Anthropogenic Disturbance Management, Adaptive Management, and* 36 *Mitigation*

37 Limits on anthropogenic disturbance in biologically significant unit (BSU) within PHMAs  
38 and IHMAs where a disturbance threshold objective has been met or exceeded or an  
39 adaptive management trigger has been tripped would decrease the potential for new  
40 ROW/SUAs in those areas. Requiring and ensuring mitigation that provides a net

1 conservation gain could prevent new development where infrastructure could not be co-  
2 located or relocated outside PHMA or IHMA. If infrastructure authorized by land use  
3 authorizations is determined as a causal factor in the decline of GRSG populations in a BSU,  
4 incorporation of adaptive management could result in additional restrictions on ROW/SUA  
5 authorizations in that BSU, including exclusion of future ROWs/SUAs until a positive  
6 GRSG trend is observed over a 3-year period.

#### 7 **4.9 Leasable Minerals (Leased and Unleased), Including Fluid Minerals and Nonenergy** 8 **Solid Leasable Minerals**

##### 9 **4.9.1 Fluid Minerals**

10 This section discusses impacts on fluid minerals from proposed management actions for  
11 other resources and resource uses. Existing conditions concerning fluid minerals are  
12 described in **Section 3.12**.

##### 13 ***Methods and Assumptions***

14 The analysis of impacts on fluid minerals from this LUPA focuses on the impacts of  
15 proposed management actions to protect GRSG. These impacts may be direct or indirect.  
16 For example, a direct impact on oil and gas development would result from closing an area,  
17 particularly an area that has moderate to high potential for the discovery of an oil or gas  
18 resource, to fluid mineral leasing. An indirect impact would result from managing an area as  
19 ROW exclusion, which could prohibit construction of necessary off-lease facilities and  
20 access, thereby changing the economic feasibility of developing the leased resource.  
21 Additional actions or conditions that could cause direct or indirect impacts on oil and gas  
22 leasing and development are described under *Indicators*, below.

##### 23 *Indicators*

24 Indicators of impacts on fluid minerals are as follows:

- 25 • Acres of unleased land with medium oil and gas potential  
26 identified as closed to fluid mineral exploration and  
27 development
- 28 • Acres of unleased land with medium oil and gas potential subject  
29 to no surface occupancy (NSO) stipulations
- 30 • Acres of unleased land with medium oil and gas potential subject  
31 to controlled surface use (CSU) and/or timing limitation (TL)  
32 stipulations
- 33 • Number of leases and acres over which COAs would be applied  
34 to oil and gas development activities on leased parcels for the  
35 protection of GRSG
- 36 • Acres subject to restrictions on geophysical exploration in  
37 GRSG habitat
- 38 • Acres managed as ROW avoidance areas

- Acres managed as ROW exclusion areas

### *Assumptions*

The analysis includes the following assumptions:

- Under all alternatives, reclamation bonds would be required, pursuant to 43 CFR 3104 and 36 CFR 228.109(a), in an amount sufficient to ensure full restoration of lands to the condition in which they were found. In addition, BLM approval of Applications for Permit to Drill would continue to be required prior to commencement of drilling under all alternatives in accordance with 43 CFR 3162.
- The lands in the Curlew Grassland area, as described in the Pocatello RMP, that are administratively unavailable for leasing are included in the total number of acres closed to leasing under Alternative A.
- Management actions proposed in this LUPA would apply to oil and gas activity where the BLM and Forest Service manage the surface over federal fluid mineral estate as well as where federal fluid mineral estate lies beneath private or state surface (split estate).
- For planning purposes, it is assumed that development would occur as described in **Appendix O**, Reasonably Foreseeable Development Scenario, and **Section 3.12**, Mineral Resources. Interest in oil and gas in Idaho is expected to remain sporadic. As the demand for energy increases, so will demand for extracting energy resources in areas with potential.

### *Nature and Type of Effects*

In order to describe the effects of imposing GRSG management actions on oil and gas leasing and development, the above indicators were calculated within GRSG habitat for each alternative. All of these factors are considered to be impediments to oil and gas leasing and development, to varying degrees. In general, an alternative with greater acreages of such restrictions is considered to have a greater impact on oil and gas leasing and development potential than an alternative with fewer acres of such restrictions, especially in areas with medium oil and gas potential.

Closing public lands, especially those with moderate to high oil and gas potential, within GRSG habitat to fluid mineral leasing would directly impact the oil and gas program by removing the opportunity afforded U.S. citizens by the Mineral Leasing Act, to explore and develop mineral resources in those areas. Oil and gas operators would be limited to exploring and developing on non-federal lands, but only if favorable geologic conditions exist. The opportunity for discovery may be lost altogether if such conditions are unique to the federal lands. Closing lands to leasing in areas of moderate to high potential may also result in a loss of royalties to the federal, state, and county governments from oil and gas development.

1 Management actions that prohibit or restrict surface occupancy or disturbance (such as TL  
2 stipulations, NSO stipulations, CSU stipulations, and limitations on the total amount of  
3 surface disturbance in areas) overlying federal oil and gas resources could also directly impact  
4 the development of those resources.

5 In areas where NSO stipulations are applied, federal fluid minerals could be leased, but the  
6 leaseholder/operator's access to the mineral resource is limited to those areas that are not  
7 covered by the NSO stipulation. Proposed drill sites may need to be re-located to an area  
8 with lower potential for discovery of a valuable mineral resource, resulting in development  
9 delays, increased expenses, lower resource recovery and lower royalties collected. While off-  
10 site methods, such as directional drilling, may be employed to access the mineral resource,  
11 the area where directional drilling can be effectively used is limited. Where an NSO  
12 stipulation covers a large area or where no leasing is allowed on surrounding lands, the  
13 mineral resource may be inaccessible. Additionally, because it is not economically practical to  
14 use directional drilling for wildcat wells, an NSO stipulation may preclude drilling of those  
15 wells because the operator does not want to put forth the financial resources to do so.  
16 Applying an NSO stipulation can be nearly as restrictive to oil and gas leasing and  
17 development as closing an area to leasing, however, the operator is aware of the stipulations  
18 when the lease was purchased.

19 Application of CSU stipulations allows some use and occupancy of the surface while limiting  
20 development under certain conditions. While less restrictive than an NSO, a CSU stipulation  
21 allows the BLM to require special operational constraints, to shift the surface-disturbing  
22 activity associated with fluid mineral leasing more than the standard 656 feet (200 meters), or  
23 to require additional protective measures (e.g., restrictions on noise levels) to protect GRSG.  
24 For example, a CSU stipulation might create a buffer around leks within which surface  
25 disturbance is not allowed. While not prohibiting surface-disturbing activities, a CSU  
26 stipulation can influence the location and level of operations within the subject area.

27 TL stipulations may be necessary to protect GRSG from impacts of development during  
28 critical seasons or times of day. These stipulations are necessary if impacts cannot be  
29 mitigated by prohibiting proposed activities for up to 60 days in any lease year, as deemed  
30 reasonable and within lease rights granted (see 43 CFR 3101.1-2). Leases with TL  
31 stipulations would be temporarily off-limits to fluid mineral exploration and development,  
32 surface-disturbing activities, and intensive human activity during identified time frames,  
33 based on seasons or GRSG breeding times. While some routine activities would be allowed  
34 at all times (e.g., vehicle travel and maintenance), construction, well drilling and completions,  
35 and other operations considered to be intensive would not be allowed during the restricted  
36 time frame. Most activities, however, can be initiated and completed outside of the restricted  
37 dates specified in the TL stipulation.

38 Applying appropriate RDFs (see **Appendix B**) and management actions outlined in  
39 **Chapter 2**, to post-lease activities as Conditions of Approval could directly impact oil and  
40 gas operations. These RDFs and management actions include such standards as noise  
41 restrictions, height limitations on structures, design requirements, water development  
42 standards, remote monitoring requirements, and reclamation standards. Additional site-

1 specific planning, such as master development plans and unitization, and reclamation  
2 bonding requirements may also be required. Applying these requirements may impact oil and  
3 gas operations by increasing costs and causing delays to develop the resource.

4 Placing limits on geophysical exploration could reduce the ability to collect geologic data  
5 concerning oil and gas resources on federal mineral estate. TLs on geophysical exploration  
6 could lead to equipment scheduling delays.

7 Management actions creating off-lease ROW exclusion or avoidance areas could indirectly  
8 increase the cost of oil and gas extraction by limiting the available means for transporting oil  
9 and gas from the lease to processing facilities and markets. For example, a new natural gas  
10 pipeline could not be built in a ROW exclusion area. The pipeline may need to take a less  
11 direct route to its destination to avoid the exclusion area, or another mode of conveyance of  
12 the resource may be required. Oil and gas operations may move to nearby private lands  
13 where transport is easier, thereby reducing the number of operations on federal lands.  
14 Impacts would be mitigated where exceptions were allowed for collocating new ROWs  
15 within existing ROWs to recognize valid existing rights.

16 Implementing management for the following resources would have negligible or no impact  
17 on oil and gas; therefore they are not discussed in detail: travel and transportation  
18 management, recreation, range management, solid minerals, fire and fuels management,  
19 habitat restoration and vegetation management, and special designations.

## 20 ***Alternative A***

### 21 *Impacts from Lands and Realty Management*

22 Under Alternative A, 1,028,500 acres (4 percent of BLM-administered and National Forest  
23 System surface in the decision area) would continue to be managed as ROW exclusion areas.  
24 Another 1,956,200 acres (8 percent of BLM-administered and National Forest System  
25 surface in the decision area) would continue to be managed as ROW avoidance areas. This  
26 management would continue to impact the fluid minerals program, as described under  
27 **Nature and Type of Effects.**  
28

### 29 *Impacts from Fluid Minerals Management*

30 Under Alternative A, new leases in most areas within the decision area (6,327,500 acres)  
31 would continue to be open subject to standard terms and conditions. NSO stipulations  
32 would continue to be applied to 931,000 acres of federal oil and gas estate. Approximately  
33 2,714,700 acres of the decision area would remain closed to leasing. These management  
34 actions would continue to have the types of impacts described under **Nature and Type of**  
35 **Effects.**

36 Error! Reference source not found. Error! Reference source not found. **Table 4-72** breaks  
37 down the unleased medium potential acres within the decision area as to whether they would  
38 be open or closed to leasing and what stipulations would be applied.

**Table 4-71**  
**Oil and Gas Leasing Categories in Unleased Medium Potential Areas by Alternative**

Constraint	Alternative A	Alternatives B and F	Alternative C	Alternative D	Alternative E	Proposed Plan
Closed to Leasing	289,500	496,300	601,000	289,500	289,500	257,400
Open Subject to NSO Stipulations	170,400	100,000	51,400	176,900	186,200	348,100
Open Subject to CSU/TL Stipulations	201,100	112,200	65,900	252,800	201,100	121,900
Open Subject to Standard Terms and Conditions <sup>1</sup>	117,000	76,200	66,400	65,600	107,900	57,300

Source: BLM GIS 2015

<sup>1</sup>May have stipulations protecting resources other than GRSG.

1

2 Under Alternative A, 289,500 unleased acres with medium development potential (37  
3 percent of the unleased federal oil and gas estate with medium development potential) would  
4 remain closed to oil and gas leasing. Acres closed in this category would have the greatest  
5 impact on the fluid minerals program by prohibiting oil and gas development on unleased  
6 portions of federal mineral estate with medium potential for such development. Impacts of  
7 closing these areas to leasing are the same type as those described under **Nature and Type**  
8 **of Effects**.

9 Approximately 170,400 unleased acres of federal oil and gas estate with medium  
10 development potential (22 percent of the unleased federal oil and gas estate with medium  
11 development potential) would remain open to leasing subject to NSO stipulations. Acres  
12 subject to NSO stipulations in areas with medium development potential for oil and gas  
13 would have a greater impact on the fluid minerals program, compared to acres subject to  
14 NSO stipulations in areas with low development potential. This is because the likelihood of  
15 developing acres in areas with medium development potential is greater. Impacts of applying  
16 NSO stipulations to these areas are the same type as those described under **Nature and**  
17 **Type of Effects**.

18 Approximately 117,000 unleased acres of federal mineral estate in medium potential areas  
19 would be available for fluid mineral leasing and development with standard lease  
20 stipulations. These lands would not be subject to additional NSO, CSU, or TL stipulations,  
21 thereby providing the most flexibility for oil and gas exploration and development.

22 Geophysical exploration would continue to be allowed in areas open to fluid mineral leasing.  
23 In areas closed to leasing where geophysical exploration would not be allowed, impacts  
24 would continue to be the type described under **Nature and Type of Effects**.

25 Under this alternative, 25 new oil and gas exploratory wells are projected to be developed on  
26 federal mineral estate in the decision area in the next 20 years. This rate of development  
27 would allow oil and gas exploration to continue.

1 Under Alternative A, reclamation bonds would continue to be required, in accordance with  
2 43 CFR 3104. In addition, applications for permits to drill, including drilling plans and  
3 surface use plans of operations, would continue to be required, in accordance with 43 CFR  
4 3162. Unitization would continue to occur on a case-by-case basis at the discretion of  
5 operators.

6 Under Alternative A, restrictive measures to mitigate impacts from oil and gas development  
7 on GRSG would continue to be considered on a case-by-case basis during implementation-  
8 level planning. Wherever these measures are applied to the 63 leases on 69,200 acres within  
9 GRSG habitat in the decision area, they would have impacts similar to those described for  
10 conservation measures under **Nature and Type of Effects**.

### 11 **Alternative B**

#### 12 *Impacts from Lands and Realty Management*

13 Under Alternative B, over 8 million acres (32 percent) of BLM-administered and National  
14 Forest System surface in the decision area (including all PHMA) would be managed as ROW  
15 exclusion areas. However, because all PHMA would be closed to fluid mineral leasing under  
16 Alternative B, managing areas as ROW exclusion in PHMA would have no impact on fluid  
17 minerals.  
18

19 Like Alternative A, over 2.5 million acres (10 percent) of BLM-administered and National  
20 Forest System surface in the decision area (including all GHMA) would be managed as  
21 ROW avoidance under Alternative B. This management would have significant impact on oil  
22 and gas leasing as compared to Alternative A.

#### 23 *Impacts from Fluid Minerals Management*

24 Under Alternative B, 19,632,700 acres, or 70 percent of the decision area, including all  
25 federal oil and gas estate in PHMA, would be closed to oil and gas leasing. These closures  
26 would include 496,300 unleased acres with medium potential (63 percent of the unleased  
27 medium potential acres in the decision area). Closure of these acres would directly impact  
28 the fluid minerals program, as described under **Nature and Type of Effects**. Existing leases  
29 would remain valid through their term but could not be renewed.

30 Under this alternative, 71 percent more unleased acres with medium development potential  
31 would be closed to leasing than under Alternative A (**Table 4-72**). Approximately 10 percent  
32 (76,200 acres) of unleased areas with medium development potential would be open subject  
33 to standard terms and conditions, while another 13 percent (100,000 acres) would be open  
34 subject to NSO stipulations. Closures of unleased areas with medium potential would have  
35 the greatest impacts on oil and gas development in the decision area because these areas  
36 would be the most likely to be developed if no constraints existed. Impacts would be the  
37 same type as those described under **Nature and Type of Effects**.

38 The 18,585,200 acres of federal oil and gas estate within GHMA and outside occupied  
39 habitat (66 percent of the federal oil and gas decision area) would be subject to the same  
40 stipulations and management as under Alternative A.



1 Geophysical exploration would be allowed on the over 8 million acres of federal mineral  
2 estate within PHMA but would be subject to TLs and other restrictions. Most notably,  
3 geophysical exploration would be allowed only for gathering information about fluid mineral  
4 resources outside PHMA. Because of these limitations and the fact that PHMA would be  
5 closed to fluid mineral leasing, geophysical exploration in PHMA would decrease under this  
6 alternative. Decreases in geophysical exploration in PHMA could impact the fluid minerals  
7 program, as described under **Nature and Type of Effects**.

8 Under Alternative B, 15 new oil and gas exploratory wells are projected to be developed on  
9 federal mineral estate in the decision area in the next 20 years. This represents a 40 percent  
10 decrease in projected wells on federal mineral estate, compared to Alternative A.

11 Under Alternative B, conservation measures and RDFs would be applied as COAs to 48  
12 existing leases on 55,000 acres of PHMA overlying federal mineral estate. These RDFs and  
13 conservation measures would include such requirements as surface disturbance limitations,  
14 TLs, noise restrictions, structure height limitations, design requirements, water development  
15 standards, remote monitoring requirements, and reclamation standards. The types of impacts  
16 from these COAs are the same as those described under **Nature and Type of Effects**.

17 In addition to the requirements described above, the COAs would require unitization when  
18 necessary to minimize harm to GRSG and would call for completion of master development  
19 plans for developing fluid mineral resources instead of processing individual applications for  
20 permit to drill. Requiring these plans would result in the impacts described under **Nature  
21 and Type of Effects**.

22 The BLM and Forest Service could not apply COAs that would eliminate reasonable  
23 opportunities to develop the lease. Therefore, although restrictions on development would  
24 increase where COAs were applied, oil and gas development would still be allowed.

### 25 ***Alternative C***

#### 26 *Impacts from Lands and Realty Management*

27 Under Alternative C, over 11 million acres (43 percent) of BLM-administered and National  
28 Forest System surface in the decision area (including all BLM-administered and National  
29 Forest System surface in GRSG habitat) would be managed as ROW exclusion areas.  
30 However, because all GRSG habitat would be closed to fluid mineral leasing under  
31 Alternative C, managing areas as ROW exclusion would have no impact on fluid minerals.  
32

#### 33 *Impacts from Fluid Minerals Management*

34 Under Alternative C, over 22 million acres, or 85 percent of the decision area (including all  
35 federal oil and gas estate in occupied habitat) would be closed to oil and gas leasing (**Table  
36 4-72**). Closure of the area to leasing would directly impact the fluid minerals program, as  
37 described under **Nature and Type of Effects**; however, because nearly two times more  
38 acres in the decision area would be closed under Alternative C than under Alternative A, the  
39 magnitude of those impacts would increase. This alternative would prohibit any new oil and  
40 gas leasing in occupied habitat.

1 Geophysical exploration would be subject to the same restrictions as those under Alternative  
2 B; however, these restrictions would apply to more acres under Alternative C (20,168,900  
3 acres). Therefore, the types of impacts described under **Nature and Type of Effects** would  
4 increase under this alternative.

5 Under this alternative, over two times as many more unleased acres with medium  
6 development potential would be closed to leasing compared with Alternative A (**Table 4-**  
7 **72**). Approximately 8 percent (66,400 acres) of unleased areas with medium development  
8 potential would be open subject to standard terms and conditions, while another nearly 7  
9 percent (51,400 acres) would be open subject to NSO stipulations. Closures of unleased  
10 areas with medium potential would have the greatest impacts on oil and gas development in  
11 the decision area because these areas would be the most likely to be developed if no  
12 constraints existed. Impacts would be the same type as those described under **Nature and**  
13 **Type of Effects**.

14 Under this alternative, 13 new oil and gas exploratory wells are projected to be developed on  
15 federal oil and gas estate in the decision area in the next 20 years. This represents a 48  
16 percent decrease in projected wells on federal oil and gas estate, compared to Alternative A.

17 Management actions applicable to existing leases under Alternative C would be similar to  
18 those under Alternative B, but they would apply to 48 existing leases on 55,000 acres of  
19 federal mineral estate. In addition to applying the restrictive management under Alternative  
20 B to more acres, Alternative C would call for COAs implementing seasonal restrictions on  
21 vehicle traffic and human presence associated with exploratory drilling. This alternative also  
22 would limit new surface disturbance on existing leases to three percent per section, with  
23 some exceptions. Impacts of these operating and siting restrictions are the same type as  
24 those described under **Nature and Type of Effects**.

#### 25 ***Alternative D***

##### 26 *Impacts from Lands and Realty Management*

27 Like Alternative A, under Alternative D, over 1 million acres (4 percent) of BLM-  
28 administered and National Forest System surface in the decision area would be managed as  
29 ROW exclusion areas. Nearly 4 million acres (6 percent), including all IHMA and GHMA,  
30 would be managed as ROW avoidance areas. Where these exclusion or avoidance areas  
31 overlap with areas open to fluid mineral leasing, impacts on the fluid minerals program  
32 would occur, as described under **Nature and Type of Effects**. Because three times more  
33 acres would be managed as ROW avoidance under Alternative D than under Alternative A,  
34 the magnitude of impacts would increase.  
35

##### 36 *Impacts from Fluid Minerals Management*

37 Under Alternative D, fluid mineral allocations in PHMA and IHMA would vary depending  
38 on oil and gas development potential. Federal mineral estate with no or low oil and gas  
39 potential would be closed to leasing, while federal mineral estate with medium oil and gas  
40 development potential would be subject to CSU and TL stipulations, and an NSO  
41 stipulation would apply within 0.6 mile (1 km) of leks. A total of 19,415,000 acres (75

1 percent of the decision area) would be closed under this alternative. Approximately  
2 1,379,700 acres (5 percent) would be subject to NSO stipulations, 1,595,000 acres (6 percent)  
3 would be subject to CSU stipulations, and 2,170,000 acres (8 percent) would be subject to  
4 TL stipulations. Approximately 3,668,800 acres (14 percent of the decision area) would be  
5 open to leasing subject to standard terms and conditions. Impacts of these stipulations  
6 would be the types described in **Nature and Type of Effects**. Closures would cause the  
7 most impacts out of all these management actions due to a 50 percent increase compared  
8 with Alternative A. However, 98 percent of the acres that would be closed under Alternative  
9 D (19,117,900 acres) have low or very low development potential and are less likely to be  
10 developed even without management constraints.

11 New leases in GHMA (regardless of oil and gas potential) would be subject to TLs, and the  
12 0.6-mile NSO buffer would also apply.

13 Under Alternative D, 289,500 unleased acres with medium development potential (37  
14 percent of total unleased acres with medium development potential in the oil and gas  
15 decision area) would be closed to leasing, the same amount as Alternative A (**Table 4-72**).  
16 Approximately 176,900 acres (22 percent) of unleased areas with medium development  
17 potential would be subject to NSO stipulations. This represents a 4 percent increase  
18 compared with Alternative A. Approximately 252,800 acres (32 percent) of unleased federal  
19 oil and gas estate with medium development potential would be subject to CSU and/or TL  
20 stipulations. Because unleased moderate-potential acres subject to CSU and/or TL  
21 stipulations would increase 26 percent compared with Alternative A, the impacts of these  
22 stipulations would increase under Alternative D. Impacts would be the same type as those  
23 described under **Nature and Type of Effects**. Overall, because more acres with medium  
24 development potential would be closed or subject to NSO or CSU/TL stipulations under  
25 Alternative D compared with Alternative A, impacts on unleased oil and gas from fluid  
26 mineral allocations would increase under Alternative D.

27 New leases within PHMA and IHMA would be subject to density limitations and a three  
28 percent disturbance cap for each section. These limitations on surface disturbance would  
29 have the cost impacts described under **Nature and Type of Effects**.

30 Geophysical exploration in GRSG habitat would be subject to TL stipulations. Impacts of  
31 these stipulations are the same types as those described under **Nature and Type of Effects**.  
32 Because these types of stipulations would not be applied under Alternative A, impacts on the  
33 fluid minerals program would increase under Alternative D.

34 Under this alternative, 23 new oil and gas exploratory wells are projected to be developed on  
35 federal mineral estate in the decision area in the next 20 years. This represents an eight  
36 percent decrease in projected wells on federal mineral estate compared with Alternative A.

37 Management of existing fluid mineral leases under Alternative D would be the same as that  
38 under Alternative B, except that all management actions other than RDFs would apply to 63  
39 existing leases on 69,200 acres within GRSG habitat. For this reason, impacts on the fluid

1 minerals program from these actions are more similar to Alternative C. Existing leases in  
2 GHMA could be subject to discretionary mandatory RDFs.

### 3 ***Alternative E***

#### 4 *Impacts from Lands and Realty Management*

5 Like Alternative A, under Alternative E, nearly 1 million acres (4 percent) of BLM-  
6 administered and National Forest System surface in the decision area would be managed as  
7 ROW exclusion areas. Over 7 million acres (28 percent), including all CHZ and IHZ not  
8 already managed as ROW exclusion areas, would be managed as ROW avoidance areas.  
9 Where these exclusion or avoidance areas overlapped with areas open to fluid mineral  
10 leasing, impacts on the fluid minerals program are as described under **Nature and Type of**  
11 **Effects**. Because more acres would be managed as ROW avoidance under Alternative E  
12 than under Alternative A, the magnitude of impacts would increase. Impacts would be  
13 mitigated where exemptions were allowed for ROW development subject to certain  
14 conditions.  
15

#### 16 *Impacts from Fluid Minerals Management*

17 Under Alternative E, fluid mineral management would differ between portions of the  
18 decision area in Idaho and Montana and portions in Utah.

19 Within Idaho and Montana, new leases on federal oil and gas estate within CHZ and IHZ  
20 would be subject to NSO stipulations. Application of NSO stipulations would have the type  
21 of impacts described under Nature and Type of Effects; however, the impacts on fluid  
22 minerals would be mitigated by waivers where certain criteria were met.

23 Within Utah, new leases on federal oil and gas estate within PHMA would be subject to CSU  
24 and TL stipulations. Impacts of these stipulations are the same type as those described under  
25 **Nature and Type of Impacts**.

26 Under Alternative E, 289,500 unleased acres with medium development potential (37  
27 percent of total unleased acres with medium development potential in the oil and gas  
28 decision area) would be closed to leasing, the same amount as Alternative A (**Table 4-72**).  
29 Approximately 186,200 acres (24 percent) of unleased areas with medium development  
30 potential would be subject to NSO stipulations. This represents a 9 percent increase  
31 compared with Alternative A. No CSU stipulations would be applied, the same as under  
32 Alternative A. Impacts would be the same type as those described under **Nature and Type**  
33 **of Effects**. Overall, because more unleased acres with medium development potential would  
34 be closed or subject to NSO stipulations under Alternative E compared with Alternative A,  
35 impacts on unleased oil and gas from fluid mineral allocations would increase under  
36 Alternative E.

37 Within Idaho and southwestern Montana, management of geophysical exploration would be  
38 the same as that under Alternative A, with the same impacts. Within Utah, geophysical  
39 exploration in PHMA would be subject to the same CSU and TL stipulations applied to new  
40 leases in PHMA. Impacts are the same type as those described under **Nature and Type of**

1 **Effects.** Because geophysical exploration in Utah would be restricted under this alternative  
2 and would not be restricted under Alternative A, impacts would increase, compared with  
3 Alternative A.

4 Under this alternative, 13 new oil and gas exploratory wells are projected to be developed on  
5 federal mineral estate in the decision area in the next 20 years. This represents an 18 percent  
6 decrease in projected wells on federal mineral estate, compared to Alternative A.

7 Management of existing leases in the decision area would be similar to that under Alternative  
8 A, except that BMPs would be applied. Because these BMPs would not be mandatory, their  
9 application would not necessarily result in additional impacts on fluid minerals.

## 10 ***Alternative F***

### 11 *Impacts from Lands and Realty Management*

12 Like Alternative C, under Alternative F, over 8.5 million acres (33 percent) of BLM-  
13 administered and National Forest System surface in the decision area (including all BLM-  
14 administered and National Forest System surface within GRSG habitat) would be managed  
15 as ROW exclusion areas. However, because all occupied habitat would be closed to fluid  
16 mineral leasing under Alternative F, managing areas as ROW exclusion in the decision area  
17 would have no impact on fluid minerals.  
18

### 19 *Impacts from Fluid Minerals Management*

20 Unleased fluid minerals management would be the same under Alternative F as that under  
21 Alternative B (**Table 4-72**). All PHMA (70 percent of the decision area) would be closed to  
22 leasing.

23 Under Alternative F, the 52 existing leases in PHMA would be subject to management,  
24 similar to that under Alternative B. However, under Alternative F, TLs would prohibit  
25 human presence and surface-disturbing activities during the nesting and brood-rearing  
26 season. This management would be the most restrictive of all the alternatives.

## 27 ***Proposed Plan***

### 28 *Impacts from Lands and Realty Management*

29 Under the Proposed Plan, 8,365,000 acres (33 percent) of BLM-administered and National  
30 Forest System surface in the decision area (including all PHMA and IHMA) would be  
31 managed as ROW avoidance areas. However, because all acres in PHMA and IHMA would  
32 be either closed to leasing or open subject to NSO stipulations, no oil and gas activities on  
33 future leases within these areas would require new rights-of-way. Therefore, oil and gas  
34 activity in PHMA and IHMA would not be impacted by management of ROW avoidance  
35 areas under the Proposed Plan.

36 All BLM-administered surface in GHMA would be managed as ROW avoidance for high  
37 voltage transmission lines and major pipelines but open to other fluid mineral-related ROW  
38 location under the Proposed Plan. Fluid minerals beneath those acres would be impacted by  
39 the ROW avoidance area, as described under **Nature and Type of Effects**. Overall, more

1 acres in GHMA would be managed as ROW avoidance under the Proposed Plan than under  
2 Alternative A; therefore, impacts on the fluid minerals program from these ROW avoidance  
3 areas would increase under the Proposed Plan.

4 Application of RDFs, BMPs, buffers, and seasonal timing restrictions to ROW construction  
5 in all GRSG habitat would also limit construction of new ROWs for oil and gas  
6 development. If these limitations made it uneconomic to develop a ROW for oil and gas  
7 development, development of federal oil and gas resources in the planning area could  
8 decrease.

9 *Impacts from Fluid Minerals Management*

10 Under the Proposed Plan, approximately 257,400 unleased acres with medium development  
11 potential (33 percent of the federal oil and gas estate with medium development potential)  
12 would remain closed to oil and gas leasing (**Table 4-72**). Closing unleased lands to leasing,  
13 especially those with medium potential would have the greatest impact on the fluid minerals  
14 program by prohibiting oil and gas development. Impacts of closing these areas to leasing  
15 are the same type as those described under **Nature and Type of Effects**.

16 Approximately 348,100 acres, or 44 percent of unleased federal oil and gas estate with  
17 medium development potential (including all areas in PHMA and IHMA not already closed)  
18 would be open to oil and gas leasing subject to NSO stipulations. The Proposed Plan would  
19 apply NSO stipulations to twice as many unleased acres with medium oil and gas  
20 development potential compared with Alternative A. Impacts would be increased because of  
21 the acreage increase and the fact that there would be no waivers or modifications to the  
22 NSO stipulation. Only one exception would exist. A total of 77 percent of unleased federal  
23 oil and gas estate with medium oil and gas potential in the decision area would be  
24 inaccessible, either due to closure or NSO, under the Proposed Plan.

25 Approximately 121,900 unleased acres, or 17 percent of the unleased federal oil and gas  
26 estate with medium oil and gas development potential (including all areas in PGMA not  
27 already closed) would be open to oil and gas leasing, subject to CSU (i.e. lek buffers) and TL  
28 stipulations under the Proposed Plan. These stipulations would restrict the timing and  
29 location of oil and gas exploration and development activities, as described under **Nature**  
30 **and Type of Effects**.

31 Under the Proposed Plan, it is reasonably foreseeable for planning purposes that 15 new oil  
32 and gas exploratory wells would be developed on federal fluid mineral estate in the decision  
33 area in the next 20 years. This represents a 40 percent decrease in projected wells on federal  
34 mineral estate compared to Alternative A.

35 Management of geophysical exploration activities under the Proposed Plan would be the  
36 same as that under Alternative B, with the same impacts.

37 Under the Proposed Plan, the same RDFs would be applied to a larger acreage than under  
38 Alternative B (including GHMA and to existing leases). However, the only management

1 actions related to master development plans and unitization would apply. Impacts of these  
2 restrictions would be the same type as those described under **Nature and Type of Effects**.

3 Application of the three percent disturbance cap in PHMA and IHMA and lek buffers in  
4 GHMA could impact both new and existing fluid mineral activities by preventing or  
5 restricting new surface development. New fluid mineral activities and new surface  
6 development on existing leases could be affected or temporarily delayed if the cap were  
7 exceeded. Applying lek buffer distances when approving actions could also restrict  
8 development of infrastructure related to fluid mineral development.

9 Under the Proposed Plan, the same RDFs described under Alternative B would be applied  
10 as COAs to 41 existing leases on 64,000 acres of occupied habitat overlying federal mineral  
11 estate (2 in Idaho over 4,000 acres; 39 in Montana over 60,000 acres). The types of impacts  
12 from these COAs are the same as those described under **Nature and Type of Effects**. The  
13 BLM and Forest Service could not apply COAs that would eliminate reasonable  
14 opportunities to develop the lease. Therefore, although restrictions on development would  
15 increase where COAs were applied, oil and gas development would still be allowed. There  
16 are no post-lease activities currently pending BLM's approval.

#### 17 4.9.2 Geothermal

##### 18 ***Methods and Assumptions***

19 The analysis of impacts on geothermal resources from this LUPA focuses on the impacts of  
20 conservation measures to protect GRSG. These impacts may be direct or indirect. For  
21 example, a direct impact on geothermal resources would result from closing an area,  
22 particularly a moderate to high geothermal potential area, to fluid mineral leasing. An  
23 indirect impact would result from managing an area as ROW exclusion, which would restrict  
24 off-lease infrastructure such as access roads and transmission lines, and could change the  
25 economic feasibility of developing a site. Additional actions or conditions that might cause  
26 direct or indirect impacts on geothermal leasing, and development are described under  
27 Indicators, below.

##### 28 *Indicators*

29 Indicators of impacts on geothermal leasing and development are as follows:

- 30 • Acres of unleased land with moderate to high geothermal potential identified as  
31 closed to fluid mineral leasing and geophysical exploration
- 32 • Acres of unleased land with no or low geothermal potential identified as closed  
33 to fluid mineral leasing and geophysical exploration
- 34 • Acres of unleased land with moderate to high geothermal potential subject to  
35 NSO stipulation.
- 36 • Acres of unleased land with low geothermal potential subject to NSO  
37 stipulations

- 1 • Acres of unleased land with moderate to high geothermal potential subject to  
2 CSU and/or TLs
- 3 • Acres of unleased land with no or low geothermal potential subject to CSU  
4 and/or TLs
- 5 • Number of leases and acres over which COAs would be applied on geothermal  
6 development activities on leased parcels for the protection of GRSG
- 7 • Acres managed as ROW avoidance areas
- 8 • Acres managed as ROW exclusion areas

9 *Assumptions*

10 The analysis includes the following assumptions:

- 11 • Existing fluid mineral leases would not be affected by the closures proposed  
12 under this LUPA.
- 13 • Fluid mineral operations on existing federal leases, regardless of surface  
14 ownership, would be subject to project-specific COAs by the authorizing officer.  
15 The BLM can deny surface occupancy on portions of leases with COAs to avoid  
16 or minimize resource conflicts if this action does not eliminate reasonable  
17 opportunities to develop the lease or affect lease rights.
- 18 • Existing leases would be managed under the stipulations in effect when the  
19 leases were issued; new stipulations proposed under this LUPA would apply only  
20 on new leases. See the glossary for definitions of stipulations versus COAs.
- 21 • Under all alternatives, reclamation bonds would be required, pursuant to 43 CFR  
22 3261.18 and 43 CFR 3214.10, in an amount sufficient to ensure full restoration  
23 of lands to the condition in which they were found. In addition, BLM approval  
24 of geothermal drilling permits would continue to be required prior to  
25 commencement of drilling under all alternatives in accordance with 43 CFR  
26 3260.
- 27 • The lands in the Curlew Grassland area, as described in the Pocatello RMP, that  
28 are administratively unavailable for leasing will be included in the total number of  
29 acres closed to leasing under Alternative A.
- 30 • As the demand for alternative energy increases, so will the demand for extracting  
31 geothermal resources in areas with potential. Technological advancements could  
32 lead to changes in levels of geothermal development potential throughout the  
33 planning area as developers find ways to produce power from lower temperature  
34 resources and from hot dry rock.
- 35 • As discussed in Section 3.12, Mineral Resources, interest in geothermal leasing in  
36 Idaho is expected to remain sporadic. For planning purposes, it is assumed that  
37 development would occur as described in **Appendix O**, Reasonably Foreseeable  
38 Development Scenario.



1        ***Stipulations would also apply to geothermal leasing on lands overlying federal***  
2        ***mineral estate, which includes federal mineral estate underlying BLM-administered***  
3        ***and National Forest System lands, as well as private lands underlain by federal***  
4        ***mineral estate. Nature and Type of Effects***

5        For geothermal energy, the above criteria were evaluated in addition to areas closed to  
6        leasing, areas with NSO, CSU and TL stipulations, and areas managed as ROW avoidance or  
7        exclusion within GRS habitat. All of these factors are considered to be impediments to  
8        geothermal energy development, to varying degrees. Alternatives with greater acreages of  
9        such restrictions are considered to have a greater impact on geothermal energy development  
10       potential than alternatives with fewer acres of such restrictions, especially in areas with  
11       moderate to high geothermal potential.

12       Geothermal resource leasing and development would be precluded in areas closed to fluid  
13       mineral leasing. Such closures would directly impact the fluid minerals program by removing  
14       the opportunity afforded US citizens by the Mineral Leasing Act and the Geothermal Steam  
15       Act, to explore and develop geothermal resources in those areas, especially if they have  
16       moderate to high geothermal potential. Geothermal developers would be limited in their  
17       choice of project locations and could be forced to develop in areas that are challenging to  
18       access or have fewer economic resources because other, more ideal areas are closed to  
19       leasing. This could raise the cost of geothermal development in the decision area and could  
20       result in operators moving to nearby nonfederal minerals if similar geologic conditions exist,  
21       or the opportunity for discovery may be lost altogether if such conditions are unique to the  
22       federal lands.

23       In areas with NSO stipulations, geothermal resources can only be accessed by directional  
24       drilling from a point on the surface that is not covered by NSO. If much of the lease is  
25       covered by an NSO stipulation, directional drilling may not be feasible. NSO stipulations  
26       can be nearly as restrictive to geothermal energy development as closing an area to leasing.  
27       Any geothermal projects on leases with CSU and/or TL stipulations could have added costs  
28       and scheduling challenges.

29       Applying COAs, which include RDFs (see **Appendix B**) and conservation measures  
30       outlined in **Chapter 2**, to post-lease activities could directly impact fluid mineral operations.  
31       These RDFs and conservation measures include such standards as noise restrictions, height  
32       limitations on structures, design requirements, water development standards, remote  
33       monitoring requirements, and reclamation standards. Additional site-specific planning, such  
34       as master development plans and unitization, and reclamation bonding requirements may  
35       also be included. Applying these requirements through COAs may impact fluid mineral  
36       operations by increasing costs, causing delays, and frustrating attempts to develop the  
37       resource.

38       Placing limits on geophysical exploration could reduce the ability to collect geologic data  
39       concerning geothermal resources on federal mineral estate. TLs on geophysical exploration  
40       could lead to equipment scheduling delays.

1 Lands and realty management actions such as requiring off-lease utilities to be collocated  
 2 within designated corridors could impact geothermal resource development by limiting  
 3 options for ROW and facility design, and increasing development costs. While ROW grants  
 4 are not needed for roads or transmission lines within a leased area, such grants are required  
 5 for roads and transmission lines that are outside the leased areas. The identification of an  
 6 area of land as a ROW exclusion area is likely to hinder any geothermal development in the  
 7 area due to restrictions of access and transmission. ROW avoidance areas can result in  
 8 reroutes and limited options for access and transmission and could either stop a project  
 9 from being developed or increases development costs.

10 ***Impacts Common to All Alternatives***

11 There are no impacts common to all alternatives. **Table 4-73**, Management Actions  
 12 Affecting Geothermal Development, provides an overview of impacts across the alternatives  
 13 on geothermal development potential through showing the various restrictions placed on  
 14 leasing, exploration, and development for both unleased and already leased lands. **Table 4-**  
 15 **74**, Management Actions by Geothermal Potential, provides an overview of impacts across  
 16 the alternatives in areas of high and low geothermal potential.

**Table 4-72**  
**Management Actions Affecting Geothermal Development**

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
<b>ROW Exclusion</b>	1,028,500	8,484,100	11,023,100	1,028,500	979,100	8,523,400	1,013,800
<b>ROW Avoidance</b>	1,956,300	2,539,000	0	10,224,300	7,343,400	2,556,300	8,365,000
<b>Closed to Leasing (Acres)</b>	12,513,900	19,598,800	21,901,100	17,526,500	12,513,900	19,598,800	11,296,800
<b>Open Subject to NSO Stipulations (Acres)</b>	1,910,500	1,262,100	959,600	1,461,700	7,441,600	1,262,100	9,630,000
<b>Open Subject to CSU/TL Stipulations (Acres)</b>	2,841,600	1,940,900	1,542,700	5,450,000	2,237,300	1,940,900	3,834,400
<b>Open Subject to Standard Terms and Conditions (Acres)</b>	10,525,200	5,061,000	3,387,700	3,353,100	5,598,300	5,061,000	3,071,500

Source: BLM GIS 2015

17

**Table 4-73**  
**Management Actions by Geothermal Potential**

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan

**Table 4-73  
Management Actions by Geothermal Potential**

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
<b>Moderate to High Potential</b>							
<b>Closed to Leasing (Acres)</b>	2,939,400	5,287,800	6,137,200	3,215,600	2,939,400	6,137,200	2,832,800
<b>Open Subject to NSO Stipulations (Acres)</b>	2,516,800	566,100	454,500	752,500	2,199,400	566,100	2,906,800
<b>Open Subject to CSU/TL Stipulations (Acres)</b>	756,800	496,600	382,700	3,027,900	527,400	496,600	1,278,100
<b>Open Subject to Standard Terms and Conditions (Acres)</b>	4,323,400	2,497,100	1,801,600	1,780,000	2,650,500	2,497,100	1,764,385
<b>Low to No Potential</b>							
<b>Closed to Leasing (Acres)</b>	9,574,600	14,311,000	15,763,900	14,311,000	9,574,600	14,311,000	8,464,000
<b>Open Subject to NSO Stipulations (Acres)</b>	1,154,000	696,000	505,100	709,100	4,782,800	696,000	6,723,200
<b>Open Subject to CSU/TL Stipulations</b>	2,084,800	1,444,300	1,160,000	2,422,000	1,710,000	1,444,300	2,556,300
<b>Open Subject to Standard Terms and Conditions (Acres)</b>	6,201,800	2,564,000	1,586,100	1,573,100	2,947,800	2,564,000	1,307,100

Source: BLM GIS 2015

1

2 **Alternative A**

3 *Impacts from Fluid Minerals Management*

4 Much of the acreage within the decision area has at least moderate geothermal potential.  
5 Under Alternative A, the federal mineral estate currently open to geothermal leasing would  
6 remain open.

7 There are 18,200 acres of federal geothermal leases within GRSG habitat in the decision  
8 area. Development of these leases would continue to be subject to the existing stipulations  
9 placed upon them. Leases within occupied habitat would continue to be developed in  
10 accordance with their lease terms, which may include lek buffers and TLs in GRSG habitat.  
11 RDFs and BMPs can be applied as COAs to mitigate or prevent impacts to sage grouse on  
12 public lands, so long as they are consistent with existing lease terms and stipulations. Many

1 but not all of BLM and National Forest Service land use plans require mitigation to sage  
2 grouse habitat by applying stipulations such as lek buffers and seasonal timing restrictions  
3 where appropriate, as discussed in Chapter 3. The existing geothermal leases were issued  
4 with stipulations in place, and thus no additional stipulations can be added to those leases.  
5 Geothermal development within the population areas would be subject to COAs placed on  
6 the project at the time of subsequent NEPA analysis. Development would be subject to any  
7 restrictions resulting from ESA Section 7 Consultation with the USFWS regarding any listed  
8 species in the project area. Applying stipulations from existing land use plans in some of the  
9 planning area but not all of it, could degrade important habitat, if post-lease activities are  
10 proposed. Under Alternative A, 756,800 acres of high geothermal potential areas and  
11 2,084,800 acres of low potential areas would be subject to TLs and/or CSUs.

12 Continuing to apply disturbance buffers and seasonal TLs on surface-disturbing and  
13 disruptive activities in portions of GRSG breeding, nesting, and winter habitat would directly  
14 impact development of geothermal resources. It would do this by limiting the siting, design,  
15 and operations of geothermal development projects. This, in turn, could force operators to  
16 use more costly development methods (such as horizontal drilling) than they otherwise  
17 might have used. Equipment shortages could result from applying TLs because a bottleneck  
18 could be created during the period in which activity would be allowed.

19 Alternative A would manage 12,513,900 acres (49 percent of the planning area) as closed to  
20 geothermal leasing. Of this, 2,939,400 acres (33 percent of high potential) would be located  
21 in areas with moderate to high geothermal potential, and 9,574,600 acres (37 percent of low  
22 potential) would be located in areas with low to no geothermal potential. Geophysical  
23 exploration would continue to be allowed in the decision area wherever acres are open to  
24 geothermal leasing. However, geophysical exploration in GRSG habitat would continue to  
25 be subject to any applicable disturbance buffers or TLs required in current LUPs. In areas  
26 closed to leasing where geophysical exploration would not be allowed, impacts would  
27 continue to be the type described under **Nature and Type of Effects**.

28 *Impacts from Lands and Realty Management*

29 Under Alternative A, 1,028,500 acres (4 percent of BLM- and National Forest System-  
30 administered surface in the decision area) would continue to be managed as ROW exclusion  
31 areas. Another 1,956,300 acres (8 percent of BLM-administered and National Forest System  
32 surface in the decision area) would continue to be managed as ROW avoidance areas. This  
33 management would continue to impact the fluid minerals program, as described under  
34 **Nature and Type of Effects**.

35 **Alternative B**

36 *Impacts from Fluid Minerals Management*

37 **Table 4-73**, Management Actions Affecting Geothermal Development, compares the acres  
38 of geothermal potential within the decision area as to whether they would be open or closed  
39 to leasing and what stipulations would be applied.

40 Under Alternative B, all PHMA (8,235,900 acres) would be closed to geothermal leasing, and  
41 would close a total of 19,598,800 acres to geothermal leasing. Of the 19,598,800 acres,

1 5,207,800 are within high geothermal potential areas, and 14,311,000 are within low  
2 geothermal potential areas. Alternative B would manage and additional 7,084,900 acres more  
3 than Alternative A as closed to fluid mineral leasing. As such, Alternative B would be more  
4 restrictive of geothermal exploration and development than Alternative A. An additional  
5 1,940,900 acres would be managed as CSU/TL (496,600 within high potential areas and  
6 1,444,300 within low potential areas), and 1,262,100 acres would be managed as NSO (566,100  
7 in high potential areas and 696,000 in low potential areas)

8 Continuing to apply disturbance buffers and seasonal TLs on surface-disturbing and  
9 disruptive activities in portions of GRSG breeding, nesting, and winter habitat would have  
10 the same impacts as described under Alternative A.

11 Under Alternative B, conservation measures in addition to RDFs would be applied as COAs  
12 to existing leases within PHMA overlying federal mineral estate. These RDFs and  
13 conservation measures would include such requirements as surface-disturbance limitations,  
14 seasonal restrictions on activities in certain areas, noise restrictions, structure height  
15 limitations, design requirements, water development standards, remote monitoring  
16 requirements, and reclamation standards. Application of these requirements through COAs  
17 would impact geothermal operations by increasing costs if they resulted in the application of  
18 additional requirements or use of more expensive technology (such as remote monitoring  
19 systems). To avoid costs, operators could move to nearby nonfederal minerals.

20 Existing geothermal leases were issued with stipulations in place, and no additional  
21 stipulations could be added to these leases. The potential for the development of geothermal  
22 resources within the geothermal reasonable foreseeable development scenario (RFDS) area  
23 under Alternative B is the same as under Alternative A.

24 Geophysical exploration would be allowed on the 8,735,300 acres of federal mineral estate  
25 within PHMA but would be subject to TLs and other restrictions. Most notably, geophysical  
26 exploration would be allowed only for gathering information about fluid mineral resources  
27 outside PHMA. Because of these limitations and the fact that PHMA would be closed to  
28 fluid mineral leasing, geophysical exploration in PHMA would decrease under this  
29 alternative. Decreases in geophysical exploration in PHMA could impact the fluid minerals  
30 program, as described under **Nature and Type of Effects**.

31 *Impacts from Lands and Realty Management*

32 Under Alternative B, 8,484,000 acres (32 percent) of BLM- and National Forest System-  
33 administered surface in the decision area (including all PPMA) would be managed as ROW  
34 exclusion areas. However, because all PPMA would be closed to fluid mineral leasing under  
35 Alternative B, managing areas as ROW exclusion in PPMA would have no additional impact  
36 on fluid minerals.

1 **Alternative C**

2 *Impacts from Fluid Minerals Management*

3 **Table 4-73**, Management Actions Affecting Geothermal Development, compares the acres  
4 of geothermal potential within the decision area as to whether they would be open or closed  
5 to leasing and what stipulations would be applied.

6 Under Alternative C, 21,901,100 acres would be closed to geothermal leasing. Alternative C  
7 would close to leasing an additional 9,387,200 acres over Alternative A. Of the 21,901,100  
8 acres, 6,137,200 are within high potential geothermal areas, and 15,763,900 acres are in low  
9 potential geothermal areas. An additional 1,542,700 acres would be managed as CSU/TL  
10 (382,700 within high potential areas and 1,160,000 within low potential areas), and 959,600  
11 acres would be managed as NSO (454,500 in high potential areas and 505,100 in low potential  
12 areas).

13 Management applicable to existing leases under Alternative C would be similar to those  
14 under Alternative B, but they would apply to 24,400 acres of existing leases on federal  
15 mineral estate within PHMA. In addition to applying the restrictive management under  
16 Alternative B to more acres, Alternative C would also call for COAs implementing seasonal  
17 restrictions on vehicle traffic and human presence associated with exploratory drilling. This  
18 alternative also would limit new surface disturbance on existing leases to three percent per  
19 year across the entire planning area, with some exceptions. Impacts of these operating and  
20 siting restrictions are the same type as those described under Alternative B.

21 Geophysical exploration would be subject to the same restrictions as those under Alternative  
22 B; however, these restrictions would apply to more acres under Alternative C (12,039,500  
23 acres). Therefore, the types of impacts described under **Nature and Type of Effects** would  
24 increase under this alternative.

25 Impacts on the geothermal RFDS area from fluid minerals management are the same as  
26 those described under Alternative B.

27 *Impacts from Lands and Realty Management*

28 Under Alternative C, 11,048,000 acres (43 percent) of BLM-administered and National  
29 Forest System surface in the decision area (including all BLM-administered and National  
30 Forest System surface in GRSG habitat) would be managed as ROW exclusion areas.  
31 However, because all GRSG habitat would be closed to fluid mineral leasing under  
32 Alternative C, managing areas as ROW exclusion would have no additional impact on fluid  
33 minerals.

34 **Alternative D**

35 *Impacts from Fluid Minerals Management*

36 **Table 4-73**, Management Actions Affecting Geothermal Development, compares the acres  
37 of geothermal potential within the decision area by whether they would be open or closed to

38 Under Alternative D, 17,526,500 acres would be closed to geothermal leasing. Alternative D  
39 would close to leasing an additional 5,012,600 acres over Alternative A. Of the 17,526,500

1 acres, 3,215,600 are within high potential geothermal areas, and 14,311,000 acres are in low  
2 potential geothermal areas. An additional 5,545,000 acres would be managed as CSU/TL  
3 (3,027,000 within high potential areas and 2,422,000 within low potential areas), and 1,461,700  
4 acres would be managed as NSO (752,500 in high potential areas and 709,100 in low potential  
5 areas).

6 The CSU stipulations would include noise and tall structure limitations and, at times, a site-  
7 specific plan of development to limit habitat fragmentation. Application of these surface  
8 disturbance restrictions, TLs, and other operating standards would limit the siting, design,  
9 and operations of geothermal development projects in the manner described under  
10 Alternative A. However, these impacts would be mitigated in GHMA, where off-site  
11 mitigation would allow operators to waive the applicable stipulations.

12 For existing leases, the BLM and Forest Service would apply the same RDFs from  
13 Alternative B to all three GRSG management areas. However, exceptions to application of  
14 RDFs could mitigate impacts. Exceptions would occur where a design feature was not  
15 applicable (e.g., a resource is not present on a given site) or where the design feature would  
16 not actually provide additional protection for GRSG or its habitat.

17 Alternative D's RDFs would be the same under Alternative B, except that surface occupancy  
18 buffers and TLs would not apply to surface disturbance; rather, the BLM and Forest Service  
19 would aim to minimize habitat loss, fragmentation, and direct and indirect effects on GRSG  
20 and habitat. The impacts of applying these RDFs and conservation measures are the same  
21 type as those described under Alternative B. On- or off-site mitigation would be used to  
22 minimize impacts on GRSG. Where operators use such mitigation to protect GRSG,  
23 geothermal development costs would increase compared with Alternative A due to the  
24 additional expense of mitigation activities.

25 Geophysical exploration in GRSG habitat would be subject to TL stipulations. Impacts of  
26 these stipulations are the same types as those described under **Nature and Type of Effects**.  
27 Because these types of stipulations would not be applied under Alternative A, impacts on the  
28 fluid minerals program would increase under Alternative D.

29 Impacts on the geothermal RFD area from fluid minerals management are the same as those  
30 described under Alternative A.

#### 31 *Impacts from Lands and Realty Management*

32 Like Alternative A, under Alternative D, 1,028,500 acres (4 percent) of BLM- and National  
33 Forest System-administered surface in the decision area would be managed as ROW  
34 exclusion areas. A total of 10,244,300 acres (40 percent), including all PMMA and PGMA,  
35 would be managed as ROW avoidance areas. Where these exclusion or avoidance areas  
36 overlap with areas open to fluid mineral leasing, impacts on the fluid minerals program  
37 would occur, as described under **Nature and Type of Effects**. Because three times more  
38 acres would be managed as ROW avoidance under Alternative D than under Alternative A,  
39 the magnitude of impacts would increase.

1 **Alternative E**

2 *Impacts from Fluid Minerals Management*

3 **Table 4-73**, Management Actions Affecting Geothermal Development, compares the acres  
4 of geothermal potential within the decision area as to whether they would be open or closed  
5 to leasing and what stipulations would be applied.

6 Under Alternative E, no additional acres of geothermal development would be closed to  
7 geothermal leasing when compared with Alternative A. NSO stipulations would be applied  
8 to 7,441,600 acres including 2,199,400 with high geothermal potential and 4,782,800 with  
9 low geothermal potential. An additional 2,237,000 acres would be managed as CSU/TL  
10 (527,000 within high potential areas and 1,710,000 within low potential areas). Existing leases  
11 would remain valid through their term but could not be renewed.

12 However, under Alternative E, fluid mineral management would differ between portions of  
13 the decision area in Idaho and Montana and portions in Utah. Within Idaho and Montana,  
14 new leases on federal mineral estate within CHZ and IHZ would be subject to NSO  
15 stipulations. Application of NSO stipulations would have the type of impacts described  
16 under Nature and Type of Effects; however, the impacts on fluid minerals would be  
17 mitigated by waivers where certain criteria were met. Within Utah, new leases on federal  
18 mineral estate within PHMA would be subject to CSU and TL stipulations. Impacts of these  
19 stipulations are the same type as those described under **Nature and Type of Impacts**.

20 Overall, because more unleased acres with medium development potential would be closed  
21 or subject to NSO stipulations under Alternative E compared with Alternative A, impacts on  
22 geothermal development from fluid mineral allocations would increase under Alternative E.

23 Within Idaho and southwestern Montana, management of geophysical exploration would be  
24 the same as that under Alternative A, with the same impacts. Within Utah, geophysical  
25 exploration in PHMA would be subject to the same CSU and TL stipulations applied to new  
26 leases in PHMA. Impacts are the same type as those described under **Nature and Type of**  
27 **Effects**. Because geophysical exploration in Utah would be restricted under this alternative  
28 and would not be restricted under Alternative A, impacts would increase, compared with  
29 Alternative A.

30 Management of existing leases in the decision area would be similar to that under Alternative  
31 A, except that BMPs would be applied. Because these BMPs would not be mandatory, their  
32 application would not necessarily result in additional impacts on fluid minerals.

33 *Impacts from Lands and Realty Management*

34 Similar to Alternative A, under Alternative E, 979,100 acres (4 percent) of BLM- and  
35 National Forest System-administered surface in the decision area would be managed as  
36 ROW exclusion areas. However, under Alternative E more acres (7,343,400 or 20 percent)  
37 including all CHZ and IHZ not already managed as ROW exclusion areas, would be  
38 managed as ROW avoidance areas. Where these exclusion or avoidance areas overlapped  
39 with areas open to fluid mineral leasing, impacts on the fluid minerals program are as  
40 described under **Nature and Type of Effects**. Because more acres would be managed as



1 ROW avoidance under Alternative E than under Alternative A, the magnitude of impacts  
2 would increase. Impacts would be mitigated where exemptions were allowed for ROW  
3 development subject to certain conditions.

4 ***Alternative F***

5 *Impacts from Fluid Minerals Management*

6 **Table 4-73**, Management Actions Affecting Geothermal Development, compares the acres  
7 of geothermal potential within the decision area as to whether they would be open or closed  
8 to leasing and what stipulations would be applied.

9 Under Alternative F, 19,598,800 acres would be closed to geothermal leasing. Alternative C  
10 would close to leasing an additional 7,084,900 acres more than Alternative A. Of the  
11 19,598,800 acres, 6,137,200 are within high potential geothermal areas, and 14,311,000 acres  
12 are in low potential geothermal areas. An additional 1,940,900 acres would be managed as  
13 CSU/TL (496,600 within high potential areas and 1,444,300 within low potential areas), and  
14 1,262,100 acres would be managed as NSO (566,100 in high potential areas and 696,000 in low  
15 potential areas).

16 Management applicable to existing leases under Alternative F would be similar to that under  
17 Alternative B, but it would apply to 4,360 acres of existing leases on federal mineral estate  
18 within GHMA. In addition to applying the restrictive management under Alternative B to  
19 more acres, Alternative F would also call for COAs implementing seasonal restrictions on  
20 vehicle traffic and human presence associated with exploratory drilling. This alternative also  
21 would limit new surface disturbance on existing leases to three percent per section, with  
22 some exceptions. Impacts of these operating and siting restrictions are the same type as  
23 those described under Alternative B.

24 Under Alternative F, geophysical exploration would be prohibited on 19,400 acres of federal  
25 mineral estate within PHMA. The closure of this area would reduce the lands available for  
26 geothermal exploration, compared with Alternative A.

27 Impacts on the geothermal RFDS area from fluid minerals management are the same as  
28 those described under Alternative B.

29 *Impacts from Lands and Realty Management*

30 Like Alternative B, under Alternative F, 8,523,400 acres (33 percent) of BLM- and National  
31 Forest System-administered surface in the decision area (including all BLM- administered  
32 and National Forest System surface within GRSG habitat) would be managed as ROW  
33 exclusion areas. However, because all occupied habitat would be closed to fluid mineral  
34 leasing under Alternative F, managing areas as ROW exclusion in the decision area would  
35 have no additional impact on fluid minerals.

36 ***Proposed Plan***

37 ***Impacts from Fluid Minerals Management***

38 Under the Proposed Plan, 11,296,800 acres, or 44 percent of planning areas would remain  
39 closed to geothermal leasing. This includes 2,832,200 acres with moderate to high

1 geothermal potential (32 percent of the moderate to high geothermal potential acres in the  
2 decision area) to geothermal leasing. An additional 8,464,000 acres (34 percent) with no or  
3 low geothermal potential would remain closed to geothermal leasing. The Proposed Plan  
4 would manage the least amount of acres with geothermal potential to geothermal leasing.  
5 Closures in no and low geothermal potential areas would have less of an impact on  
6 geothermal resource development than closures in moderate to high geothermal potential  
7 areas, due to a lower likelihood of discovery of a valuable geothermal resource.

8 In addition to fluid mineral closures, 3,834,400 acres would be subject to TL and CSU  
9 (including 1,278,100 acres in moderate to high geothermal potential areas and 2,556,300  
10 acres in low geothermal potential areas) and 9,630,000 acres would be subject to NSO  
11 stipulations (including 2,906,800 acres in moderate to high geothermal potential areas, and  
12 6,723,200 acres in low geothermal potential areas).

13 Under the proposed plan, RDFs and BMPs would be applied as COAs when a geothermal  
14 drilling permit or other post-lease activity is approved. In addition to affecting new leases,  
15 the COAs would be applied to the 25,571 acres of existing leases within GRSG habitat,  
16 consistent with existing lease terms and special stipulations. These RDFs and proposed  
17 management actions would include such requirements as noise restrictions, structure height  
18 limitations, design requirements, water development standards, remote monitoring  
19 requirements, and reclamation standards as described in **Appendix B**.

20 The BLM and Forest Service could not apply COAs that would eliminate reasonable  
21 opportunities to develop an existing lease. Therefore, although restrictions on development  
22 would increase where COAs were applied, geothermal development would still be allowed.

### 23 ***Impacts from Lands and Realty Management***

24 Under the Proposed Plan, 8,365,000 acres (33 percent) of BLM-administered and National  
25 Forest System surface in the decision area (including all PHMA) would be managed as ROW  
26 avoidance areas where development of new ROWs for land uses could not occur unless the  
27 Anthropogenic Disturbance Development and Exception Criteria (AD-3 and AD-4) were  
28 satisfied (including the requirement that the project would not exceed the 3 percent  
29 disturbance threshold and would be collocated within existing the footprint of existing  
30 infrastructure). These restrictions would only allow new ROWs to be developed pursuant to  
31 a valid existing authorization.

32 Another 1,013,800 acres (4 percent) of BLM-administered and National Forest System  
33 surface in the decision area (including all IHMA) would be managed as ROW exclusion areas  
34 where development of new ROWs for land uses could not occur unless the Anthropogenic  
35 Disturbance Development Criteria (AD-4) were satisfied (including the requirement that the  
36 project would not exceed the 3 percent disturbance threshold). Lessees would be unable to  
37 site off-lease features, such as transmission lines, roads, and pipelines that may be necessary  
38 to transport the product to market, on public lands. These actions could result in the  
39 stranding of a geothermal lease and its resources, if surrounded by federal lands subject to  
40 these constraints.

1 Application of RDFs, BMPs, buffers, and seasonal timing restrictions to ROW construction  
2 in GRSG habitat would also limit the construction of new ROWs for geothermal  
3 development to certain times of the year or in certain locations. If these limitations made it  
4 uneconomic to develop a ROW for geothermal development, development of federal  
5 geothermal resources in the planning area could decrease.

### 6 ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and*** 7 ***Coordination***

8 Under the Proposed Plan, anthropogenic disturbance, including leasable mineral  
9 development, would be limited to 3 percent of nesting and wintering habitat within PHMA  
10 and IHMA within a Conservation Area (i.e., BSUs). In BSUs where the 3 percent cap is  
11 already exceeded, new development of federal leasable mineral resources would be  
12 prohibited until enough habitat was restored to maintain the area under the threshold.  
13 Development of federal leasable mineral resources that would result in exceedance of the 3  
14 percent cap in a BSU would also be prohibited. Impacts would be greatest where these caps  
15 limited development in unleased portions of high geothermal potential because these areas  
16 have the highest potential for leasable mineral development. The uncertainty wrought by  
17 this limitation would decrease the value of the lease, disincentivize renewable energy  
18 development in the western U.S., and could affect valid existing rights on any lease offered  
19 in the future.  
20

## 21 **4.10 Locatable Minerals**

22 This section discusses impacts on locatable minerals from proposed management actions of  
23 other resources and resource uses. Existing conditions concerning locatable minerals are  
24 described in **Section 3.12**.

### 25 **4.10.1 Methods and Assumptions**

26 The analysis of impacts on locatable minerals from this LUPA focuses on the impacts of  
27 proposed management actions to protect GRSG. These impacts may be direct or indirect.  
28 For example, a direct impact on locatable minerals would result from withdrawing an area  
29 from locatable mineral entry. An indirect impact would result by removing a road, which  
30 would change the economic feasibility of developing a site. Additional actions or conditions  
31 that might cause direct or indirect impacts on locatable minerals are described below.

#### 32 ***Indicators***

33 Indicators of impacts on locatable minerals are as follows:

- 34 • Acres withdrawn from locatable mineral entry
- 35 • Acres recommended for withdrawal from locatable mineral  
36 entry
- 37 • Acres over which restrictions, such as RDFs and management  
38 actions, are placed on locatable mineral development activities to

1 prevent unnecessary or undue degradation of GRSG habitat as  
2 the law allows

3 Where information is available, consideration is given to the potential for locatable minerals  
4 on lands recommended for withdrawal from locatable mineral entry. For example, an  
5 indicator of an impact on locatable minerals is if there were substantial withdrawals from  
6 locatable mineral entry recommended in high potential areas.

### 7 ***Assumptions***

8 The analysis includes the following assumptions:

- 9 • Management actions proposed in this LUPA would apply to  
10 locatable mineral activity where the BLM and Forest Service  
11 manage the surface over federal locatable mineral estate as well  
12 as where federal locatable mineral estate lies beneath private or  
13 state surface (split estate).
- 14 • Areas recommended for withdrawal would be withdrawn.  
15 Current mining claims have valid existing rights, provided they  
16 meet the requirements of the General Mining Law of 1872. One  
17 of these requirements is that the claim be supported by the  
18 discovery of a valuable mineral.
- 19 • Locatable mineral development trends described in **Section**  
20 **3.12**, Mineral Resources, are assumed to continue for the life of  
21 the analysis.
- 22 • Because many different and unrelated mineral commodities are  
23 considered locatable, mineral potential was determined by  
24 looking at current mining claim densities in the planning area, as  
25 well as the number of mining plans and notices. Areas with a  
26 high mining claim density and more mining plans and notices  
27 are considered to have higher potential for locatable minerals  
28 than areas with lower claim densities and fewer plans/notices.

#### 29 **4.10.2 Nature and Type of Effects**

30 In order to describe the effects of imposing GRSG management actions on locatable  
31 mineral discovery and development, the above indicators were evaluated for each alternative.  
32 Each of these factors is considered to be an impediment to locatable mineral discovery and  
33 development, to varying degrees. In general, an alternative with greater acreages of such  
34 restrictions is considered to have a greater impact on locatable mineral discovery and  
35 development potential than an alternative with fewer acres of such restrictions, especially in  
36 areas with moderate to high locatable mineral potential.

37 Withdrawing lands from locatable mineral entry reduces the amount of land available to US  
38 citizens by the General Mining Law of 1872, as amended, to access and locate mining claims.  
39 Withdrawing lands removes the potential for future mineral development on public domain  
40 lands. Withdrawal of areas larger than 5,000 acres require Congressional notification.

1 A valid mining claim within areas withdrawn from mineral entry would be considered a valid  
2 existing right. A valid mining claim is one on which there has been a discovery of an  
3 economically valuable mineral deposit on or before the date of withdrawal. A validity exam  
4 could be required to determine claim validity.

5 For each area proposed for withdrawal, a detailed mineral potential analysis must be  
6 prepared by a geologist or mining engineer, that includes an evaluation of the area's present  
7 and potential market demands. Each existing mining claim in an area proposed to be  
8 withdrawn from locatable mineral entry would have to undergo a valid existing rights  
9 determination to determine whether a discovery had been made. Mining claims with a  
10 discovery of a valuable deposit on the date of the withdrawal are valid and would be exempt  
11 from withdrawal for as long as the claimant maintains the claim; all other claims would  
12 become void.

13 The need to perform valid existing rights determinations and mineral potential reports in  
14 areas proposed to be withdrawn from locatable mineral entry would greatly increase the  
15 burden on the BLM and Forest Service.

16 Applying reasonable and appropriate RDFs, BMPs (see **Appendix B**) and management  
17 actions outlined in **Chapter 2**, to plans of operations could directly impact locatable mineral  
18 operations by increasing costs, causing delays, and frustrating attempts to develop the  
19 resource. These RDFs and management actions include such standards as noise restrictions,  
20 height limitations on structures, design requirements, water development standards, remote  
21 monitoring requirements, and reclamation standards. Applying these requirements may  
22 impact locatable mineral operations by increasing costs, causing delays, and frustrating  
23 attempts to develop the resource.

24 Implementing management for the following resources would have negligible or no impact  
25 on locatable minerals; therefore they are not discussed in detail: GRSG, habitat restoration  
26 and vegetation, invasive species, wildland fire, nonenergy solid leasable minerals, salable  
27 minerals, fluid minerals, recreation and visitor services, livestock grazing, and special  
28 designations.

#### 29 **4.10.3 Impacts on Locatable Minerals Common to All Alternatives**

30 The nature and type of impacts described below are common to all alternatives, but the  
31 context and intensity may vary by alternative.

##### 32 ***Impacts from Locatable Minerals Management***

33 Under all alternatives, approximately 5,380,200 acres, 18 percent of the total federal mineral  
34 estate open to mineral entry, would remain withdrawn from the location of mining claims,  
35 precluding new exploration and mining. **Table 4-74**, Quantitative Impacts on Locatable  
36 Minerals, illustrates the change in acres open to locatable mineral entry and to be petitioned  
37 for withdrawal from locatable mineral entry in the decision area across the alternatives.

**Table 4-74**  
**Quantitative Impacts on Locatable Minerals**

Locatable Minerals	Alternatives A, D, and E	Alternatives B and F	Alternative C	Proposed Plan
Total federal mineral estate for locatable minerals	29,754,300	29,754,300	29,754,300	29,754,300
Total acres withdrawn from locatable mineral entry	5,380,200	5,380,200	5,380,200	5,380,200
<i>High likelihood of interest</i>	38,700	38,700	38,700	38,700
<i>Moderate likelihood of interest</i>	100,400	100,400	100,400	100,400
<i>Low likelihood of interest</i>	5,241,200	5,241,200	5,241,200	5,241,200
Total acres recommended for withdrawal from locatable mineral entry	0	7,928,700	11,555,000	2,968,200
<i>High likelihood of interest</i>	0	150,600	415,700	55,900
<i>Moderate likelihood of interest</i>	0	224,700	382,100	42,600
<i>Low likelihood of interest</i>	0	7,553,400	10,757,200	2,869,600
Total acres open to locatable mineral exploration or development	24,374,100	16,373,400	13,904,300	21,405,600
<i>High likelihood of interest</i>	817,500	609,700	428,200	761,500
<i>Moderate likelihood of interest</i>	875,900	651,200	511,100	833,300
<i>Low likelihood of interest</i>	22,680,600	15,112,500	12,965,100	19,810,900

Source: BLM GIS 2015

The management actions being considered in this LUPA could affect both existing and future mining claims. Exploration and development on mining claims would require that a notice be submitted to the BLM with a cumulative surface disturbance of five or fewer acres and a plan of operations for exploration and development greater than five acres, as outlined in 43 CFR Part 3809. On National Forest System lands, a Notice of Intent is required for minor minerals activities on mining claims, or a Plan of Operations if the proposed operations “will likely cause a significant disturbance of surface resources( 36 CFR 228A).

#### 4.10.4 Alternative A

##### *Impacts from Locatable Minerals Management*

Under Alternative A, 5,380,200 acres, 18 percent, of locatable mineral estate in the decision area would remain withdrawn from location under the General Mining Act of 1872. This includes 38,700 acres where there is a high likelihood of future interest in locatable mineral development (5 percent of total acres with a high likelihood of interest in the decision area). Withdrawal of areas with a high likelihood of future interest in locatable mineral development has greater impacts than withdrawal of areas with moderate or low likelihood of interest because high likelihood areas are more likely to be sought after for development. Under current management, exploration and development would continue in PHMA and GHMA for new claims and for prior existing, valid mining claims. Impacts on existing and

1 future mining claims are similar to those described under **Effects Common to All**  
2 **Alternatives.**

3 There are 41 plans of operations and notices in the locatable mineral decision area.  
4 Development of these operations would continue unrestricted under Alternative A.

5 No additional BMPs to protect GRSG are identified under this alternative.

#### 6 **4.10.5 Alternative B**

##### 7 ***Impacts from Locatable Minerals Management***

8 Under Alternative B, 7,928,700 acres of federal locatable mineral estate in PHMA would be  
9 recommended for withdrawal from location under the General Mining Act of 1872.  
10 Combined with the additional 5,380,200 acres previously withdrawn under Alternative A, the  
11 availability of locatable minerals would be limited on over 13 million acres, or 45 percent of  
12 the federal locatable mineral estate (over two times the acreage under Alternative A).  
13 Approximately 189,300 acres with a high likelihood for locatable mineral interest would be  
14 withdrawn or recommended for withdrawal under this alternative (22 percent of total acres  
15 with high likelihood of locatable mineral interest in the decision area). This represents nearly  
16 5 times more high likelihood acres withdrawn under Alternative B compared with  
17 Alternative A. The types of impacts are the same as those described under **Section 4.9.2** and  
18 **Section 4.9.3.** However, because more acres with a high likelihood of locatable mineral  
19 interest would be withdrawn or recommended for withdrawal under Alternative B, the  
20 magnitude of the impacts would increase compared with Alternative A.

21 Of the 41 plans of operations and notices within the locatable mineral decision area, 28 (65  
22 percent) would be in PHMA under this alternative and therefore within the area to be  
23 petitioned for withdrawal. The types of impacts are the same as those described under  
24 **Nature and Type of Effects.**

25 Accessing and extracting locatable minerals of federal mineral estate would not be impacted  
26 by applying the BMPs listed in **Appendix B**; however, mining operations and practices  
27 could be affected if an operator were to agree to apply any of the BMPs on a project-specific  
28 basis.

#### 29 **4.10.6 Alternative C**

##### 30 ***Impacts from Locatable Minerals Management***

31 Impacts under Alternative C are the same as those described under Alternative B, except  
32 that more acres would be recommended for withdrawal (11,555,000 acres of federal  
33 locatable mineral estate in the decision area). Combined with the 5,380,200 acres withdrawn,  
34 a total of over 16 million acres (54 percent) of the locatable mineral decision area would be  
35 impacted. This includes 454,400 acres (53 percent) of federal locatable mineral estate with a  
36 high likelihood of future interest in locatable mineral development. Management under  
37 Alternative B would impact nearly 12 times the acres with a high likelihood of interest  
38 compared with Alternative A. The types of impacts are the same as those described under

1 **Section 4.9.2** and **Section 4.9.3**; however, the magnitude of impacts under this alternative  
2 would increase since more acreage would be affected.

3 Of the 41 plans of operations and notices within the locatable mineral decision area, all  
4 would be in PHMA under this alternative and therefore within the area to be petitioned for  
5 withdrawal. The types of impacts are the same as those described under **Section 4.9.2**.

6 Impacts from applying the BMPs in **Appendix B** are the same as those described under  
7 Alternative B.

#### 8 **4.10.7 Alternative D**

##### 9 ***Impacts from Locatable Minerals Management***

10 Impacts under Alternative D are the same as those described under Alternative A, except  
11 that additional measures to avoid or minimize adverse effects on GRSG and their habitat  
12 would be required for notices and plans of operations in all habitat types. Impacts from  
13 these additional measures would be highly variable, depending on their extent. If these  
14 measures resulted in the potential for these mineral resources not to be accessed or  
15 extracted, an impact on the potential discovery, development, and use of those resources  
16 would occur because the availability of mineral resource would decrease.

17 Impacts from applying the BMPs in **Appendix B** are the same as those described under  
18 Alternative B.

#### 19 **4.10.8 Alternative E**

##### 20 ***Impacts from Locatable Minerals Management***

21 Impacts under Alternative E are the same as those described under Alternative A.

#### 22 **4.10.9 Alternative F**

##### 23 ***Impacts from Locatable Minerals Management***

24 Impacts under Alternative F are the same as those described under Alternative B.

#### 25 **4.10.10 Proposed Plan**

##### 26 ***Impacts from Locatable Minerals Management***

27 Under the Proposed Plan, 2,968,200 acres of federal locatable mineral estate (including all  
28 acres in the SFA) would be recommended for withdrawal from location under the General  
29 Mining Act of 1872. Combined with the additional 5,380,200 acres already withdrawn under  
30 Alternative A, locatable minerals would be unavailable on 8,348,400 acres, or 28 percent of  
31 the federal locatable mineral estate (twice the acreage as under Alternative A). Impacts on  
32 locatable minerals would increase compared with Alternative A in the manner described  
33 under **Nature and Type of Effects**.

34 Of the 231 plans of operations and notices within the locatable mineral decision area, 12 (5  
35 percent) would be within the SFA under this alternative and therefore within the area to be  
36 petitioned for withdrawal. A valid existing rights determination would be required to



1 determine whether a valuable discovery has been made. The types of impacts are the same as  
2 those described under **Nature and Type of Effects**.

### 3 **4.11 Mineral Materials (Salables)**

4 This section discusses impacts on mineral materials from proposed management actions of  
5 other resources and resource uses. Existing conditions concerning mineral materials are  
6 described in **Section 3.12**.

#### 7 **4.11.1 Methods and Assumptions**

8 Analysis of impacts on mineral materials from this LUPA focuses on the impacts of  
9 proposed management actions to protect GRSG. These impacts may be direct or indirect.  
10 For example, a direct impact on mineral materials would result from closing an area to  
11 mineral material disposal. An indirect impact would result from removing a road, which  
12 would change the economic feasibility of developing a site. Additional actions or conditions  
13 that might cause direct or indirect impacts on mineral materials are described under *Indicators*,  
14 below.

#### 15 ***Indicators***

16 Indicators of impacts on mineral materials are as follows:

- 17 • Acres closed to mineral material disposal
- 18 • Acres subject to timing limitations
- 19 • Acres managed as ROW avoidance areas
- 20 • Acres managed as ROW exclusion areas
- 21 • Acres over which RDFs would be applied to mineral material
- 22 disposals.
- 23 • Application of restoration requirements

24 Where information is available, consideration is given to the potential for mineral materials  
25 on lands closed to mineral material disposal. For example, an indicator of an impact on  
26 mineral materials is if there were substantial closures to mineral material disposal in areas  
27 with high occurrence of mineral materials.

#### 28 ***Assumptions***

29 The analysis includes the following assumptions:

- 30 • Management actions proposed in this LUPA would apply to
- 31 mineral material disposal activity where the BLM or Forest
- 32 Service manages the surface over federal mineral material estate
- 33 as well as where federal mineral material estate lies beneath
- 34 private or state surface (split estate).

- Mineral material development trends described in **Section 3.12**, Mineral Resources, are assumed to continue for the life of the analysis.
- Historical patterns of mineral material development in the planning area are used to assess the level of mineral material potential throughout the planning area. Areas with a high level of historical development are considered to have high potential for mineral materials. There is higher demand in more populated areas.

#### 4.11.2 Nature and Type of Effects

In order to describe the effects of imposing GRSG management actions on mineral materials disposal, the above indicators were evaluated for each alternative. Each of these factors is considered to be an impediment to disposal of mineral materials, to varying degrees. In general, an alternative with greater acreages of such restrictions is considered to have a greater impact on disposals of mineral materials than an alternative with fewer acres of such restrictions, especially in populated areas where material sources are scarce. Mineral material disposal by the BLM and Forest Service is discretionary.

Closing areas to mineral material disposal and closing community pits would directly impact the public, including commercial operators, and county highway districts, by removing the mineral material source from availability. This can be a serious problem in some Idaho counties that are covered by vast expanses of volcanic rock with few sand and gravel occurrences. Highway districts may need to seek out sites on private lands, which may not offer materials free-of-charge, as the BLM and Forest Service do. This could result in higher haul costs, higher road maintenance costs, and poorer road conditions. In addition, closing areas could result in an increase in trespass cases.

Applying TLs could delay extraction of mineral material resources. County road districts would be required to schedule their projects around the TL, which could result in the need to stockpile materials off-site and handle materials twice, thereby increasing costs.

Implementing management for the following resources would have negligible or no impact on mineral materials therefore they are not discussed in detail: travel and transportation management, recreation, range management, solid minerals, fire and fuels management, habitat restoration and vegetation management, and special designations.

**Table 4-75**, Mineral Materials by Alternative, shows the number of acres open or closed to mineral materials disposal in the decision area under each alternative.

**Table 4-75  
Mineral Materials by Alternative**

Occurrence	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
Closed to disposal (acres)	10,707,600	18,589,300	21,174,000	13,211,100	10,707,600	18,589,300	15,529,000
Open to disposal (acres)	17,137,300	9,255,600	6,670,900	14,633,800	17,137,300	9,255,600	12,315,900

Source: BLM GIS 2015

1

2 A discussion of the impacts on mineral materials from management actions applicable to  
3 federal mineral material estate in the decision area under each alternative is below.

4 **4.11.3 Alternative A**

5 ***Impacts from Mineral Materials Management***

6 Approximately 17,137,300 acres (62 percent) of federal mineral material estate within the  
7 decision area would remain open to mineral material disposal under Alternative A.  
8 Approximately 10,707,600 acres (38 percent) of federal mineral material estate within the  
9 decision area would remain closed to mineral material disposal. Impacts of these closures  
10 would be the same type as those described under **Section 4.10.2**.

11 Management under Alternative A would continue to require reclamation of mineral material  
12 pits in accordance with developers' pit development plans.

13 **4.11.4 Alternative B**

14 ***Impacts from Mineral Materials Management***

15 Under Alternative B, approximately 18,589,300 acres (67 percent) of federal mineral material  
16 estate in the decision area (including all PHMA) would be closed to mineral material  
17 disposal. The types of impacts from these closures are the same as those discussed under  
18 **Section 4.10.2**. Because 74 percent more acres of federal mineral material estate would be  
19 closed under Alternative B compared with Alternative A, the magnitude of these impacts  
20 would increase.

21 Management of mineral materials on federal mineral estate outside of PHMA would be the  
22 same as that under Alternative A.

23 **4.11.5 Alternative C**

24 ***Impacts from Mineral Materials Management***

25 Under Alternative C, approximately 21,174,000 acres (76 percent) of federal mineral material  
26 estate in the decision area, including all GRSG habitat, would be closed to mineral material  
27 disposal. The types of impacts from these closures are the same as those discussed under  
28 **Section 4.10.2**. Because twice as many acres of federal mineral material estate with mineral

1 material occurrence would be closed under Alternative C compared with Alternative A, the  
2 magnitude of these impacts would increase.

#### 3 4.11.6 Alternative D

##### 4 ***Impacts from Mineral Materials Management***

5 Under Alternative D, areas within 1.86 miles (3 km) of occupied leks would be closed to  
6 mineral materials disposal. These closures, in addition to existing closures, would result in  
7 approximately 13,211,100 acres (47 percent) of federal mineral material estate in the decision  
8 area, being closed to mineral material disposal. The types of impacts from these closures are  
9 the same as those discussed under **Section 4.10.2**. Because 23 percent more acres of federal  
10 mineral material estate with mineral material occurrence would be closed under Alternative  
11 C than under Alternative A, the magnitude of these impacts would increase.

12 All other federal mineral material estate in GRSG habitat would be subject to TLs, TLs  
13 would also apply to the 144 existing community pits within PHMA and IHMA (70 percent)  
14 of existing community pits in GRSG habitat. All of these TLs would impact mineral  
15 materials as described under **Section 4.10.2**. Because TLs would not be applied under  
16 Alternative A, impacts on mineral materials would increase under Alternative D.

#### 17 4.11.7 Alternative E

##### 18 ***Impacts from Mineral Materials Management***

19 Under Alternative E, mineral materials management would differ between portions of the  
20 decision area in Idaho and Montana and portions in Utah.

21 Management of mineral materials within Idaho and Southwestern Montana would be the  
22 same as that under Alternative A with the same impacts.

23 Within Utah, mineral material operations within PHMA would be subject to TLs and other  
24 restrictions, which would limit mineral material development, as described under **Section**  
25 **4.10.2**.

26 Allocations in the mineral material decision area would be the same as those under  
27 Alternative A. Impacts on mineral materials would increase compared to Alternative A in  
28 Utah due to the restrictions that would be placed on mineral material activities there.

#### 29 4.11.8 Alternative F

##### 30 ***Impacts from Mineral Materials Management***

31 Mineral materials management under Alternative F would be the same as that under  
32 Alternative B with the same impacts.

#### 33 4.11.9 Proposed Plan

##### 34 ***Impacts from Mineral Materials Management***

35 Under the Proposed Plan, 15,529,000 acres (56 percent) of federal mineral material estate in  
36 the decision area (including all PHMA) would be closed to mineral material disposal. The  
37

1 types of impacts from these closures are the same as those discussed under Nature and  
2 Types of Effects, **Section 4.10.2**. Impacts would be mitigated in the Montana portion of the  
3 decision area because new free use permits would still be allowed and existing pits would be  
4 able to expand. Because 45 percent more acres of federal mineral material estate would be  
5 closed under the Proposed Plan compared with Alternative A, the magnitude of these  
6 impacts would increase.

7 Approximately 3,079,100 acres (11 percent) of federal mineral material estate in the decision  
8 area (including all IHMA) would be open to mineral material disposal but only if the  
9 Anthropogenic Disturbance Development and Criteria (AD-4) were satisfied (including the  
10 requirement that the project would not exceed the 3 percent disturbance threshold). Mineral  
11 material activities in IHMA and GHMA would also be subject to RDFs, buffers, and  
12 seasonal timing restrictions. The types of impacts from these limitations are the same as  
13 those discussed under **Section 4.10.2**. Because these types of restrictions would not be  
14 applied under Alternative A, impacts on mineral material development from the restrictions  
15 would increase under the Proposed Plan.

16 Mineral material sales from the 47 existing community pits in GRSG habitat would be  
17 subject to timing restrictions. As described in **Section 4.10.2**, these timing restrictions could  
18 impact some operations and therefore reduce overall sales of federal materials in the  
19 planning area.

#### 20 ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and*** 21 ***Coordination***

22 Under the Proposed Plan, anthropogenic disturbance, including mineral material  
23 development, would be limited to 3 percent of nesting and wintering habitat within PHMA  
24 and IHMA within a Conservation Area (i.e., BSUs). In BSUs where the 3 percent cap is  
25 already exceeded, new development of federal mineral material resources would be  
26 prohibited until enough habitat was restored to maintain the area under the threshold.  
27 Development of federal mineral material resources that would result in exceedance of the 3  
28 percent cap in a BSU would also be prohibited. This cap could potentially impact activities  
29 on 3,079,100 acres of federal mineral material estate in IHMA. The 15,529,000 acres that  
30 would be closed to mineral material disposal under Alternative G would not be impacted by  
31 the disturbance cap because no new mineral material development could occur in the closed  
32 areas.

#### 33 **4.12 Nonenergy Leasable Minerals**

34 This section discusses impacts on nonenergy solid leasable minerals from proposed  
35 management actions for resources and resource uses. Specifically, this section describes  
36 impacts on phosphate, the notable nonenergy leasable mineral within the planning area.  
37 Existing conditions concerning phosphate are described in **Section 3.12**.

##### 38 **4.12.1 Methods and Assumptions**

39 Analysis of impacts on nonenergy solid leasable minerals from this LUPA focuses on the  
40 impacts of proposed management actions to protect GRSG. These impacts may be direct or

1 indirect. For example, a direct impact on nonenergy solid leasable minerals would result  
2 from closing an area to leasing. An indirect impact would result from removing a road,  
3 which would change the economic feasibility of developing a site. Additional actions or  
4 conditions that might cause direct or indirect impacts on nonenergy solid leasable minerals  
5 are described under *Indicators*, below.

### 6 ***Indicators***

7 Indicators of impacts on nonenergy solid leasable minerals are as follows:

- 8 • Acres of unleased KPLAs proposed to be closed to nonenergy  
9 solid mineral leasing
- 10 • Acres over which RDFs would be applied when activities are  
11 proposed on existing unmined phosphate leases

12 Where information is available, consideration is given to the potential for nonenergy solid  
13 leasable minerals on lands closed to leasing. In the planning area, the only nonenergy solid  
14 leasable mineral commodity of any significance is phosphate. The USGS spent many years  
15 sampling and testing the phosphate resource to determine the mineral potential of federal  
16 lands in southeast Idaho. Areas called Known Phosphate Leasing Areas (KPLAs) were  
17 designated in high potential areas, and were offered for lease competitively. Therefore,  
18 unmined phosphate leases have the highest potential for development, while unleased  
19 KPLAs have the next highest potential. Areas of southeast Idaho located outside of KPLAs  
20 have the lowest potential. Unmined phosphate leases have valid existing rights and cannot be  
21 closed to development. An indicator of an impact on nonenergy solid leasable minerals is if  
22 there were substantial closures to nonenergy solid mineral leasing in areas with high potential  
23 for nonenergy solid mineral development, such as unleased KPLAs.

### 24 *Assumptions*

25 The analysis includes the following assumptions:

- 26 • Management actions proposed in this LUPA would apply to  
27 nonenergy leasable mineral activity where the BLM and Forest  
28 Service manage the surface over federal nonenergy leasable  
29 mineral estate as well as where federal nonenergy leasable  
30 mineral estate lies beneath private or state surface (split estate).
- 31 • Unmined phosphate leases have the highest potential for  
32 nonenergy leasable mineral development in the decision area.  
33 Unleased KPLAs have a moderate potential for development,  
34 and lands outside KPLAs have a low potential for development.  
35 Most of the planning area has no potential for development,  
36 because the rock formation that has high amounts of phosphate  
37 resource, designated the Phosphoria Formation, does not exist  
38 in those areas.

- Demand for phosphate resources in the Pocatello FO is expected to remain high, as it has for the past 60 to 100 years. As discussed in **Section 3.12**, Mineral Resources, significant phosphate resources exist in the Pocatello Field Office within the planning area, with 86 active phosphate leases. There are no phosphate leases in PHMA; one phosphate lease (65 acres) in IHMA; and no leases in GHMA. There are 10 leases surrounded by GHMA. No development is planned on these leases for the next 5 to 10 years.

#### 4.12.2 Nature and Type of Effects

Closing an area to nonenergy solid mineral leasing would directly impact the nonenergy solid leasable mineral program by removing the opportunity afforded U.S. citizens by the Mineral Leasing Act, to lease and develop mineral resources in those areas. Mining companies seeking leases may be required to exploit private lands if those lands are available and if similar geologic resources exist, or the opportunity for discovery may be lost altogether if such conditions are unique to the federal lands. Closures would have the greatest impact on unleased areas within KPLAs, as these areas have the greatest potential to be nominated for lease during the life of this LUPA. Closing lands to leasing in KPLAs may also result in a loss of royalties to the federal, state, and county governments from phosphate development. Closures of areas outside KPLAs would likely have less impact, as these areas have lower potential for discovery and development.

Application of RDFs, including such standards as noise restrictions, height limitations on structures, design requirements, water development standards, remote monitoring requirements, and reclamation standards, would place additional requirements on phosphate exploration and initial mine development. These requirements are not practical once mining commences. At that time, compensatory mitigation would be necessary. These restrictions may increase the cost of phosphate mining in the decision area. However, the BLM would not apply restrictions so onerous that they would eliminate reasonable opportunity to develop an existing lease.

Implementing management for the following resources would have negligible or no impact on nonenergy solid leasable minerals; therefore they are not discussed in detail: GRSG, lands and realty, habitat restoration and vegetation, invasive species, wildland fire, locatable minerals, salable minerals, fluid minerals, recreation and visitor services, livestock grazing, and special designations.

**Table 4-77**, Nonenergy Leasable Minerals by Alternative, shows the number of acres open or closed to nonenergy leasable mineral prospecting and leasing as well as restrictions on unmined phosphate leases in the decision area under each alternative.

**Table 4-76  
Nonenergy Leasable Minerals by Alternative**

Management	Alternative						Proposed Plan
	A	B	C	D	E	F	
Open to prospecting and leasing (acres)	15,925,600	8,557,600	6,095,300	8,556,500	15,925,600	8,557,600	11,454,500
<i>Unleased KPLAs open</i>	<i>14,500</i>	<i>14,000</i>	<i>13,500</i>	<i>14,000</i>	<i>14,500</i>	<i>14,000</i>	<i>14,500</i>
Closed to prospecting and leasing (acres)	11,799,500	19,167,400	21,629,700	19,168,500	11,799,500	19,167,400	16,270,500
<i>Unleased KPLAs closed</i>	<i>4,870</i>	<i>5,350</i>	<i>5,870</i>	<i>4,870</i>	<i>4,870</i>	<i>5,350</i>	<i>4,870</i>
Acres of unmined leases subject to GRSG RDFs (acres)	0	1,340	5,730	6,510	0	1,340	70

Source: BLM GIS 2015

A discussion of the impacts on nonenergy leasable minerals from management actions applicable to federal nonenergy leasable mineral estate in the decision area under each alternative is below.

#### 4.12.3 Alternative A

##### ***Impacts from Nonenergy Solid Leasable Minerals Management***

Under Alternative A, 15,925,600 acres or 57 percent of federal nonenergy solid leasable mineral estate in the nonenergy solid leasable mineral decision area, would remain open to leasing consideration, and 11,799,500 acres or 43 percent, would remain closed to prospecting and leasing. These closures would have the same types of impacts as described under **Section 4.11.2**.

Less than one percent of the acres closed to leasing would be unleased KPLAs (**Table 4-77**, Nonenergy Leasable Minerals by Alternative).

Under Alternative A, 4,870 acres (25 percent) of unleased federal mineral estate within KPLAs in the nonenergy solid leasable mineral decision area would remain closed to nonenergy leasable mineral prospecting and leasing. The impacts of these closures would be the same type as those described under **Section 4.11.2**. The remaining 15,320 acres (80 percent) of federal mineral estate within KPLAs in the nonenergy solid leasable mineral decision area would remain open to nonenergy leasable mineral prospecting and leasing. Impacts of these stipulations would be the same type as those described under **Section 4.11.2**.

Existing federal nonenergy leasable mineral leases in the decision area would continue to be subject to any stipulations or BMPs contained in those leases. Application of BMPs could alter how mineral resources are accessed and extracted and result in the use of different technology than would otherwise have been used.



1                                   **4.12.4 Alternative B**

2                   ***Impacts from Nonenergy Solid Leasable Minerals Management***

3 Under Alternative B, 19,167,400 acres, or 69 percent of the federal nonenergy solid leasable  
4 mineral estate decision area (including all federal nonenergy solid leasable mineral estate in  
5 PHMA), would be closed to prospecting and leasing. Management under this alternative  
6 would close 20 percent more federal nonenergy solid leasable mineral estate to nonenergy  
7 leasable mineral prospecting and leasing than management under Alternative A. New leases  
8 to expand existing mines for phosphate would not be permitted in areas managed as closed.  
9 Closing areas to nonenergy mineral prospecting would result in the same type of impacts as  
10 described under **Section 4.11.2**. Approximately 8,557,600 acres (31 percent) of federal  
11 nonenergy leasable mineral estate in the decision area would remain open subject to standard  
12 terms and conditions.

13 Less than one percent of the acres closed to leasing would be within KPLAs (**Table 4-77**,  
14 Nonenergy Leasable Minerals by Alternative).

15 Under Alternative B, 5,350 acres (28 percent) of unleased federal mineral estate within  
16 KPLAs in the nonenergy solid leasable mineral decision area would be closed to nonenergy  
17 leasable mineral prospecting and leasing —a 10-percent increase compared with Alternative  
18 A. The impacts of these closures would be the same type as those described under **Section**  
19 **4.11.2**. The remaining 14,000 acres (72 percent) of unleased federal mineral estate within  
20 KPLAs in the nonenergy solid leasable mineral decision area would be open to nonenergy  
21 leasable mineral prospecting and leasing. Because the number of unleased acres within  
22 KPLAs that are closed would increase compared with Alternative A, impacts on nonenergy  
23 solid leasable minerals would increase.

24 Under Alternative B, a disturbance cap of 3 percent of PHMA would be applied to all  
25 anthropogenic disturbances, including oil and gas development. In PHMA where the 3  
26 percent cap is already exceeded, no new oil and gas leases would be issued until habitat  
27 within the PHMA was restored to a point that acreage of anthropogenic disturbance was  
28 below the 3 percent cap. However, because all federal mineral estate in PHMA would be  
29 closed to new fluid mineral leasing, new fluid mineral leases would not be impacted by the  
30 disturbance cap. Valid existing lease rights would be honored, but mitigation measures may  
31 be required for development in the areas that exceed the 3 percent disturbance cap.

32 Approximately 1,340 acres of existing unmined federal nonenergy leasable mineral leases in  
33 PHMA would be subject to RDFs. This would limit surface disturbance, vehicle use, siting,  
34 and design of mineral development operations, in addition to imposing reclamation  
35 requirements. Application of RDFs would have the types of impacts described under  
36 **Section 4.11.2**. Because these RDFs would not be applied under Alternative A, impacts  
37 would increase under Alternative B.

1                   **4.12.5 Alternative C**

2                   ***Impacts from Nonenergy Solid Leasable Minerals Management***

3                   Impacts under Alternative C are the same as those described under Alternative B, except  
4                   that more acres would be affected by closures (21,629,700 acres, or 78 percent of the  
5                   nonenergy leasables decision area). As a result, the magnitude of impacts under this  
6                   alternative would increase.

7                   Less than one percent of the acres closed to leasing would be within KPLAs (**Table 4-77**,  
8                   Nonenergy Leasable Minerals by Alternative).

9                   Under Alternative C, 5,870 acres (30 percent) of unleased federal mineral estate within  
10                  KPLAs in the nonenergy solid leasable mineral decision area would be closed to nonenergy  
11                  leasable mineral prospecting and leasing—a 20-percent increase compared with Alternative  
12                  A. The impacts of these closures would be the same type as those described under **Section**  
13                  **4.11.2**. Because the number of unleased acres within KPLAs that are closed would increase  
14                  compared with Alternative A, impacts on nonenergy solid leasable minerals would increase.

15                  Approximately 5,730 acres of existing unmined federal nonenergy leasable mineral leases in  
16                  PHMA and GHMA would be subject to RDFs. This would limit surface disturbance, vehicle  
17                  use, siting, and design of mineral development operations, in addition to imposing  
18                  reclamation requirements. Application of RDFs would have the types of impacts described  
19                  under **Section 4.11.2**. Because these RDFs would not be applied under Alternative A,  
20                  impacts would increase under Alternative C.

21                   **4.12.6 Alternative D**

22                   ***Impacts from Nonenergy Solid Leasable Minerals Management***

23                   Under Alternative D, 11,799,500 acres, or 42 percent of the federal nonenergy leasable  
24                   mineral estate decision area (including all federal nonenergy leasable mineral estate in PHMA  
25                   and IHMA), would be closed to prospecting and leasing—the same amount of acres closed  
26                   as Alternative A. An additional 7,369,000 acres (26 percent) would be closed except fringe  
27                   leases and modifications. Impacts of this limited closure would be similar to those described  
28                   under **Section 4.11.2** except that impacts would increase compared with Alternative A.  
29                   Closing areas to nonenergy mineral prospecting and leasing would result in the same type of  
30                   impacts as described under **Section 4.11.2**; however, because more acres would be closed  
31                   under Alternative D, impacts would increase compared with Alternative A. Impacts would  
32                   be mitigated because fringe acreage leases and lease modifications would be allowed.  
33                   Approximately 8,556,600 acres (31 percent) of federal nonenergy leasable mineral estate in  
34                   the decision area would remain open subject to standard terms and conditions.

35                   Less than one percent of the acres closed to leasing would be within KPLAs (**Table 4-77**,  
36                   Nonenergy Leasable Minerals by Alternative).

37                   Under Alternative D, 4,870 acres (25 percent) of unleased federal mineral estate within  
38                   KPLAs in the nonenergy solid leasable mineral decision area would be closed to nonenergy  
39                   leasable mineral prospecting and leasing under Alternative D. An additional 490 acres (3

1 percent) would be closed except for fringe leases and modifications. The impacts of these  
2 closures would be the same type as those described under **Section 4.11.2**. The remaining  
3 14,000 acres (72 percent) of unleased federal mineral estate within KPLAs in the nonenergy  
4 solid leasable mineral decision area would be open to nonenergy leasable mineral  
5 prospecting and leasing. Because the number of unleased acres within KPLAs that are closed  
6 would slightly increase compared with Alternative A, impacts on nonenergy solid leasable  
7 minerals would increase.

8 Approximately 6,510 acres of existing unmined federal nonenergy leasable mineral leases in  
9 PHMA and GHMA would be subject to RDFs. Applying BMPs as COAs on any new mine  
10 plan and requiring restoration of habitat or off-site mitigation in areas where on-site  
11 restoration is not feasible could alter how mineral resources are accessed and extracted. It  
12 also could result in the use of different technology than would otherwise have been used.  
13 Because these RDFs would not be applied under Alternative A, impacts would increase  
14 under Alternative D.

#### 15 **4.12.7 Alternative E**

##### 16 ***Impacts from Nonenergy Solid Leasable Minerals Management***

17 Impacts from nonenergy solid mineral leasing allocations under Alternative E would be the  
18 same as those impacts described under Alternative A (Error! Reference source not  
19 found. **Table 4-77**). Closing areas to nonenergy mineral prospecting and leasing would result  
20 in the same type of impacts as described under **Section 4.11.2**. Lands open to leasing would  
21 be subject to several stipulations, which include prohibiting permanent structures within  
22 occupied leks, prohibiting tall structures within one mile (1.6 km) of leks, and restrictions on  
23 noise disturbances. Stipulations would restrict the ability of mineral resources to be  
24 developed or extracted and would increase impacts on nonenergy solid leasable minerals  
25 compared with Alternative A.

#### 26 **4.12.8 Alternative F**

##### 27 ***Impacts from Nonenergy Solid Leasable Minerals Management***

28 Management under Alternative F would be similar to that under Alternative B except that  
29 the BLM would close an additional 30,200 acres in PHMAs under Alternative F. However,  
30 because none of these additional acres would be within KPLAs, impacts of closures under  
31 Alternative F would be the same as those described under Alternative B.

32 Like Alternative B, under Alternative F, a disturbance cap of 3 percent of PHMA would be  
33 applied to all anthropogenic disturbances, including oil and gas development. Impacts would  
34 be similar to those under Alternative B except that, because fire would be included in the  
35 disturbance cap, exceedance of the cap (and subsequent restrictions on existing leases) would  
36 be more likely to occur. Therefore, overall impacts on nonenergy solid leasable minerals  
37 would increase under Alternative F.

1           **4.12.9 Proposed Plan**

2  
3           ***Impacts from Nonenergy Solid Leasable Minerals Management***

4           Under the Proposed Plan, 16,270,500 acres, or 59 percent of the federal nonenergy leasable  
5           mineral estate decision area (including all federal nonenergy leasable mineral estate in PHMA  
6           outside KPLAs) would be closed to prospecting and leasing—38 percent more acres closed  
7           compared with Alternative A. Fringe leases and modifications to existing leases would be  
8           allowed in PHMA to satisfy valid existing rights. Impacts of this closure would be similar to  
9           those described under **Section 4.11.2** except that impacts would increase compared with  
10          Alternative A. Approximately 2,899,800 acres, or 10 percent of federal nonenergy solid  
11          leasable mineral estate in the decision area (including all federal nonenergy leasable mineral  
12          estate in IHMA outside KPLAs), would be open to leasing consideration but only if the  
13          Anthropogenic Disturbance Development and Criteria (AD-4) were satisfied (including the  
14          requirement that the project would not exceed the 3 percent disturbance threshold).  
15          Development on these acres would also be subject to RDFs, BMPs, and buffers for  
16          exploration and initial mine development, and compensatory mitigation once mining  
17          commences. Because development of nonenergy leasable minerals in these areas would be  
18          more restricted than under Alternative A, impacts described under **Section 4.11.2** would  
19          increase under the Proposed Plan.

20          Development on 2,729,500 acres of federal nonenergy leasable minerals within GHMA  
21          would also be subject to RDFs, BMPs, and buffers on exploration and initial mine  
22          development. These limitations could increase costs of federal nonenergy leasable mineral  
23          development in the planning area as described under **Section 4.11.2**.

24          Because KPLAs would remain open to nonenergy solid mineral leasing, impacts on federal  
25          nonenergy solid leasable mineral development would be mitigated. The areas considered to  
26          have moderate potential in the decision area would not be constrained.

27          RDFs would be applied to the 1 federal phosphate lease on 70 acres in IHMA with impacts  
28          similar to those described under Alternative D. These restrictions may increase the cost of  
29          phosphate mining in the decision area. However, the BLM would not apply restrictions so  
30          onerous that they would eliminate reasonable opportunity to develop an existing lease.

31          ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and***  
32          ***Coordination***

33          Under the Proposed Plan, anthropogenic disturbance, including nonenergy leasable mineral  
34          development, would be limited to 3 percent of nesting and wintering habitat on new leases  
35          and prospecting permits within IHMA within a Conservation Area (i.e., BSUs). In BSUs  
36          where the 3 percent cap is already exceeded, new parcels would not be offered for lease until  
37          enough habitat was restored to maintain the area under the threshold. New leases of federal  
38          nonenergy leasable mineral resources that would result in exceedance of the 3 percent cap in  
39          a BSU would also be prohibited. Valid existing rights would be honored, but compensatory  
40          mitigation requirements could be applied. This cap could potentially impact activities on  
41          2,900,100 acres of unleased federal nonenergy leasable mineral estate in IHMA, including  
42          400 unleased acres within KPLAs. Impacts would be greatest where these caps limited

1 development in unleased portions of KPLAs because these areas have the highest potential  
2 for nonenergy leasable mineral development. The 16,270,500 acres that would be closed to  
3 nonenergy solid mineral leasing under the Proposed Plan would not be impacted by the  
4 disturbance cap because no new nonenergy leasable mineral development could occur in the  
5 closed areas.

## 6 **4.13 Special Designations**

### 7 **4.13.1 ACECs and ZAs**

8 This section discusses impacts on ACECs and ZAs from proposed management actions of  
9 other resources and resource uses. Existing conditions concerning ACECs are described in  
10 **Section 3.13**, Special Designations. See **Appendix S**, BLM Areas of Critical Environmental  
11 Concern Evaluation and Forest Service Zoological Areas, for the evaluation of relevant and  
12 important values for proposed ACECs. There are no existing Forest Service ZAs in the sub-  
13 region. As stated previously, it is anticipated that GRSG management would have beneficial  
14 or negligible effects on other special designations areas (e.g., National Historic Trails, Wild  
15 and Scenic Rivers, Wilderness Areas, Wilderness Study Areas, National Monuments, and  
16 National Conservation Areas). The BLM manual for each NLCS unit type will be adhered to  
17 during any site-specific analysis, and the BLM would manage them to safeguard the reasons  
18 for which they were designated. Due to this, the analysis of impacts on special designations  
19 will focus on ACECs and ZAs.

### 20 **4.13.2 Methods and Assumptions**

21 Direct impacts on ACECs are considered to be those that either impair or enhance the  
22 relevant and important values for which the ACEC was proposed for designation. As such,  
23 this analysis focuses on relevance and importance criteria for each potential ACEC. There  
24 are no relevance and importance criteria for Forest Service ZAs. It also focuses on impacts  
25 on these values from either the special management derived from ACEC or ZA designation  
26 or, under alternatives where an ACEC or ZA is not proposed for designation, the  
27 management actions for other resources. All impacts discussed are direct, though some may  
28 not occur immediately after implementation of management actions.

#### 29 *Indicators*

30 Impacts on ACECs would occur from management actions that protect or impair relevant  
31 and important ACEC values, including “important historic, cultural, or scenic values, fish  
32 and wildlife resources or other natural systems or processes” (BLM Manual 1613 – Areas of  
33 Critical Environmental Concern). As such, indicators of impacts are allocations for surface-  
34 disturbing activities within existing or potential ACECs that could affect the relevant and  
35 important values for which the ACEC was designated.

#### 36 *Assumptions*

37 The analysis includes the following assumptions:

- 38 • Management of existing ACECs was determined in the  
39 applicable LUPs to be adequate to support the relevant and

1 important values at the time of their designation. Impacts on  
2 these ACECs are not further discussed because the BLM would  
3 continue to manage these ACECs to protect their relevant and  
4 important values. Management to protect GRSG under the  
5 various alternatives could provide additional protections for  
6 existing ACECs and, at a minimum, would provide  
7 complementary management.

- 8 • Although management actions for most resources and resource  
9 uses have application throughout the decision area, ACEC and  
10 ZA management prescriptions apply only to those lands within  
11 each specific ACEC or ZA.
- 12 • Permitted activities would not be allowed to impair the relevant  
13 and important values for which the ACECs are designated. The  
14 exception is locatable minerals; until withdrawn from mineral  
15 entry, a mining claim can be filed, and subsequent mining  
16 activities could have an impact. However, measures would have  
17 to be identified in a mine plan to mitigate unnecessary and  
18 undue degradation.
- 19 • ACEC designation provides protection and focused  
20 management of relevant values beyond that provided through  
21 general management of the relevant and important values  
22 elsewhere in the decision area.
- 23 • Any designated ACEC that falls within a WSA would be  
24 managed according to BLM Manual 6330, Management of  
25 Wilderness Study Areas, unless the ACEC management is more  
26 restrictive. Because activities within WSAs must meet the  
27 nonimpairment criterion, which generally restricts new surface  
28 disturbance, a WSA would generally protect relevant and  
29 important values. Also, it would have a beneficial effect on  
30 overlapping designated and undesignated ACECs. If Congress  
31 were to release a WSA from further consideration, the special  
32 management in designated ACECs would be designed to protect  
33 and enhance the relevant and important values.

#### 34 **4.13.3 Nature and Type of Effects**

35 In general, management actions that protect resources—such as surface-disturbance  
36 restrictions, management for desired habitats, travel restrictions and closures, and recreation  
37 restrictions—would help maintain and improve the important and relevant values within  
38 ACECs. Management actions that create the potential for resource degradation—such as  
39 mineral development, livestock grazing, and infrastructure development—could impact the  
40 relevant and important values for which an ACEC is designated. Recreation and travel  
41 within ACECs could also impact their values. Limiting motorized travel to existing routes

1 and trails would reduce surface disturbance and potentially reduce disturbance to the values  
2 for which the ACECs were designated.

3 Implementing management for the following resources would have negligible or no impact  
4 on GRSG and are therefore not discussed in detail: mineral split-estate.

5 ***Wildland Fire***

6 Depending on their extent, location, and severity, wildfires could cause short- and long-term  
7 damage to ACEC values. Emergency stabilization and restoration would be applied to  
8 minimize impacts where special values are at risk. If these techniques are successful, wildfires  
9 could also cause long-term improvement in ACEC values by maintaining natural vegetation  
10 ecosystem cycles.

11 ***Lands and Realty***

12 Managing ACECs as ROW exclusion or avoidance areas would protect relevant and  
13 important values by reducing (for avoidance areas) or eliminating (for exclusion areas)  
14 impacts from development. These impacts would require a ROW permit, including utilities,  
15 access roads, and renewable energy projects. Impacts from ROW development on ACECs  
16 include compaction and erosion.

17 ***Mineral Resources***

18 Energy and mineral development could impact ACEC values by increasing soil erosion  
19 potential and removing or disrupting unique vegetation. Where GRSG habitat exists, energy  
20 and mineral development could degrade and fragment habitat. Construction, operation, and  
21 maintenance could disturb GRSG populations. Closing ACECs to fluid minerals leasing  
22 would help protect relevant and important values by eliminating the surface disturbance  
23 associated with such development.

24 ***Livestock Grazing***

25 Livestock grazing could impact ACEC values by increasing soil erosion potential and  
26 reducing understory plant species, such as forbs and grasses. Closing ACECs to livestock  
27 grazing would help protect relevant and important values by eliminating soil and vegetation  
28 disturbance associated with grazing, but it could also increase the risk of fire due to increased  
29 fuel loads.

30 ***Special Designations***

31 Special status species management would prevent degradation of, and could improve,  
32 relevant and important values where an ACEC is designated to protect such values. New  
33 ACECs designated under Alternatives C and F would protect GRSG. Refer to **Section 4.2**,  
34 Special Status Species – Greater Sage-Grouse, for a discussion of impacts from these  
35 ACECs on GRSG habitat. None of the existing ACECs in the planning area are designated  
36 to protect GRSG but would experience indirect protections from management actions in  
37 other resource programs aimed at GRSG conservation.  
38

**Impacts Common to All Alternatives**

Impacts on the relevant and important values of ACECs would mainly be from surface-disturbing activities that cause direct damage to the values, introduce modifications to the landscape that affect the area’s scenic quality or historical or cultural context, or that result in erosion, sedimentation, or increased runoff. All of the action alternatives would generally result in greater restrictions, compared to the continuation of existing management under Alternative A. Adopting more restrictive management of surface-disturbing activities under the action alternatives would be complementary to the protection of the relevant and important values of the existing ACECs. Therefore, in general, the action alternatives would enhance the relevant and important values of the existing ACECs to a greater extent than Alternative A.

**Table 4-77**, Comparison of ACEC-Affecting Management Actions by Alternative provides a quantitative overview of how the ACEC-affecting management actions under an applicable resource program would vary across alternatives.

**Table 4-78**, Acres of Proposed ACECs within the Planning Area by Habitat Type and Alternative displays the acres of the proposed ACECs within each habitat type under the different alternatives. Different management would apply to the different areas, as described in **Chapter 2**, impacts of which are discussed in **Section 4.2**, Special Status Species – Greater Sage-Grouse, and **Section 4.3**, Vegetation (Including Noxious Weeds; Riparian and Wetlands).

**Table 4-77**  
**Comparison of ACEC-Affecting Management Actions by Alternative**

Management Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F1	Alternative F2	Proposed Plan
<b>ACEC Acres Overlain with Management Actions</b>								
<b>ROW Exclusion</b>	<b>294,300</b>	<b>417,800</b>	<b>3,145,400</b>	<b>294,300</b>	<b>295,600</b>	<b>8,270,200</b>	<b>2,009,400</b>	<b>304,500</b>
BLM	294,300	417,800	3,106,700	294,300	295,600	7,308,200	1,785,700	304,500
Forest Service	N/A	N/A	38,700	N/A	N/A	962,100	223,700	N/A
<b>ROW Avoidance</b>	<b>67,300</b>	<b>45,800</b>	<b>0</b>	<b>174,800</b>	<b>133,500</b>	<b>45,900</b>	<b>45,900</b>	<b>141,200</b>
BLM	67,300	45,800	0	174,800	133,500	45,900	45,900	141,200
Forest Service	N/A	N/A	0	N/A	N/A	0	N/A	N/A
<b>Open to Livestock Grazing</b>	<b>394,700</b>	<b>389,200</b>	<b>0</b>	<b>394,700</b>	<b>395,700</b>	<b>8,154,900</b>	<b>1,949,800</b>	<b>394,100</b>
BLM	394,700	389,200	0	394,700	395,700	7,226,500	1,735,400	394,100
Forest Service	N/A	N/A	N/A	N/A	N/A	928,400	214,400	N/A
<b>Closed to Livestock Grazing</b>	<b>74,500</b>	<b>74,500</b>	<b>3,157,500</b>	<b>74,500</b>	<b>74,500</b>	<b>203,800</b>	<b>120,100</b>	<b>75,100</b>
BLM	74,500	74,500	3,118,700	74,500	74,500	170,300	110,800	75,100
Forest Service	N/A	N/A	38,700	N/A	N/A	33,500	9,300	N/A
<b>Closed to Oil and Gas Leasing</b>	<b>253,900</b>	<b>401,900</b>	<b>3,301,900</b>	<b>403,100</b>	<b>253,200</b>	<b>9,167,700</b>	<b>2,076,000</b>	<b>257,400</b>
BLM	253,900	401,900	3,301,900	403,100	253,200	9,167,700	2,076,000	257,400
Forest Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



**Table 4-77**  
**Comparison of ACEC-Affecting Management Actions by Alternative**

Management Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F1	Alternative F2	Proposed Plan
<b>NSO</b>	<b>116,200</b>	<b>25,900</b>	<b>0</b>	<b>27,700</b>	<b>183,700</b>	<b>26,100</b>	<b>70,100</b>	<b>174,400</b>
BLM	116,200	25,900	0	27,700	183,700	26,100	70,100	174,400
Forest Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>CSU</b>	<b>1,940</b>	<b>1,580</b>	<b>0</b>	<b>1,680</b>	<b>1,940</b>	<b>1,580</b>	<b>1,580</b>	<b>26,600</b>
BLM	1,940	1,580	0	1,680	1,940	1,580	1,580	26,600
Forest Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>TL</b>	<b>52,600</b>	<b>13,600</b>	<b>0</b>	<b>26,200</b>	<b>10,200</b>	<b>13,600</b>	<b>13,600</b>	<b>0</b>
BLM	52,600	13,600	0	26,200	10,200	13,600	13,600	0
Forest Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Recommended for Withdrawal from Locatable/Leasable Mineral Entry</b>	<b>0</b>	<b>141,800</b>	<b>2,198,800</b>	<b>0</b>	<b>0</b>	<b>6,787,000</b>	<b>1,313,300</b>	<b>78,100</b>
BLM	0	141,800	2,198,800	0	0	5,918,800	1,313,300	78,100
Forest Service	N/A	N/A	N/A	N/A	N/A	868,200	N/A	N/A

Source: BLM GIS 2015

1

**Table 4-78**  
**Acres of Proposed ACECs within the Planning Area by Habitat Type and Alternative**

Habitat	Alternative C	Alternative F1	Alternative F2
PHMA (acres)	2,655,000	6,929,600	1,379,100
GHMA (acres) <sup>1</sup>	N/A	0	0
RHMA (acres) <sup>1</sup>	N/A	0	0

Source: BLM GIS 2015

<sup>1</sup>There is no GHMA or RHMA that would be designated under Alternative C.

2

3 **4.13.4 Alternative A**

4 Under Alternative A, the BLM would continue managing the 59 existing Idaho and Montana  
5 ACECs containing 469,200 acres of occupied GRSG habitat to protect the identified  
6 relevant and important values. Current management would continue protecting those values.  
7 Sagebrush habitat is not identified as a relevant and important value in any of the existing  
8 ACECs.

9 **4.13.5 Alternative B**

10 No new ACECs would be designated. However, management protecting the 469,200 acres  
11 of occupied GRSG habitat within existing ACECs may provide indirect protection to the  
12 relevant and important values for which these ACECs were designated. Management actions  
13 that could impact ACECs include the management of areas as ROW avoidance and ROW

1 exclusion, fire management, mineral development, travel management, and the management  
2 of areas as open or closed to livestock grazing. The ways in which these management actions  
3 could impact ACECs is described in **Nature and Types of Effects**.

#### 4 **4.13.6 Alternative C**

5 Under Alternative C, 39 new BLM ACECs encompassing approximately 2.7 million acres of  
6 occupied GRSG habitat would be designated as sagebrush reserves for the relevant and  
7 important value of GRSG. Refer to **Section 4.2, Special Status Species – Greater Sage-**  
8 **Grouse**, for a discussion of impacts on GRSG habitat.

#### 9 **4.13.7 Alternative D**

10 No new ACECs would be designated. Impacts are the same as those described under  
11 Alternative B.

#### 12 **4.13.8 Alternative E**

13 No new ACECs would be designated. Impacts are the same as those described under  
14 Alternative B.

#### 15 **4.13.9 Alternative F**

16 Under Alternative F, 17 or 18 new BLM ACECs and 12 new Forest Service GRSG ZAs  
17 encompassing up to 6.9 million acres of occupied GRSG habitat would be designated as  
18 sagebrush reserves for the relevant and important value of GRSG. Refer to **Section 4.2,**  
19 **Special Status Species – Greater Sage-Grouse**, for a discussion of impacts on GRSG habitat.

#### 20 **4.13.10 Proposed Plan**

21 Impacts on the relevant and important values of ACECs would mainly be from surface-  
22 disturbing activities that cause direct damage to the values, introduce modifications to the  
23 landscape that affect the area's scenic quality or historical or cultural context, or that result in  
24 erosion, sedimentation, or increased runoff. The Proposed Plan would generally result in  
25 greater restrictions compared to the continuation of existing management under Alternative  
26 A. Adopting more restrictive management of surface-disturbing activities under the  
27 Proposed Plan would be complementary to the protection of the relevant and important  
28 values of the existing ACECs. Therefore, in general, the Proposed Plan would enhance the  
29 relevant and important values of the existing ACECs to a greater extent than would  
30 Alternative A.

#### 31 ***Impacts from Lands and Realty Management***

32 Under the Proposed Plan, management actions that could impact ACECs include  
33 management of areas as ROW avoidance and ROW exclusion. As discussed in **Nature and**  
34 **Types of Effects**, managing areas as ROW avoidance and ROW exclusion would provide  
35 complementary management to adjacent and near-by ACECs. **Table 4-78, Comparison of**  
36 **ACEC-Affecting Management Actions by Alternative**, displays the difference in the amount  
37 of acres managed as ROW avoidance and exclusion by alternative. Under the Proposed Plan,  
38 10,200 more acres are managed as ROW exclusion and 73,900 more acres are managed as

1 ROW avoidance than under Alternative A. A greater number of acres managed as ROW  
2 avoidance and exclusion would likely result in a greater amount of incidental protection to  
3 ACECs.

#### 4 ***Impacts from Habitat Restoration and Vegetation Management***

5 Vegetation management to protect, enhance, and restore GRSG habitat would be prioritized  
6 under the Proposed Plan, and ACECs encompassing or adjacent to GRSG habitat could  
7 receive additional protection through this management. Vegetation management could  
8 create temporary disturbance to ACECs through surface-disturbing activities, but the BLM  
9 would manage all ACECs and special designations to safeguard the reasons for which they  
10 were designated. Therefore, vegetation management and habitat restoration could result in  
11 temporary disturbance to special designations but would not cause long-term damage.

12 Refer to **Section 4.2**, Special Status Species- Greater Sage-Grouse, for a discussion of  
13 impacts from special designation management on GRSG habitat.

#### 14 ***Impacts from Wildland Fire Management***

15 Wildland fire management could result in impacts to ACECs as described in **Nature and**  
16 **Types of Effects**. ACECs that encompass GRSG habitat could experience additional  
17 protections under the Proposed Plan through fuels management and fire suppression  
18 management actions that prioritize the protection of GRSG and GRSG habitat.

#### 19 ***Impacts from Leasable Fluid Minerals Management***

20 More restrictions would be placed on mineral development under the Proposed Plan than  
21 would be under Alternative A. **Table 4-78**, Comparison of ACEC-Affecting Management  
22 Actions by Alternative, displays the differences in the amount of acres and types of  
23 restrictions on mineral development that would occur by alternative. Under the Proposed  
24 Plan, NSOs and CSUs are applied to more acres (174,400 and 26,600, respectively) than  
25 under Alternative A. Additionally, 3,500 more acres are closed to oil and gas leasing than  
26 under Alternative A. Under the Proposed Plan TLs are not applied to any acres, unlike under  
27 Alternative A where TLs are applied to 52,600 acres. The greater the number of acres  
28 experiencing restrictions on mineral development would likely result in a greater amount of  
29 incidental protection to ACECs.

#### 30 ***Impacts from Travel and Transportation Management***

31 Under the Proposed Plan motorized travel would be limited to existing roads, primitive  
32 roads, and trails. Additionally, areas adversely affected by OHVs would be closed to use until  
33 adverse effects are eliminated. These actions could result in indirect protections to ACECs  
34 that would not be present under Alternative A. Restrictions on travel would result in impacts  
35 described in **Nature and Types of Effects** and could result in additional protect to ACECs,  
36 particularly to ACECs that encompass or are adjacent to GRSG habitat.

#### 37 ***Impacts from Livestock Grazing Management***

38 More restrictions would be placed on livestock grazing under the Proposed Plan than would  
39 be under Alternative A. **Table 4-78**, Comparison of ACEC-Affecting Management Actions  
40 by Alternative, displays the number of acres that would be open and closed to livestock

1 grazing by alternative. Under the Proposed Plan, 400 fewer acres would be closed to  
2 livestock grazing than would be under Alternative A. Closing acres of land to livestock  
3 grazing could result in the types of impacts described in **Nature and Type of Effects**. The  
4 Proposed Plan is likely to result in more indirect protections to ACECs than Alternative A  
5 even though the Proposed Plan would have the same amount of active AUMs as Alternative  
6 A because under the Proposed Plan additional provisions would be made to ensure livestock  
7 grazing is compatible with GRSG. Some of these provisions could result in additional  
8 protections to ACECs where ACECs overlap with or are adjacent to GRSG habitat.

9 ***Impacts from Special Designations Management***

10 There are no decisions regarding special designations under the Proposed Plan. Current  
11 management of special designations under Alternative A would continue to protect the  
12 values for which existing ACECs were designated. Under the Proposed Plan, ACECs could  
13 receive additional protection through restrictions on resource uses, activities, and surface-  
14 disturbance put in place to protect GRSG and GRSG habitat. The ways in which these  
15 management actions could provide incidental protection to ACECs is described in **Nature  
16 and Types of Effects**.

17 ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and  
18 Coordination***

19 Under the Proposed Plan, adaptive management would use hard and soft population and  
20 habitat triggers to determine when to apply additional restrictions to various habitat areas. In  
21 the event a trigger is reached in a habitat area that is either in or adjacent to an ACEC, the  
22 ACEC could receive additional indirect protections from the increased restrictions on uses  
23 in the GRSG habitat.

24 Similarly, anthropogenic disturbance management would involve a strict increase in  
25 restrictions in the event the three percent anthropogenic disturbance cap is reached within  
26 PHMA or IHMA. In the event a disturbance cap is reached for a habitat area in or adjacent  
27 to an ACEC, the ACEC could experience indirect protections from the restrictions on uses  
28 and surface-disturbing activities enacted by the anthropogenic disturbance management.

29 **4.14 Lands with Wilderness Characteristics and Roadless Areas**

30 This section discusses impacts on lands with wilderness characteristics from proposed  
31 management actions of other resources and resource uses. Existing conditions are described  
32 in **Section 3.20, Lands with Wilderness Characteristics**. Wilderness characteristics  
33 considered in this analysis are roadless areas of sufficient size, naturalness, and outstanding  
34 opportunities for solitude or a primitive and unconfined type of recreation and supplemental  
35 values. In the planning area, 390,800 acres on BLM-administered lands have been found to  
36 have wilderness characteristics. None of the 390,800 acres with wilderness characteristics  
37 specifically managed to protect those characteristics; however, management addressing other  
38 programs such as visual and cultural resources or recreation management may limit impacts  
39 on those characteristics. There are approximately 1,152,400 acres of Roadless Areas on  
40 National Forest System lands. All Roadless Areas experience some level of protection.  
41 Restrictions on activities such as road construction, tree cutting, and mineral development

1 are applied to Roadless Areas in various degrees based on the management classification of  
2 the Roadless Area (36 CFR 294).

#### 3 4.14.1 Methods and Assumptions

##### 4 *Indicators*

5 Indicators of impacts on lands with wilderness characteristics are the management actions  
6 and allowable uses that would either protect or degrade the inventoried characteristics to a  
7 level at which the value of one or more wilderness characteristic would no longer be present  
8 within the specific area. The inventoried wilderness characteristics are roadless areas of  
9 sufficient size, naturalness, outstanding opportunities for solitude or a primitive and  
10 unconfined type of recreation, and supplemental values, as described in **Section 3.20,**  
11 **Wilderness Characteristics.** Roadless Areas already experience some protections from Forest  
12 Service management, however, management actions that restrict uses in order to protect the  
13 GRSG would provide additional protections to Roadless Areas.

##### 14 *Assumptions*

15 The analysis includes the following assumption:

- 16 • Some inventoried lands with wilderness characteristics have not  
17 yet been assessed in a LUP revision; therefore, no decisions have  
18 been made about whether to protect their wilderness  
19 characteristics. In this analysis, these lands with wilderness  
20 characteristics are treated like their wilderness characteristics are  
21 not protected to the same degree that congressionally designated  
22 wilderness areas would be protected and are discussed in this  
23 analysis. Lands with wilderness characteristics that are not  
24 managed only to exclusively protect those characteristics will  
25 simply be referred to as lands with wilderness characteristics  
26 throughout the remainder of the analysis in this section.

#### 27 4.14.2 Nature and Type of Effects

28 Wilderness characteristics are primarily influenced by actions that impact the undeveloped  
29 nature of the area or activities that increase the sights and sounds of other visitors.  
30 Generally, actions that create surface disturbance degrade the natural characteristics of lands  
31 with wilderness characteristics, as well as the setting for experiences of solitude and primitive  
32 recreation. In addition, restrictions on dispersed recreation (e.g., prohibited campfires and  
33 camping permitted only in designated sites) diminish the opportunities for unconfined  
34 recreation.

35 Management actions that could impact an area's natural appearance are the presence or  
36 absence of roads and trails, use of motorized vehicles along those roads and trails, fences  
37 and other improvements, nature and extent of landscape modifications, or other actions that  
38 result in or preclude surface-disturbing activities. All of these activities affect the presence or  
39 absence of human activity and, therefore, could affect an area's natural appearance.

1 Prohibiting surface-disturbing activities and new developments within lands with wilderness  
2 characteristics would protect naturalness.

3 There could be indirect impacts from management of other resources that would enhance  
4 wilderness characteristics. Stipulations associated with special status species could indirectly  
5 improve the naturalness of lands with wilderness characteristics and help protect those  
6 characteristics. Management actions that protect resources would impact lands with  
7 wilderness characteristics by preserving or enhancing naturalness, as well as opportunities for  
8 solitude and primitive recreation. Roadless Areas would also be impacted by surface-  
9 disturbing activities and allowable uses that decrease wilderness attributes on Roadless Areas.  
10 The nature and types of impacts on Roadless Areas would be similar to those on lands with  
11 wilderness characteristics; however Roadless Areas would be less susceptible to such impacts  
12 due to the protections placed on Roadless Areas based on their management classification.  
13 In particular, Roadless Areas would be less prone to impacts from road construction and  
14 reconstruction, timber removal, and mineral development, as Roadless Areas are protected  
15 specifically from these activities (36 CFR 294).

16 Implementing management for the following resource would have negligible or no impact  
17 on wilderness characteristics and Roadless Areas; therefore it is not discussed in detail:  
18 mineral split-estate.

#### 19 ***Vegetation Management and Habitat Protection***

20 While vegetation treatments are implemented, both naturalness and solitude experienced by  
21 recreationists could be reduced in the short term. After the treatment is over, solitude would  
22 be restored. Over the long term, naturalness would likely be enhanced by restoring natural  
23 vegetation structures and patterns.

#### 24 ***Wildland Fire***

25 Managing for wildfire could impact lands with wilderness characteristics. In areas where  
26 suppression is a priority, there is the potential for vegetation modification to prevent the  
27 spread of fires, potentially reducing the naturalness of appearance. Fire suppression,  
28 prescribed burns, and firebreaks could all have short-term impacts on wilderness  
29 characteristics by disturbing naturalness.

#### 30 ***Lands and Realty***

31 Permitted activities, such as construction of utility ROWs, involve the presence of  
32 equipment and personnel that could impact wilderness characteristics. Construction would  
33 reduce opportunities for solitude in the short term and could result in long-term impacts as  
34 well. ROW exclusions would prohibit all development of ROWs which would likely protect  
35 wilderness characteristics.  
36

#### 37 ***Mineral Resources***

38 Allowing any type of energy or mineral development, such as that for fluid, coal, nonenergy  
39 solid, locatable, and salable minerals, as well as renewable energy, would result in surface  
40 disturbance that would diminish the area's natural characteristic. Any new roads authorized  
41 for access to the development area could eliminate wilderness characteristics of the entire

1 unit if the road were to bisect the unit so that it would no longer be considered a roadless  
2 area of adequate size. In addition, regular access to the lease area or mine site by developers  
3 would reduce the opportunities for solitude.

#### 4 ***Recreation***

5 Two other wilderness characteristics—outstanding opportunities for solitude and primitive  
6 unconfined types of recreation—are related to the human experience in an area. Visitors can  
7 have outstanding opportunities for solitude or for primitive unconfined recreation when the  
8 sights, sounds, and evidence of other people are rare or infrequent; where visitors can be  
9 isolated, alone, or secluded from others; where the area is accessed by nonmotorized  
10 nonmechanized means; and where there are no or only minimally developed recreation  
11 facilities. High concentrations of recreation users (large group sizes or frequent group  
12 encounters) would decrease outstanding opportunities for solitude. Limiting visitor use only  
13 as necessary to prevent substantial degradation to wilderness characteristics (i.e., naturalness  
14 and opportunities for solitude) would protect opportunities for unconfined recreation.

#### 15 ***Travel and Transportation***

16 A significant increase in motorized and mechanized travel on designated routes would  
17 impact wilderness characteristics. By increasing sights and sounds of other people,  
18 opportunities for solitude would be reduced. Motorized and mechanized access would also  
19 reduce opportunities for primitive recreation. The existence of motorized and mechanized  
20 trails could reduce the natural appearance in the vicinity of the trails. Effects would be  
21 localized and might not be experienced in the unit as a whole.

22 Prohibiting motorized and mechanized use on lands with wilderness characteristics would  
23 protect wilderness characteristics by restricting activities that could impact natural  
24 appearance and opportunities for solitude and primitive and unconfined recreation.  
25 Exceptions to exclusions on motorized and mechanized vehicles could result in a short-term  
26 detraction from the natural character of the areas. These impacts would be uncommon and  
27 of short duration if they were to occur. On a more regular basis, motorized and mechanized  
28 use by established livestock grazing permittees would impact opportunities for solitude and  
29 naturalness of appearance.

#### 30 ***Livestock Grazing***

31 Impacts on lands with wilderness characteristics are possible from livestock grazing,  
32 particularly from new developments in these areas (e.g., water developments and fences),  
33 which could lessen the naturalness of appearance or limit unconfined recreation. Existing  
34 range improvements used for grazing, such as fences, stock trails, springs, and stock ponds,  
35 would continue to be maintained. Structures could diminish the naturalness characteristic of  
36 lands with wilderness characteristics. Maintenance of range improvements could result in  
37 short-term impacts on solitude and naturalness.

#### 38 ***Special Designations***

39 Where lands with wilderness characteristics overlap or are next to eligible or suitable Wild  
40 and Scenic River segments or ACECs, management of these other areas could also indirectly  
41 protect wilderness characteristics due to the measures proposed for the other areas. These

1 protective measures would include complementary management objectives and could offer  
2 some indirect protection of wilderness characteristics for units managed primarily for other  
3 resource considerations.

4 **4.14.3 Impacts on lands with Wilderness Characteristics Common to All**  
5 **Alternatives**

6 The nature and type of impacts described below are common to all alternatives, but the  
7 context and intensity may vary by alternative.

8 ***Impacts from Travel and Transportation Management***

9 Under all alternatives, approximately 4,310 acres of lands with wilderness characteristics  
10 would be closed to motorized travel (**Table 4-80, Acres of Allocations Potentially Affecting**  
11 **Lands with Wilderness Characteristics and Roadless Areas**). Under all alternatives other than  
12 Alternative A and Alternative D, which both would close 4,460 acres to motorized travel, no  
13 acres of Roadless Areas would be closed to motorized travel. Because the difference  
14 between these numbers are small, differences in impacts would likely be negligible. Where  
15 motorized travel is closed or limited to existing roads, there would be indirect protection of  
16 wilderness characteristics. Restricting motorized travel would reduce the noise of human  
17 visitors and the disturbance caused by motorized vehicles, which would enhance experiences  
18 of solitude and naturalness. Impacts from closing areas on motorized travel are the same  
19 under all alternatives.

Table 4-79

Acres of Allocations Potentially Affecting Lands with Wilderness Characteristics and Roadless Areas

Management Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
<b><i>Total Acres of All Types of Habitat, Excluding Nonhabitat</i></b>							
<b>ROW Exclusion</b>	<b>190,700</b>	<b>901,700</b>	<b>1,429,500</b>	<b>190,700</b>	<b>152,900</b>	<b>901,700</b>	<b>156,300</b>
BLM	12,100	326,100	379,300	12,100	12,100	326,100	28,900
Forest Service	178,600	575,600	1,050,200	178,600	140,800	575,600	127,400
<b>ROW Avoidance</b>	<b>550,000</b>	<b>527,800</b>	<b>0</b>	<b>1,343,200</b>	<b>989,300</b>	<b>527,900</b>	<b>1,050,700</b>
BLM	35,700	53,100	0	369,500	274,000	53,300	344,800
Forest Service	514,300	474,700	0	973,800	715,400	474,700	705,900
<b>Closed to Oil and Gas Leasing</b>	<b>1,137,300</b>	<b>1,352,600</b>	<b>1,430,600</b>	<b>1,439,300</b>	<b>1,041,500</b>	<b>1,352,600</b>	<b>378,300</b>
BLM	8,130	325,200	385,200	310,200	8,140	325,200	3,640
Forest Service	1,129,200	1,027,400	1,045,300	1,129,100	1,033,400	1,027,400	374,700
<b>NSO</b>	<b>56,300</b>	<b>29,700</b>	<b>0</b>	<b>34,400</b>	<b>306,500</b>	<b>29,700</b>	<b>816,500</b>
BLM	38,300	11,800	0	16,500	288,500	11,800	342,800
Forest Service	17,900	17,900	0	17,900	18,000	17,900	473,700
<b>CSU (Oil and Gas)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,900</b>	<b>0</b>	<b>0</b>	<b>71,800</b>
BLM	0	0	0	10,900	0	0	71,800
Forest Service	0	0	0	0	0	0	30
<b>TL</b>	<b>38,600</b>	<b>10,100</b>	<b>0</b>	<b>50,000</b>	<b>36,900</b>	<b>10,100</b>	<b>0</b>
BLM	38,600	10,100	0	50,000	36,900	10,100	0



**Table 4-79**  
**Acres of Allocations Potentially Affecting Lands with Wilderness Characteristics and Roadless Areas**

Management Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
Forest Service	0	0	0	30	0	0	0
<b>Recreation Sites</b>	<b>670</b>	<b>670</b>	<b>670</b>	<b>670</b>	<b>670</b>	<b>670</b>	<b>570</b>
BLM	670	670	670	670	670	670	570
Forest Service	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Closed to Livestock Grazing</b>	<b>69,600</b>	<b>62,100</b>	<b>1,435,800</b>	<b>69,600</b>	<b>62,100</b>	<b>62,100</b>	<b>48,500</b>
BLM	560	560	385,600	560	560	560	580
Forest Service	69,000	61,500	1,050,200	69,000	61,500	61,500	47,900
<b>Closed to Motorized Travel</b>	<b>8,770</b>	<b>4,310</b>	<b>4,310</b>	<b>8,770</b>	<b>4,310</b>	<b>4,310</b>	<b>4,470</b>
BLM	4,310	4,310	4,310	4,310	4,310	4,310	4,470
Forest Service	4,460	0	0	4,460	0	0	0
<b>ACECs/Zoological Areas</b>	<b>19,400</b>	<b>19,100</b>	<b>292,800</b>	<b>19,400</b>	<b>19,100</b>	<b>F1: 830,200</b> <b>F2: 197,300</b>	<b>18,900</b>
BLM	19,400	19,100	260,000	19,400	19,100	F1: 334,100 F2: 120,500	18,900
Forest Service	N/A	N/A	32,767	N/A	N/A	F1: 496,100 F2: 76,900	N/A

Source: BLM GIS 2015

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#### 4.14.4 Alternative A

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Management actions to protect other resources and special designation areas offer some protection of wilderness characteristics and Roadless Areas. Alternative A includes the fewest GRSG protections and is least restrictive of surface-disturbing activities that could alter the natural setting, as well as reduce opportunities for solitude or primitive recreation, of lands with wilderness characteristics. Therefore, wilderness characteristics are likely to be degraded under this alternative. Roadless Areas are also least likely to experience additional protections under this alternative.

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#### **Impacts from Lands and Realty Management**

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Under Alternative A, 12,100 acres of lands with wilderness characteristics are managed as ROW exclusion (Table 4-80) and 178,600 acres of Roadless Areas are managed as ROW exclusion. This provides indirect protection to wilderness characteristics (preserving naturalness and opportunities for solitude and primitive recreation) and Roadless Areas by prohibiting disturbance from transmission lines, roads, and other utility developments. Additionally, 35,700 acres of lands with wilderness characteristics and 514,300 acres of Roadless Areas are managed as ROW avoidance areas, which would have similar effects on lands with wilderness characteristics and Roadless Areas as ROW exclusion.

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1       ***Impacts from Leased Fluid Minerals Management***

2       Under Alternative A, 8,130 acres of lands with wilderness characteristics and 1,129,200 acres  
3       of Roadless Areas are closed to oil and gas leasing. Closing acres to fluid minerals leasing  
4       could protect wilderness characteristics by prohibiting development and infrastructure  
5       related to those actions, subject to valid existing rights. However, interest in oil and gas  
6       leasing in Idaho is sporadic. There is some interest in leasing oil and gas resources within  
7       occupied habitat in the Bear Lake area, but no drilling permits have been applied for or  
8       issued in Idaho, and this trend is expected to continue. As such, impacts from oil and gas  
9       leasing are likely to be minimal under all alternatives due to the anticipated lack of  
10       development.

11       ***Impacts from Recreation and Visitor Services Management***

12       Under Alternative A, 670 acres of recreation sites overlap with lands with wilderness  
13       characteristics. These would continue to be managed under current guidance, which would  
14       result in no additional protections or degradation of wilderness characteristics.

15       ***Impacts from Livestock Grazing Management***

16       Under Alternative A, 560 acres of lands with wilderness characteristics and 69,000 acres of  
17       Roadless Areas are closed to livestock grazing. Livestock grazing can impact opportunities  
18       for solitude and naturalness of appearance. New developments, such as fences, related to  
19       livestock grazing could also lessen naturalness of appearance or limit unconfined recreation,  
20       although additional development would be limited. Those areas with wilderness  
21       characteristics that are not closed to grazing would continue to be affected in a limited way  
22       by grazing activities and grazing-related development.

23       ***Impacts from Special Designations Management***

24       Under Alternative A, the existing 59 ACECs in the planning area would to be maintained.  
25       The 19,400 acres of ACECs that overlap lands with wilderness characteristics would  
26       continue to provide indirect protections to those characteristics. Under this alternative, no  
27       additional ACECs would be designated, so no additional protection to wilderness  
28       characteristics would result. Additionally, no ZAs would overlap with Roadless Areas and,  
29       therefore, Roadless Areas would not receive additional protection from Zoological Areas  
30       under this alternative.

31       **4.14.5 Alternative B**

32       ***Impacts from Lands and Realty Management***

33       Under Alternative B, 326,100 acres of lands with wilderness characteristics (314,000 more  
34       acres than under Alternative A) and 575,600 acres of Roadless Areas (397,000 more acres  
35       than under Alternative A) would be managed as ROW exclusion areas. Additionally, 53,100  
36       acres of lands with wilderness characteristics and 474,700 acres of Roadless Areas would be  
37       managed as ROW avoidance areas. Types of impacts are described under Alternative A.

38       ***Impacts from Leased Fluid Minerals Management***

39       Under Alternative B, 325,200 acres of lands with wilderness characteristics would be closed  
40       to oil and gas leasing, 317,070 more acres than under Alternative A, thereby potentially  
41       offering more protection of lands with wilderness characteristics. Under this alternative

1 1,027,400 acres of Roadless Areas would be closed to oil and gas leasing, which is a 101,800  
2 fewer acres than under Alternative A. This could result in fewer additional protections to  
3 Roadless Areas as compared with Alternative A. However, as discussed under Alternative A,  
4 oil and gas development interests in Idaho are minimal so impacts on wilderness  
5 characteristics from oil and gas development are likely to be minimal across all alternatives.

6 ***Impacts from Recreation and Visitor Services Management***

7 Under Alternative B, 670 acres of recreation sites would overlap lands with wilderness  
8 characteristics. In PHMA, the only recreation allowed would be neutral or beneficial to  
9 GRSG. Some types of restrictions, such as those that would limit visitor use and surface  
10 disturbance, would likely enhance experiences of solitude and provide protections to  
11 wilderness characteristics. However, other types of restrictions, such as limits on dispersed  
12 recreation, could degrade wilderness characteristics by limiting opportunities for primitive  
13 and unconfined recreation.

14 ***Impacts from Livestock Grazing Management***

15 Impacts would be approximately the same as those described under Alternative A, as only  
16 7,500 more acres with wilderness characteristics on BLM-administered and National Forest  
17 System land would be closed under Alternative B as under Alternative A.

18 ***Impacts from Special Designations Management***

19 Under Alternative B, 19,100 acres of lands with wilderness characteristics would overlap  
20 with ACECs and would experience indirect protections. Impacts on Roadless Areas would  
21 be the same as those described under Alternative A.

22 **4.14.6 Alternative C**

23 ***Impacts from Lands and Realty Management***

24 Under Alternative C, 379,300 acres of lands with wilderness characteristics (367,200 more  
25 acres than under Alternative A) and 1,050,200 acres of Roadless Areas (871,600 more acres  
26 than under Alternative A) would be managed as ROW exclusion areas. No lands with  
27 wilderness characteristics or Roadless Areas would be designated as ROW avoidance areas  
28 under Alternative C.. Alternative C would offer more indirect protections to lands with  
29 wilderness characteristics and Roadless Areas through ROW exclusion and avoidance than  
30 would Alternative A.

31 ***Impacts from Leased Fluid Minerals Management***

32 Under Alternative C, 385,200 acres of lands with wilderness characteristics and 1,045,300  
33 acres of Roadless Areas would be closed to oil and gas leasing. Impacts would be similar to  
34 those described under Alternative A.

35 ***Impacts from Recreation and Visitor Services Management***

36 Impacts are the same as those described under Alternative B.

1 ***Impacts from Livestock Grazing Management***

2 Under Alternative C, 385,600 acres of lands with wilderness characteristics would be closed  
3 to livestock grazing, 385,040 more acres than under Alternative A. Consequently, Alternative  
4 C would provide more protection of wilderness characteristics than Alternative A

5 ***Impacts from Special Designations Management***

6 Under Alternative C, 39 new ACECs would be designated, which would indirectly protect  
7 260,000 acres of land with wilderness characteristics and 32,767 acres of Roadless Areas that  
8 overlap the new ACECs.

9 **4.14.7 Alternative D**

10 ***Impacts from Lands and Realty Management***

11 Under Alternative D, impacts from ROW exclusion areas on lands with wilderness  
12 characteristics would be the same as those under Alternative A. Additional protection would  
13 result from the 369,500 acres of lands with wilderness characteristics which would be  
14 managed as ROW avoidance areas, and 973,800 acres which would be managed as ROW  
15 avoidance with limited exclusion. Managing lands with wilderness characteristics as ROW  
16 avoidance areas would result in more protection under this alternative than under Alternative  
17 A. More acres of Roadless Areas would be managed as ROW exclusion (178,600 acres) and  
18 ROW avoidance (973,800) under this alternative than under any of the other alternatives.  
19 Roadless Areas would experience more additional protection from restrictions on ROWs  
20 under this alternative than under any of the other alternatives.

21 ***Impacts from Leased Fluid Minerals Management***

22 Under Alternative D, 310,200 acres of lands with wilderness characteristics would be closed  
23 to oil and gas leasing (302,070 more acres than under Alternative A) and 1,129,100 acres of  
24 Roadless Areas would be closed to oil and gas leasing (100 acres less than under Alternative  
25 A). Impacts would be similar to those under Alternative A.

26 ***Impacts from Recreation and Visitor Services Management***

27 Impacts are similar to those described under Alternative B, except that Alternative D would  
28 also try to minimize adverse recreation effects on GRSG.

29 ***Impacts from Livestock Grazing Management***

30 Impacts are the same as those described under Alternative A.

31 ***Impacts from Special Designations Management***

32 Impacts on lands with wilderness characteristics are the same as those described under  
33 Alternative A.

34 **4.14.8 Alternative E**

35 ***Impacts from Lands and Realty Management***

36 Under Alternative E, 12,100 acres of lands with wilderness and 140,800 acres of Roadless  
37 Areas would be managed as ROW exclusion. This is the smallest number of acres out of all  
38 the alternatives and would result in fewer acres of Roadless Areas and lands with wilderness

1 characteristics receiving protections from ROW exclusions. Additionally, 274,000 acres of  
2 lands with wilderness characteristics would be managed as ROW avoidance areas. As such,  
3 this alternative would offer more protection to lands with wilderness characteristics than  
4 under Alternative A. Roadless Areas would also experience more protection under  
5 Alternative E than under Alternative A, with 715,400 acres managed as ROW avoidance.

6 ***Impacts from Leased Fluid Minerals Management***

7 Under this alternative, 8,140 acres of lands with wilderness characteristics would be closed to  
8 oil and gas leasing, offering negligibly more protection than Alternative A. Additionally  
9 1,033,400 acres of Roadless Areas would be closed to oil and gas leasing, which would result  
10 in less additional protection to Roadless Areas than would occur under Alternative A.  
11 Impacts would be similar to those under Alternative A due to minimal oil and gas  
12 development interest.

13 ***Impacts from Recreation and Visitor Services Management***

14 Impacts would be similar to those described under Alternative B, except that Alternative E  
15 would also apply seasonal, timing, and travel restrictions in order to reduce impacts on  
16 GRSG.

17 ***Impacts from Livestock Grazing Management***

18 Impacts are the same as those described under Alternative B.

19 ***Impacts from Special Designations Management***

20 Impacts on lands with wilderness characteristics are the same as those described under  
21 Alternative B.

22 **4.14.9 Alternative F**

23 ***Impacts from Lands and Realty Management***

24 Impacts of ROW exclusion areas under Alternative F are the same as under Alternative B.  
25 Under Alternative F, 53,300 acres of lands with wilderness characteristics and 474,700 acres  
26 of Roadless Areas would be managed as ROW avoidance areas. Types of impacts are would  
27 be similar to those described under Alternative B.

28 ***Impacts from Leased Fluid Minerals Management***

29 Impacts are the same as those described under Alternative B.

30 ***Impacts from Recreation and Visitor Services Management***

31 Impacts are the same as those described under Alternative B.

32 ***Impacts from Livestock Grazing Management***

33 Impacts are the same as those described under Alternative A.

34 ***Impacts from Special Designations Management***

35 Under Alternative F, 17 or 18 new BLM ACECs would be designated, which would  
36 indirectly protect either 334,100 acres or 120,500 acres of land with wilderness characteristics  
37 and either 496,100 acres or 76,900 acres of Roadless Areas that overlap the new ACECs.

1           **4.14.10 Proposed Plan**

2           ***Impacts from Lands and Realty Management***

3           Managing areas as ROW avoidance and ROW exclusion could impact lands with wilderness  
4           characteristics and Roadless Areas. Under the Proposed Plan, 34,400 fewer acres would be  
5           managed as ROW exclusion than would be under Alternative A. Additionally, under the  
6           Proposed Plan 500,700 more acres would be managed as ROW avoidance than under  
7           Alternative A, and this would likely result in indirect protections to lands with wilderness  
8           characteristics (preserving naturalness and opportunities for solitude and primitive  
9           recreation) and Roadless Areas by prohibiting disturbance from transmission lines, roads,  
10          and other utility developments, as discussed in **Nature and Types of Effects**.

11          **Table 4-80**, Acres of Allocations Potentially Affecting BLM Lands with Wilderness  
12          Characteristics and Forest Service Roadless Areas, displays the difference in the amount of  
13          acres managed as ROW avoidance and exclusion between Alternative A and the Proposed  
14          Plan. A greater number of acres managed as ROW avoidance and exclusion would likely  
15          result in a greater amount of incidental protection to lands with wilderness characteristics  
16          and Roadless Areas.

17          ***Impacts from Habitat Restoration and Vegetation Management***

18          Vegetation management to protect, enhance, and restore GRSG habitat would be prioritized  
19          under the Proposed Plan, and lands with wilderness characteristics encompassing or adjacent  
20          to GRSG habitat could be impacted by this management. Vegetation management and  
21          habitat restoration could result in temporary disturbance to lands with wilderness  
22          characteristics, as discussed in **Nature and Types of Effects**, but would not likely result in  
23          any long-term damage.

24          ***Impacts from Wildland Fire Management***

25          Wildland fire management could result in impacts to lands with wilderness characteristics  
26          and Roadless Areas as described in **Nature and Types of Effects**. Lands with wilderness  
27          characteristics and Roadless Areas that encompass or are adjacent to GRSG habitat are most  
28          likely to experience these impacts from the prioritizing of fire suppression under the  
29          Proposed Plan.

30          ***Impacts from Leased Fluid Minerals Management***

31          Closing acres to fluid minerals leasing, as well as placing restrictions such as timing  
32          limitations (TL), no-surface occupancy (NSO), and CSU (controlled surface use), on fluid  
33          mineral leasing would protect wilderness characteristics by prohibiting or restricting  
34          development and infrastructure related to those actions, subject to valid existing rights.  
35          Under Alternative A 759,000 more acres are closed to oil and gas leasing than under the  
36          Proposed Plan. More acres closed to oil and gas leasing on BLM-administered lands could  
37          result in more protection to lands with wilderness characteristics. However, the Proposed  
38          Plan would apply NSO stipulations to 816,500 acres, which is more acres than would be  
39          applied under any of the other alternatives. This would effectively make up in protection the  
40          difference in acres closed to fluid mineral leasing.

1 Under the Proposed Plan 760,200 more acres would be managed as NSO than under  
2 Alternative A, 71,800 more acres would be managed as CSU under the Proposed Plan than  
3 under Alternative A, and 38,600 fewer acres would be managed as TL under the Proposed  
4 Plan than under Alternative A.

5 Oil and gas development interest in IHMA, PHMA, and GHMA in Idaho is sporadic and  
6 minimal. There is some interest in leasing oil and gas resources within occupied habitat in  
7 the Bear Lake area, but no drilling permits have been applied for or issued in Idaho, and this  
8 trend is expected to continue. As such, impacts from oil and gas leasing are likely to be  
9 minimal due to anticipated lack of development.

10 **Table 4-70**, Acres of Allocations Potentially Affecting BLM Lands with Wilderness  
11 Characteristics and Forest Service Roadless Areas, displays the differences in restrictions on  
12 mineral development between alternatives. In general a greater number of acres experiencing  
13 restrictions in mineral development would result in more indirect protections to lands with  
14 wilderness characteristics and Roadless Areas.

15 ***Impacts from Recreation and Visitor Services Management***

16 Restrictions on recreation could impact lands with wilderness characteristics and Roadless  
17 Areas as discussed under **Nature and Types of Effects**. Under the Proposed Plan, new  
18 recreation facilities would not be constructed within PHMA and IHMA unless the  
19 development would have a net conservation gain to GRSG habitat. Some types of  
20 restrictions, such as those that would limit visitor use and surface disturbance, would likely  
21 enhance experiences of solitude and provide protections to wilderness characteristics that  
22 overlap or are adjacent PHMA, IHMA, and GHMA. However, other types of restrictions,  
23 such as limits on dispersed recreation, could degrade wilderness characteristics by limiting  
24 opportunities for primitive and unconfined recreation.

25 **Table 4-80**, Acres of Allocations Potentially Affecting BLM Lands with Wilderness  
26 Characteristics and Forest Service Roadless Areas, shows the acres of recreation sites in  
27 Lands with Wilderness Characteristics and Roadless Areas by alternative.

28 ***Impacts from Travel and Transportation Management***

29 Under the Proposed Plan motorized travel would be limited to existing roads, primitive  
30 roads, and trails. Additionally, areas adversely affected by OHVs would be closed to use until  
31 adverse effects are eliminated. These actions could result in indirect protections to lands with  
32 wilderness characteristics and Roadless Areas. Restrictions on travel would result in impacts  
33 as described in **Nature and Types of Effects** and could especially result in protections to  
34 lands with wilderness characteristics and Roadless Areas that encompass or are adjacent to  
35 GRSG habitat.

36 Under the Proposed Plan, fewer acres would be closed to motorized travel than under  
37 Alternative A, as shown in **Table 4-80**, Acres of Allocations Potentially Affecting BLM  
38 Lands with Wilderness Characteristics and Forest Service Roadless Areas. Closing fewer  
39 acres to motorized travel could result in lands with wilderness characteristics and Roadless

1 Areas experiencing fewer indirect protections under the Proposed Plan than under  
2 Alternative A.

### 3 ***Impacts from Livestock Grazing Management***

4 More restrictions would be placed on livestock grazing under Alternative A than would be  
5 under the Proposed Plan. **Table 4-80**, Acres of Allocations Potentially Affecting BLM  
6 Lands with Wilderness Characteristics and Forest Service Roadless Areas, displays the  
7 number of acres that would be closed to livestock grazing by alternative. Closing acres of  
8 land to livestock grazing could result in the types of impacts described in **Nature and Type**  
9 **of Effects**. The Proposed Plan could result in less indirect protection to ACECs than  
10 Alternative A because 21,200 fewer acres would be closed to livestock grazing under the  
11 Proposed Plan than under Alternative A. However, the Proposed Plan would have the same  
12 amount of active AUMs as Alternative A, and under the Proposed Plan additional provisions  
13 would be made to ensure livestock grazing is compatible with GRSG. Some of these  
14 provisions could result in additional protections to lands with wilderness characteristics and  
15 Roadless areas where these areas overlap with or are adjacent to GRSG habitat.

### 16 ***Impacts from Special Designations Management***

17 No decisions regarding special designations or lands with wilderness characteristics or  
18 Roadless Areas were made under the Proposed Plan. Due to this, the amount of lands with  
19 wilderness characteristics and Roadless Areas that overlap with ACECs and other special  
20 designations vary slightly due to differences in habitat delineations, but impacts would be the  
21 same under Alternatives A and the Proposed Plan.

### 22 ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and*** 23 ***Coordination***

24 Under the Proposed Plan, adaptive management would use hard and soft population and  
25 habitat triggers to determine when to apply additional restrictions to various habitat areas. In  
26 the event a trigger is reached in a habitat area that is either in or adjacent to lands with  
27 wilderness characteristics or Roadless Areas, the lands with wilderness characteristics or  
28 Roadless Areas could receive additional indirect protections from the increased restrictions  
29 on uses in the GRSG habitat.

30 Similarly, anthropogenic disturbance management would involve a strict increase in  
31 restrictions in the event the three percent anthropogenic disturbance cap is reached within  
32 PHMA or IHMA. In the event a disturbance cap is reached for a habitat area in or adjacent  
33 to lands with wilderness characteristics or Roadless Areas, the lands with wilderness  
34 characteristics or Roadless Areas could experience indirect protections from the restrictions  
35 on uses and surface-disturbing activities enacted by the anthropogenic disturbance  
36 management.

## 37 **4.15 Social and Economic Conditions (Including Environmental Justice)**

38 This section discusses social and economic impacts from proposed GRSG management  
39 actions related to other resources and resource uses. Existing social and economic conditions  
40 are described in **Section 3.22**, Social and Economic Conditions (Including Environmental



1 Justice). This section also addresses environmental justice impacts and the differences among  
2 alternatives for the social and economic impacts identified.

3 This section is organized slightly differently than the sections for other resource areas.  
4 Rather than grouping the analysis of impacts by alternative, the analysis of economic impacts  
5 is grouped by affected resource followed by an overall discussion of social impacts. This  
6 grouping assists with the reader's understanding of the analytical approach and assumptions  
7 used to analyze economic and social impacts associated with each resource use and facilitates  
8 interpretation of results. Impacts are grouped by alternative in **Table 4-82** and **Table 4-83**  
9 of the **Summary of Social and Economic Impacts** and in **Table 4-84, Environmental**  
10 **Justice Impacts**.

#### 11 **4.15.1 Methods and Assumptions**

##### 12 ***Indicators***

13 Conservation measures related to GRSG habitat could have impacts on resource uses on  
14 BLM and Forest Service administered lands; impacts on social and economic conditions  
15 could result from these changes in resource uses. Many of the indicators used to characterize  
16 social and economic conditions are quantitative, including population, demographics (e.g.,  
17 age and gender breakouts), local industry (e.g., recreation and mineral development),  
18 employment, personal income, and presence of minority and low-income populations. Other  
19 indicators, especially for social conditions, are qualitative.

20 For the analysis of economic impacts, quantitative estimates are provided where sufficient  
21 data or estimates are available on the potential changes in authorized uses of federal lands  
22 under each alternative. When quantitative estimates of economic impacts were not possible,  
23 a qualitative discussion of the potential economic impacts of management actions associated  
24 with specific authorized uses is presented. Therefore, the overall economic impacts are a  
25 combination of quantitative estimates and qualitative discussion.

26 When sufficient information was available to quantify the potential economic impact of  
27 alternatives, the IMPLAN model, which captures the indirect and induced economic effects  
28 of management alternatives in the Socioeconomic Study Area, was used to estimate impacts  
29 on outcomes, employment, and earnings in the study area. This was the case of the analysis  
30 of impacts through livestock grazing. The analysis using IMPLAN includes those impacts  
31 derived from the multiplier effect, which captures the impact of several rounds of  
32 expenditures that follow an initial direct expenditure in the Socioeconomic Study Area.  
33 These additional expenditures are due to income received by suppliers and employees  
34 directly benefiting from the initial expenditure, and who go on to spend a share of their  
35 income locally. This allows for a more complete picture of the economic impacts of the  
36 management alternatives in the planning area. However, the IMPLAN model is a static  
37 model, and it does not capture changes in the industrial composition of a region over time,  
38 nor does it capture dynamic effects that may be associated with processes of growth or  
39 decline, such as changes in technology or labor productivity or the feasibility of economic

1 operations that require scale. There is, therefore, a degree of uncertainty in the estimates of  
2 impacts obtained through the IMPLAN model.

### 3 ***Assumptions***

- 4 • The analysis of economic impacts of management alternatives on grazing used  
5 billed AUMs as a baseline, estimated as a multi-year average share of active  
6 AUMs. Active AUMs measure the amount of forage from land available for  
7 grazing. Forest Service terms this measure “permitted” AUMs. Billed AUMs  
8 measure the amount of forage for which BLM and Forest Service bill annually.  
9 Forest Service uses the term “authorized” AUMs for the same concept.
- 10 • Implementing management for the resources not analyzed in detail in this section  
11 were considered to have negligible or no impact on socioeconomic and  
12 environmental justice indicators across alternatives. For recreation, BLM and  
13 Forest Service recreational specialists determined that the overall number of  
14 visits to BLM lands and National Forests would be unchanged because  
15 potentially affected recreational activities are unlikely to occur during the times  
16 that overlap with GRSG using leks, and any displaced recreational activity would  
17 be likely to move to another nearby location. To the extent that there are  
18 circumstances in which individual permits for special activities or events are  
19 affected in terms of timing and/or location for GRSG protection, the overall  
20 socioeconomic impacts associated with these effects are expected to be  
21 negligible.
- 22 • Implementation of conservation measures in all resource or program areas will  
23 contribute to conservation of GRSG habitat and GRSG benefits, as qualitatively  
24 discussed in this section, and detailed in other sections of Chapter 4.

#### 25 26 **4.15.2 Nature and Types of Effects**

27 The main economic impacts derived from changes in resource management are reflected in  
28 changes in local employment and earnings, costs incurred by the private sector, fiscal  
29 revenues and regional growth prospects.

30 For the analysis of social impacts, two types of impacts capture the main social impacts that  
31 can be expected from changes in resource management. The first is that which is derived  
32 from migration induced by management actions. These impacts are induced by economic  
33 opportunities that drive population into or out of specific areas and affect population growth  
34 as well as the demand for housing and public services. The second is that associated with  
35 specific interest groups, community livelihoods, or minority and low income populations  
36 (i.e., effects described in the section on Environmental Justice).

37 To the extent that there is a degree of uncertainty regarding the changes in authorized uses  
38 of federal lands under each management alternative, this uncertainty is carried forward to the  
39 socioeconomic impacts of management alternatives.

1 The Proposed Plan includes a 3 percent disturbance cap on PHMA, independent of surface  
2 ownership and an adaptive management plan. If the disturbance cap is reached, economic  
3 activity on BLM and Forest Service lands could be curtailed further than what is described in  
4 this section. This disturbance cap would be the same as under Alternative B, more restrictive  
5 than the disturbance cap in Alternatives D and E, but less so than the disturbance cap in  
6 Alternatives C and F. Under the adaptive management plan, additional measures could be  
7 taken to protect GRSG habitat based on triggers linked to indicators monitored by BLM and  
8 the Forest Service. If triggered, these additional measures could also impose additional  
9 restrictions on economic activity. However, because the 3 percent disturbance cap and  
10 adaptive management soft and hard triggers only apply to PHMA, they would only generate  
11 additional socioeconomic impacts through economic activities that are not already restricted  
12 in PHMA.

13 The Proposed Plan designates sagebrush focal areas (SFAs), representing recognized  
14 “strongholds” for GRSG that have the strongest levels of protection. These SFAs are mostly  
15 within PHMA, but include some non-habitat areas, thereby increasing the potential for  
16 restrictions to economic activity with impacts in some areas under the Proposed Plan.

17 As a landscape level planning effort, none of the alternatives prescribe project-level or site-  
18 specific activities on BLM or Forest Service managed lands. Furthermore, the agencies’  
19 selection of an alternative does not authorize funding to any specific project or activity nor  
20 does it directly tie into the agencies’ budgets as appropriated annually through the Federal  
21 budget process. As a consequence, agencies’ costs and differences in program costs across  
22 alternatives have not been quantified. Information has been presented in several resource  
23 impact sections on the types of costs that might be associated with various sage-grouse  
24 conservation measures.

### 25 **4.15.3 Economic Impacts**

#### 26 ***Impacts from Management Actions Affecting Grazing Allotments***

27 Economic impacts for grazing are quantified for Alternatives C and F where grazing would  
28 not be allowed in all or portions of GRSG habitat. Impacts for all alternatives are  
29 qualitatively discussed for other types of restrictions or design feature requirements that are  
30 contingent upon proximity to lek areas and/or, meeting desired range conditions,  
31 disturbance caps, or other protocol for specifying when and where conservation measures  
32 are adopted.

#### 33 ***Overall Employment, Earnings, and Output per Job Impacted by Management Alternatives***

34 The potential impacts of management alternatives affecting grazing on output and  
35 employment were estimated quantitatively using the IMPLAN economic model. Detailed  
36 assumptions for the quantitative analysis are described in **Appendix AA**, Economic Impact  
37 Analysis Methodology. Alternatives A, B, D, E, and the Proposed Plan are estimated to have  
38 similar economic effects because no unconditional grazing closures or losses of AUMs occur  
39 under those alternatives, although Alternatives B, D, E, and the Proposed Plan (along with  
40 Alternatives C and F) could carry increased restrictions on lessees’ ability to construct or

1 maintain range improvements and Alternatives B, D, and the Proposed Plan could restrict  
2 the lessees' ability to conduct treatments (e.g., vegetation treatments). These restrictions, as  
3 well as compliance with adaptive management, habitat objectives, and disturbance caps, may  
4 have implications for operator costs as discussed below.

5 Although grazing on federal lands not containing GRSG habitat would not be directly  
6 affected by the choice of alternatives, it could be affected indirectly, to the extent that loss of  
7 access to federal lands for grazing affects the feasibility of the grazing operations.

8 The IMPLAN model used 2011 and 2013 data for active AUMs. The model used an average  
9 of 2000 to 2011 data for billed AUMs on lands permitted by BLM, because billed AUMs  
10 fluctuate from year to year (BLM 2012d, BLM 2013b, BLM 2013c). On Forest Service lands,  
11 the analysis assumed a billed to active ratio of 100 percent.

12 For the analysis, the BLM and Forest Service calculated economic impacts for each  
13 alternative based on an estimated reduction in the number of billed AUMs. By multiplying  
14 the number of AUMs lost under each alternative relative to Alternative A by the estimated  
15 output, employment, and earnings per AUM (shown in Table R-4 and Table R-5 of  
16 **Appendix AA**, Economic Impact Analysis Methodology), changes in output, employment,  
17 and earnings lost by alternative, relative to Alternative A, are estimated. **Table 4-81**, Annual  
18 Impact of Management Actions Affecting Livestock AUMs on Output, Employment, and  
19 Earnings Compared to Alternative A, shows the resulting estimates. As explained in  
20 **Appendix AA**, the low impact scenario reflects the loss of all billed AUMs in GRSG habitat  
21 under Alternative C and the loss of 25 percent of billed AUMs in GRSG habitat under  
22 Alternative F. Actual economic impacts could be less than these estimates. For example,  
23 where the number of billed AUMs is less than the number of active AUMs, ranchers could  
24 shift grazing from lands closed to grazing to lands that remain open for grazing. In other  
25 words, ranchers could use non-billed active AUMs as a buffer to absorb reductions in AUMs  
26 imposed by management alternatives, resulting in reduced economic impact. The high  
27 impact scenario represents the case where the loss of AUMs on public lands leads to the loss  
28 of additional AUMs due to seasonal limitations of grazing areas. This would be the case if  
29 livestock operations have no reasonable alternative to seasonal grazing, implying broader  
30 impacts to livestock grazing. BLM estimated the additional loss of AUMs due to seasonal  
31 limitations on livestock grazing based on Torell et al. (2014). Further details are provided in  
32 **Appendix AA**, Economic Impact Analysis Methodology. Note that the employment  
33 estimates include the labor of proprietors and employees, but not unpaid or paid-in-kind  
34 family labor, which is typically not accounted for in labor force statistics. If family labor were  
35 included, then labor use differences among alternatives would be larger.

**Table 4-80**  
**Annual Impact of Management Actions Affecting Livestock AUMs on Output, Employment, and Earnings Compared to Alternative A**

	Alternatives B, D, E, and Proposed Plan <sup>1</sup>	Alternative C		Alternative F	
		Low Impact Scenario	High Impact Scenario	Low Impact Scenario	High Impact Scenario
<b>Primary Study Area</b>					
Output (\$ millions)	See notes	-\$100.6	-\$190.1	-\$26.1	-\$36.9
Employment	See notes	-997	-1,842	-259	-361
Earnings (\$ millions)	See notes	-\$34.5	-\$65.6	-\$8.9	-\$12.7
<b>Primary and Secondary Study Area</b>					
Output (\$ millions)	See notes	-\$100.9	-\$190.6	-\$26.2	-\$37.0
Employment	See notes	-997	-1,842	-259	-361
Earnings (\$ millions)	See notes	-\$34.6	-\$65.8	-\$9.0	-\$12.7

Source: Calculated using the IMPLAN model, applied to active and billed AUMs for each alternative (BLM 2012d, 2013b, 2013c; and Forest Service 2013c), as explained in the text and in **Appendix AA**, Economic Impact Analysis Methodology.

Note: Output and earnings are in millions of 2010 dollars.

<sup>1</sup> Based on available AUMs, there would be no change in economic activity from grazing in Alternatives B, D, E or the Proposed Plan. However, as described in the text, management actions in Alternatives B, D, E, and the Proposed Plan would result in restrictions to range improvements, which may increase ranch operators' costs or lead to other adverse economic impacts.

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Beyond economic impacts linked to closing federal lands to livestock grazing under Alternatives C and F, management alternatives could impose other costs on livestock operators as follows:

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- Under Alternatives C and F, closure of federal lands to grazing could mean additional costs to livestock operators with respect to construction of new infrastructure on private lands, such as water developments, if previously used infrastructure is no longer accessible.

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- Under Alternatives B, C, D, F, and the Proposed Plan, restrictions to motorized travel could affect access of livestock operators to allotments with associated time and financial costs.

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- Under Alternatives B, D, F, and the Proposed Plan, post-fire management actions to restore habitat could impose limitations on grazing during the restoration period.



- 1 • Under Alternatives B, D, F, and the Proposed Plan, vegetation treatments  
2 prioritizing GRSG habitat could require changes in livestock management with  
3 potentially associated costs.
- 4 • Disturbance caps under Alternatives B, C, D, F , and the Proposed Plan could  
5 reduce the capacity of livestock operators to build improvements or could limit  
6 infrastructure (e.g., roads) with potential increased costs to operators.
- 7 • For Alternatives B, D, E, and the Proposed Plan, in habitat and/or active lek  
8 areas (e.g., nesting or breeding seasons where desired conditions for GRSG are  
9 not being met) seasonal modifications to grazing management strategies may be  
10 needed such as changes in pasture rotation or fencing. These modifications have  
11 the potential for increased costs and/or limitations to grazing duration, intensity  
12 or location for some allotments. Habitat conditions for GRSG are less explicit  
13 under Alternative E which may afford greater flexibility for modifying  
14 management strategies. Potential for impacts related to seasonal management  
15 modifications is therefore relatively greater for Alternatives B, D, and the  
16 Proposed Plan, and relatively lower for Alternative E. Additional Forest Service  
17 guidelines for habitat (e.g., 7 inch stubble height for nesting habitat) may  
18 increase potential for impacts for some permittees, depending on specific  
19 conditions on allotments.
- 20 • For Alternatives B, D, E, F, and the Proposed Plan, design features (e.g., fence  
21 tags) or best management practices may be required to protect active lek areas,  
22 implying potential for increased costs for livestock operators; potential is  
23 relatively greater for Alternatives B, D, F, and the Proposed Plan compared to  
24 Alternative E. Additional guidelines under the proposed plan (e.g., trailing,  
25 fencing, range improvements) may affect some allotments.

26 Alternative A—Under Alternative A, grazing on federal lands would not be affected. The  
27 alternative would not change the amount of land open for grazing (BLM 2013b; Forest  
28 Service 2013c). Thus, there would be no change in annual output, annual jobs, or annual  
29 earnings relative to current trends. Based on the location of current federal grazing lands, the  
30 economic contribution of grazing would be similar to the pattern under current  
31 management, with particular concentrations in Cassia, Gooding, Jerome, Lincoln, and  
32 Owyhee Counties, Idaho. These are the counties in which 20 percent or more of earnings  
33 are attributable to livestock, according to **Section 3.22**, Social and Economic Conditions,  
34 Including Environmental Justice.

35 Alternative B—Under Alternative B, economic activity attributable to AUMs on federal  
36 lands with GRSG habitat is likely to be similar to that under Alternative A because there  
37 would be no changes in the amount of GRSG habitat unconditionally open for grazing. In  
38 the long term, livestock grazing in priority habitat may be reduced in this alternative  
39 compared to in Alternative A to conform to GRSG habitat objectives, although impacts  
40 would be site-specific and likely occur gradually over time. Some decisions on range

1 improvements and vegetation treatments would be subject to the conservation,  
2 enhancement, or restoration of GRSG habitat, potentially reducing forage available because  
3 permittees would be required to move livestock off-range if necessary to protect habitat.  
4 Seasonal restrictions could also be imposed, requiring that permittees move their livestock  
5 elsewhere, adding costs to their operations. The extent to which these additional constraints  
6 would reduce grazing on federal lands is not clear, but Alternative B would likely result in  
7 some additional operating costs and reductions in economic activity compared to Alternative  
8 A.

9 Alternative C—Under Alternative C, economic activity attributable to grazing on federal  
10 lands would be reduced. Livestock grazing on federal lands would be restricted to those with  
11 no GRSG habitat (BLM 2013b; Forest Service 2013c). Adverse impacts on output,  
12 employment, and earnings would be greater in Alternative C than any other alternative, with  
13 an estimated reduction in employment between 997 and 1,842 annual jobs relative to  
14 Alternative A. The economic impact of Alternative C may also be greater if the change in  
15 management actions, such as the removal of GRSG habitat from livestock grazing, impairs  
16 the economic viability of some grazing operations—especially if the private ranch land is  
17 then left unused. Management actions that prevent the viability of grazing operations could  
18 reduce the value of private land as a function of livestock productivity (land values as a  
19 function of other uses may increase or decrease).

20 Alternative D—Economic activity associated with AUMs on federal lands with GRSG  
21 habitat would likely be similar to Alternatives A and B because there would be no changes in  
22 the amount of GRSG habitat unconditionally open for grazing (BLM 2013b; Forest Service  
23 2013c). Some restrictions on range improvements or seasonal restrictions that require  
24 permittees to move livestock off-range could affect the availability of forage. In addition,  
25 measures to limit impacts on leks by trailing livestock and structural range improvements  
26 could result in additional costs. The extent to which these additional constraints would affect  
27 economic activity from grazing on federal lands is not clear. However, Alternative D would  
28 likely result in some reductions in economic activity compared to Alternative A, but less so  
29 than alternatives B or E.

30 Alternative E—Economic activity associated with AUMs on federal lands with GRSG  
31 habitat is likely to be similar to Alternatives A, B, and D because there would be no change  
32 in the amount of GRSG habitat unconditionally open for grazing (BLM 2013b; Forest  
33 Service 2013c). Some limitations would apply to structural range improvements, which could  
34 increase costs for construction and maintenance of improvements or impact the ability to  
35 distribute livestock. Similar to Alternative B, Alternative E could also impose seasonal  
36 restrictions that may increase costs for operators. These restrictions would more likely be  
37 imposed on lands designated as core or priority GRSG habitat, rather than general GRSG  
38 habitat (BLM 2013b). The extent to which these additional constraints would affect  
39 economic activity from grazing is not clear. However, Alternative E may result in some  
40 reductions in economic activity compared to Alternative A. Changes in grazing management  
41 would be tailored to address site-specific habitat needs.

1 Alternative F—Under Alternative F, economic activity due to grazing on federal lands would  
2 be reduced because of closure of some GRSG habitat to livestock grazing as well as actions  
3 to prohibit grazing after fire and prohibit new range improvements, which would result in  
4 increased costs for ranchers. Under Alternative F there would be an estimated reduction in  
5 employment between 259 and 361 annual jobs relative to Alternative A. The impact of  
6 Alternative F may be greater than shown if the reduction in federal AUMs impairs the  
7 economic viability of some grazing operations. The impact would also be greater if the  
8 private ranch land is then left unused. Management actions that prevent the viability of  
9 grazing operations could reduce the value of private land as a function of livestock  
10 productivity. Economic impacts under Alternative F would be less than under Alternative C  
11 but still substantially more than under Alternatives A, B, D, E, and the Proposed Plan.

12 Proposed Plan – Under the Proposed Plan, there would be no change in the amount of  
13 GRSG habitat unconditionally open for livestock grazing, relative to Alternative A. The  
14 BLM would use the assessment and monitoring data related to the objectives to evaluate  
15 whether rangeland health standards are being met, starting with allotments in SFA. The  
16 Forest Service would use Seasonal Habitat Desired Conditions for GRSG and Grazing  
17 Guidelines for GRSG Seasonal Habitat. If rangeland health standards are not being met,  
18 adjustments to livestock grazing would be implemented at the allotment level, and may  
19 include a variety of management approaches, such as changing rotation systems, season or  
20 timing or use, distribution of livestock use, intensity of use, type of livestock, class of  
21 livestock (e.g., yearlings vs. cow-calf pairs), duration of grazing use, and rest period or  
22 stocking rates. It is unknown to what extent permittees may need to change livestock  
23 management and what economic costs those changes might entail. In general, there may be  
24 some increased costs to implement management when it is identified that livestock  
25 management is conflicting with meeting GRSG habitat objectives. Because BLM takes a  
26 collaborative, site-specific approach to modifying livestock grazing, permittees are afforded  
27 the opportunity to work with BLM to develop management approaches that minimize  
28 impacts on their operations, while addressing identified habitat issues. Some permittees may  
29 prefer to reduce grazing overall, while others may prefer to increase management inputs  
30 (e.g., herding or maintaining let-down fences) to prevent a reduction in their authorized use,  
31 when provided with more than one viable alternative towards meeting rangeland health  
32 standards and GRSG habitat objectives. The Proposed Plan allows for design and  
33 implementation of allotment-specific management that will meet GRSG habitat objectives  
34 appropriate for each area, while providing the flexibility to minimize economic impacts to  
35 operators, rather than implementing a blanket reduction in grazing, which may provide  
36 benefits in some areas, while unnecessarily inflicting economic impacts in areas where  
37 ongoing management is resulting in satisfactory on-the-ground habitat conditions for  
38 GRSG.

39 In summary, economic impacts from closures in GRSG habitat to livestock grazing and  
40 potential increases in costs to operators are greatest under Alternative C, followed by  
41 Alternative F. Although no unconditional closures of grazing occur under Alternatives B, D,  
42 E, and the Proposed Plan, restrictions on motorized travel, vegetation treatments, and  
43 structural improvements could have increased costs to operators. Potential reductions in  
44 AUMs and operating costs under alternatives B, D, E, and the Proposed Plan are conditional



1 on meeting habitat objectives, satisfying disturbance caps, and operator discretion about how  
2 to modify grazing strategies and management to meet objectives and design feature  
3 requirements. The likelihood of AUM reductions or increases in costs under Alternatives B,  
4 D, E, and the Proposed Plan are therefore substantially lower than Alternatives C and F.  
5 Potential for costs under the Proposed Plan may be somewhat greater than Alternative D,  
6 and lowest for E. However, estimating the potential cost impacts to livestock grazing  
7 operators associated with management alternatives is not possible due to the landscape level  
8 of this planning effort and uncertainty about how individual operators could be affected and  
9 how they may operationally respond.

10 As previously noted, **Table 3-67** shows that, although livestock grazing has some  
11 importance to all counties in the study area it constitutes a larger share of earnings in Cassia,  
12 Gooding, Jerome, Lincoln, and Owyhee Counties. **Figures 2-1 through 2-12** show that  
13 GRSG habitat intersects with all these counties, particularly Gooding, Lincoln, and Owyhee.  
14 This suggests economic impacts of management alternatives on livestock grazing may be of  
15 particular importance to these three counties. Within these counties, communities may be  
16 impacted differently, contingent on each communities' dependency on livestock grazing  
17 where it overlaps with GRSG habitat.

18 Output, employment, and earnings losses reported above, although stemming from direct  
19 impacts to livestock grazing, would not all occur in the livestock ranching industry, but also  
20 in industries that provide inputs and services to these activities and in industries where labor  
21 earnings from livestock ranching are spent. Additional discussion of the potential impacts on  
22 communities is included in **Section 4.15.4, Social Impacts**.

#### 23 *Other Values Associated with Livestock Grazing*

24 As described in **Chapter 3**, BLM-administered and National Forest System land managed  
25 for livestock grazing provides both market values and non-market values; the latter include  
26 open space and western ranch scenery, which provide value to some residents and outside  
27 visitors. Ranches may also provide some value to the non-using public (e.g., the cultural icon  
28 of the American cowboy). Some residents and visitors also perceive non-market opportunity  
29 costs associated with livestock grazing; in addition, some of the lifestyle value of ranching is  
30 likely to be captured in markets (e.g., property values of ranches adjacent to BLM-  
31 administered and National Forest System lands). In contrast, other residents or visitors may  
32 perceive non-market opportunity costs (i.e., damages) associated with livestock grazing and  
33 therefore prefer alternative land uses.

34 The "Other Values" discussion in **Section 3.22, Socioeconomics and Environmental Justice**,  
35 and **Appendix BB, Non-Market Valuation Methods**, provide additional discussion of these  
36 values. Overall, the process for incorporating potential non-market values associated with  
37 the management of BLM-administered and National Forest System land for livestock  
38 grazing into analyses of net public benefits remains difficult as it implies the need to consider  
39 non-market values and uses associated with landscape characteristics and opportunities that  
40 would exist in absence of grazing and ranch activity. Since the scientific and economic  
41 literature on the topic does not provide adequate data or a consensus theoretical framework

1 from which to analyze these values further, this analysis does not attempt to quantify these  
2 values for the present study.

3 To the degree that there are net benefits associated with non-market values attached to  
4 livestock grazing and ranching, these would be greatest in Alternatives A, B, D, and E, as  
5 these alternatives are likely to result in similar levels of livestock grazing operations in the  
6 study area (albeit with some restrictions for Alternatives B, D, and E). If the net non-market  
7 value associated with livestock grazing and ranching is positive, then the likelihood of  
8 preserving the value would be greatest under Alternative A, slightly lower under Alternatives  
9 B, D, and E, lower still under Alternative F, and lowest of all under Alternative C, in line  
10 with the expected impacts on market values discussed above. Non-market benefits linked to  
11 alternative landscapes and land uses may help offset potential losses in non-market benefits  
12 associated with grazing and ranches.

### 13 ***Impacts from Management of Oil and Gas Leases***

14 The potential economic impacts of management alternatives affecting oil and gas drilling,  
15 completion, and production were not analyzed using IMPLAN, given the relatively small  
16 number of wells that would be affected and that no oil has been commercially produced in  
17 the study area to date. Based on the restrictions identified for the management alternatives,  
18 BLM oil and gas specialists projected that the number of wells and production capacity  
19 would be the same for Alternatives A and D. In Alternatives B, C, F, and the Proposed Plan,  
20 management actions would restrict exploration and development activity and result in  
21 approximately half of the production capacity (BLM 2015). The reduction in production  
22 capacity relative to Alternative A would not be expected to be as pronounced under  
23 Alternative E.

24 Alternative A—Alternative A would continue current trends in economic activity associated  
25 with oil and gas leases. The BLM predicts that, under Alternative A up to 37 wells would be  
26 drilled, including 25 wildcat wells and 12 step-out wells, over a 20 year period (BLM 2015).  
27 Of the 37 wells, 16 are predicted to be drilled in GRSG habitat (those in the Four Rivers  
28 Field Office, Caribou National Forest, and half of the wells in the Dillon Field Office are not  
29 in GRSG habitat). For analysis purposes, the BLM predicts that 16 wells would be  
30 productive (8 of those in GRSG habitat), with 28 billion cubic feet of production capacity.  
31 There would be no change in trends in annual output, annual jobs, or annual earnings  
32 compared to current management. Based on cost and direct employment estimates recently  
33 developed for neighboring Utah (BLM 2013g), 16 wells at a drilling and completion cost of  
34 \$3.25 million each, could generate an average of 11 annual direct jobs during the period and  
35 approximately \$700 thousand in direct annual earnings, if approximately 75 percent of  
36 expenditures were done locally. Additional jobs and earnings could be generated indirectly.  
37 Production of 28 billion cubic feet over a 20 year period could add an additional 2 annual  
38 direct jobs and \$200 thousand in direct annual earnings, with additional jobs and earnings  
39 being generated indirectly.

40 Alternative B—Alternative B would close PHMA to fluid mineral leasing but would have the  
41 same restrictions as Alternative A in GHMA. Drilling and production would drop, compared  
42 to Alternative A, with approximately 19 wells drilled, including 13 wildcat wells and 6 step-

1 out wells; 8 wells would be productive, all of which would be outside GRSG habitat (BLM  
2 2015). These wells would have 20.5 billion cubic feet of production capacity. On existing  
3 leases, RDFs would be imposed as appropriate to the proposed activity. Alternative B would  
4 also impose costs related to required full site-specific reclamation bonds to cover costs to  
5 restore the lands to pre-disturbance condition. As a result of implementing Alternative B,  
6 economic activity and associated output, employment, and earnings related to oil and gas  
7 production would decrease by approximately 30 to 50 percent compared to Alternative A, to  
8 something between 6 and 9 annual direct jobs, \$450 thousand to \$630 thousand in annual  
9 earnings, and additional indirect jobs and earnings. Impacts of reduced oil and gas  
10 development would likely be mostly felt in Bear Lake County (ID), Beaverhead County  
11 (MT), and surrounding areas.  
12

13 Alternative C—Economic impacts under Alternative C would be similar to those under  
14 Alternative B. Alternative C would cause a further reduction in economic activity by closing  
15 80 percent of the planning area to oil and gas leasing. As in the case of Alternative B,  
16 nineteen wells are predicted under Alternative C, including 13 wildcat wells and 6 step-out  
17 wells. Eight wells would be productive (none in GRSG habitat), with 20.5 billion cubic feet  
18 of production (BLM 2015).  
19

20 Alternative D— Implementation of Alternative D is predicted to result in drilling of 35  
21 wells, including 23 wildcat wells and 12 step-out wells; 16 wells are assumed to be  
22 productive. The reduction in 2 wells with respect to Alternative A would be expected for the  
23 Rogerson/Jarbridge area (Twin Falls County). Production capacity is predicted to be the same  
24 as Alternative A. The 16 productive wells would be expected to have the same economic  
25 impact as those under Alternative A (BLM 2015).

26 Alternative E—Under Alternative E, CHZ and IHZ in Idaho would be open to oil and gas  
27 leasing, subject to an NSO stipulation. Implementation of Alternative E would have  
28 economic impacts most similar to Alternative B in Idaho, although with some increased off-  
29 limits acreage in IHZ. Implementation of Alternative E would have economic impacts  
30 similar to Alternative A in Montana. Under Alternative E, wells could be drilled in the Dillon  
31 Field Office, consistent with the Dillon RMP. Under Alternative E, it is predicted that 19  
32 wildcat wells and 10 step-out wells would be drilled for a total of 29 wells (BLM 2015). The  
33 overall economic impact would be slightly less than under Alternative B, with an expected 11  
34 wells producing (six in the Dillon Field Office area, MT, three of those in GRSG habitat,  
35 and 5 in Idaho, none in GRSG habitat). As a result of implementing Alternative E,  
36 economic activity and associated output, employment, and earnings related to oil and gas  
37 production would be estimated to be slightly more than under Alternatives B and C. Impacts  
38 of reduced oil and gas development would likely be mostly felt in Bear Lakes County (ID)  
39 and surrounding areas. Alternative E involves some restrictions to surface development to  
40 minimize impacts on GRSG habitat on existing leases, which would have minor economic  
41 impacts.  
42

43 Alternative F—Economic impacts under Alternative F would be similar to the impacts  
44 under Alternatives B and C.

1 Proposed Plan—Under the proposed plan, as under Alternative E, PHMA and IHMA would  
2 be open to oil and gas leasing, subject to a No Surface Occupancy stipulation.  
3 Implementation of the proposed plan would have economic impacts most similar to  
4 Alternative E in Idaho, but impacts would be greater than Alternative E in Montana, due to  
5 the NSO stipulation under the proposed plan. Under the proposed plan, it is predicted that  
6 15 wildcat and 6 step-out wells would be drilled for a total of 21 wells (BLM 2015). The  
7 overall economic impact would be similar to Alternatives B and C, with 8 wells producing.  
8 As a result of implementing the Proposed Plan, estimates of economic activity and  
9 associated output, employment, and earnings related to oil and gas production would be  
10 similar to Alternative B and C with between 6 and 9 annual direct jobs, \$450 thousand to  
11 \$630 thousand in annual earnings, and additional indirect jobs and earnings. Impacts of  
12 reduced oil and gas development would likely be felt more in Bear Lakes County (ID),  
13 Beaverhead County (MT), and surrounding areas.  
14

### 15 ***Impacts from Management of Phosphate and Locatable and Salable Minerals***

16 As described in **Chapter 3**, the study area produces phosphate and several salable and  
17 locatable minerals, including Oakley stone, silver, sand, gravel, and some industrial minerals  
18 (e.g., molybdenum). Areas with phosphate and Oakley stone production potential overlap  
19 with GRSG habitat, which could have implications for mining activity in the long-term.

20 As discussed in **Chapter 3**, the three active phosphate operations in Idaho, with at least a  
21 portion of the phosphate being mined from leases of Federal minerals, are not located  
22 within GRSG habitat. As shown in Figure 3-13, Unleased Known Phosphate Leasing Areas,  
23 most of the about 48,500 unleased KPLA acres are located in Caribou and Bear Lake  
24 Counties. Only three of these acres intersect with general habitat.

25 The Paris-Bloomington KPLA area, consisting of approximately 1,640 acres and located  
26 within Bear Lake County, is situated entirely in IHMA and PHMA. Of these 1,640 acres,  
27 Federal minerals underlay 460 acres. Of the 460 acres of Federal minerals, 65 acres are leased  
28 (the only phosphate lease in GRSG habitat out of 86 Federal phosphate leases in Idaho), 240  
29 acres are under a prospecting lease, and the BLM has received indications that a phosphate  
30 lease application for 35 acres will be submitted in the near future. All of this activity is  
31 associated with potential Paris Hills Phosphate project (BLM 2013h; BLM 2014).

32 An estimated 40,000 tons of Oakley stone are mined annually from unpatented mining  
33 claims in southern Idaho and northern Utah, providing full-time employment for  
34 approximately 60 people and seasonal employment for an additional 100 to 200 laborers  
35 (BLM 2013h).

36 Many community pits of sand and gravel also fall within GRSG habitat. Economic activity  
37 associated with stone quarries and mineral materials disposal and sales could decrease under  
38 several of the GRSG habitat management alternatives (BLM 2013h).

39 Potential impacts from management actions in each alternative are detailed below.

1 Under Alternatives A and E, KPLAs would be open to phosphate mining. No additional  
2 lands would be withdrawn from locatable mineral entry (see **Section 4.10**, Locatable  
3 Minerals). No additional lands would be closed to mineral material disposal.

4 Alternatives B, C, and F would close priority habitat to phosphate mining. Of the KPLAs,  
5 the only one affected would be in the Paris-Bloomington area. In December 2012, Stonegate  
6 Agricom announced positive results of its Feasibility Study for the development of an  
7 underground phosphate mine (known as the Paris Hills Phosphate project). The project has  
8 been estimated to have a mine life of 19 years producing a total of 16.7 million tonnes of  
9 phosphate rock ore (Agapito Associates, Inc. 2013). The proportion of these production  
10 projections that could be attributable to Federal minerals is not known. However, to the  
11 extent that Federal minerals account of a portion of estimated reserves, the closing of  
12 PHMA to leasing could remove up to 395 acres of federal mineral estate from being  
13 accessed (BLM 2015). Valid existing rights associated with the current lease of 65 acres  
14 would prevent this area from closure, but any development would be subject to RDFs  
15 which, as discussed in **Section 4.12** Nonenergy Leasable Minerals, would limit surface  
16 disturbance, vehicle use, siting, and design of mineral development operations, in addition to  
17 imposing reclamation requirements. If implementing RDFs is not feasible once mining  
18 operations commence on this existing lease, off-site mitigation may be required. Together  
19 these management actions could result in a reduction of phosphate recovered and increased  
20 costs of the project<sup>1</sup>. Impacts under Alternative D may be relatively less because, while  
21 Alternative D closes PHMA and IHMA to future leasing and prospecting of phosphate, it  
22 allows for exceptions for lease modifications and fringe leases where valid existing rights  
23 may be affected.

24 With the exception of the Paris-Bloomington KPLA discussed above, no economic impacts  
25 on future phosphate development in other KPLA areas are expected due to the minimal  
26 GRSG habitat in these areas.

27 The potential for phosphate production from federal lands outside of KPLAs is generally  
28 low. However, if this were to occur, prospecting or mining would be affected in areas  
29 outside of KPLAs that overlap with PHMA under Alternatives B, C, D, and F, since PHMA  
30 would be closed to phosphate development. Furthermore, under Alternative D, management  
31 actions in GHMA would restrict exploration and development of nonenergy leasable  
32 minerals including timing restrictions, specific stipulations, and possible off-site mitigation.  
33 These management actions could affect the cost of exploration and development of  
34 phosphate in general habitat. However, overall, potential economic impacts associated with  
35 phosphate-related activities under Alternatives B, C, D and F outside of KPLAs are  
36 anticipated to be minimal given the limited amount of priority habitat in areas of southeast  
37 Idaho where phosphate occurs.

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<sup>1</sup> As of January 26, 2015, Stonegate Agricom has temporarily suspended permitting activities on this project due to financial constraints (Stonegate Agricom 2015).

1 Under the Proposed Plan, KPLAs would remain open to phosphate mining, as under  
2 Alternatives A and E. PHMA outside of KPLAs would be closed to leasing, subject to valid  
3 existing rights. As explained above, these actions would have minor economic impacts  
4 outside of KPLAs that overlap PHMA. RDFs would apply to existing leases during  
5 exploration and mine development and could have costs to operators to the extent that they  
6 differ from current practices.

7 Alternatives A, D, and E would not recommend any new withdrawals from locatable mineral  
8 development. Alternatives B, C, and F would recommend withdrawing PHMA from  
9 locatable mineral development. These would be the most under Alternative C. The Proposed  
10 Plan would recommend withdrawal of SFAs from locatable mineral development, resulting  
11 in more withdrawals or recommended withdrawals than alternatives A and D, but less than  
12 B, C, and F. Under Alternatives B, C, F, and the Proposed Plan, withdrawals could have  
13 adverse economic impacts on specific communities to the extent that they reduce mineral  
14 development in the future. The extent of these economic impacts is not possible to estimate  
15 with the information available. Withdrawal recommendations for areas over 5,000 acres are  
16 subject to Congressional control and a number of statutory requirements would need to be  
17 satisfied.

18 Alternatives A and E would keep GRSG habitat open to mineral materials disposal. Under  
19 Alternatives B, C, and F mineral material disposal would be closed in PHMA and restoration  
20 of salable mineral pits no longer in use would be required to meet GRSG conservation  
21 objectives (see **Section 4.11**, Mineral Materials). Alternative D closes fewer acres to mineral  
22 material disposal, but does include restrictions across all GRSG habitat. Specifically, no new  
23 mineral material pits would be authorized within 3 km of an occupied lek and mineral  
24 disposal in GRSG habitat would be subject to timing restrictions. Alternative D would also  
25 require restoration of salable mineral pits no longer in use and would require reclamation  
26 bonds for new (commercial or non-profit) authorizations in PHMA. The Proposed Plan  
27 would close all PHMA to salable minerals and its economic impacts would be most similar  
28 to Alternative B. Restrictions in accessing mineral materials increase their cost to local users,  
29 particularly local governments, because they would need to obtain mineral materials at  
30 greater distances. Transportation costs are a major component of the total price of mineral  
31 materials.

32 Economic activity associated with management of phosphate, locatable minerals, and salable  
33 mineral materials would be the same for Alternatives A and E, slightly lower (due to reduced  
34 exploration activity) under Alternative D, lower still under Alternatives B and F, and lowest  
35 under Alternative C. The Proposed Plan would have similar impacts to Alternatives A and E  
36 for phosphate development; Alternatives B and F for locatable mineral development; and  
37 Alternative B for salable mineral development. Any adverse impacts on mining under  
38 Alternatives B, C, F, and the Proposed Plan would mostly likely be felt in counties such as  
39 Caribou, where the mining industry is an important economic contributor for some  
40 communities, and Cassia, where mineral activity may overlaps with GRSG habitat.

1       ***Impacts from Management Actions Affecting Geothermal Exploration and***  
2       ***Development***

3       Economic impacts from geothermal exploration and development are a function of  
4       construction and operation expenditures for geothermal electricity development, including  
5       drilling wells, constructing power plants, and operating facilities. As of 2013, there were 25  
6       federal geothermal leases covering approximately 60,000 acres in Idaho, primarily near Raft  
7       River, Crane Creek, and Parma; 17 were located in GRSG habitat (BLM 2013i).

8       Over the next 20 years, BLM expects geothermal exploration to occur in six different parts  
9       of the planning area. Two power plants would be possible, in the Raft River and Crane  
10      Creek areas.

11      Alternative A—Under Alternative A, the BLM predicts geothermal exploration and  
12      development activity would include 21 new exploratory (temperature gradient) wells with 18  
13      production wells and 12 injection wells. The Burley Field Office has received applications to  
14      drill up to 18 wells on federal leases in the Raft River area. Of these, it is assumed that 10  
15      wells would be production wells, while 8 wells would be used for injection. It is assumed that  
16      12 wells would be drilled at Crane Creek, in Washington County (7 production and 5  
17      injection wells); however, no activity has occurred on those leases since around 2010. Both  
18      these areas are within GHMA and have stipulations to protect GRSG habitat. No other  
19      areas are forecasted for geothermal development. Mitigation on existing leases can include  
20      the RDFs identified under Alternative D without affecting valid existing rights. Alternative A  
21      would not impact economic activity associated with geothermal leases, relative current  
22      management trends.

23      Alternative B—Under Alternative B, lands in PHMA would be closed to geothermal leasing,  
24      exploration and development. Existing leases at Raft River and Crane Creek lie within  
25      PHMA. The lands north and west of the Raft River leases and the federal lands surrounding  
26      the Crane Creek leases would be closed to future leasing outside the existing leases. For  
27      Alternative B, the RFDS forecasts that 18 temperature gradient wells would be drilled and  
28      fewer seismic operations would be allowed than under Alternative A. Implementation of  
29      Alternative B is predicted to result in the same number of production and injection wells as  
30      Alternative A, since there are valid existing rights on the existing leases. The economic  
31      impact would be slightly reduced relative to Alternative A due to the reduced local  
32      expenditures associated with drilling of exploratory wells.

33      Alternative C—Under Alternative C, lands in all GRSG habitat would be closed to leasing,  
34      and existing leases would be relinquished if doing so would mitigate the impact of a  
35      proposed development, or if relinquishment would mitigate the unanticipated impacts of an  
36      approved development (see MLS-9). Terminating leases would directly impact valid existing  
37      rights. No wells would be drilled at Raft River or Crane Creek. The reduced drilling and  
38      production would have an adverse economic impact in the form of reduce local employment  
39      and earnings in the counties of Cassia and Washington and surrounding areas. The federal  
40      government would not realize any production royalties.

1 Alternative D—Under Alternative D, the number of wells would be the same as under  
2 Alternative A, because no lands with moderate to high geothermal potential would be closed  
3 and no leases would be terminated. Applying RDFs imposed under Alternative D to post-  
4 lease actions would not result in additional economic impacts compared to Alternative A.

5 Alternative E and Proposed Plan—Under Alternative E and the Proposed Plan,  
6 CHZ/PHMA and IHZ/IHMA would be open to geothermal leasing, subject to an NSO  
7 stipulation. Existing leases at Raft River and Crane Creek lie within GHZ/GHMA under  
8 these alternatives and, therefore, would not be affected. There is some IHZ/IHMA  
9 immediately north of leases at Raft River and there would be increased off-limits acreage in  
10 IHZ/IHMA at Crane Creek. Implementation of Alternative E and the Proposed Plan would  
11 have economic impacts slightly greater than those of Alternative B due to a slightly greater  
12 reduction in expected exploratory wells. Alternative E and the Proposed Plan also have  
13 some restrictions to surface development to minimize impacts on GRSG habitat on existing  
14 leases, which would have minor potential costs to operators. However, BLM can impose  
15 these same RDFs to proposed actions on existing leases under Alternative A.

16 Alternative F—Economic impacts under Alternative F would be similar to the impacts  
17 under Alternative B.

18 The greatest impact on economic activity associated with geothermal development would be  
19 expected under Alternative C, where drilling and production in GRSG habitat would be  
20 substantially reduced, impacting local employment and earnings in the counties of Cassia and  
21 Washington and surrounding areas. Under Alternatives A and D current trends in  
22 geothermal development would be maintained. There would be a slight reduction in  
23 economic activity associated with geothermal exploratory drilling under Alternatives B and F  
24 relative to Alternative A, and slightly greater reductions under Alternative E and the  
25 Proposed Plan. However, existing leases would not be affected.

### 26 ***Impacts from Management Actions Affecting Wind Energy Development***

27 The amount of future wind development in the study area is uncertain. One application for  
28 wind energy development in the study area was recently removed (China Mountain, in Twin  
29 Falls, Idaho). Current wind energy development in the study area includes one project, Bell  
30 Rapids, near Hagerman, Idaho, with a proposed capacity of 40 MW. Using estimates of the  
31 economic impact of the China Mountain project as a reference (BLM 2011b), scaled  
32 proportionally to the size of the project that would be built on BLM-administered lands (i.e.,  
33 about one-tenth the size of the figures reported in the China Mountain Wind Project Draft  
34 EIS), then the Bell Rapids project would be estimated to generate about 75 jobs for a 2-year  
35 construction duration and about 5 long-term annual full-time jobs during operations. These  
36 estimates include direct, indirect and induced positions. The jobs in the Bell Rapids project  
37 would most likely be in Elmore and Gooding Counties, based on the location of that  
38 project.

39 Based on the RFDS for wind energy, under Alternatives A and F, this level of development  
40 would be maintained. BLM anticipates that Alternatives B through D and the Proposed Plan  
41 may prevent wind energy development entirely. In this case, the planning area would see a



1 loss of jobs equal to what is described above. Alternative E could limit future wind energy  
2 development, with some development possible, depending on fulfillment of criteria  
3 established by the alternative. Thus, Alternatives B through D and the Proposed Plan would  
4 result in lower annual output, employment, and earnings related to wind energy development  
5 compared to Alternatives A and F. This may also be the case of Alternative E.

6 ***Impacts from Management Actions Affecting Land and Realty and Travel***  
7 ***Management***

8 Management actions that affect development of infrastructure could have important  
9 hindering effects on employment and earnings in the area. Limitations on new ROWs for  
10 power lines, pipelines, and access routes or restrictions to route construction and to travel on  
11 existing roads could increase the cost of new economic investments or make them no longer  
12 economically viable. Additional information about changes in cost effectiveness and  
13 efficiency associated with restrictions on ROW, corridors, and treatments are discussed in  
14 **Section 4.7**, Lands and Realty, and **Section 4.3**, Vegetation. A qualitative discussion of the  
15 potential for economic impacts from restrictions to land use and transportation is provided  
16 below for each alternative.

17 Alternative A—Alternative A would place the fewest restrictions on ROW development and  
18 route construction and maintain the largest area open to travel, among the alternatives.  
19 According to RFDS developed by BLM specialists, of the proposed 516 miles of new 500-  
20 kV transmission lines approximately 100 miles of new transmission lines could reasonably be  
21 expected to be built under Alternative A.

22 Alternative B—Alternative B could result in adverse impacts to economic activity related to  
23 lands and realty and travel management by closing areas to ROW authorizations, limiting  
24 motorized travel on existing roads, and limiting new road construction in areas with primary  
25 GRSG habitat. In addition to restricted economic activity associated with road use and  
26 development restrictions, economic impacts would include increased costs associated with  
27 mandatory mitigation for surface disturbance that exceeds three percent for the area. Based  
28 on the RFDS, the BLM projects no new transmission lines under Alternative B. Alternative  
29 B would impose greater limitations and added costs to future economic investments in the  
30 study area compared with Alternative A.

31 Alternative C—Under Alternative C, economic impacts on lands and realty and travel  
32 management are expected to be the same as under Alternative B, although a larger area  
33 would be excluded for development.

34 Alternative D—Alternative D would result in economic impacts slightly less than those  
35 under Alternatives B and C. Alternative D would apply similar restrictions on motorized  
36 travel, except the restrictions would apply to general habitat as well as priority habitat.  
37 However, unlike Alternatives B and C, Alternative D would not impose costs related to  
38 mandatory mitigation for surface disturbance. Costs resulting from restriction to  
39 infrastructure development under Alternative D would be greater than under Alternative A  
40 but less than under Alternatives B or C.

1 Alternative E—Management under Alternative E would have similar impacts as under  
2 Alternative A and fewer impacts than under Alternatives B, C, and D. However, Alternative  
3 E considerably increases the land area subject to avoidance when compared to Alternative A.  
4 The BLM estimates that Alternative E could result in some new transmission lines,  
5 depending on whether the proposed projects meet established criteria. New linear  
6 developments could, however, face increased costs due to the avoidance stipulations that  
7 may impose alternative alignments or mitigation measures.

8 Alternative F—Economic impacts from Alternative F would be similar to those under  
9 Alternatives B and C, except that Alternative F would limit motorized travel in restoration  
10 areas, as well as primary habitat, and would prohibit new road construction within a four-  
11 mile buffer from leks. However, the BLM does expect that development of transmission  
12 lines would be similar to that under Alternative A, with 100 miles of new transmission lines  
13 in the foreseeable future.

14 Proposed Plan— Under the Proposed Plan, development of major ROWs in PHMA would  
15 be avoided, rather than excluded as they would be under Alternative D. This could result in  
16 fewer adverse impacts to ROWs, as more acres would be available for major ROW  
17 development under the proposed plan versus Alternative D. The Proposed Plan would have  
18 impacts similar to Alternatives E and fewer impacts than under Alternatives B, C, D, and F.  
19 As under Alternative E, the BLM estimates that some new transmission lines could be built,  
20 depending on whether the proposed projects meet established criteria. However, new  
21 developments could face increased costs due to the avoidance stipulations that may impose  
22 alternative alignments or mitigation measures.

23 Under Alternative B, C, E, F, and the Proposed Plan, agencies would aim to remove, bury or  
24 modify existing power lines in PHMAs. Under Alternative D, new power and  
25 communication lines (50 kV or less), outside of existing ROWs, would be buried, where  
26 physically feasible. During the reauthorization of existing distribution lines, the physical  
27 feasibility of burying lines would also be considered. These Alternative D management  
28 actions would apply to PHMA, PMMA, and PGMA. All the action alternatives include  
29 restrictions in habitat that might require all new ROW or SUA routes to be modified or to  
30 implement mitigation. Some public comments on the Draft LUPA/EIS expressed concern  
31 with the costs of these measures and potential impacts on rate payers. Unit cost information  
32 for constructing transmission lines provides context for potential impacts of relocating or  
33 rerouting a transmission line. A 2012 WECC study provides information on transmission  
34 line costs per mile, ranging from \$927 thousand to \$2,967 thousand depending on voltage  
35 and whether lines are single or double circuit lines. The same study provides cost multipliers  
36 for difficult terrains, reaching up to 2.25 in the case of forested lands (WECC 2012). New  
37 construction of underground transmission lines can be between 4 and 14 times higher (PSC  
38 2011), depending on terrain, although burial of existing lines would be a fraction of the cost  
39 of new lines. Burial of distribution lines would be considerably less, averaging under \$500  
40 per mile in rural areas (EIA 2012). According to the Energy Information Administration, on  
41 average in the U.S., transmission costs account for approximately 11 percent of the cost of  
42 energy bills, and distribution costs account for 31 percent, with the remaining being power  
43 generation costs (EIA 2013). Because utility providers allocate costs on to their rate base,

1 per-customer rate impacts would be greater where the rate payer base is smaller, all else equal  
2 (i.e., given an identical fixed cost associated with burial of transmission lines). Areas with  
3 smaller/local utility providers with fewer rate payers would be required to absorb a greater  
4 proportion of the costs of relocation or rerouting compared to areas serviced by larger,  
5 multi-state providers.

6 In summary, the most restrictions on economic activity relative to Alternative A, associated  
7 with land and realty development and travel management, would be expected to occur under  
8 Alternatives B, C, and F, with slightly less restrictions under Alternative D, and less still  
9 under Alternative E and the Proposed Plan.

### 10 ***Impacts from Management Actions Affecting Special Status Species***

#### 11 *Other Values Associated with Populations of GRSG*

12 As described in **Chapter 3**, economists and policy makers have long recognized that rare,  
13 threatened, and endangered species have economic values beyond those associated with  
14 active “use” through viewing or hunting. **Chapter 3** and **Appendix BB**, Non-Market  
15 Valuation Methods, document current methods to estimate these “non-use” values,  
16 including a description of the literature review that the BLM and Forest Service conducted  
17 to determine if there were existing non-use value studies for GRSG. Although there are no  
18 existing studies on valuation specific to the GRSG, several studies published in peer-  
19 reviewed scientific journals for bird species with similar characteristics find average stated  
20 willingness-to-pay between \$15 and \$58 per household per year in order to restore a self-  
21 sustaining population or prevent regional extinction (see **Appendix BB**, Non-Market  
22 Valuation Methods, for details). These values represent a mix of use and non-use values, but  
23 the non-use components of value are likely to be the majority share since the studies  
24 primarily address species that are not hunted.

25 Because GRSG protection is a public good available to all households throughout the  
26 intermountain west, if similar per-household values apply and if even a small portion of the  
27 per-household value represents a non-use value, then the aggregate regional non-use value  
28 could be substantial. However, the BLM and Forest Service did not quantify the aggregate  
29 value because of several factors, including uncertainty associated with the comparability of  
30 the existing studies to the GRSG context and the documented difference between stated and  
31 actual willingness-to-pay.

32 From a qualitative perspective, however, the non-use values associated with populations of  
33 GRSG would be expected to correspond to the degree of habitat protection associated with  
34 each alternative. Current management, Alternative A, provides the least amount of  
35 protection for GRSG in the planning area and consequently could result in the most adverse  
36 impacts on GRSG. As a result, to the degree that there are non-use values associated with  
37 populations of GRSG, management under Alternative A would have the greatest adverse  
38 impacts on those values.

39 As discussed in **Section 4.2**, Sage-Grouse and Sage-Grouse Habitat, most of the  
40 management actions under the alternatives would be beneficial for GRSG. It is therefore  
41 estimated that in comparison to Alternative A, each alternative would have a positive impact

1 on non-use values associated with populations of GRSG. However, because so many factors  
2 (e.g., vegetation and soils management, livestock grazing management, fire and fuels  
3 management, recreation management, renewable energy development) impact the  
4 protectiveness of each alternative, it is difficult to anticipate the comparative protection, and  
5 therefore non-use values, provided by Alternatives B through F.

#### 6 ***Impacts on Tax Revenues and Payments to States and Counties***

7 Reductions in economic activity have the potential to result in reduced tax revenues for local  
8 and state governments, as well as the federal government. At the state level, tax revenue  
9 reductions could take the form of reductions in mineral severance taxes, mining taxes, sales  
10 and use taxes, or personal and corporate income taxes. At the local level, revenues could be  
11 reduced if property or sales taxes decrease.

12 As described in **Section 3.22**, Social and Economic Conditions (Including Environmental  
13 Justice), most Idaho state revenues come from sales and use taxes, income taxes, and  
14 property taxes. Most of Montana's state revenues come from individual income taxes and  
15 severance taxes, including oil and gas production taxes, although most of the mineral  
16 production in Montana is outside the planning area. Idaho's overall economic output, which  
17 provides a measure of its sales tax base, was almost \$53 billion in 2010 (2010 dollars).  
18 Montana had a 2010 gross state product of almost \$35 billion in year 2010 dollars (BEA  
19 2013). Based on the information available, it is not possible to quantify potential impacts of  
20 management alternatives on tax revenues as a share of State overall tax bases or tax  
21 collections. However, local government tax revenues could be affected in areas that would  
22 experience considerable changes in economic activity. As described in **Section 3.22**, Social  
23 and Economic Conditions (Including Environmental Justice), Idaho counties receive most  
24 of their revenue from property taxes, charges for local services, and redistribution of state  
25 and federal resources. In Montana, local government tax collections come almost entirely  
26 from property taxes. In both Idaho and Montana, counties receive a portion of federal  
27 mineral royalties from mining activities on federal land, as well as fees for grazing, recreation,  
28 and rents of ROW and oil and gas tax. Although specific impacts on local government tax  
29 revenues could not be quantified, the anticipated changes (both positive and negative) in  
30 economic activity as a result of the various alternatives suggest that local tax revenues could  
31 be affected more in certain counties than in others, particularly Cassia, Gooding, Jerome,  
32 Lincoln and Owyhee Counties, in Idaho, because of impacts on grazing.

#### 33 **4.15.4 Social Impacts**

##### 34 ***Impacts from Management Actions Affecting Migration***

###### 35 *Population*

36 The decrease in employment opportunities in the study area that would occur under  
37 Alternative C from the adverse impacts on farming, corresponds to less than 0.45 percent of  
38 the current employment in the study area (**Table 4-82**). The BLM and Forest Service do not  
39 expect this change in employment to be sufficiently large to induce perceptible changes in  
40 population in any particular county, or to impact the capacity of counties in the study area to  
41 attract and retain its labor force, with implications for population growth. It is possible that,  
42 within counties, specific communities highly dependent on livestock operations could lose

1 sufficient employment opportunities under Alternative C to affect their capacity to attract  
2 and retain labor, affecting in turn their population growth trends.

3 *Housing and Public Services*

4 Housing demand would not be affected in a substantial way by any of the alternatives. No  
5 alternative would sufficiently increase employment opportunities to generate an inflow of  
6 new population to any specific county affecting housing demand in the communities  
7 capacity to provide the demand housing or the associated public services.

8 However, the abilities of counties to supply public services could be reduced, particularly in  
9 Alternative C, in accordance with potential reductions in local tax revenues. State tax  
10 revenues would not be affected substantially, as documented in the section on fiscal  
11 conditions.

12 ***Impacts from Management Actions Affecting Specific Groups and Communities***

13 *Consistency with County Land Use Plans*

14 The decision under consideration may result in amended BLM and Forest Service LUPs  
15 throughout the study area. BLM GRSG habitat mapping does not necessarily coincide with  
16 mapping made by counties (e.g., Custer County) due to differences in methodology. Also,  
17 the Custer County GRSG plan does not recognize livestock grazing as a threat to GRSG  
18 habitat. Under FLPMA, the BLM and Forest Service management plans and LUPs must be  
19 consistent with state and local LUPs to the extent possible within the context of other  
20 mandates of the BLM and Forest Service, and any amendments to be made would aim to  
21 maintain consistency to the degree possible. This would be the case under all alternatives.

22 *Interest Groups and Communities of Place*

23 As described in **Chapter 3**, there is a range of groups in the study area with overlapping and  
24 divergent interests. Groups centered on recreation, livestock grazing, mining, land  
25 development, infrastructure development, business development, and conservation of  
26 natural resources would be impacted differently by the management alternatives. Within  
27 these interest groups, some could be particularly affected. Among the interest groups most  
28 likely to be affected by the choice of alternative are those associated with livestock grazing  
29 and wildlife conservation.

30 Specific communities will be impacted in different ways by the management alternatives.  
31 Communities with more diversified economies, and particularly those less dependent on  
32 livestock grazing, would likely be less impacted.

33 The BLM and Forest Service reviewed the scoping report and the notes from the regional  
34 economic strategies workshop to identify any comments related to specific communities that  
35 may be particularly affected by various management alternatives. Multiple commenters  
36 discussed concerns specific to the Magic Valley in Idaho and Twin Falls County, in  
37 particular. The commenters identified the importance of grazing for the local economy  
38 (BLM and Forest Service 2012). With respect to grazing management actions in other  
39 communities, comments included requesting that BLM consider maintaining livestock

1 operations in the Jarbidge Planning Area and that BLM preserve customary agricultural use  
2 in Custer County (BLM and Forest Service 2012).

3 A few comments expressed concern with potential impacts of management alternatives on  
4 recreation, including concern with recreation in Owyhee County and Blaine County. As  
5 previously discussed, the BLM and Forest Service do not expect overall levels of visitation to  
6 recreation areas on BLM and Forest Service managed lands to differ among management  
7 alternatives. One scoping comment identified Clark County, Idaho, as a vulnerable area,  
8 explaining that 75 percent of the County is publicly owned. The commenter expressed  
9 concern that restrictions on use of BLM-administered and National Forest System lands  
10 could have negative consequences for Clark County residents (BLM and Forest Service  
11 2012).

12 The BLM and Forest Service also reviewed public comments made on the Draft LUPA/EIS  
13 for specific concerns with impacts to individual counties and towns or specific interest  
14 groups. Several commenters expressed concern with impacts of management alternatives on  
15 livestock operations and mining activities and their effects on local communities. For  
16 example, Custer County was highlighted as having an economy based on mining and  
17 agriculture/ranching with any GRSG management plans on grazing having potentially  
18 serious impacts on the viability of individual farms or the history and culture of the  
19 community. Several comments focused on the importance of phosphate to southeastern  
20 Idaho. Others expressed in general terms that the analysis of impacts should be done at a  
21 level of specific counties or communities. Additional analysis will be done during  
22 implementation of resource management plans and land use plans to properly assess the  
23 geographically localized impacts of management actions that many of the public comments  
24 to the draft LUPA/EIS expressed concern with.

25 Alternatives C and F would have the most adverse impacts on livestock grazing operators  
26 throughout the study area. Although economic impacts would be most felt in those counties  
27 where livestock operations are a greater share of employment and earnings, individuals and  
28 interest groups associated with livestock grazing could be affected in all counties where  
29 GRSG habitat intersects with areas commonly used for grazing. In some communities (e.g.,  
30 Caribou and Custer Counties, Idaho), Alternatives C and F could have adverse impacts  
31 through their effects on mining activities. Conservation interests could benefit under these  
32 management alternatives. Communities would likely be impacted differently by each  
33 alternative, depending on the balance of economic activities and social values in each  
34 community.

### 35 ***Summary of Social and Economic Impacts***

36 Alternative actions evaluated in this EIS consist of different packages of conservation  
37 measures that include land use restrictions, management practices or design features, habitat  
38 priorities or desired conditions, and monitoring protocols. These conservation measures, in  
39 aggregate, are intended to address threats to, and provide protection for GRSG (see  
40 **Chapter 2** of this EIS). This section has evaluated the social and economic impacts resulting  
41 from conservation measures that address threats associated with specific land and resource  
42 uses (e.g., grazing, minerals) which are linked to social and economic conditions (e.g.,

employment). There are other conservation measures included in the alternatives (to varying degrees) that address other threats such as fire, invasive plants, and vegetation (e.g., pinyon-juniper) encroachment on GRSG habitat that would have direct impacts on local economies of communities as well as effects on broader GRSG conservation benefits. However, the extent of these impacts is not known at this planning stage and due to uncertainty (e.g., occurrence of fire). Therefore, while the regional economic impacts of these conservation measures were not evaluated in this section, they would not only play a critical and complementary role in helping meet the goal of effectively protecting GRSG from a full spectrum of threats, but also support local economic activity.

The discussion and tables below summarize the range of potential social and economic impacts that may occur as a result of the subset of conservation measures that affect land or resource uses linked to readily identifiable social or economic conditions.

**Table 4-82**, Economic Impacts Relative to Alternative A, provides a summary of potential economic effects of management alternatives in the study area. Alternative A represents impacts associated with current management.

**Table 4-81**  
**Economic Impacts Relative to Alternative A**

	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
GRAZING	Potential operational costs and/or reduced efficiencies	-1,420 jobs (0.54% of 2010 baseline) and -\$50.1 million in earnings (0.29% of 2010 baseline)	Potential operational costs and/or reduced efficiencies	Potential operational costs and/or reduced efficiencies	-310 jobs (0.12% of 2010 baseline) and -\$10.8 million in earnings (0.06% of 2010 baseline)	Potential operational costs and/or reduced efficiencies
Oil and Gas	50% reduction in employment and earnings from production of federal minerals in GRSG habitat	50% reduction in employment and earnings from production of federal minerals in GRSG habitat	No reduction in employment and earnings relative to Alternative A	Reduction in employment and earnings relative to Alternative A less than under Alternatives B, C, F or Proposed Plan	50% reduction in employment and earnings from production of federal minerals in GRSG habitat	50% reduction in employment and earnings from production of federal minerals in GRSG habitat
Phosphate	Reduced employment and earnings from phosphate mining in the Paris Hills KPLA	Reduced employment and earnings from phosphate mining in the Paris Hills KPLA	No impact on KPLAs	No impact on KPLAs	Reduced employment and earnings from phosphate mining in the Paris Hills KPLA	No impact on KPLAs

**Table 4-81  
Economic Impacts Relative to Alternative A**

	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>	<b>Alternative F</b>	<b>Proposed Plan</b>
Locatable Minerals	Withdrawal recommendation in PHMA could limit future potential employment and earnings	Withdrawal recommendation in PHMA would have the greatest potential impact on employment and earnings	No impact relative to Alternative A	No impact relative to Alternative A	Same as Alternative B	Withdrawal recommendation in SFA would have less potential impacts than Alternatives B, C and F, more than A, D and E
Geothermal	Reduction employment and earnings from geothermal development in GRSG habitat on BLM and FS managed lands	Most reduction in employment and earnings from geothermal development in GRSG habitat on BLM and FS managed lands	No reduction	Less reduction in employment and earnings from geothermal development when compared to Alternatives B and F	Reduction in employment and earnings from geothermal development in GRSG habitat on BLM and FS managed lands	Less reduction in employment and earnings from geothermal development when compared to Alternatives B and F
Wind	May prevent employment and earnings from wind energy development in GRSG habitat on BLM and FS managed lands	May prevent employment and earnings from wind energy development in GRSG habitat on BLM and FS managed lands	May prevent employment and earnings from wind energy development in GRSG habitat on BLM and FS managed lands	Potential reduction in employment and earnings from wind energy development relative to Alternative A	No impact relative to Alternative A	May prevent employment and earnings from wind energy development in GRSG habitat on BLM and FS managed lands
Lands and Realty and Travel Management	Most potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands	Most potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands	Less potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands	Least potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands	Most potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands	Least potential for reduced employment and earnings from ROW investments and increased costs from travel management restrictions on GRSG habitat on BLM and Forest Service managed lands

Source: Impacts for grazing calculated using the IMPLAN model, as explained in the text and in **Appendix AA**, Economic Impact Analysis Methodology. Grazing values are the mid-point between the low and high impact scenarios. Percent of 2010 baseline is calculated from value of impacts and baseline information provided in **Section 3.22**, Social and Economic Conditions (Including Environmental Justice). Earnings values are in millions of year 2010 dollars.



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Impacts associated with grazing would occur throughout the study area, with concentrations in Cassia, Gooding, Jerome, Lincoln, and Owyhee Counties in Idaho. Impacts associated with reduced oil and gas development would likely be mostly felt in Bear Lake County (ID), Beaverhead County (MT), and surrounding areas. Impacts associated with phosphate would be felt mostly in Bear Lake County. Impacts associated with geothermal development would most likely be felt in the counties of Cassia and Washington and surrounding areas. Employment associated with the Bell Rapids wind project would most likely be in Elmore and Gooding Counties, based on the location of that project. Impacts associated with lands and realty and travel management would like be dispersed throughout the study area.

Other impacts not discussed in **Table 4-82** include potential impacts on salable minerals (dispersed throughout the study area), locatable minerals (potentially around counties such as Caribou and Cassia), and state and local tax revenues (largely tied to economic output and earnings, affected as described above).

The BLM and Forest Service do not expect changes in employment in the study area under any of the alternatives to be sufficiently large to induce perceptible changes in population in any particular county. Similarly, no increased demand for housing or public services would be expected that could not be accommodated by current trends.

Communities with strong interest groups revolving around conservation and primitive recreational activities could experience benefits from Alternatives B, C, D, E, F, and the Proposed Plan. Communities with strong interest groups focused on livestock grazing would likely experience the most adverse impacts from Alternatives C and F.

**Table 4-83**, Social Impacts Relative to Alternative A, summarizes the social impacts of the management alternatives.

**Table 4-82**  
**Social Impacts Relative to Alternative A**

	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>	<b>Alternative F</b>	<b>Proposed Plan</b>
Population growth; demand for housing and public services	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Consistency with county LUPs	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact

**Table 4-82**  
**Social Impacts Relative to Alternative A**

	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Proposed Plan
Impacts on interest groups and communities of place	Between E and F	Most benefits to conservation groups; adverse impacts on grazing interests	Similar to B	Most benefits to grazing interests after Alternative A, similar to the Proposed Plan	Some benefits to conservation groups; adverse impacts on grazing interests	Similar to B

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Non-market benefits from the management alternatives would be derived from the ability of the full spectrum of conservation measures to conserve, enhance, and/or restore GRSG habitat by reducing, eliminating, or minimizing threats to GRSG habitat. Furthermore, as discussed, alternatives also specify different types and levels of mechanisms, such as disturbance caps, adaptive management protocols, and desired conditions or objectives, to guide when and where conservation measures, design features, and treatments are implemented and that will have an important influence on the overall effectiveness and efficiency of the alternatives. The magnitude of benefits associated with stabilizing or improving GRSG populations or habitat has not been monetized or quantified due to the absence of specific data on the values of non-market benefits of GRSG and uncertainty about quantifying projected responses of GRSG habitat and populations to conservation measures.

A qualitative evaluation of the benefits from potential changes in GRSG populations and habitat resulting from the subset of conservation measures addressing land and resource uses and extraction, as evaluated in this section, indicates alternatives have the following capability to protect or improve benefits from GRSG:

- Alternative A has the lowest capability.
- Alternative B has greater capability than A, but lower capability than Alternative F.
- Alternative C has the greatest capability.
- Alternative D has greater capability than Alternatives A, B or E but less Alternatives C or F.
- Alternative E has the second lowest capability after Alternative A.
- Alternative F has second greatest capability after Alternative C.
- The Proposed Plan has greater capability than Alternatives A, B, D and E but less than Alternatives F and C.

1  
2 In addition to the conservation measures directly associated with social or economic impacts  
3 considered in this section, there are other conservation measures that address other threats  
4 (e.g., fire, non-native plants, encroachment) that also contribute to GRSG and GRSG habitat  
5 protection and corresponding benefits that are not addressed here. As a consequence, for a  
6 complete description of potential improvements in GRSG habitat protection resulting from  
7 the full spectrum of conservation measures under each alternative, the reader is referred to  
8 the effects summary tables provided in Chapter 2. Social and economic impacts cannot be  
9 considered in isolation or exclusive of other impact indicators discussed in this EIS.

#### 10 **4.15.5 Environmental Justice Impacts**

11 The BLM and Forest Service considered information on the presence of minority and low-  
12 income populations (from **Chapter 3**) along with additional information, described in this  
13 section, to assess the potential for the alternatives to result in disproportionately high and  
14 adverse impacts on minority or low-income populations. Although conservation measures  
15 would be implemented consistently across all identified habitat, with no discrimination over  
16 particular populations, environmental justice guidance requires agencies to consider also  
17 whether their actions could unintentionally result in disproportionately high and adverse  
18 effects.

19 To help guide the analysis of potential environmental justice impacts, the BLM and Forest  
20 Service considered the information gathered in the Economic Strategies Workshop that was  
21 conducted in June 2012. That workshop was convened to identify public concerns related to  
22 potential social, economic, and environmental justice impacts that could result from the  
23 management alternatives. The BLM and Forest Service also reviewed the scoping report for  
24 the present EIS to identify any comments related to environmental justice issues. None of  
25 the public comments received during that workshop or presented in the scoping report  
26 called out a specific concern related to minority populations (BLM and Forest Service 2012;  
27 BLM 2013d).

##### 28 ***Potential Impacts on Minority Populations***

29 As discussed in **Chapter 3**, CEQ guidance identifies a community or a specific population  
30 group as a minority population when either: (1) minorities in the affected area exceed 50  
31 percent of the total population; or (2) the percentage of minorities in the affected area is  
32 meaningfully greater than the percentage in the general population or appropriate unit of  
33 geographical analysis. Based on the description of minority presence in the study area in  
34 **Chapter 3**, several counties have minority presence considerably above that of the state as a  
35 whole, including Clark County, Idaho, whose minority population is 42.9 percent of its total  
36 population; Minidoka County, Idaho (34.6 percent); and Power County, Idaho (34 percent).  
37 In total, 14 counties of the study area in Idaho (and neither of the counties in Montana) have  
38 a higher percentage of minority presence than the state as a whole. For the purposes of this  
39 LUPA/EIS, all 14 counties were considered minority populations. These counties are:  
40 Bingham, Blaine, Cassia, Clark, Elmore, Gooding, Jerome, Lincoln, Minidoka, Owyhee,  
41 Payette, Power, Twin Falls, and Washington Counties.

1 The extent to which existing minority populations are disproportionately impacted by high  
2 and adverse human health or environmental effects depends on the existence of high and  
3 adverse human health or environmental effects from management alternatives on any of the  
4 resources analyzed, and whether minority populations are particularly vulnerable to these  
5 impacts or more likely to be exposed to such impacts. Adverse impacts of alternatives were  
6 identified under the various resources analyzed and are described in their respective sections  
7 of **Chapter 4**. None of the alternatives could be considered to have a high and adverse  
8 impact on the study area as a whole.

9 The BLM and Forest Service considered the possibility that adverse impacts could be  
10 concentrated in few counties in the study area and could then constitute a high and adverse  
11 impact in those counties. As previously noted, losses of employment and earnings related to  
12 grazing would be particularly important for Cassia, Gooding, Jerome, Lincoln, and Owyhee  
13 Counties, where over 20 percent of earnings are attributable to livestock farming. For the  
14 purposes of this LUPA/EIS, each of these counties is considered a minority population. If  
15 grazing impacts, particularly under Alternative C, were high and adverse in these counties,  
16 Alternative C would disproportionately impact minority populations. Employment impacted  
17 through grazing under Alternative C was estimated in 1,420 jobs. This represents about 3.6  
18 percent of the total employment in these five counties. However, based on the intersection  
19 of GRSG habitat and the study area, grazing impacts would not likely be concentrated in  
20 these five counties alone and no disproportionately high and adverse impacts on these  
21 minority populations would occur.

22 One issue of potential concern relates to interests of Native American tribes. The planning  
23 area is within the traditional and/or historical use area of several tribes, see **Section 3.18**,  
24 Tribal Interests. Members of these tribes hunt on federal lands outside of the boundaries of  
25 their reservations. Although hunting would be impacted in certain areas under some  
26 management alternatives, the proposed management actions would not affect the overall  
27 tribes' ability to hunt in the study area and no disproportionately high and adverse impact  
28 would be expected.

29 Based on available information about the nature and geographic incidence of impacts,  
30 neither specific minority populations nor tribal populations would be expected to be  
31 exposed to disproportionately high and adverse impacts under any of the management  
32 alternatives considered.

### 33 ***Potential Impacts on Low-Income Populations***

34 About half (15 of 29) of the counties in the study area have a concentration of low-income  
35 populations that exceeds the state average, as discussed in **Chapter 3**. These are: Bear Lake,  
36 Bingham, Butte, Camas, Cassia, Custer, Gem, Gooding, Jerome, Lemhi, Lincoln, Madison,  
37 Owyhee and Payette counties in Idaho, and Beaverhead in Montana. For the purpose of this  
38 LUPA/EIS, all these counties were considered low-income populations. It is also possible  
39 that there are smaller communities in the remaining counties that constitute low-income  
40 populations, given the large geographic spread of each county.

1 The extent to which low-income populations are disproportionately impacted by high and  
2 adverse human health or environmental effects depends on the existence of high and  
3 adverse human health or environmental effects from management alternatives on any of the  
4 resources analyzed, and whether low-income populations are specifically vulnerable to these  
5 impacts or more likely to be exposed to such impacts.

6 Similar to the analysis for minority populations, the BLM and Forest Service reviewed the  
7 impacts of alternatives described in the respective sections of **Chapter 4**. None of the  
8 alternatives could be considered to have a high and adverse impact on the study area as a  
9 whole. The BLM and Forest Service also considered the possibility that adverse impacts  
10 could be concentrated in few counties in the study area and could then constitute a high and  
11 adverse impact in those counties. As previously explained, the BLM and Forest Service  
12 found no evidence that impacts would be sufficiently concentrated in a few counties to  
13 constitute high and adverse impacts. Based on available evidence, there would be no  
14 disproportionately high and adverse impacts on low income populations in the study area.

15 **Table 4-84** provides a summary of the findings of this analysis with respect to  
16 disproportionately high and adverse effects of the alternatives.

**Table 4-84**  
**Environmental Justice Impacts**

	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>	<b>Alternative F</b>
Disproportionately high and adverse impacts on minority populations	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Disproportionately high and adverse impacts on low-income populations	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact

17  
18 **4.16 The Relationship Between Short-Term Uses of the Human Environment and**  
19 **Maintenance and Enhancement of Long-Term Productivity**

20 This section compares the potential temporary effects of the alternatives analyzed in this  
21 LUPA/EIS on the environment with the potential effects on its long-term productivity. The  
22 BLM and Forest Service must consider the degree to which the action alternatives would  
23 sacrifice a resource value that might benefit the environment in the long term for some  
24 temporary value to the proponent or the public.

25 Implementation of the action alternatives would restrict the use of the environment for  
26 mineral extraction, energy projects, livestock grazing, recreation, and lands and realty  
27 authorizations. These restrictions would protect soils, vegetation, water quality and supplies,  
28 air quality, and visual resources. These measures would also maintain the storage of any such

1 mineral or energy resources for potential future use beyond the timeframe of the restrictions  
2 outlined in the action alternatives.

3 For as long as the LUPA is valid, regional economies could experience decreased economic  
4 activity from these restrictions. This is because there would be decreases in income-  
5 generating livestock grazing and fewer employment opportunities related to construction  
6 and energy extraction. However, such economic activity could be restored to these lands  
7 through future changes in their management, with a subsequent NEPA analysis.

8 Implementation of the Alternative A would require fewer resource protections and would  
9 allow for greater productivity of the lands.

#### 10 **4.17 Irreversible and Irrecoverable Commitment of Resources**

11 NEPA Section 102(2)(C) and Section 1502.16 of the CEQ NEPA implementing regulations  
12 require that the discussion of environmental consequences include a description of "...any  
13 irreversible or irretrievable commitment of resources which would be involved in the  
14 proposal should it be implemented."

15 An irreversible commitment of a resource is one that cannot be reversed or cannot be  
16 renewed within a reasonable timeframe. Extinction of a species or disturbance to cultural  
17 resources would constitute irreversible impacts, as would extraction of sand, gravel, or oil or  
18 gas because these minerals cannot be renewed in the ground within a reasonable timeframe.

19 An irretrievable commitment of a resource occurs when the resource or its use is lost for a  
20 period. For example, a decision not to treat juniper encroachment into adjacent sagebrush  
21 habitat results in the irretrievable loss of forage production from the grassland community.  
22 This action is not irreversible because a treatment applied to the encroaching juniper could  
23 restore the forage production of the sagebrush habitat.

24 The decision to select one of the seven alternatives described in this Proposed LUPA/FEIS  
25 does not constitute an irreversible or irretrievable commitment of resources because the  
26 decision does not authorize implementation-level activities. Instead, decisions made under  
27 the selected alternative serve to guide future actions and subsequent site-specific decisions.  
28 Following the signing of the ROD for the LUPA, the BLM and Forest Service will develop  
29 and implement implementation plans (activity- or project-specific). Implementation  
30 decisions require appropriate project-specific planning and NEPA analysis and constitute  
31 BLM and Forest Service final approval authorizing on-the-ground activities to proceed.  
32 Overall, the action alternatives analyzed in this EIS are protective of resources over existing  
33 conditions and would not subject any of them to irreversible or irretrievable commitments.

#### 34 **4.18 Unavoidable Adverse Impacts**

35 NEPA Section 102(C) also mandates disclosure of "any adverse environmental effects which  
36 cannot be avoided should the proposal be implemented." These are impacts for which there  
37 are no mitigation measures or impacts that remain even after the implementation of  
38 mitigation measures.

1 Implementation of the LUPA along the theme of the action alternatives would not result in  
2 unavoidable adverse impacts on any resources. Conversely, proposed restrictions on some  
3 activities, such as OHV use, energy development, and livestock grazing intended to protect  
4 sensitive resources and resource values, would result in unavoidable adverse impacts on  
5 some users, operators, and permittees by limiting their ability to use BLM-administered and  
6 National Forest System lands and potentially increasing their operating costs.

7

Administrative Draft  
Cooperating Agency Review



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Administrative Draft  
Cooperating Agency Review



**Issue: High-voltage Transmission and Major Pipeline ROWs and Corridors****Direction:**

1) Apply the recommended NPT allocation guidance for PHMA and GHMA of avoidance.

2) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that are co-located), apply the following language as a management action in their ADPP:

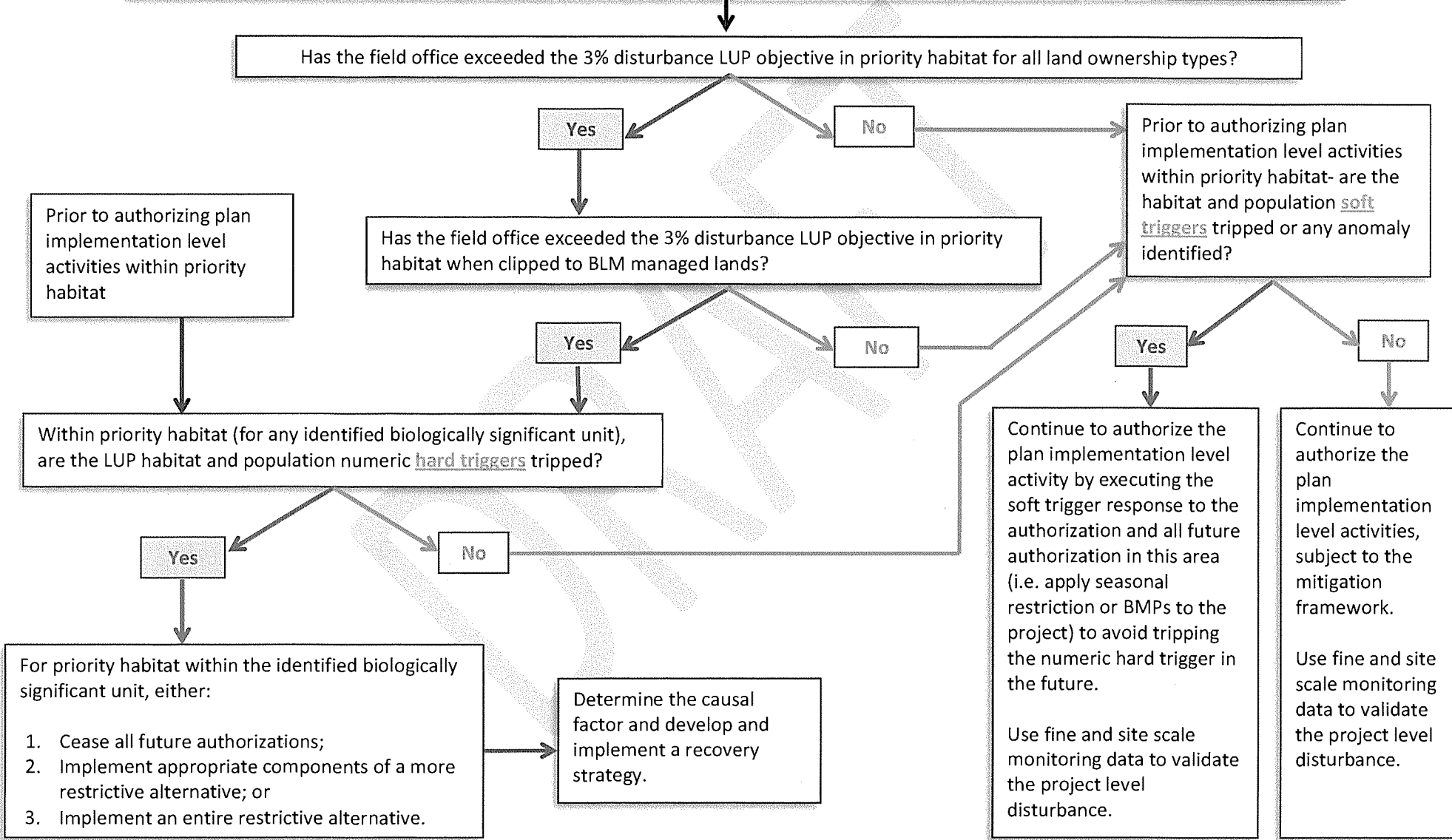
*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process.”*

**Drop In Language for Direct/Indirect Impact Analysis**

The BLM is currently processing an application for [insert name of transmission project], a high-voltage transmission line, which includes alternatives through GRSG habitat. Conservation measures for GRSG are being addressed in the planning process for [insert name of transmission project] and therefore, the [insert name of transmission project] is excepted from the conservation measures identified in this plan. Because the certainty of [insert name of transmission project] is unknown, please see the cumulative effects analysis for a detailed discussion of potential impacts from [insert name of transmission project].

### Approach to Disturbance Threshold Objectives & the Relationship with Adaptive Management Triggers

Annually Report: 1. Disturbance in the PACs for each population (all lands); 2. Disturbance in the PACs for each population (clipped to BLM/FS lands); and 3. Disturbance in the PACs for each population (within the Field Office boundaries, clipped to BLM/FS lands)



## Brent Ralston

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**From:** Peter Gower  
**Sent:** Tuesday, September 30, 2014 11:35 AM  
**To:** ncooper@blm.gov  
**Cc:** 'bralston@blm.gov' (bralston@blm.gov); Meredith Zaccherio; mdillon@fs.fed.us  
**Subject:** Sage Grouse FEIS - Updated Impact Analysis Section for Lands and Realty  
**Attachments:** IDMT\_SG-FEIS\_CH4\_lands and realty\_20140929.docx

Hi Natalie,

I hope all is well with you!

As we inch closer to having a Final EIS for Sage Grouse, I am attaching for your review an updated impacts analysis section for lands and realty (Alternative G only). This revised section incorporates the input from the lands and realty ID team members, including the Forest Service as well as minor changes based on the updated proposed plan.

Please feel free to contact me anytime if you have questions or would like to discuss.

Thanks!

Peter

**Peter Gower, AICP CEP**

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**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 LANDS AND REALTY

#### 4.1.1 Methods and Assumptions

##### *Indicators*

Indicators of impacts on lands and realty are as follows:

- Acres of BLM-administered and National Forest System surface ownership, which include federal surface with private minerals, in the planning area.
- Acres of BLM-administered and National Forest System surface ownership affected by ROW and Special Use Authorization (SUA) allocations (i.e., exclusion, avoidance, open).
- Acres of BLM-administered and National Forest System surface ownership affected by ROW and SUA restrictions (e.g., BMPs, RDFs, seasonal restrictions, buffers).
- Acres/miles of designated ROW corridors open to ROW and SUA development in the planning area.
- Number, acres, type, and density of surface-disturbing ROWs, SUAs, and leases in the planning area.
- Acres of land tenure adjustments (i.e., lands identified as suitable for disposal, acquisition, or exchange) in the planning area.

##### *Assumptions*

The analysis includes the following assumptions:

- Authorized ROWs, SUAs, permits and leases would continue to be managed subject to valid existing rights.
- Mitigation by burying power lines, collocation, or including design features (e.g., perch deterrents) reduces impacts on GRSG.

- The demand for both energy- and non-energy ROWs/SUAs is anticipated to remain steady or gradually increase over time.
- No utility-scale (20 MW) solar energy ROWs/SUAs are anticipated due to low solar energy potential.
- Activities proposed or approved for mineral exploration or development have potential implications for lands and realty decisions for associated ROWs/SUAs.
- Collocation does not eliminate the potential for new temporary or permanent surface disturbance.
- The BLM and Forest Service would continue to manage all previously withdrawn lands as withdrawn from entry, appropriation, or disposal under the public land laws. Withdrawals would be reviewed as needed and recommended for extensions, modifications, revocations, or terminations. All existing withdrawals initiated by other agencies would be continued unless the initiating agency, BLM, or the Forest Service requests that the withdrawal be extended, modified, revoked, or terminated.
- Any lands that become unencumbered by withdrawals or classifications will be managed according to the decisions made in this LUPA. If the LUPA has not identified management prescriptions for these lands, they will be managed the same as adjacent or comparable public lands within the decision area.
- Designated utility corridors have a higher probability for development because of their designation in existing land use plans.
- Upgrades to existing power lines will occur within existing designated corridors, unless an alternate route benefits GRSG.

#### 4.1.2 Nature and Type of Effects

BLM and Forest Service management of resources and uses affects the lands and realty program by increasing or decreasing the BLM and Forest Service lands and realty programs' ability to carry out land use authorization or land tenure/land ownership adjustment actions. Effects on the lands and realty program are typically the result of management that excludes or avoids ROWs or SUA in certain areas, requires stipulations on land use activities, or applies criteria for land tenure actions.

Forest Service land use plan prescriptions are similar to BLM exclusion and avoidance areas. Prescriptions can restrict or prohibit certain uses in a planning area. The Forest Service grants SUAs (granting ROWs, permits, easements, and leases), while the BLM grants ROWs on their respective agency lands. The Forest Service completes landownership adjustments (purchase, exchange, donation, and ROW acquisition), while the BLM conducts land tenure adjustments (withdrawals, disposals, and acquisitions)

Within a ROW exclusion area, the authorization of new ROWs is not allowed under any conditions. The Forest Service screening process for SUAs would reject applications in exclusion areas. A ROW avoidance area may be available for ROW location but requires special stipulations such as resource surveys and reports, construction and reclamation engineering, long-term monitoring, special design features, special siting requirements, timing limitations, regional mitigation, and rerouting. Such stipulations could restrict project location or delay the availability of an energy supply by delaying or restricting construction of pipelines, transmission lines, or renewable energy projects. Additionally, such stipulations could limit future access, delay or increase the cost of energy supplies, or delay or restrict communications service availability. As a result of such stipulations, alternative routes may need to be identified and selected to protect GRS habitat and there may be increased processing time and costs due to the potential need to relocate facilities or due to greater design, mitigation, and siting requirements.

Management that restricts ROW development in a certain area will eventually increase the concentration of ROW development in adjacent areas where restrictions are not present. Increased ROW density can limit new siting options in non-restricted areas, decrease service reliability to rural areas, increase conflict among facilities, and intensify impacts on other resources and uses.

Collocating infrastructure in existing ROWs, corridors, or existing disturbed areas reduces land-use conflicts and limits disturbance to the smallest footprint, and limits impacts to greater sage-grouse or their habitats. Collocation policies also clarify the preferred locations for utilities, simplifying processing on BLM-administered and National Forest System lands, and minimize the need for system-wide redundancy, particularly for electrical transmission line networks. However, collocating can limit options for infrastructure development and could reduce network redundancy and potentially affect service reliability in some areas.

Land tenure and landownership adjustments are intended, among other things, to maintain or improve the landownership pattern for the protection and management of resources, including management of GRS habitat. Land disposal, exchange, purchase, or sale can result in a more contiguous decision area, thus increasing the efficiency of BLM and Forest Service management.

Implementing management for the following resources would have negligible or no impact on lands and realty management and are not discussed in detail: travel and transportation management, recreation, range management, locatable minerals, non-energy leaseables, mineral split estate, fire and fuels management, habitat restoration and vegetation management, and ACECs.

#### **4.1.3 Alternative G**

There are no impacts common to all alternatives.



### **Impacts from Lands and Realty Management**

#### *Land Use Authorizations*

Unless a new ROW/SUA is proposed within an existing designated corridor (see figure xx), the BLM and Forest Service would avoid new ROW/SUA development on 4,618,800 acres in CMZs (89 percent of CMZs) and 2,977,400 acres (95 percent) in important habitat areas. Within CMZs and important habitat areas, there are a total of 54,900 acres of designated corridors. Any new development proposed outside corridors would be subject to RDFs and avoidance criteria (e.g. buffers, disturbance mitigation, and seasonal timing restrictions). The avoidance criteria and RDFs have the potential to increase project costs and could result in a greater proportion of new development occurring outside CMZs and important habitat areas. Concentrating new development in a smaller portion of the planning area could lead to higher density of ROW/SUA development in general and non-habitat areas with impacts consistent with those described in the Nature and Types of Effects.

Although existing designated corridors would be considered first for new ROW development in GRSG habitat areas, because corridors are typically located adjacent to existing infrastructure, power companies are reluctant to locate new infrastructure in those areas given redundancy concerns. New ROW development would be likely in corridors where those corridors provide a cost effective, direct route to demand centers that also avoid conflicts with populated areas. If an area outside GRSG core and important habitat areas provides this option, then a developer would likely pursue that route instead of placing within a corridor within core and important GRSG habitat.

In general habitat areas, 1,676,500 acres would be open for proposals for new ROW/SUA development, while 687,300 acres would be managed as avoidance areas. RDFs for new ROW/SUAs in general habitat could further deter development in those areas resulting in a greater likelihood for development in non-habitat areas. The decline in new ROW and SUA development applications in general habitat would be less than in CMZs and important habitat areas.

The overall proposed increase in ROW restrictions under Alternative G would affect the BLM and Forest Service's ability to accommodate the demand for new linear energy-related ROW development. Compared to Alternative A, energy suppliers Alternative G would have limited options to place new transmission lines without costly route adjustments or design modifications. These requirements may reduce region-wide per capita power availability and energy costs.

#### *Wind and Solar*

BLM and Forest Service management of CMZs as ROW/SUA exclusion areas for wind and solar would prevent the development of new utility-scale wind and solar energy generation facilities on 5,197,500 acres of GRSG habitat. Due to low solar energy potential in the planning area, there would be negligible to no

impacts on solar energy development. Because wind resources in the planning area are sufficient to support utility-scale wind energy development, excluding wind energy ROW/SUAs would prevent the BLM and Forest Service from accommodating future demand. Projects currently proposed would not be authorized. Excluding wind energy development in core and important habitat would distribute new development to general and non-habitat areas. Demand for new transmission lines, access roads, and related ancillary features to serve new wind generation projects on non-habitat or private lands could result in new ROW/SUA applications in core and important habitat. Where transmission lines, access roads, and related ancillary features would cross core and important habitat, management of those areas as ROW/SUA avoidance areas could deter or prevent wind energy development on non-habitat or private lands.

Management of CMZs as exclusion areas for hydropower development would result in localized impacts where development potential exists.

Excluding nuclear energy development in CMZs would prevent any future nuclear energy development in those areas (5,197,500 acres). However, because the demand for nuclear energy in Idaho is historically very low or non-existent in most areas, there would be no impacts from excluding such development in core and important habitat areas.

Although general habitat areas would be open for proposals for new wind, nuclear, or hydropower development, RDFs and avoidance criteria (e.g. buffers, disturbance mitigation, and seasonal timing restrictions) could affect wind development by limiting the number of turbines per project and the ability to access generation sites. Where wind development on private land or non-habitat requires new access roads, RDFs for roadways, including requirements to use existing roads, could limit access and subsequent energy development opportunities on private land or non-habitat areas.

#### *Other Land Use Authorizations*

Excluding landfills and commercial service airports in CMZs would shift any new development and associated disturbance to important, general, or non-habitat areas. However, because there is little to no demand for these uses within CMZs managing CMZs as exclusion for these uses is not anticipated to affect the BLM lands and realty program or hinder future refuse disposal or air services opportunities in the planning area. Landfill areas, even if transferred to non-federal ownership, would be considered a disturbance.

In all GRSG habitat areas, restrictions on temporary (less than 3 years) authorizations (e.g., apiaries and filming) would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss. Seasonal or timing restrictions on temporary uses could prevent those uses during certain times of year (e.g., lekking season) and could prevent the BLM and the Forest Service from accommodating demand for those uses.

Impacts from management of water development ROW/SUAs would be minimal. Seasonal timing restrictions may temporarily limit the use of some water developments.

#### *Land Tenure*

Land tenure actions in CMZs and important habitat areas that create a more contiguous decision area would also increase land management efficiency, as described in the **Nature and Types of Effects**. Land exchanges or disposal to remove low-quality habitat from BLM-administered land and National Forest System land would also increase efficiency where those lands are isolated and difficult to manage.

#### ***Impacts from Salable Minerals Management***

Closing CMZs to new salable mineral authorizations would decrease the need for new ROWs/SUAs to serve those uses. It also would require source material for maintenance of existing gravel road ROWS to be obtained from existing sites in core, important, or existing or expanded sites in general habitat or non-habitat. If the amount of source material is insufficient to properly maintain the road, access via those roadways to valid existing ROW/SUAs (e.g., transmission lines) and leases (e.g., communication sites) could be impacted. Requiring existing sites to be subject to RDFs and avoidance criteria (e.g. buffers, disturbance mitigation, and seasonal timing restrictions) could impact the ability of the sites to remain open and the availability of source material.

#### ***Impacts from Leased Fluid Minerals Management***

Restrictions on surface occupancy for new fluid mineral development in CMZs and important habitat areas could decrease the potential for new fluid mineral development in those areas and subsequently the demand for associated ROWs/SUAs to serve those uses. Surface-disturbing activities could be shifted, additional protective measures could be required, and extraction delays could occur.

#### ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Mitigation***

Limits on anthropogenic disturbance in biologically significant unit (BSU) within CMZs and important habitat areas where a disturbance threshold objective has been exceeded or an adaptive management trigger has been tripped would decrease the potential for new ROW/SUAs in those areas. The requirement to provide compensatory mitigation projects to offset the residual impacts of infrastructure development in BSUs within core and important habitat could prevent new development where infrastructure could not be co-located or relocated outside core or important areas. If infrastructure authorized by land use authorizations is determined as a causal factor in the decline of GRSG populations in a BSU, incorporation of adaptive management could result in additional restrictions on ROW/SUA authorizations in that BSU, including

exclusion of future ROWs/SUAs until a positive GRSG trend is observed over a 3-year period.

**Acronyms**

BSU – biologically significant unit

RDF – required design feature

ROW – right-of-way

SUA – special use authorization

## Brent Ralston

---

**From:** Peter Gower  
**Sent:** Tuesday, September 30, 2014 12:19 PM  
**To:** rfehlau@blm.gov  
**Cc:** 'bralston@blm.gov' (bralston@blm.gov); Meredith Zaccherio  
**Subject:** Sage Grouse FEIS - Updated Impacts Analysis for Travel Management  
**Attachments:** IDMT\_SG-FEIS\_CH4\_CTTM\_20140929.docx

Hi Robin,

Based on the travel management ID team's work over the summer and more recent updates to the proposed plan, I am attaching for your review an updated impacts analysis section for travel management (Alternative G only). This revised section incorporates the input provided by the travel management ID team members during our webinars and subsequent team review/comment period. The GIS calculations are also up-to-date.

If you have questions or would like to discuss, please feel free to contact me.

Thanks!

Peter

**Peter Gower, AICP CEP**

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**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT

#### 4.1.1 Methods and Assumptions

##### Indicators

Indicators of impacts on Greater Sage-Grouse are as follows:

- The acreages designated as open, limited, or closed to motorized travel
- The types and timing of transportation activities occurring on routes that could impact GRSG or its habitat

##### Assumptions

The analysis includes the following assumptions:

- The BLM recognizes roads, primitive roads, and trails as the three types of linear features that comprise the existing transportation system. These features are formally recognized based on an inventory of the planning area. Some routes may be designated for specific uses in a travel management plan. Other linear features used for transportation but not formally recognized are considered linear disturbances. These features are not part of the BLM transportation system (BLM 2006).
- Because roads accommodate year round passenger vehicles and volume of traffic is highest, roads by comparison translate into the greatest potential for impacts on GRSG and its habitat. Primitive roads are seasonally passable in many areas and compared to roads have a lower traffic volume, lower travel speeds, and fewer impacts on GRSG. Because trails are seasonally passible, have the lowest traffic volume and are typically only used by foot travelers, mountain cyclists, equestrians, and OHVs, impacts on GRSG are the fewest of the three feature types.

Commented [PG1]: Ensure these terms are defined in the glossary:

**Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

**Primitive Road:** A linear route managed for use by four-wheel drive or high clearance vehicles. Primitive roads do not normally meet any BLM road design standards.

**Trail:** A linear route managed for human-powered, stock, or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Commented [PG2]: IDT suggested moving this to the GRSG section



- Some primitive roads and trails in the northern portion of the planning area and higher elevations may not be used during GRSG lekking and wintering seasons because they are not passable, while those in the southern part of planning area and in lower elevation areas may receive higher use.
- The demand for general access to travel routes on BLM-administered and Forest Service-administered lands would remain steady or increase over the life of the LUPs.
- The BLM and Forest Service acknowledge that snow machines and mechanized access in the snow is expanding, but generally occurs in higher elevations areas where there is consistent snow pack and less GRSG habitat.
- Administration of updated agency travel management policy, rules, and planning and design guidelines is improving public land travel systems, making them more sustainable while decreasing potential impacts on resources.
- OHV use will continue to increase and with this increase the potential for resource and user conflict may increase.
- The designation of individual routes is an implementation level process and is not part of this planning process.
- Travel systems are dynamic and will be changed through subsequent implementation-level planning.
- Implementation of a travel management plan would include increased public education, signing, enforcement, and resource monitoring in regard to travel management.

**4.1.2 Nature and Type of Effects**

Impacts on travel and transportation management are those that restrict or enhance travel, such as managing areas as closed or limited to off highway motorized travel or restrict where new routes can be created and existing ones expanded.

Table 4-Table 4-xx, OHV Area Designations by Alternative, summarizes motorized travel designation by alternative.

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**Table 4-xx  
OHV Area Designations by Alternative**

		Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G
BLM	Open	2,873,600	670,600	0	0	2,882,800	249,700	3,400
	Limited to existing routes	5,558,100	7,719,000	8,389,600	8,389,600	5,542,200	8,627,200	8,550,200
	Closed	885,100	879,900	879,900	905,700	881,700	892,800	893,000
Forest Service	Limited to designated routes	2,040,700	1,861,700	1,861,700	2,039,400	1,867,000	1,861,800	1,576,900

Source: **BLM 2013a; Forest Service 2013a**

Management actions that prohibit cross-country motorized travel would minimize the creation of new transportation linear disturbances, enabling BLM and Forest Service travel management actions to manage and improve access on linear features in the transportation system.

Restrictions on new route construction or expansion of existing routes would direct users elsewhere in the transportation network, potentially impacting those areas from the added activity. Additionally, management actions that restrict future route construction, including adaptive management strategies that prohibit future disturbance upon reaching a disturbance cap, would limit the ability of the transportation system to accommodate increased travel demands over time. Conflicts among route users could increase if the existing network becomes congested.

Implementing management for all other resources and uses would have negligible or no impact on comprehensive travel and transportation management; therefore they are not discussed in detail.

#### 4.1.3 Proposed Plan

Under all alternatives the BLM would defer travel management planning (i.e. route designations) to a separate process following the current LUPA process. As such, for each alternative, the BLM would maintain current management of areas closed to cross-country motorized travel and would manage varying acreages as limited to existing routes. The Forest Service has already undertaken a route designation process. As a result, motorized travel is limited to designated routes on National Forest System lands under all alternatives. ~~Table 4-Table 4-xx~~, OHV Area Designations by Alternative, summarizes the total areas open, limited, and closed to cross-country motorized travel by alternative.

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#### **Impacts from Travel and Transportation Management**

Impacts from limiting motorized travel to existing routes on 99 percent (10,127,100 acres) of the planning area would be consistent with those described in the **Nature and Types of Effects**.

During subsequent travel management planning, the designation of individual routes would allow BLM to manage the types of travel on individual routes to avoid impacts on GRSG and its habitat. Restricting motorized travel on roads and primitive roads in lower elevations of the planning area would result in greater effects on travel opportunities because these routes are passable year-round and have higher traffic volumes.

Seasonal restrictions to minimize impacts on GRSG and its habitat would prevent road maintenance and could make certain roads impassable until the required maintenance could be performed.

***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination***

If there is a future decline in GRSG or its habitat and the decline is attributable to travel management, the BLM would evaluate management alternatives that could result in more restrictions on travel and decrease travel opportunities.

Where re-routing new roads is required to avoid GRSG impacts (habitat and/or disturbance), those actions could result in longer roads with overall greater surface disturbance.

If the 3% disturbance cap within a BSU is hit, new surface disturbance within the BSU would be prohibited, thus preventing new road development. In these areas, the BLM and Forest Service would be unable to accommodate additional travel demand until the disturbance falls below the disturbance cap.

**Acronyms**

BSU – biologically significant unit

**References**

BLM. 2006. Roads and Trails Terminology. Technical Note 422. Washington D.C. pp. 5-11.

**Brent Ralston**

---

**From:** Burkhardt, Glen  
**Sent:** Monday, October 06, 2014 2:10 PM  
**To:** Drew Vankat  
**Cc:** Wright, Jason S (jswright@blm.gov); sgcastro@blm.gov; Brown, William B (wbbrown@blm.gov); tmetzger@fs.fed.us; thayes@blm.gov; mreid@blm.gov; jmyslivi@blm.gov; Meredith Zaccherio; 'bralston@blm.gov' (bralston@blm.gov)  
**Subject:** Re: ID/MT GRSW Wildland Fire Impacts for Review  
**Attachments:** brtegrazingdont.pdf

Drew, as before, I have concerns about continually mentioning the targeted grazing in fuels and fire management, we should leave it as a possible "biological treatment", in the suite of treatment types. I realize the political side, but, the attached research should be headed and included in the appendix, as I am sure it will be brought to light in the future. Other than that the only comment is to change ER&R to ES&R. Thanks, Glen

On Mon, Oct 6, 2014 at 1:36 PM, Drew Vankat <[drew.vankat@empsi.com](mailto:drew.vankat@empsi.com)> wrote:

Hi Everyone,

I've attached the revised Chapter 4 Wildland Fire Management impacts section for your review. During our initial review period in early August, the only requested change was to make sure the reader could find a description of FRCC; I've added a note in the first Indicator referencing Section 3.7 where FRCC is discussed in detail. I have also made a few changes in light of revisions to the Proposed RMP. Thank you,

Drew

**Drew Vankat**  
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**From:** Drew Vankat  
**Sent:** Friday, August 1, 2014 1:52 PM  
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**Cc:** Meredith Zaccherio ([meredith.zaccherio@emp.si.com](mailto:meredith.zaccherio@emp.si.com))  
**Subject:** ID/MT GRSG Wildland Fire Impacts for Review

Hi Everyone,

I have attached the draft analysis of impacts on the Wildland Fire Management program for your review. Please let me know if you have any questions or edits. Thank you very much,

Drew

**Drew Vankat**  
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--  
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# Conditions favouring *Bromus tectorum* dominance of endangered sagebrush steppe ecosystems

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## Summary

1. Ecosystem invasibility is determined by combinations of environmental variables, invader attributes, disturbance regimes, competitive abilities of resident species and evolutionary history between residents and disturbance regimes. Understanding the relative importance of each factor is critical to limiting future invasions and restoring ecosystems.

2. We investigated factors potentially controlling *Bromus tectorum* invasions into *Artemisia tridentata* ssp. *wyomingensis* communities across 75 sites in the Great Basin. We measured soil texture, cattle grazing intensity, gaps among perennial plants and plant cover including *B. tectorum*, biological soil crusts (BSCs) and bare soil. Using *a priori* knowledge, we developed a multivariate hypothesis of the susceptibility of *Artemisia* ecosystems to *B. tectorum* invasion and used the model to assess the relative importance of the factors driving the magnitude of such invasions.

3. Model results imply that bunchgrass community structure, abundance and composition, along with BSC cover, play important roles in controlling *B. tectorum* dominance. Evidence suggests abundant bunchgrasses limit invasions by limiting the size and connectivity of gaps between vegetation, and BSCs appear to limit invasions within gaps. Results also suggest that cattle grazing reduces invasion resistance by decreasing bunchgrass abundance, shifting bunchgrass composition, and thereby increasing connectivity of gaps between perennial plants while trampling further reduces resistance by reducing BSC.

4. *Synthesis and applications.* Grazing exacerbates *Bromus tectorum* dominance in one of North America's most endangered ecosystems by adversely impacting key mechanisms mediating resistance to invasion. If the goal is to conserve and restore resistance of these systems, managers should consider maintaining or restoring: (i) high bunchgrass cover and structure characterized by spatially dispersed bunchgrasses and small gaps between them; (ii) a diverse assemblage of bunchgrass species to maximize competitive interactions with *B. tectorum* in time and space; and (iii) biological soil crusts to limit *B. tectorum* establishment. Passive restoration by reducing cumulative cattle grazing may be one of the most effective means of achieving these three goals.

**Key-words:** bare ground, biological soil crusts, cattle grazing, disturbance, diversity, invasion, plant gaps

## Introduction

Ecosystem invasibility is governed by a complex collection of biotic and abiotic factors including environmental conditions, disturbance regimes and responses of native

species to those regimes, as well as the biotic resistance provided by the resident community (Lonsdale 1999; Richardson & Pysek 2006). Biotic resistance is especially important in limiting the magnitude of invasive species after they have established (Levine, Adler & Yelenik 2004). Changes that increase resource availability are likely to increase susceptibility to invasion (Davis, Grime & Thompson 2000). Further, the introduction of an exotic herbivore with which resident species have no

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evolutionary history may exacerbate the magnitude of non-native plant invasions if it reduces the competitive abilities of native plants and increases resource availability (Parker, Burkepile & Hay 2006). Developing a predictive understanding of invasibility requires that we develop an understanding of how the various factors work together to limit invasion (Agrawal *et al.* 2007).

*Artemisia tridentata* big sagebrush ecosystems of the Intermountain West, USA, evolved with little herbivore pressure until the introduction of livestock (Mack & Thompson 1982). Within these ecosystems, lower elevation, more arid, *A. tridentata* ssp. *wyomingensis* (henceforth *Artemisia*) communities are the most common, but least resistant to invasion by exotic annual plants and least resilient to disturbance (Miller *et al.* 2011). Even in the absence of fire, these communities are especially vulnerable to invasions by *Bromus tectorum* L., and under some circumstances, *B. tectorum* can dominate the herbaceous understorey community (Miller *et al.* 2011). Previous studies have demonstrated the importance of several factors in the invasion process (soil texture, landscape orientation, competition-driven biotic resistance from native bunchgrasses and biological soil crust (BSC) communities (Table 1). Livestock grazing has been implicated in the spread and dominance of *B. tectorum* via several mechanisms (Mack & Thompson 1982; Table 1). Nonetheless, we have a poor understanding of how these factors work together and their relative importance in determining the magnitude of *B. tectorum* invasions (Miller *et al.* 2011).

Once *B. tectorum* sufficiently dominates the understorey and fills interspaces among plants, it creates a continuous, highly flammable fuel that significantly increases the risk of fire (Pyke 2011). Once a fire occurs, *B. tectorum* increases the frequency of fires. This change in fire regime

may lead to a 'catastrophic regime shifts' (Scheffer *et al.* 2009), whereby native shrub-steppe communities are transformed into annual grasslands dominated by *B. tectorum* and other invasives (Miller *et al.* 2011). For practical purposes, these shifts are irreversible because of the significant investments necessary to restore these systems (Pyke 2011).

Preventing such regime shifts will require a better understanding of the simultaneous interacting factors that determine the magnitude of *B. tectorum* invasion once it has established in pre-fire *Artemisia* communities (Miller *et al.* 2011). Managers would benefit from understanding the causal network of mechanisms by which these factors interact with each other and how they collectively influence *B. tectorum* dominance. They would also benefit from an early warning indicator that the cumulative resistance of the resident community has been compromised to the point that *B. tectorum* likely dominates the understorey and thereby potentially setting the stage for a regime shift with the next fire.

Using *a priori* knowledge, we developed a multivariate hypothesis of the invasibility of *Artemisia* ecosystems to *B. tectorum* invasion in the absence of fire based upon the findings of previous studies in this system. The model included abiotic (soil physical properties, landscape orientation), cattle grazing disturbance and biotic factors (resident community abundance, composition and structure), predicted to be important determinants of *B. tectorum* dominance (Fig. 1, Table 1). Our analyses addressed the following questions: (i) What combination of abiotic and biotic conditions limit the magnitude of *B. tectorum* dominance? (ii) Can shifts in community structure, measured by the size and connectivity of gaps between native plants, serve as an indicator of susceptibility to *B. tectorum*

**Table 1.** Components of hypothesis represented by initial metamodel (Fig. 1)

Path	Hypothesized mechanism
1	(–) Cattle herbivory decreases <i>Bromus tectorum</i> abundance (Hempy-Mayer & Pyke 2009). (+) Cattle increase abundance by dispersing seeds and increasing propagule pressure (Schiffman 1997)
2	Cattle trampling decreases biological soil crusts cover and increases safe sites for <i>B. tectorum</i> establishment (Ponzetti, McCune & Pyke 2007)
3	Cattle herbivory decreases bunchgrass abundance (Briske & Richards 1995)
4	Cattle herbivory alters bunchgrass community composition by favouring more grazing-resistant species (Briske & Richards 1995)
5	Higher heat loads and spring insolation increase <i>B. tectorum</i> abundance (Stewart & Hull 1949; Chambers <i>et al.</i> 2007)
6	Lower heat loads increase bunchgrass productivity (Davies, Bates & Miller 2007)
7	Deeper, coarser-textured soils increase <i>B. tectorum</i> abundance (Stewart & Hull 1949)
8	Changes in bunchgrass composition influence community structure because species have different life forms (Grime 1977; James <i>et al.</i> 2008)
9	Changes in bunchgrass composition influence invasibility because species have different competitive abilities (Goldberg & Barton 1992) and patterns of resource use (James <i>et al.</i> 2008)
10	Bunchgrass abundance is inversely related to the size of and connectivity between gaps in perennial vegetation (Herrick <i>et al.</i> 2005)
11	Native bunchgrass abundance decreases <i>B. tectorum</i> abundance by reducing resource availability (Chambers <i>et al.</i> 2007)
12	Safe sites increase <i>B. tectorum</i> establishment rates (Fowler 1988).
13	Sagebrush abundance may increase <i>B. tectorum</i> abundance via facilitation (Griffith 2010) or decrease abundance via competition (Reichenberger & Pyke 1990).
14	Increases in the size of and connectivity between gaps in perennial vegetation increase <i>B. tectorum</i> abundance by increasing general resource availability (James <i>et al.</i> 2008; Okin <i>et al.</i> 2009)



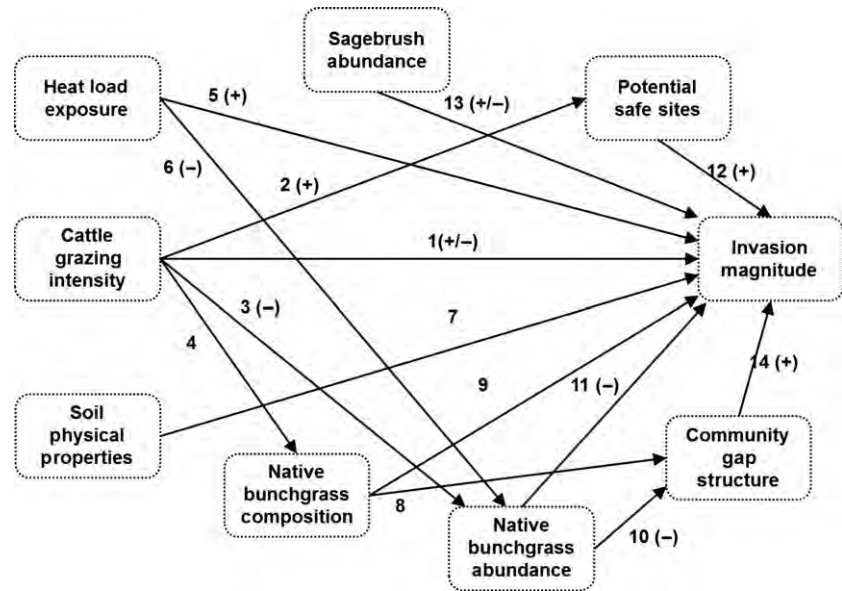


Fig. 1. Conceptual *a priori* multivariate model of *Artemisia* ecosystem susceptibility to *Bromus tectorum* dominance in the absence of fire. Dotted-line boxes represent conceptual variables hypothesized to influence invasibility. Components of the overall hypothesis are described in Table 1.

dominance and thereby vulnerability to a regime shift with the next fire?

We used structural equation modelling (SEM) to evaluate a multivariate hypothesis across 75 sites already invaded by *B. tectorum*. SEM provides a means of representing complex hypotheses about causal networks and testing for model data consistency (Grace 2006). It represents an advance over classical regression approaches (e.g. multiple regression) when used with observational data (Grace, Youngblood & Scheiner 2009). The advance provided by SEM comes partially from incorporating the associations among predictors into the overall hypothesis rather than to simply ignore or control for them. This is accomplished by extending the univariate model ( $y = a + \beta x + \epsilon$ ) to allow  $y$ s to depend on other  $y$ s and thereby represent networks of relationships in SEMs ( $y = a + \beta x + \gamma y + \epsilon$ ).

Because of this capability, SEM models can be used to specify hypotheses about mediating pathways and address questions, such as Can an association between *A* and *C* be explained by the factor *B*? This is achieved by evaluating a model such as  $A \rightarrow B \rightarrow C$  and determining whether or not  $r_{AC} = r_{AB}r_{BC}$ . By assuming (and justifying based on prior information) that if *A* were manipulated, *B* could show a response, and similarly, if *B* were manipulated, *C* could show a response, then a test of the conditional independence of *A* and *C* in our example ( $A \perp C | B$ ) could permit a result leading us to reject that possibility (*A* not independent of *C* when conditioned on *B*). SEMs thus build on causal assumptions to yield testable implications that can be evaluated with data. Estimated parameters obtained for a selected model then represent a set of predictions for further testing. The ultimate test of an SEM model is its ability to correctly predict future samples. For individual applications, the plausibility of causal assumptions (e.g. previous demonstrations that varying *A* can lead to response in *B* or known mechanisms whereby *A* can influence *B*) is often sufficient for reasonable inferences to be made.

Our results suggest that bunchgrass community structure, abundance and composition, and BSCs all play critical roles in limiting the magnitude of *B. tectorum* dominance. Cattle grazing may exacerbate the magnitude of invasion by reducing biotic resistance. Model evaluations imply that cattle grazing can reduce bunchgrass cover and shift bunchgrass community composition towards grazing-tolerant species and thereby increase the size and connectivity of gaps among perennial vegetation exacerbating invasion. Cattle trampling may also exacerbate invasion by reducing BSC cover. Ultimately, increases in the size and connectivity of gaps among native perennial vegetation may provide managers with an early warning indicator of increased susceptibility to *B. tectorum* dominance of *Artemisia* communities and thereby increased vulnerability to regime shifts in one of North America's most widespread but endangered ecosystems.

## Materials and methods

### STUDY AREA AND SAMPLING DESIGN

The study examined 75 *Artemisia* sites scattered across 4700 km<sup>2</sup> (roughly the size of state of Rhode Island) with elevations between 1265 and 1580 m across five *Artemisia*-dominated plant associations of the northern Great Basin floristic province of Oregon, USA. Natural Resource Conservation Service (NRCS) Ecological Site Descriptions and digital soil maps (<http://websoil-survey.nrcs.usda.gov>) were used to ensure coverage of spatial variation in water stress driven by soil texture. Plant communities varied in dominant perennial tussock grasses and included the following ecological sites (ES): (i) loamy 254–308 mm precipitation zone (PZ) with *Pseudoroegneria spicata* and *Achnatherum thurberianum*; (ii) sandy loam 203–254 mm PZ with *Hesperostipa comata* and *P. spicata*; (iii) clayey 254–308 mm PZ with *A. thurberianum* and *Poa secunda*; and (iv and v) north slopes and south slopes 152–254 mm PZ with *P. spicata* and *A. thurberianum* co-dominating north and south slopes, respectively.

Each ES was delineated into three landscape substrata using 10-m resolution US Geological Survey Digital Elevation Models (DEM) to ensure variation in heat loads and water stress associated with changes in landscape orientation: (i) northerly aspects (0–90°, 270–360°), (ii) southerly aspects (90–270°) or (iii) flat. Study plots were located at different distances from the nearest livestock watering locations to capture variation in cattle grazing intensity. Random points were selected and field verified to ensure that plots were located: (i) every 200–400 m, starting at 100 m and extending to >3200 m from the nearest water; (ii) in as many soil–landscape strata combinations as possible; and (iii) >200 m from the nearest road to minimize related effects. To reduce potential confounding effects of time since fire, all sites burned since 1930 were excluded using a fire perimeter data base (<http://sagemap.wr.usgs.gov> accessed 17/3/2008).

### SAMPLING

Thirty of the 0.39-ha study plots were sampled in 2008 and another 45 in 2009. Six 25-m transects were established in each plot using a spoke design, and herbaceous, shrub and BSC cover measured using line–point intercept (Herrick *et al.* 2005). All sampling occurred between 10 May and 15 July in both years to capture peak herbaceous biomass. Aspect and slope of each plot were calculated from DEM using Arc-GIS 13.0 and, with latitude, used to calculate potential heat loads for each plot (McCune 2007).

Potential variation in water stress was inferred by the following measurements: (i) soil texture at 0–15 cm soil depth; (ii) potential effective rooting depth, which was measured by digging a soil pit until bedrock, a restrictive layer (clay accumulation layer) or 2 m depth was reached; and (iii) amount and timing of precipitation for each study site derived from PRISM at 2-km<sup>2</sup> cell resolution (Daly *et al.* 2008). Sampling-year precipitation for all study plots was estimated for three seasons: 1 August to 31 October (fall), 1 November to 31 March (winter) and 1 April to 31 July (spring–summer).

Cattle grazing intensity was quantified by four measurements: field-verified distance from the nearest water; dung frequency and dung density from 12, 1 × 25 m belt transects; and bunchgrass (tussock) basal area. Basal circumference (*C*) of 30 randomly selected bunchgrasses was measured in each plot and used to calculate bunchgrass basal area (cm<sup>2</sup>) using the following formula: Area =  $\pi (C/2\pi)^2$ .

Bare soil cover was calculated using line–point intercept data to represent exposed soil surface not covered by vegetation, visible BSC, dead vegetation, litter or rocks (Herrick *et al.* 2005). Soil surface aggregate stability was assessed in interspace microsites at 18 random sampling points along transects using soil from the upper 0–4 mm (Herrick *et al.* 2005). Two indicators of soil erosion resistance were calculated: mean soil stability and proportion of samples rated as extremely stable (Beever, Huso & Pyke 2006).

We assessed the structure of the native perennial community by quantifying the size of and connectivity of gaps between such vegetation using the basal gap intercept method (Herrick *et al.* 2005). We calculated mean gap length and the proportion of transects covered by large gaps (>200 cm in length).

### MULTIVARIATE ANALYSIS

Species cover, distance from nearest water, dung density, bunchgrass basal area, heat loads, soil depth, precipitation, gap size

and herbaceous biomass data were log-transformed to improve distributional properties, correlations with ordination axes and variation explained by ordinations (McCune & Grace 2002). Other variables were not transformed.

Non-metric multidimensional scaling (NMS) ordination was used to relate patterns in community composition to environmental gradients (PC-Ord™; McCune & Grace 2002). Joint plots and Pierson's correlations were used to describe relationships between environmental gradients and the strongest patterns of community composition.

We used nonparametric multiplicative regression (NPMR) in HyperNiche™ to quantify the relationship between species' cover and environmental gradients (McCune 2009). Predictors were scores of the three ordination axes. These scores represented an integrated measure of complex environmental gradients associated with dominant patterns of herbaceous community composition. Response variables were the cover of each species using a local mean estimator and Gaussian kernel function. To control for potential interactions between axes, response curves were generated using partial models and focal variables (McCune 2009). A final NPMR model was run using the three axes' scores as predictors. Final model fit was assessed with a cross-validated *R*<sup>2</sup> (McCune 2009).

Hierarchical agglomerative cluster analysis was used to identify groups of sites differing in community composition (McCune & Grace 2002). Multivariate differences in community composition between identified groups were tested using multiresponse permutation procedures (MRPP) ( $\alpha = 0.05$ ). Identified groups were overlaid onto ordinations to accentuate relationships between groups and environmental gradients. Multivariate differences in relativized environmental variables between groups were tested with MRPP. Differences in individual environmental variables between groups were assessed with ANOVA ( $\alpha = 0.10$ ), and Bonferroni-adjusted 90% confidence intervals were used to quantify differences between groups.

### STRUCTURAL EQUATION MODELLING

In our study, an initial conceptual model was used as a SEM meta-model, representing a family of possible models (Fig. 1, Table 1). Our modelling process considered the available observed variables to identify 'indicator variables' (the observed variables that will serve as proxies for conceptual variables in the meta-SEM) using procedures described in Grace *et al.* (2012). Except for 'Potential Safe Sites', all model constructs were represented using single indicator variables. *Bromus tectorum* cover was selected as the indicator to measure 'Invasion Magnitude'. Bunchgrass and sagebrush cover were selected to measure their abundances. The three NMS ordination axes of bunchgrass species' cover data were used to develop an indicator of 'Bunchgrass Community Composition'. Distance from nearest water was selected as the indicator to measure cumulative 'Cattle Grazing Intensity'. Heat load was selected to measure 'Heat load Exposure', and percent sand content at 0–15 soil depth was selected to measure 'Soil Physical Properties'. The proportion of transects covered by large gaps (>200 cm in length) was selected as the measure of 'Community Gap Structure'. Two indicators were selected to represent 'Potential Safe Sites' – BSC and cover of bare soil.

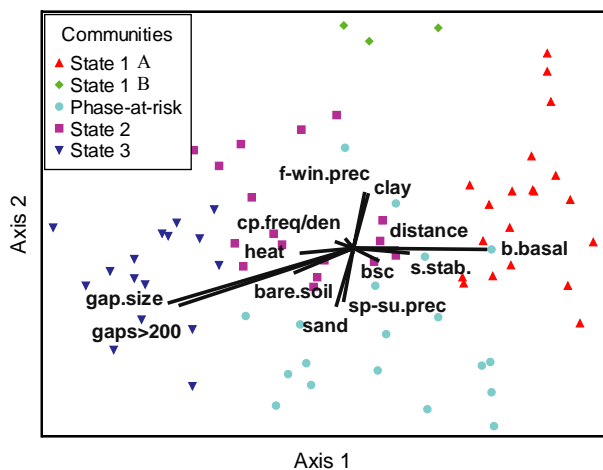
All SEM analyses were conducted using AMOS 18.0 software (SPSS 2010). Maximum likelihood procedures were used for model evaluation and parameter estimation. Model fit was

evaluated by sequentially evaluating likelihood ratios by using the single-degree-of-freedom chi-squared goodness-of-fit statistic. Modification indices were used to evaluate the need to include links or error correlations not in the original model. This process produced a final inferential model. The stability of the final model was evaluated by introducing other available indicators to determine whether they represented additional contributing information. For example, our initial indicator for cattle grazing intensity was 'distance from nearest water'. The three alternative potential indicators (cow pie frequency, cow pie density and bunchgrass basal area) for this construct did not improve model fit or amount of variation in cheatgrass dominance explained and were no longer included.

## Results

### PATTERNS OF INVASIBILITY – CONVENTIONAL MULTIVARIATE RESULTS

Nearly 92% of variation in community composition was explained by the final ordination (Fig. 2). Axis 1 was the dominant axis explaining 60.9% of variation in composition data. Axis 1 was a strong gradient of decreasing cattle grazing disturbance and heat stress (Fig. 2): dung density ( $r = -0.35$ ); dung frequency ( $r = -0.36$ ); distance from water ( $r = 0.41$ ); deep-rooted bunchgrass basal area ( $r = 0.71$ ); and heat loads ( $r = -0.44$ ). In addition, BSC cover, soil aggregate stability and proportion of soil aggregate stability values rated as highly stable increased along Axis 1 (Fig. 2). The size of and connectivity between gaps and amount of bare soil decreased strongly



**Fig. 2.** Ordination of plots in community composition space. Non-metric multidimensional scaling ordination with final stress of 9.92; final instability of <0.01; Monte Carlo test  $P$ -value < 0.05. Vectors show the strength and direction of correlations between environmental variables and axes. Only variables with significant  $R^2$  (>0.20) are shown. Different plot symbols show groups derived from cluster analysis that differ in composition and environmental factors. State 1A and 1B communities have understoreys dominated by native bunchgrasses; phase-at-risk communities are co-dominated by bunchgrasses and non-natives, and State 2 and State 3 communities are dominated by non-native species.

along Axes 1 and 2 (Fig. 2) (see Table S1, Supporting Information).

Axes 2 and 3 represented weaker relationships explaining 19.3% and 11.6% of the variation, respectively. Axis 2 showed a strong gradient of decreasing sand, increasing clay and increasing fall and winter precipitation (Fig. 2). Axis 3 demonstrated a weaker gradient of decreasing cattle grazing associated with decreasing dung density and frequency and increasing deep-rooted bunchgrass basal area (see Table S1, Supporting Information).

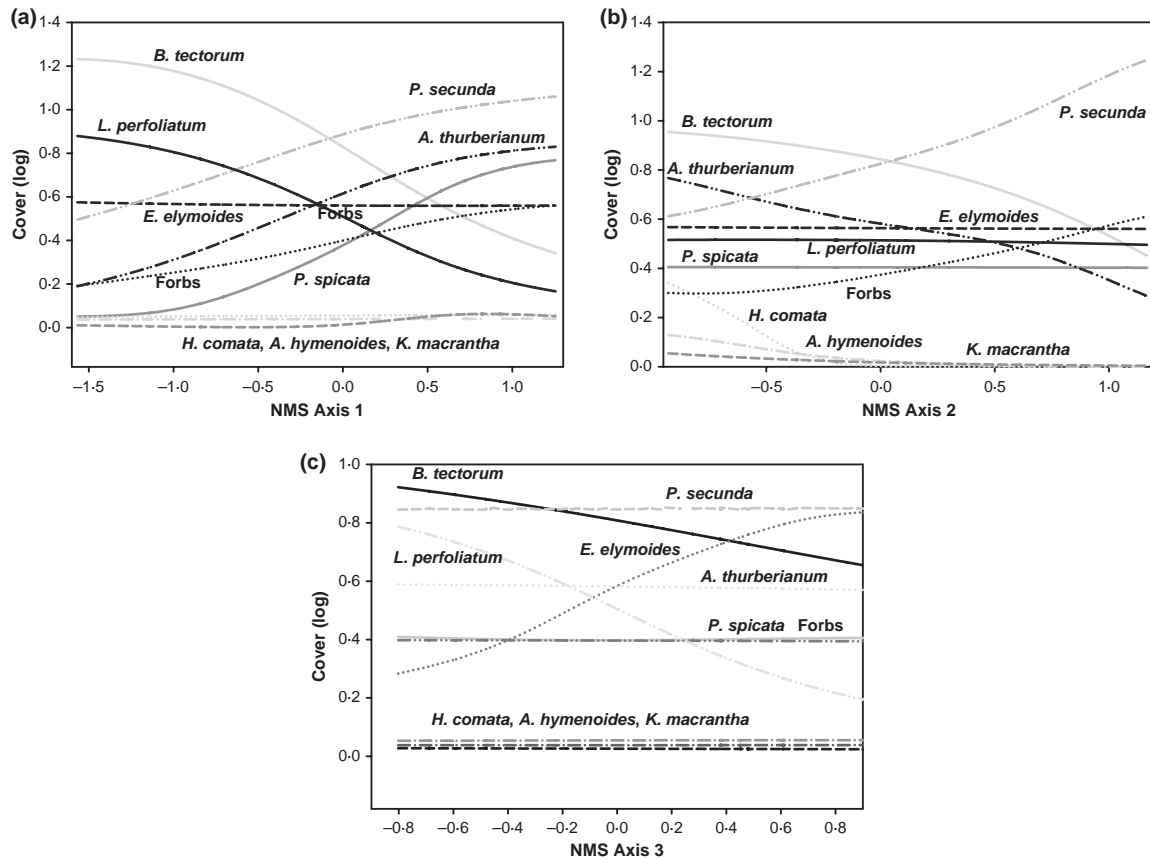
Nonparametric multiplicative regression model sensitivities indicate that Axis 1 was the best predictor of non-native species. The strength of the relationship between cover of native species and these three axes varied considerably (Fig. 3; see Table S2, Supporting Information). *P. spicata*, *A. thurberianum*, *P. secunda* and forbs had strong positive relationships with Axis 1, *P. secunda* and forbs had strong positive relationships with Axis 2, and *Elymus elymoides* had a strong positive relationship with Axis 3 (Fig. 3).

Cluster analysis identified five distinct groups of communities with 0% of the information remaining (MRPP using species data:  $A = 0.33$ ,  $P < 0.01$ ; Fig. 4; See Tables S3 and S4, Supporting Information). Several species were uniquely associated with one or more groups (Fig. 4; See Table S3, Supporting Information). Combined heat loads, soil physical properties, BSC cover, bare soil cover, soil stability, community gap structure and cattle grazing intensity differed significantly among groups (MRPP using environmental data:  $A = 0.59$ ,  $P < 0.0001$ ; Fig. 5; See Table S4, Supporting Information).

State 1 consisted of two groups (1A and 1B) of communities with an intact herbaceous understorey dominated by native bunchgrasses and forbs (Fig. 4). Thirty-one percentage of study plots were in one of these groups. State 1 also contained phase-at-risk communities (communities at risk of crossing a biological threshold to being dominated by *B. tectorum*; 25% of study plots) with an understorey co-dominated by native species and *B. tectorum*. States 2 (23% of study plots) and 3 (21% of study plots) consisted of communities that have crossed a biological threshold and had understoreys dominated by *B. tectorum* and the non-native annual forb, *Lepidium perfoliatum*.

Communities in Groups 1A and 1B had the lowest levels of cattle grazing combined with the smallest and least connected gaps between perennial vegetation (Fig. 5). Group 1B communities had higher heat loads and finer-textured soils compared to those of Group 1A. Communities comprising phase-at-risk communities were characterized by intermediate levels of cattle grazing, heat loads, water stress and size of and connectivity between gaps (Fig. 5).

State 2 communities were characterized by intermediate to high levels of cattle grazing and intermediate levels of heat loads and water stress. State 3 communities had the highest levels of cattle grazing and bare soil cover, largest and most connected gaps and lowest soil aggregate stability (Fig. 5).



**Fig. 3.** Nonparametric multiplicative regression response curves showing relationship between species cover and gradients represented by non-metric multidimensional scaling ordination axes. Axis 1 is a gradient of decreasing cattle grazing intensity and heat load exposure (a), Axis 2 is a gradient of decreasing water stress (b), and Axis 3 is a gradient of decreasing cattle intensity (c).

#### STRUCTURAL EQUATION MODELLING RESULTS

The final SEM model ( $\chi^2 = 18.88$ ;  $P = 0.54$ ; 20 d.f.) showed very close fit between model and data. A number of the initially hypothesized relationships (Table 1) were not supported by data. Sagebrush abundance did not help explain invasion magnitude, either directly or indirectly. As a result, that variable was removed from the final model. Heat load exposure, cattle grazing intensity and native bunchgrass cover were indirect predictors of invasion magnitude in the final model (Fig. 6). Unanticipated in the initial model was dependence of safe sites on heat loads and sand, and dependence of bunchgrass composition on sand content. The final model explained 72% of the variation in the magnitude of invasions among sites.

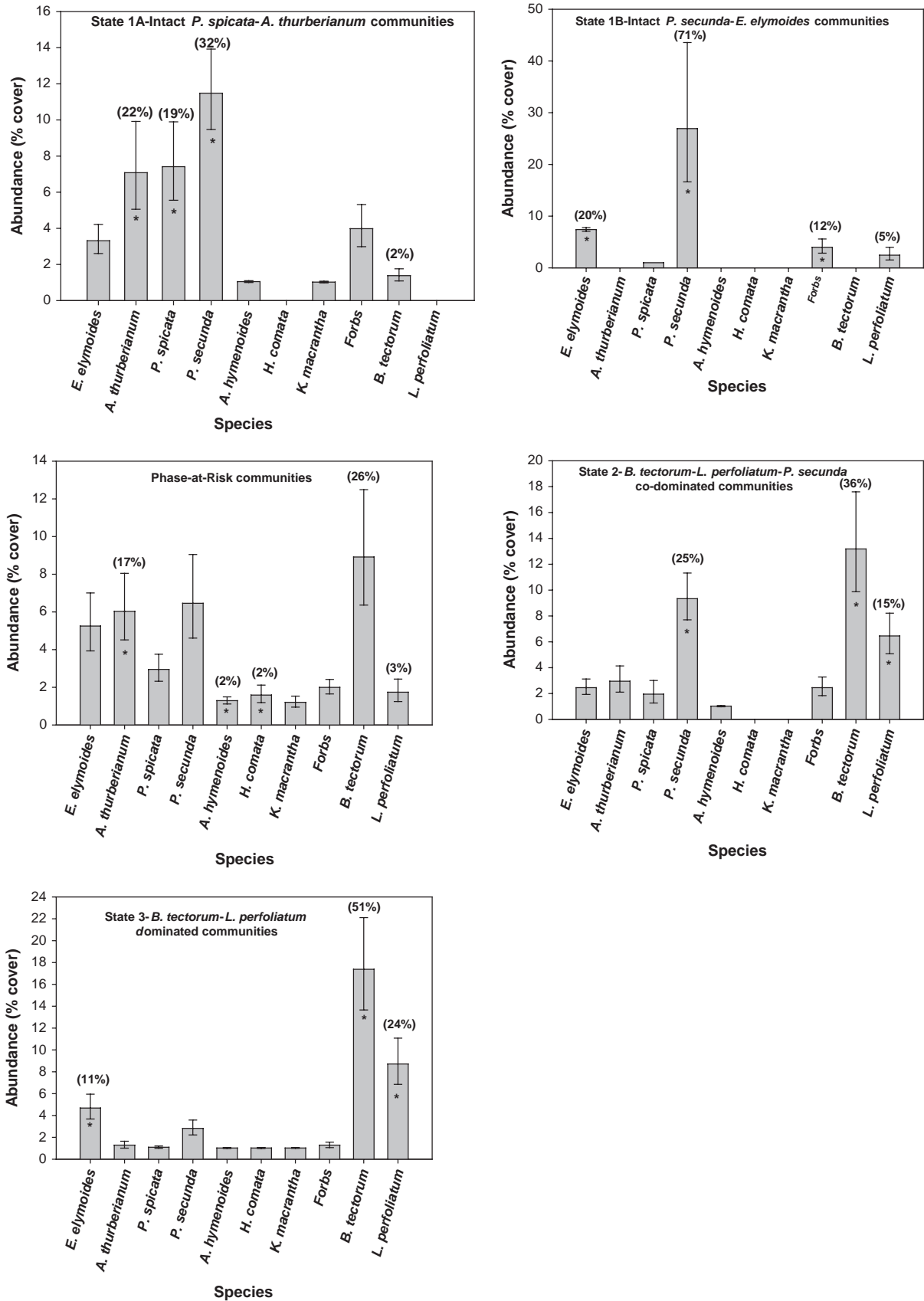
Concerning strengths of linkages in the final model, changes in community gap structure, that is, increases in the size of and connectivity between gaps among native plants, were predictive of higher levels of *B. tectorum* cover ( $r = 0.83$ ). Native bunchgrass cover and composition were not direct predictors of *B. tectorum* cover, rather they were indirect predictors through their relationship to gaps. Gaps characterized by bare soil had a strong positive association with *B. tectorum* cover ( $r = 0.38$ ), whereas gaps characterized by BSC cover had

a strong negative association with *B. tectorum* cover ( $r = -0.26$ ).

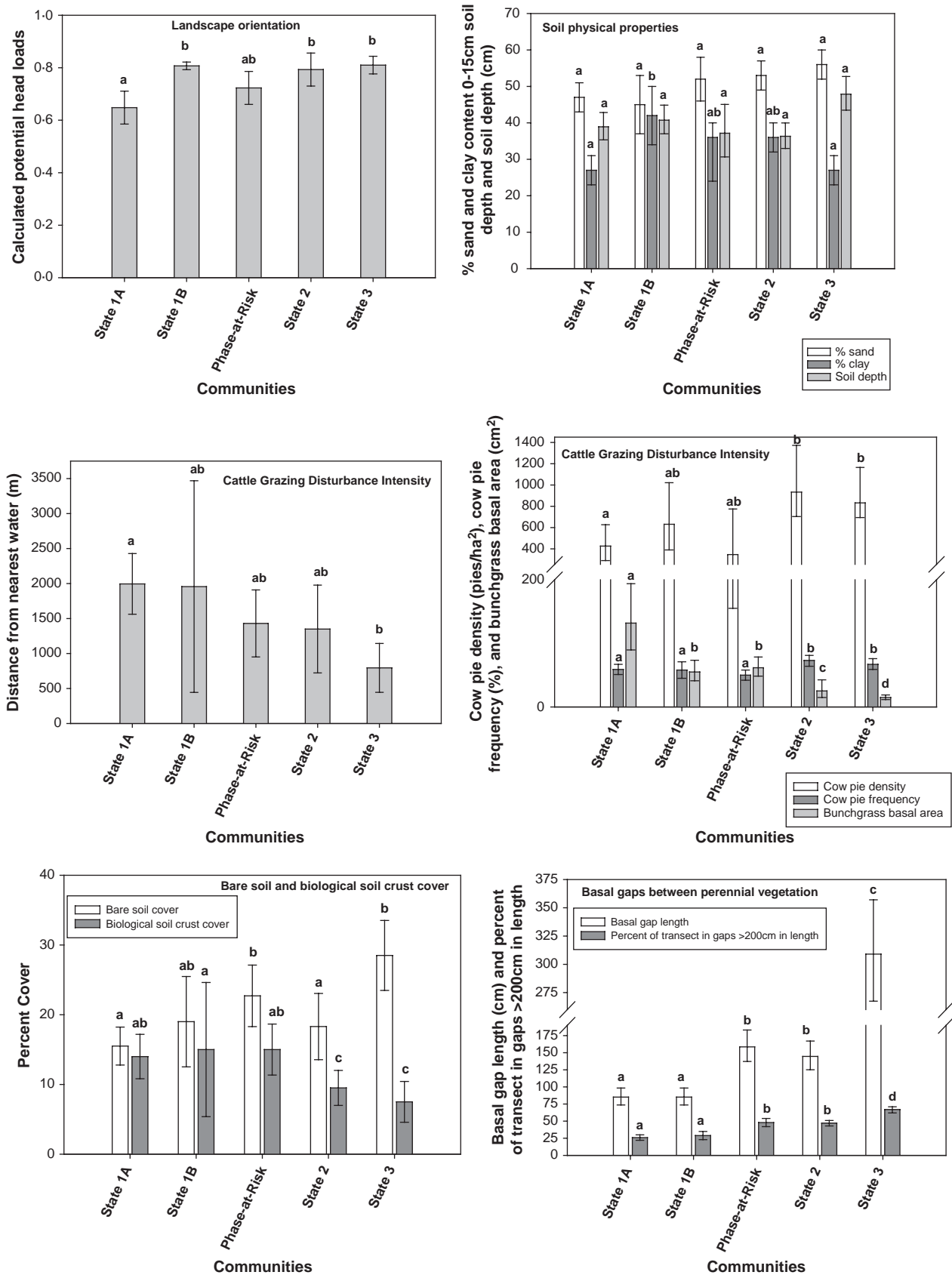
Cattle grazing intensity was positively associated with *B. tectorum* cover through three independent pathways. Because distance from water is inversely related to cattle grazing levels, positive path coefficients indicate a negative relationship between cattle grazing and the response variable in the model (Fig. 6). Thus, model results imply that pathways from cattle grazing to *B. tectorum* cover propagate through (i) negative influences on bunchgrass abundance (0.34), (ii) negative influences on BSC abundance (0.29) and (iii) impacts on bunchgrass community composition (Axis 2) (0.22). There was no evidence that cattle grazing directly decreased or increased *B. tectorum* cover independent of these stated routes.

High levels of heat load exposure were associated with lower levels of bunchgrass ( $-0.46$ ) and BSC ( $-0.36$ ) abundance. Coarser-textured soils were more likely to have higher levels of *B. tectorum*, regardless of the other factors (i.e. a direct linkage of 0.48). Coarser-textured soils also had an indirect path through effects on bare soil cover and bunchgrass community composition (Axis 3) that increased *B. tectorum* cover.

By adding up the path strengths, it is possible to compute what is referred to as 'total effects' of predictors on



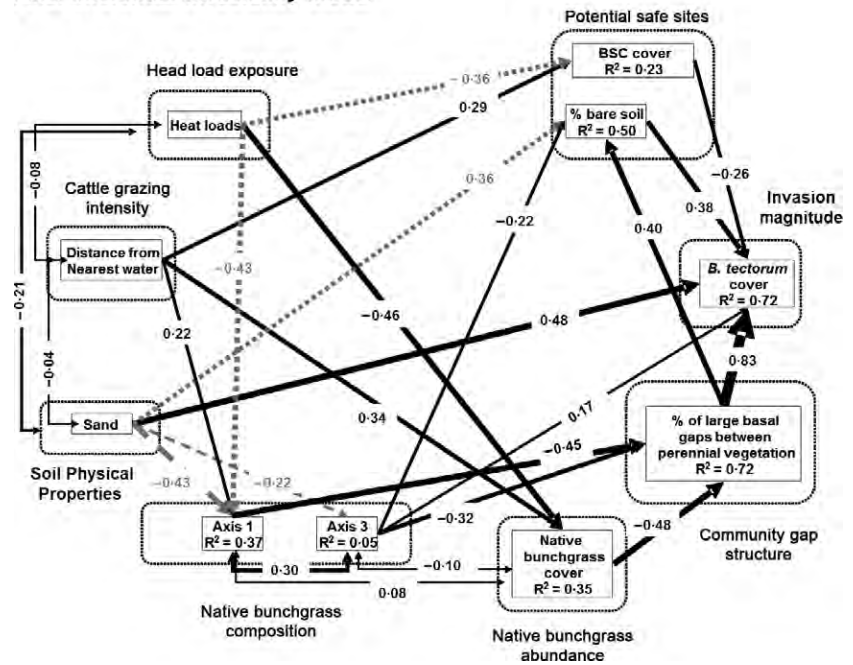
**Fig. 4.** Community composition of five groups derived from cluster analysis. \*Denotes species with highest three indicator values for the group from indicator species analysis. Reported values are back-transformed means, and error bars are 90% Bonferroni-adjusted confidence intervals. (%) is the relative abundance of the species calculated as the proportion of total cover of the group.



**Fig. 5.** Differences in heat loads, soil physical properties, biological soil crusts, bare soil cover, soil stability, community gap structure and cattle grazing intensity of five groups identified by cluster analysis. Error bars represent Bonferroni-adjusted 90% confidence intervals. Different lower-case letters above bars indicate significant differences between groups ( $\alpha = 0.10$ ).

Final Inferential Invasibility Model

**Fig. 6.** Final inferential model of *Artemisia* ecosystem invasibility. Single-headed arrows represent significant linkages ( $\alpha = 0.05$ ). Double-headed arrows indicate significant correlations between variables and their residuals. The magnitudes of standardized path coefficients are represented by line thicknesses. Dotted grey lines are unanticipated significant paths. Because distance from water is inversely related to cattle grazing intensity (i.e. grazing intensity increases with decreasing distance), positive path coefficients and correlations between grazing intensity and variables indicate an inverse relationship (i.e. increasing cattle grazing intensity decreases bunchgrass abundance).  $R^2$  values depict the proportion of variation of endogenous variables explained by the model. The dotted boxes depict conceptual variables of the meta-structural equation modelling (Fig. 1).



downstream responses. Computed total effects of predictor variables on *B. tectorum* in order of importance were as follows: (i) community gap structure (0.68), (ii) soil physical properties (0.42), (iii) safe sites (bare soil cover, 0.38), (iv) heat load exposure (0.37), bunchgrass community composition (NMS#1, -0.31), (v) safe sites (BSC cover, -0.26), (vi) cattle grazing disturbance (-0.26), (vii) bunchgrass abundance (-0.24) and (viii) bunchgrass community composition (NMS#3, 0.04).

**Discussion**

By combining SEM with an observational approach, we were able to gain important new insight into the relative importance of the numerous factors determining the magnitude of *B. tectorum* invasions of *Artemisia* ecosystems and gain valuable insight into potential underlying mechanisms. Our results provide strong support for some *a priori* hypothesized mechanisms (i.e. cattle trampling reduces bunchgrass and BSC abundance) and no support for others (i.e. cattle reduce invasions by grazing *B. tectorum*). Our SEM findings should help prioritize future experiments to test our inferences regarding underlying mechanisms and more landscape-scale observational studies to further evaluate and refine the model and construct predictive models (Grace 2006).

In this study, model results support the idea that a complex causal network of simultaneously operating factors and mechanisms are driving invasion of *B. tectorum* in *Artemisia* ecosystems. Based upon the SEM results, shifts in community structure, as measured by the size of and connectivity of gaps between native plants, exert a strong positive effect on the magnitude of *B. tectorum* invasion. This finding is consistent with growing evidence

in semi-arid and arid ecosystems showing that increases in gap connectivity (Busso & Bonvissuto 2009; Okin *et al.* 2009) and changes in how species abundance is distributed in a community (James *et al.* 2008) are associated with a loss of ecosystem resistance to invasion (Scheffer *et al.* 2009). We define resistance as the collective ability of the resident sagebrush community to limit *B. tectorum* dominance in the face of invasion (Chambers *et al.* 2007). Increases in the connectivity of these gaps were associated with a dramatic increase in the magnitude of such invasions (Okin *et al.* 2009). This loss of resistance to invasion probably increases the magnitude of *B. tectorum* dominance after subsequent disturbances and may set the stage for a regime shift to *B. tectorum*-dominated grasslands with the next fire (Scheffer *et al.* 2009).

Our research suggests that two environmental factors influence the inherent resistance of *Artemisia* ecosystems to *B. tectorum* invasion. Communities located on coarser-textured soils or characterized by higher potential heat loads (Stewart & Hull 1949) were inherently least resistant to *B. tectorum* invasion. These communities are characterized by higher levels of water stress and lower productivity. The inherent structure of these communities that consists of larger and more connected gaps among perennial vegetation and higher amounts of bare soil may make them vulnerable to other disturbances that increase the size of gaps.

Consistent with other studies, biotic resistance from resident bunchgrass and BSC communities played pivotal roles and appears to limit the magnitude of *B. tectorum* invasion (Richardson & Pysek 2006). Water availability is the primary controlling factor of seedling establishment in these ecosystems (Schupp 1995). Several studies have found a strong negative association between BSC community integrity and *B. tectorum* abundance (Ponzetti, McCune & Pyke

2007; Ponzetti & McCune 2008) and showed that BSCs reduce *B. tectorum* germination and establishment rates by impeding root penetration and growth (Serpe *et al.* 2008). Our findings suggest that BSC communities are especially important in limiting the magnitude of *B. tectorum* invasions in gaps between perennial vegetation by minimizing potential safe sites for establishment.

Consistent with other studies, we found that bunchgrasses reduced the magnitude of *B. tectorum* invasions most likely by reducing water and nutrient availability (Chambers *et al.* 2007; Prev y *et al.* 2010). Our findings provide important insight into this mechanism. Nearly all the biotic resistance effect was indirect through a strong direct effect of bunchgrass abundance and composition on community structure. By limiting the size and connectivity of gaps, bunchgrasses likely minimize resources available to *B. tectorum* spatially. Further, three species, *P. spicata*, *A. thurberianum* and *P. secunda*, appear to be especially important determinants of such resistance. *P. spicata* and *A. thurberianum* are dominant deep-rooted bunchgrasses with most active growth in later spring, whereas *P. secunda* is a shallow-rooted bunchgrass that is active in late winter and early spring. This combination of differing structure and phenology reflects their differing abilities to acquire resources at different soil depths (James *et al.* 2008) and seasons and thereby provide continuous interaction with *B. tectorum* and collectively limit available resources temporally and at different soil depths.

By controlling for several potentially confounding factors (Knick *et al.* 2011), we gained important insights into the role of cattle grazing as a determinant of ecosystem resistance to *B. tectorum* invasion. We found no evidence that cattle grazing, even at the high intensities 100 m from the nearest water development, reduced *B. tectorum* cover. To the contrary, we found strong evidence that increasing cattle grazing intensity indirectly promotes an increase in the magnitude of *B. tectorum* dominance. Cattle herbivory was found to be associated with reduced native bunchgrass abundance, shifts in bunchgrass composition to only the most grazing-tolerant species and aggregated bunchgrasses beneath protective sagebrush canopies (Reisner 2010). These collective cattle-induced changes thus appear to ripple through the community by increasing the size and connectivity of gaps between perennial vegetation. As gaps get bigger and more connected, both live and dead (litter) herbaceous soil cover decreases and the amount of bare soil increases. Cattle trampling reduced resistance within these larger gaps by reducing BSC cover.

Changes in community structure and how species' abundance is distributed in the community may increase general resource availability (James *et al.* 2008). As cattle grazing increased, *P. spicata*, *A. thurberianum* and *P. secunda* cover decreased, *E. elymoides* cover did not change, and *B. tectorum* cover increased. These shifts parallel the relative differences in grazing avoidance and tolerance mechanisms among these species. Cattle grazing introduced a novel disturbance regime into this system

where most bunchgrasses are highly sensitive to herbivory (Mack & Thompson 1982). To the contrary, *B. tectorum* exhibits a collection of grazing avoidance and tolerance attributes that makes it extremely tolerant of even highly intensive grazing (Vallentine & Stevens 1994; Hempy-Mayer & Pyke 2009). Because of its attributes (Chambers *et al.* 2007), *B. tectorum* is well positioned to take maximum advantage of this window of invasion opportunity by exploiting larger and more connected gaps.

If the goal is to conserve and restore resistance of these systems to invasion, managers should consider focusing their efforts on maximizing the pre-emption of resources provided by BSC and bunchgrasses. We suggest three priorities: first, maintain and/or restore high overall bunchgrass cover and community structure characterized by spatially dispersed bunchgrasses in interspaces and small gaps between such individuals to maximize the capture of resources; second, maintain and/or restore a diverse assemblage of bunchgrass species with different spatial and temporal patterns of resource use to maximize capture of resources at different soil depths and times; third, maintain and/or restore a BSC community to limit safe sites for *B. tectorum* establishment within gaps.

Our findings suggest that multiple factors (bunchgrass cover, BSC cover, cattle grazing, etc.) may influence the susceptibility of these ecosystems to *B. tectorum* invasion. Importantly, many of these influences are mediated by the size and connectivity of gaps, as well as the conditions of gaps. Thus, gaps in perennial vegetation may serve as an important early warning indicator of when cattle grazing or other stressors are compromising resistance of these systems to *B. tectorum* invasion. Our findings raise serious concerns regarding proposals to use cattle grazing to control *B. tectorum* in these systems where remnant bunchgrass communities persist (Vallentine & Stevens 1994). In contrast, our findings support recent guidance for passively restoring resistance of these systems by reducing grazing levels (Pyke 2011). Future research should focus on gathering information concerning the size of and connectivity of such gaps across a range of ES consistent with maintaining resistance. These data could be used to develop indicators for adaptive management frameworks to conserve and restore these endangered systems.

## Acknowledgements

We thank our field assistants and families. This is contribution #71 from the Sagebrush Steppe Treatment and Evaluation Project, funded by the US Joint Fire Sciences Program and by the US Geological Survey Forest and Rangeland Ecosystem Science Center and Oregon State University. The use of any trade, product or firm name is for descriptive purposes only and does not imply endorsement by the US Government.

## References

- Agrawal, A.A., Ackerly, D.A., Adler, F., Arnold, B., C ceres, C., Doak, D.F., Post, E., Hudson, P., Maron, J., Mooney, K.A., Power, M., Schemske, D., Stachowicz, J.J., Strauss, S.Y., Turner, M.G. & Werner,



- E. (2007) Filling key gaps in population and community ecology. *Frontiers in Ecology and the Environment*, **5**, 145–152.
- Beever, E.A., Huso, M. & Pyke, D.A. (2006) Multi-scale responses of soil stability and invasive plants to removal of non-native grazers from an arid conservation reserve. *Diversity and Distributions*, **12**, 258–268.
- Briske, D.D. & Richards, J.H. (1995) Plant responses to defoliation: a physiological, morphological, and demographic evaluation, pp. 625–710. *Wildland Plants: Physiological Ecology and Development Morphology* (eds D.J. Bedunah & R.E. Sosebee), pp. 710. Society for Range Management, Denver, CO.
- Busso, C. & Bonvissuto, G. (2009) Structure of vegetation patches in northwestern Patagonia, Argentina. *Biodiversity and Conservation*, **18**, 3017–3041.
- Chambers, J.C., Roundy, B.A., Blank, R.R., Meyer, S.E. & Whittaker, A. (2007) What makes great basin sagebrush ecosystems invasible by *Bromus tectorum*? *Ecological Monographs*, **77**, 117–145.
- Daly, C., Halbleib, M., Smith, J.I., Gibson, W.P., Doggett, M.K., Taylor, G.H., Curtis, J. & Pasteris, P.P. (2008) Physiographically sensitive mapping of climatological temperature and precipitation across the United States. *International Journal of Climatology*, **27**, 935–969.
- Davies, K.W., Bates, J.D. & Miller, R.F. (2007) Environmental and vegetation relationships of *Artemisia tridentata* ssp. *wyomingensis* alliance. *Journal of Arid Environments*, **70**, 478–494.
- Davis, M.A., Grime, J.P. & Thompson, J.N. (2000) Fluctuating resources in plant communities: a general theory of invasibility. *Journal of Ecology*, **88**, 528–534.
- Fowler, N.L. (1988) What is a safe site? Neighbor, litter, germination date, and patch effects. *Ecology*, **69**, 947–961.
- Goldberg, D.E. & Barton, A.M. (1992) Patterns and consequences of interspecific interaction competition in natural communities: a review of field experiments with plants. *The American Naturalist*, **139**, 771–801.
- Grace, J.B. (2006) *Structural Equation Modeling and Natural Systems*. Cambridge University Press, Cambridge, UK.
- Grace, J.B., Youngblood, A. & Scheiner, S.M. (2009) Structural equation modeling and ecological experiments. *Real World Ecology: Large-Scale and Long-Term Case Studies and Methods*, Chapter 2 (S. Miao, S. Carstenn & M. Nungesser), pp. 19–45. Springer Verlag, New York.
- Grace, J.B., Schoolmaster Jr, D.R., Guntenspergen, G.R., Little, A.M., Mitchell, B.R., Miller, K.M. & Schweiger, E.W. (2012) Guidelines for a graph-theoretic implementation of structural equation modeling. *Ecosphere*, **3**, article 73.
- Griffith, A.B. (2010) Positive effects of native shrubs on *Bromus tectorum* demography. *Ecology*, **91**, 141–154.
- Grime, J.P. (1977) Evidence for existence of three primary strategies in plants and its relevance to ecological and evolutionary theory. *The American Naturalist*, **111**, 1169–1182.
- Hempy-Mayer, K. & Pyke, D.A. (2009) Defoliation effects on *Bromus tectorum* seed production: implications for grazing. *Rangeland Ecology & Management*, **61**, 116–123.
- Herrick, J.E., Van Zoo, J.W., Havstad, K.M., Burkett, L.M. & Whitford, W.G. (2005) *Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems*, Vol. 1. US Department of Agriculture, Agriculture Research Station, Jornada Experimental Range, Las Cruces, NM, pp. 42.
- James, J., Davies, K., Sheley, R. & Aanderud, Z. (2008) Linking nitrogen partitioning and species abundance to invasion resistance in the Great Basin. *Oecologia*, **156**, 637–648.
- Knick, S.T., Hanser, S.E., Miller, R.F., Pyke, D.A., Wisdom, M.J., Finn, S.P., Rinkes, E.T. & Henny, C.J. (2011) Ecological influence and pathways of land use in sagebrush. *Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and its Habitats. Studies in Avian Biology*, Vol. 38 (eds S.T. Knick & J.W. Connelly), pp. 203–251. University of California Press, Berkeley, CA.
- Levine, J.M., Adler, P.B. & Yelenik, S.G. (2004) A meta-analysis of exotic plant invasions. *Ecology Letters*, **7**, 975–989.
- Lonsdale, W.M. (1999) Global patterns of plant invasions and the concept of invasibility. *Ecology*, **80**, 1522–1536.
- Mack, R.N. & Thompson, J.N. (1982) Evolution in steppe with few large, hooved mammals. *The American Naturalist*, **119**, 757–773.
- McCune, B. (2007) Improved estimates of incident radiation and heat load using non-parametric regression against topographic variables. *Journal of Vegetation Science*, **18**, 751–754.
- McCune, B. (2009) *Nonparametric Multiplicative Regression for Habitat Modeling*. Oregon State University, Corvallis, OR.
- McCune, B. & Grace, J.B. (2002) *Analysis of Ecological Communities*. MJM Software Design, Gleneden Beach, OR.
- Miller, R.F., Knick, S.T., Pyke, D.A., Meinke, C.W., Hanser, S.E., Wisdom, M.J. & Hild, A.L. (2011) Characteristics of sagebrush habitats and limitations to long-term conservation. *Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and its Habitats. Studies in Avian Biology*, Vol. 38 (eds S.T. Knick & J.W. Connelly), pp. 145–184. University of California Press, Berkeley, CA.
- Okin, G.S., Parsons, A.J., Wainwright, J., Herrick, J.E., Bestelmeyer, B.T., Peters, D.C. & Fredrickson, E.L. (2009) Do changes in connectivity explain desertification? *BioScience*, **59**, 237–244.
- Parker, J.D., Burkepile, D.E. & Hay, M.E. (2006) Opposing effects of native and exotic herbivores on plant invasions. *Science*, **311**, 1459–1461.
- Ponzetti, J.M. & McCune, B.P. (2008) Biotic soil crusts of Oregon's shrub steppe: community composition in relation to soil chemistry, climate, and livestock activity. *The Bryologist*, **104**, 212–225.
- Ponzetti, J.M., McCune, B. & Pyke, D.A. (2007) Biotic soil crusts in relation to topography, cheatgrass and fire in the Columbia Basin, Washington. *The Bryologist*, **110**, 706–722.
- Prevéj, J., Germino, M., Huntly, N. & Inouye, R. (2010) Exotic plants increase and native plants decrease with loss of foundation species in sagebrush steppe. *Plant Ecology*, **207**, 39–51.
- Pyke, D.A. (2011) Restoring and rehabilitating sagebrush habitats. *Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and its Habitats. Studies in Avian Biology*, Vol. 38 (eds S.T. Knick & J.W. Connelly), pp. 531–548. University of California Press, Berkeley, CA.
- Reichenberger, G. & Pyke, D.A. (1990) Impact of early root competition on fitness components of four semiarid species. *Oecologia*, **85**, 159–166.
- Reisner, M.D. (2010) *Drivers of plant community dynamics in sagebrush steppe ecosystems: cattle grazing, heat and water stress*. Dissertation, Oregon State University, Corvallis, OR, pp. 286.
- Richardson, D.M. & Pysek, P. (2006) Plant invasions: merging the concepts of species invasiveness and community invasibility. *Progress in Physical Geography*, **30**, 409–431.
- Scheffer, M., Bascompte, J., Brock, W.A., Brovkin, V., Carpenter, S.R., Dakos, V., Held, H., van Nes, E.H., Rietkerk, M. & Sugihara, G. (2009) Early-warning signals for critical transitions. *Nature*, **461**, 53–59.
- Schiffman, P.M. (1997) Animal-mediated dispersal and disturbance: driving forces behind alien plant naturalization. *Assessment and Management of Plant Invasions* (eds J.O. Luken & J.W. Thieret), pp. 87–94. Springer-Verlag, New York, NY.
- Schupp, E.W. (1995) Seed-seedling conflicts, habitat choice, and patterns of plant recruitment. *American Journal of Botany*, **82**, 399–409.
- Serpe, M., Zimmerman, S., Deines, L. & Rosentreter, R. (2008) Seed water status and root tip characteristics of two annual grasses on lichen-dominated biological soil crusts. *Plant and Soil*, **303**, 191–205.
- SPSS (2010) *Amos 18.0*. SPSS, Chicago, IL.
- Stewart, G. & Hull, A.C. (1949) Cheatgrass (*Bromus Tectorum* L.): an ecologic intruder in southern Idaho. *Ecology*, **30**, 58–74.
- Valentine, J.F. & Stevens, A.R. (1994) Use of livestock to control cheatgrass—a review. *Proceedings of Symposium on Ecology, Management, and Restoration of Intermountain Rangelands*, Boise, ID, May 18–22, 1992, pp. 202–206.

Received 28 November 2012; accepted 27 March 2013

Handling Editor: Andy Sheppard

## Supporting Information

Additional Supporting Information may be found in the online version of this article.

**Table S1.** Relationships between environmental variables and ordination axes.

**Table S2.** Relationships between species abundance and ordination axes.

**Table S3.** Indicator species analysis of groups.

**Table S4.** Pairwise MRPP comparisons of groups.

**Brent Ralston**

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**From:** Katie Patterson  
**Sent:** Thursday, October 09, 2014 5:51 PM  
**To:** kfporter@blm.gov  
**Cc:** Brent Ralston (bralston@blm.gov); Meredith Zaccherio  
**Subject:** IDMT Sage-grouse Minerals Revised Proposed Plan Analysis  
**Attachments:** IDMT\_SG-FEIS\_CH4\_minerals\_20141010.docx

Hi all,

Attached is a revised version of the minerals proposed plan analysis based on the updated proposed plan and Karen's comments on the previous version from July 31<sup>st</sup>. Outstanding questions and gaps are highlighted. Due to the pending additional GIS request for the total acreages of various types of mineral estate, percentages of the decision areas have not been filled in. I have also included some responses to comments in comment bubbles explaining why certain changes have not been made. I would be happy to discuss any of this further at your convenience.

Take care,

**Katie Patterson, JD**

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**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 FLUID LEASABLE MINERALS (OIL AND GAS AND GEOTHERMAL)

#### 4.1.1 Oil and Gas

##### *Methods and Assumptions*

The analysis of impacts on fluid minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on oil and gas development would result from closing an area with oil and gas development potential to fluid mineral leasing. An indirect impact would result from managing an area as ROW exclusion, which would restrict access and change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on oil and gas leasing and development are described under *Indicators*, below.

##### *Indicators*

Indicators of impacts on oil and gas leasing and development are as follows:

- Acres of unleased land with moderate oil and gas potential identified as closed to fluid mineral exploration and development
- Acres of unleased land with low or no oil and gas potential identified as closed to fluid mineral exploration and development
- Acres of unleased land with moderate oil and gas potential subject to no surface occupancy (NSO) stipulations
- Acres of unleased land with low or no oil and gas potential subject to NSO stipulations
- Acres of unleased land with moderate oil and gas potential subject to controlled surface use (CSU)/timing limitation (TL) stipulations

- ~~Acres of unleased land with low or no oil and gas potential subject to CSU/TL stipulations. [Note to BLM: GIS data received still has CSU and TL stipulations separated. Please advise on whether these are to be combined. If so, please provide updated calculations with the acreages combined.]~~

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- ~~Acres of unleased land with moderate oil and gas potential subject to TLs~~

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- ~~Acres of unleased land with low or no oil and gas potential subject to TLs [Note to BLM: Waiting for final decision on whether CSUs and TLs should be combined or kept separate based on what the GIS shows as far as whether they are applied more together or separately. Current GIS calculations show acres with both CSUs and TLs as only CSUs since these are considered to be more restrictive.]~~
- Acres subject to restrictions on geophysical exploration in GRSG habitat
- Acres managed as ROW avoidance areas
- Acres managed as ROW exclusion areas

~~Where information is available, consideration is given to oil and gas development potential on lands closed to leasing. For example, an indicator of an impact on oil and gas is if there were substantial reductions in federal leasing and development of oil and gas resources in high potential areas.~~

#### Assumptions

The analysis includes the following assumptions:

- Under all alternatives, reclamation bonds would be required, pursuant to 43 CFR 3104 and 36 CFR 228.109(a), in an amount sufficient to ensure full restoration of lands to the condition in which they were found. In addition, BLM approval of Applications for Permit to Drill would continue to be required prior to commencement of drilling under all alternatives in accordance with 43 CFR 3162.
- The lands in the Curlew Grassland area, as described in the Pocatello RMP, that are administratively unavailable for leasing are included in the total number of acres closed to leasing under Alternative A.
- Management actions proposed in this LUPA would apply to oil and gas activity where the BLM and Forest Service manage the surface over federal fluid mineral estate as well as where federal fluid mineral estate lies beneath private or state surface (split estate).
- Information on existing fluid mineral allocations is not available for 38,600 acres of federal fluid mineral estate in the Butte Field Office in Montana (less than one percent of the federal fluid mineral decision

area). These acres are assumed to be open to oil and gas leasing under Alternative A.

- ~~If an area is leased, it could be developed. For planning purposes, it is assumed that development is expected would occur~~ as described in **Appendix XX**, Reasonably Foreseeable Development Scenario, and **Section 3.12**, Mineral Resources, ~~are assumed to continue for the life of the analysis~~. Interest in oil and gas in Idaho is expected to remain sporadic. As the demand for energy increases, so will demand for extracting energy resources in areas with potential. ~~Technological advancements, such as directional drilling, could lead to changes in levels of fluid mineral development potential throughout the planning area as additional resources become more easily accessible.~~ **[Note to BLM: According to the notes from the general indicators/assumptions call, the last two sentences of this bullet may need to be deleted from here and incorporated into the RFD instead. Please provide final direction.]**

#### **Nature and Type of Effects**

The following analysis describes the nature and type of impacts that could affect oil and gas in the Idaho and southwestern Montana planning area. Details on how the occurrence of each impact would vary by alternative are described under the various subheadings.

Closing areas within GRSG habitat to fluid mineral leasing would directly impact the oil and gas program by removing the potential for mineral resources in that area to be accessed and extracted. Oil and gas operations may move to nearby private lands if similar geologic conditions exist, thereby reducing the number of operations on federal mineral estate. Closing lands to leasing would also result in a loss of royalties to the federal, state, and county governments from oil and gas development.

Management actions that prohibit or restrict surface occupancy or disturbance (such as TLs, NSO stipulations, CSU stipulations, and limitations on the total amount of surface disturbance in areas) overlying federal oil and gas resources ~~would could~~ also directly impact the development of those resources. They would do this by restricting the ability of ~~lessees to explore for and develop~~ mineral resources ~~to be developed or extracted~~. Surface-disturbing activities could be ~~shifted/relocated~~, additional protective measures could be required, and extraction delays could occur.

In areas where NSO stipulations are applied, federal fluid minerals could be leased, but the leaseholder/operator would have to use off-site methods, such as directional drilling, to access the mineral resource. The area where directional drilling can be effectively used is limited, meaning some minerals may be inaccessible in areas where an NSO stipulation covers a large area or where no leasing is allowed on surrounding lands. Additionally, because it is not

economically practical to use directional drilling for wildcat wells, an NSO stipulation ~~would may~~ preclude drilling of those wells.

Application of CSU stipulations allows some use and occupancy of the surface. While less restrictive than an NSO, a CSU stipulation allows the BLM to require special operational constraints, to shift the surface-disturbing activity associated with fluid mineral leasing more than the standard 656 feet (200 meters), or to require additional protective measures (e.g., restrictions on noise levels) to protect GRSG. For example, a CSU stipulation might create a buffer around leks within which surface disturbance is not allowed. While not prohibiting surface-disturbing activities, a CSU stipulation can influence the location and level of operations within the subject area.

TL stipulations may be necessary to protect GRSG from impacts of development during critical seasons or times of day. These stipulations are necessary if impacts cannot be mitigated within the standard 60-day suspension of operation period afforded by regulation. Areas where TL stipulations are applied would be temporarily closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames, based on seasons or GRSG breeding times. While some operations would be allowed at all times (e.g., vehicle travel and maintenance), construction, drilling, completions, and other operations considered to be intensive would not be allowed during the restricted time frame. Most activities, however, can be initiated and completed outside of the restricted dates specified in the TL stipulation.

Applying appropriate required design features (RDFs) (see **Appendix C**) and conservation measures outlined in **Chapter 2 (Table 2-20)**, to ~~leases-post-lease activities as conditions of approval c~~would directly impact oil and gas operations. These RDFs and conservation measures include such standards as noise restrictions, height limitations on structures, design requirements, water development standards, remote monitoring requirements, and reclamation standards. Additional site-specific planning, such as master development plans and unitization, and reclamation bonding requirements may also be ~~included~~required. Applying ~~all of~~ these requirements ~~would may~~ impact oil and gas operations by restricting the extraction of oil and gas resources. Such restrictions may result in higher costs of development or development delays resulting from additional pre-construction planning requirements.~~To avoid these restrictions, operators may move to nearby state or private minerals, thereby decreasing the number of oil and gas operations on federal mineral estate.~~

Placing limits on geophysical exploration could ~~reduce hinder~~ the collection of geologic data concerning availability of data on oil and gas resources on federal mineral estate. TLs on geophysical exploration could lead to ~~extraction equipment scheduling~~ delays.



Management actions creating off-lease ROW exclusion or avoidance areas could indirectly increase the cost of oil and gas extraction by limiting the available means for transporting oil and gas from the lease to processing facilities and markets. For example, a new natural gas pipeline could not be built in a ROW exclusion area. The pipeline may need to take a less direct route to its destination to avoid the exclusion area, or another mode of conveyance of the resource may be required. Oil and gas operations may move to nearby private lands where transport is easier, thereby delaying development on federal mineral estate or reducing the number of operations on federal mineral estate. Impacts would be mitigated where exceptions were allowed for collocating new ROWs within existing ROWs to satisfy valid existing rights.

Commented [KP1 ]: Did not delete this sentence because operators may choose to reprioritize their development plans based on any number of factors. This would not necessarily mean that the restrictions had removed all reasonable opportunity to develop the lease.

Implementing management for the following resources would have negligible or no impact on oil and gas; therefore they are not discussed in detail: travel and transportation management, recreation, range management, solid minerals, fire and fuels management, habitat restoration and vegetation management, and special designations.

#### **Alternative G**

##### *Impacts from Lands and Realty Management*

Under Alternative G, ~~XX~~ 8,283,500 acres (~~XX~~ percent) of BLM- and Forest Service-administered surface in the decision area (including all ~~CMZs-PHMA~~s and ~~IMZs-IHMA~~s) would be managed as ROW avoidance areas. However, because all acres in ~~CMZs and IMZs-PHMA~~s and ~~IHMA~~s would be ~~either closed to leasing or open~~ subject to NSO stipulations on oil and gas leases, no oil and gas activities on future leases within these areas would require new ~~rights-of-way~~ ROWs. Therefore, oil and gas activity in ~~PHMA~~s and ~~IHMA~~s ~~CMZs and IMZs~~ would not be impacted by lands and realty management under Alternative G.

Application of RDFs, BMPs, buffers, and seasonal timing restrictions to ROW development would also limit construction of new ROWs for oil and gas development in all GRSG habitat. If these limitations made it comparably uneconomic to develop a ROW for oil and gas development, development of federal oil and gas resources in the planning area could decrease.

##### *Impacts from Fluid Minerals Management*

Under Alternative G, ~~XX~~ 676,100 acres, or ~~XX~~ percent of the federal oil and gas estate decision area, ~~including all areas with no or low potential in CMZs,~~ would be closed to oil and gas leasing. These closures would include 61,600 acres with moderate potential (XX percent of the moderate potential acres in the decision area). ~~Acres with moderate potential closed under this alternative would be the same as those under Alternative A.~~

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Another ~~XX~~ 9,670,400 acres, or ~~XX~~ percent of the federal oil and gas estate decision area, including all areas in ~~PHMA~~s and ~~IHMA~~s ~~IMZs~~ and ~~all areas with moderate potential in CMZs~~, would be open to oil and gas leasing subject to NSO stipulations. These stipulations would apply to ~~XX~~ 325,900 acres with

moderate potential (XX percent of the moderate potential acres in the decision area).

**Table 4-XX**  
**Oil and Gas Leasing Categories in the Decision Area, Alternatives A and G**

Oil and Gas Potential	Closed to Leasing (acres)	Open Subject to NSO Stipulations (acres)	Open Subject to CSU/TL Stipulations (acres)	Open Subject to Standard Terms and Conditions (acres)
<b>Alternative A</b>				
Moderate	XX133,900	XX143,900	XX	XX60,900
Leased	XX	XX	XX	XX
Unleased	XX	XX	XX	XX
Low	XX3,095,900	XX899,100	XX	XX7,211,400
Leased	XX	XX	XX	XX
Unleased	XX	XX	XX	XX
<b>Total</b>	<b>XX3,229,800</b>	<b>XX1,043,000</b>	<b>XX</b>	<b>XX7,272,300</b>
Leased	XX	XX	XX	XX
Unleased	XX	XX	XX	XX
<b>Alternative G</b>				
Moderate	61,600	325,900	XX	30
Low	614,500	9,344,500	XX	27,700
<b>Total</b>	<b>676,100</b>	<b>9,670,400</b>	<b>XX</b>	<b>27,730</b>

Source: BLM 2014x

[Note to BLM: Please instruct, based on how the GIS data look, whether we should remove the "Leased" fields from these tables since there are no longer any existing oil and gas leases in GRSG habitat. Are there still leases in the decision area?]

Alternative G would close 54 percent fewer acres with moderate oil and gas potential compared with Alternative A. However, management under Alternative G, would apply NSO stipulations to twice as many acres with moderate oil and gas potential as management under Alternative A. Because more total federal oil and gas estate with moderate development potential would be closed or subject to NSO stipulations under Alternative G, impacts would increase compared with Alternative A as described under **Nature and Type of Effects**.

A similar pattern exists for acres with low oil and gas potential. Management under Alternative G would close 80 percent fewer acres with low oil and gas potential compared with Alternative A but would apply NSO stipulations to ten times as many acres as Alternative A. Because more total federal oil and gas estate with low development potential would be closed or subject to NSO stipulations under Alternative G, impacts would increase compared with Alternative A. However, as described under **Nature and Type of Effects**,

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~~closing areas with low oil and gas potential would not have as much of an impact as closing areas with moderate oil and gas potential.~~

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~~[Note to BLM: A comparison of unleased moderate potential acres subject to NSO stipulations compared with Alternative A will be added when GIS data are received. Similar analysis will be added for unleased low potential acres, noting the lower impact on these acres because they are less likely to be developed anyway.][Note to BLM: Discussion with BLM on July 25, 2014 concluded that there are no longer any existing leases in GRSG habitat because the two leases on the Bear Lake Plateau had been canceled and closed, respectively. However, comments from Karen Porter on August 4, 2014 indicate that there are still two existing leases within GRSG habitat. Please clarify which is accurate.]~~

~~XX acres of federal oil and gas estate with moderate potential within General Management Zones/GMHAs would be subject to CSU and/or TL stipulations. These stipulations would restrict oil and gas development and could reduce overall development of federal oil and gas resources as described under Nature and Type of Effects.~~

Under Alternative G, it is reasonably foreseeable for planning purposes that XX new oil and gas exploratory wells would be developed on federal fluid mineral estate in the decision area in the next 20 years. This represents a XX percent decrease in projected wells on federal mineral estate compared to Alternative A. ~~[Note to BLM: Waiting for projected number of wells from Karen]~~

~~[Note to BLM: The section on impacts from anthropogenic disturbance has been removed since the AD 3 and AD 4 criteria are applied only to waive the NSO stipulation rather than used to limit development independent of fluid mineral management. The anthropogenic disturbance criteria are no longer referenced anywhere in the fluid mineral management actions under Alternative G. Because PHMAs and IHMAs are NSO, it does not seem like the anthropogenic disturbance criteria would ever need to apply to fluid mineral development. Please confirm that the anthropogenic disturbance criteria do not need to be discussed here.]~~

**4.1.2 Geothermal**

[To be completed by another EMPSi specialist]

**4.2 LOCATABLE MINERALS**

**4.2.1 Methods and Assumptions**

The analysis of impacts on locatable minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on locatable minerals would result from withdrawing an area from locatable mineral entry. An indirect impact would result by removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on locatable minerals are described below.

**Indicators**

Indicators of impacts on locatable minerals are as follows:

- Acres withdrawn from locatable mineral entry
- Acres recommended for withdrawal from locatable mineral entry
- Acres over which restrictions, such as RDFs and conservation measures, are placed on locatable mineral development activities to prevent unnecessary or undue degradation of GRS habitat as the law allows

Where information is available, consideration is given to the potential for locatable minerals on lands withdrawn from locatable mineral entry. For example, an indicator of an impact on locatable minerals is if there were substantial withdrawals from locatable mineral entry in high potential areas.

**Assumptions**

The analysis includes the following assumptions:

- Management actions proposed in this LUPA would apply to locatable mineral activity where the BLM and Forest Service manage the surface over federal locatable mineral estate as well as where federal locatable mineral estate lies beneath private or state surface (split estate).
- Information on existing locatable mineral withdrawals is not available for 33,000 acres of federal locatable mineral estate in the Butte Field Office in Montana (less than one percent of the federal locatable mineral decision area). These acres are assumed to be open to locatable mineral entry under Alternative A.
- Areas recommended for withdrawal would be withdrawn.
- Locatable mineral development trends described in **Section 3.12**, Mineral Resources, are assumed to continue for the life of the analysis.
- Historical patterns of locatable mineral development in the planning area are used to assess the level of locatable mineral potential throughout the planning area. Areas with a high level of historical development are considered to have high potential for locatable minerals.

**4.2.2 Nature and Type of Effects**

Withdrawal of federal locatable mineral estate from locatable mineral entry removes the potential for future mineral development.

~~Existing~~ Each existing mining claims in an areas withdrawn from locatable mineral entry would have to undergo a validity exam to determine whether a

Commented [KP2]: Did not add "proposed to be withdrawn" because validity exams are only required in areas that are actually withdrawn or segregated.

~~discovery had been made. Existing mining claim notices or plans of operations, filed in accordance with 43 CFR Subpart 3809, would also have to undergo a validity exam before review (for notice) or approval (for plan of operations) of any material change to the operation. to be reviewed for notices or approved for plans of operations. Mining claims with an economic discovery of a valuable deposit on the date of the withdrawal are valid and would be exempt from the withdrawal for as long as the claimant maintains the claim; all others other claims become void. Withdrawal of areas larger than 5,000 acres would require Congressional approval. The need to perform validity exams in areas withdrawn from locatable mineral entry would also greatly increase the burden on the BLM and Forest Service associated with processing mining claims, notices, and plans of operations.~~

~~Existing notices or plans of operations would also have to undergo a validity exam before review (for notice) or approval (for plan of operations) of any material change to the operation. The need to perform validity exams in areas withdrawn from locatable mineral entry would also greatly increase the burden on the BLM and Forest Service associated with processing mining claims, notices, and plans of operations.~~

~~Management actions creating ROW exclusion or avoidance areas could indirectly increase the cost of or delay locatable mineral extraction by limiting the available means for transporting minerals from the mining operation to processing facilities and markets. For example, a new road could not be built in a ROW exclusion area. The road may need to take a less direct route to its destination to avoid the exclusion area, or another mode of conveyance of the resource may be required. Impacts would be mitigated where exceptions were allowed for collocating new ROWs within existing ROWs to satisfy valid existing rights.~~

Implementing management for the following resources would have negligible or no impact on locatable minerals; therefore they are not discussed in detail: GRSG, ~~lands and realty~~, habitat restoration and vegetation, invasive species, wildland fire, nonenergy solid leasable minerals, salable minerals, fluid minerals, recreation and visitor services, livestock grazing, and special designations.

#### 4.2.3 Alternative G

##### **Impacts from Lands and Realty Management**

~~Under Alternative G, 8,283,500 acres (XX percent) of BLM- and Forest Service-administered surface in the decision area (including all PHMAs and IHMAs) would be managed as ROW avoidance areas. Management of these areas as ROW avoidance could impact locatable mineral development as described in **Section 4.2.2, Nature and Type of Effects.**~~

~~Application of RDFs, BMPs, buffers, and seasonal timing restrictions to ROW/development would also limit construction of new ROWs for locatable mineral development in all GRSG habitat. If these limitations made it comparably~~

Commented [KP3]: Did not add discussion of impacts from RDFs and conservation measures because these are not proposed for application to locatable minerals under Alternative G. Only "reasonable and appropriate conditions of approval" are proposed, and no specific measures are described. Any impact analysis related to these conditions of approval would be speculative.

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Commented [KP4]: Will need to add impacts from lands and realty management to locatables analysis for all other alternatives at some point.

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uneconomic to develop a locatable mineral claim, development of federal locatable minerals in the planning area could decrease.

#### **Impacts from Locatable Minerals Management**

Impacts under Alternative G are similar to those described under Alternative D except that measures to prevent unnecessary or undue degradation of GRSG habitat would only be applied to plans of operations in the decision area and not notices, thereby reducing impacts under Alternative G. Impacts on locatable minerals would still increase compared with Alternative A in the manner described under **Nature and Type of Effects**.

### **4.3 MINERAL MATERIALS (SALABLES)**

#### **4.3.1 Methods and Assumptions**

Analysis of impacts on mineral materials disposals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on mineral materials would result from closing an area to mineral material disposal. An indirect impact would result from removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on mineral materials are described under *Indicators*, below.

#### **Indicators**

Indicators of impacts on mineral materials are as follows:

- Acres closed to mineral material disposal
- Acres subject to timing limitations
- Acres managed as ROW avoidance areas
- Acres managed as ROW exclusion areas
- Acres over which RDFs would be applied to mineral material disposals.
- Application of restoration requirements

Where information is available, consideration is given to the potential for mineral materials on lands closed to mineral material disposal. For example, an indicator of an impact on mineral materials is if there were substantial closures to mineral material disposal in areas with high occurrence of mineral materials.

#### **Assumptions**

The analysis includes the following assumptions:

- Management actions proposed in this LUPA would apply to mineral material disposal activity where the BLM ~~and/or~~ Forest Service manages the surface over federal mineral material estate as well as where federal

Commented [KP5]: Did not add proposed to be closed because the analysis assumes that under each alternatives the management actions would be implemented as soon as the ROD is signed. The only exception is locatable minerals since the BLM itself does not have the authority to withdraw areas.

mineral material estate lies beneath private or state surface (split estate).

- Information on existing mineral material allocations is not available for 1,444,100 acres of federal mineral material estate in the Butte and Dillon Field Offices in Montana (five percent of the federal mineral material decision area). These acres are assumed to be open to mineral material disposal under Alternative A.
- Mineral material development trends described in **Section 3.12**, Mineral Resources, are assumed to continue for the life of the analysis.
- Historical patterns of mineral material development in the planning area are used to assess the level of mineral material potential throughout the planning area. Areas with a high level of historical development are considered to have high potential for mineral materials. There is higher demand in more populated areas.

#### 4.3.2 Nature and Type of Effects

The predominant mining methods for mineral materials are small-scale surface mining and hand collection of building stone; therefore, any restrictions on surface-disturbing activities effectively close the subject areas to mineral material mining.

Closing areas to mineral material disposal and closing community pits would directly impact mineral materials by removing the potential for mineral resources in that area to be accessed and extracted. In addition, ~~closed mineral material pits could be trespassed~~ing areas could result in trespass cases.

Closing ~~acres~~ areas to commercial mineral material development would prevent large-scale commercial operations, while allowing county and community operations, which are generally smaller scale.

Applying TLs could delay extraction of mineral material resources. However, small-scale mineral material operations would likely be better suited to work around TLs than larger-scale commercial mineral material operations. Most mineral material operations in the decision area are small-scale, so impacts of TLs are expected to be limited.

~~Applying RDFs (see Appendix C), to mineral material development would directly impact mineral material activity. These RDFs include such standards as road design and siting standards and reclamation standards. Applying these requirements would impact mineral material activities by restricting the extraction of mineral materials. To avoid these restrictions, developers may move to nearby state or private minerals, thereby decreasing the number of mineral material pits on federal mineral estate.~~

Managing areas as ROW avoidance or exclusion could decrease new construction, such as roads, thereby decreasing demand for mineral materials in those areas. This, in turn, could decrease the number of mineral material pits on federal mineral estate.

Implementing management for the following resources would have negligible or no impact on mineral materials; therefore they are not discussed in detail: travel and transportation management, recreation, range management, solid minerals, fire and fuels management, habitat restoration and vegetation management, and special designations.

**Table 4-63**, Mineral Materials by Alternative, shows the number of acres open or closed to mineral materials disposal in the decision area under each alternative Alternatives A and G.

**Table 4-63  
Mineral Materials by Alternative**

Management	Alternative	
	A	G
Closed to disposal (acres)	1,442,300	2,258,600
Open to disposal (acres)	30,144,000	10,658,300

Source: BLM 2013a; BLM 2014x

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A discussion of the impacts on mineral materials from management actions applicable to federal mineral material estate in the decision area under each alternative is below.

**4.3.3 Alternative G**

**Impacts from Lands and Realty**

Under Alternative G, ~~4,618,800~~ acres (~~XX~~ percent) of BLM- and Forest Service-administered surface in the decision area (including all ~~Core Management Zones~~ PMHAs) would be managed as ROW avoidance areas where development of new ROWs for land uses could not occur unless the Anthropogenic Disturbance Development and Exception Criteria (AD-3 and AD-4) were satisfied (including the requirement that the project would not exceed the 3 percent disturbance threshold and would be collocated within existing the footprint of existing infrastructure). However, because all ~~Core Management Zones~~ PMHAs would be closed to mineral material disposal under Alternative G, managing these areas as ROW avoidance would not impact demand for mineral materials.

Another ~~2,977,400~~ acres (~~XX~~ percent) of BLM- and Forest Service-administered surface in the decision area (including all ~~Important Management Zones~~ HMAs) would be managed as ROW avoidance areas where



development of new ROWs for land uses could not occur unless the Anthropogenic Disturbance Development Criteria (AD-4) were satisfied (including the requirement that the project would not exceed the 3 percent disturbance threshold). However, because mineral material activities in ~~IMZs~~ ~~IHMAs~~ would be subject to the same Anthropogenic Disturbance Development Criteria, ROW management is unlikely to impact mineral material development in ~~IMZs~~ ~~IHMAs~~. In any areas within ~~IMZs~~ ~~IHMAs~~ where ROW development could not meet the Development Criteria, mineral materials development would probably also not meet the criteria; therefore neither would be allowed. Because mineral material development would not be allowed in these areas, the inability to develop ROWs is not expected to reduce mineral material activity through reduced demand.

Application of RDFs, BMPs, buffers, and seasonal timing restrictions would also limit construction of new ROWs in all GRSG habitat. If these limitations made it uneconomic to develop a ROW, demand for federal mineral material resources in GRSG habitat could decrease.

#### **Impacts from Mineral Materials Management**

Under Alternative G, ~~XX~~ ~~6,735,200~~ acres (~~XX~~ percent) of BLM- and Forest Service-administered surface in the decision area (including all ~~CMZs~~ ~~PHMAs~~) would be closed to mineral material disposal. The types of impacts from these closures are the same as those discussed under **Section 4.10.2**. Because ~~XX~~ ~~three~~ times more acres of federal mineral material estate would be closed under Alternative G compared with Alternative A, the magnitude of these impacts would increase.

Approximately ~~XX~~ ~~3,071,500~~ acres (~~XX~~ percent) of BLM- and Forest Service-administered surface in the decision area (including all ~~IMZs~~ ~~IHMAs~~) would be open to mineral material disposal but only if the Anthropogenic Disturbance Development and Criteria (AD-4) were satisfied (including the requirement that the project would not exceed the 3 percent disturbance threshold). Mineral material activities in ~~Important and General Management Zones~~ ~~IHMAs~~ and ~~GHMAs~~ would also be subject to RDFs, buffers, and seasonal timing restrictions. The types of impacts from these limitations are the same as those discussed under **Section 4.10.2**. Because these types of restrictions would not be applied under Alternative A, impacts on mineral material development from the restrictions would increase under Alternative G.

Mineral material sales from the ~~120~~ existing pits in GRSG habitat would be subject to timing restrictions. As described in **Section 4.10.2**, these timing restrictions could impact large commercial operations and therefore reduce overall sales of federal materials in the planning area.

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### **Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination**

Under Alternative G, anthropogenic disturbance, including mineral material development, would be limited to 3 percent of nesting and wintering habitat within ~~Core and Important Management Zones, PHMAs and IHMAs~~ within a Conservation Area (i.e., BSUs). In BSUs where the 3 percent cap is already exceeded, new development of federal mineral material resources would be prohibited until enough habitat was restored to maintain the area under the threshold. Development of federal mineral material resources that would result in exceedance of the 3 percent cap in a BSU would also be prohibited. This cap could potentially impact activities on XX acres of federal mineral material estate. The XX acres that would be closed to mineral material disposal under Alternative G would not be impacted by the disturbance cap because no new mineral material development could occur in the closed areas. *[Note to BLM and Forest Service: Do we have any existing information on where BSUs stand in relation to the disturbance caps at this time?]*

## **4.4 NONENERGY LEASABLE MINERALS**

### **4.4.1 Methods and Assumptions**

Analysis of impacts on nonenergy solid leasable minerals from this LUPA focuses on the impacts of conservation measures to protect GRSG. These impacts may be direct or indirect. For example, a direct impact on nonenergy solid leasable minerals would result from closing an area to leasing. An indirect impact would result from removing a road, which would change the economic feasibility of developing a site. Additional actions or conditions that might cause direct or indirect impacts on nonenergy solid leasable minerals are described under *Indicators*, below.

#### **Indicators**

Indicators of impacts on nonenergy solid leasable minerals are as follows:

- Acres of unleased KPLAs ~~closed to nonenergy solid mineral leasing~~
- Acres over which RDFs would be applied when activities are proposed on existing unmined phosphate leases

Where information is available, consideration is given to the potential for nonenergy solid leasable minerals on lands closed to leasing. For example, an indicator of an impact on nonenergy solid leasable minerals is if there were substantial closures to nonenergy solid mineral leasing in areas with high potential for nonenergy solid mineral development, ~~such as unleased KPLAs~~.

#### **Assumptions**

The analysis includes the following assumptions:

- Management actions proposed in this LUPA would apply to nonenergy leasable mineral activity where the BLM and Forest Service manage the

Commented [KP6]: Did not add proposed to be closed, because the analysis assumes that under each alternative the management actions would be implemented as soon as the ROD is signed. The only exception is locatable minerals since the BLM itself does not have the authority to withdraw areas.

Commented [KP7]: Did not add existing unmined leases because these could not be closed to leasing.

surface over federal nonenergy leasable mineral estate as well as where federal nonenergy leasable mineral estate lies beneath private or state surface (split estate).

- Information on existing nonenergy solid leasable mineral allocations is not available for 1,444,100 acres of federal nonenergy solid leasable mineral estate in the Butte and Dillon Field Offices in Montana (five percent of the federal nonenergy solid leasable mineral decision area). These acres are assumed to be open to nonenergy leasable mineral prospecting and leasing under Alternative A.
- Unmined phosphate leases have the highest potential for nonenergy leasable mineral development in the decision area. Unleased KPLAs have a moderate potential for development, and lands outside KPLAs have a low potential for development.
- Demand for phosphate resources in the Pocatello FO is expected to remain high, as it has for the past 60 years. As discussed in **Section 3.12, Mineral Resources**, significant phosphate resources exist in the Pocatello Field Office within the planning area, with 86 active phosphate leases. While there are no phosphate leases in PPMAs/CMZs or IMZs; there are ten active phosphate leases within PGMA/GMZs. No development is planned on these leases for the next 5 to 10 years.

#### 4.4.2 Nature and Type of Effects

Closing an area to nonenergy solid mineral leasing would directly impact ~~the~~ nonenergy solid leasable ~~minerals-mineral program~~ by removing the potential for minerals resources in that area to be accessed and extracted. Mining operations may ~~abandon their leases and/or~~ move to nearby private lands if similar ~~geologic~~ resources exist, thereby reducing the number of operations on federal mineral estate. Closures would have the greatest impact on unleased areas within KPLAs, as these areas are seen as having ~~a moderate~~ ~~the greatest~~ potential to be ~~developed-nominated for lease~~ during the life of this LUPA. Closures of areas outside KPLAs would have less impact as these areas have ~~low~~ potential for ~~discovery and~~ development.

~~Seasonal and daily TLs could be applied as post-lease conditions of approval to proposals for exploration and initial mine development activities such as timber removal, shrub clearing, etc.; however once mining begins, such restrictions are no longer applicable. Applying TLs to initial mine development cApplication of seasonal and daily TLs would restrict the timing of phosphate development. [Note to BLM: Karen checking on whether TLs can be applied to existing phosphate leases] Application of RDFs, including such standards as noise restrictions, height limitations on structures, road siting and design requirements, water development standards, remote monitoring requirements, and reclamation standards, would place additional requirements on phosphate development up until commencement of mining. At that time, compensatory mitigation would be~~

Commented [KP8]: Did not add discussion on royalties because this would be covered in the socioeconomic section.

necessary. If these TLs and RDFs made phosphate development costly enough that developers-lessees chose not to develop unmined phosphate leases, overall development of federal phosphate resources in the decision area could decrease.

Implementing management for the following resources would have negligible or no impact on nonenergy solid leasable minerals; therefore they are not discussed in detail: GRSG, lands and realty, habitat restoration and vegetation, invasive species, wildland fire, locatable minerals, salable minerals, fluid minerals, recreation and visitor services, livestock grazing, and special designations.

**Table 4-XX**, Nonenergy Leasable Minerals by Alternative, shows the number of acres open or closed to nonenergy leasable mineral prospecting and leasing as well as restrictions on unmined phosphate leases in the decision area under each alternative Alternatives A and G.

**Table 4-XX**  
**Nonenergy Leasable Minerals by Alternative**

Management	Alternative	
	A	G
Open to prospecting and leasing (acres)	<del>10,089,200</del>	<del>5,535,300</del>
Unleased KPLAs open	<del>1,550</del>	<del>400</del>
Closed to prospecting and leasing (acres)	<del>2,831,900</del>	<del>6,990,200</del>
Unleased KPLAs closed	<del>70</del>	<del>0</del>
Unmined leases not subject to RDFs/TLs (acres)	<del>0</del>	<del>0</del>
Unmined leases subject to RDFs/TLs (acres)	<del>29,700</del>	<del>65</del>

Source: BLM 2013a; BLM 2014x

*[Note to BLM: The numbers above do not appear to make sense. There appear to be far more unleased KPLAs and unmined leases under Alternative A than under Alternative G. Please double check GIS data.]*

A discussion of the impacts on nonenergy leasable minerals from management actions applicable to federal nonenergy leasable mineral estate in the decision area under each alternative is below.

**4.4.3 Alternative G**

**Impacts from Nonenergy Solid Leasable Minerals Management**

Under Alternative G, ~~6,990,200~~ acres, or ~~XX~~ percent of the federal nonenergy leasable mineral estate decision area (including all federal nonenergy leasable mineral estate in ~~CMZs-PHMAs~~ outside KPLAs) would be closed to prospecting and leasing—~~XX~~ *timestwice* as many acres closed compared with Alternative A. Fringe leases and modifications to existing leases would be allowed to satisfy valid existing rights. Impacts of this closure would be similar to those described under **Section 4.11.2** except that impacts would increase compared with Alternative A. Approximately ~~2,891,100~~ acres, or ~~XX~~

Commented [KP9]: Did not change to "valid existing rights could be harmed" because lessees may just choose to prioritize other areas as they might due to changing economic conditions or other factors. Does not automatically represent harm to a valid existing right.

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percent of federal nonenergy solid leasable mineral estate in the decision area (including all federal nonenergy leasable mineral estate in ~~IMZs-IHMAs~~ outside KPLAs), would be open to leasing consideration but only if the Anthropogenic Disturbance Development and Criteria (AD-4) were satisfied (including the requirement that the project would not exceed the 3 percent disturbance threshold). Development on these acres would also be subject to RDFs, ~~BMPs~~, buffers, and seasonal ~~and daily~~ timing restrictions. Because development of nonenergy leasable minerals in these areas would be more restricted than under Alternative A, impacts described under **Section 4.11.2** would increase under Alternative G.

Commented [KP1 0]: Did not change this sentence to limit to exploration and initial mine development since these restrictions would be applied to new leases and therefore could apply to all activities on the lease.

Development on ~~XX-2,643,800~~ acres of federal nonenergy leasable minerals within ~~GMZs-GHMAs~~ would also be subject to RDFs, BMPs, buffers, and seasonal timing restrictions. These limitations could reduce federal nonenergy leasable mineral development in the planning area due to increased costs as described under **Section 4.11.2**.

Commented [KP1 1]: Did not change this sentence to limit to exploration and initial mine development since these restrictions would be applied to new leases and therefore could apply to all activities on the lease.

Because KPLAs would remain open to nonenergy solid mineral leasing ~~and prospecting~~, impacts on federal nonenergy solid leasable mineral development would be mitigated. The areas ~~considered to have moderate potential most likely to be developed~~ in the decision area would not be constrained.

Seasonal and daily TLs as well as RDFs would be applied to exploration activities or initial mine development on the ~~10~~ one undeveloped federal phosphate leases covering ~~XX-65~~ acres within GRS habitat ~~IHMAs~~ with impacts similar to those described under Alternative D. *[Note to BLM: Please confirm that there is now only one undeveloped federal phosphate lease in GRS habitat. Based on emails between Karen Porter and Josh Sidon, it appears that habitat boundaries have been redrawn for all alternatives to exclude the other 10 leases that were previously within GRS habitat.] [Note to BLM: Karen to check on whether BLM can apply seasonal TLs to existing phosphate leases as COAs]* If these restrictions made development of the unmined phosphate leases so costly that the developers chose not to develop the leases, development of federal phosphate resources could be reduced as described under **Section 4.11.2**.

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**Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination**

Under Alternative G, anthropogenic disturbance, including nonenergy leasable mineral development, would be limited to 3 percent of nesting and wintering habitat within ~~GMZs and IMZs~~ PHMAs and IHMPAs within a Conservation Area (i.e., BSUs). In BSUs where the 3 percent cap is already exceeded, new development of federal nonenergy leasable mineral resources would be prohibited until enough habitat was restored to maintain the area under the threshold. Development of federal nonenergy leasable mineral resources that would result in exceedance of the 3 percent cap in a BSU would also be prohibited. This cap could potentially impact activities on XX acres of unleased

Commented [KP1 2]: Did not change to "valid existing rights could be harmed" because lessees may just choose to prioritize other areas as they might due to changing economic conditions or other factors. Does not automatically represent harm to a valid existing right.

federal nonenergy leasable mineral estate, including XX unleased acres within KPLAs. Impacts would be greatest where these caps limited development in unleased portions of KPLAs because these areas have the highest potential for nonenergy leasable mineral development. The XX acres that would be closed to nonenergy solid mineral leasing under Alternative G would not be impacted by the disturbance cap because no new nonenergy leasable mineral development could occur in the closed areas. *[Note to BLM and Forest Service: Do we have any existing information on where BSUs stand in relation to the disturbance caps at this time?]*

Commented [KP1 3]: Kept this paragraph in because it could actually prevent issuance of new leases rather than just being considered a mitigation measure.

### Acronyms

~~EMPSi specialist: list and define acronyms used.~~ NSO no surface occupancy

CSU controlled surface use

TL timing limitation

RDF required design feature

PHMA priority habitat management area

IHMA important habitat management area

GHMA general habitat management area

BLM US Department of the Interior, Bureau of Land Management

BSU biologically significant unit

### References

~~EMPSi specialist: list complete references used and include the specific PAGE NUMBERS referenced.~~

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## Brent Ralston

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**From:** Zoe Ghali  
**Sent:** Monday, October 06, 2014 1:26 PM  
**To:** Lepak, Dominika (dlepak@blm.gov)  
**Cc:** bralston@blm.gov; Meredith Zaccherio (mzaccherio@blm.gov)  
**Subject:** ID GRSG - livestock grazing revised draft proposed plan impacts  
**Attachments:** IDMT\_SG-FEIS\_CH4\_livestock\_20141007.docx

Hi Nika,

Hope you are doing well. I have attached a revised version of the proposed plan impacts analysis for GRGS for your review. This draft includes revisions based on comments that you and others had on the initial draft as well as some changes based on revisions to the propose plan.

There are still some gaps, notably:

- Placeholder for Forest Service impacts analysis to be inserted once completed by the Forest Service.
- Missing GIS data; I have included placeholders for if/when we get this data.

There are also a few notes remaining in place for with questions for you. Note that this document has also not undergone technical edit or formatting.

Please let me know if you have questions, and feel free to pass this along to others on the grazing team for feedback if you'd like.

Thanks,

### Zoe Ghali

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**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 LIVESTOCK GRAZING MANAGEMENT

#### 4.1.1 Methods and Assumptions

##### *Indicators*

Indicators of impacts on livestock grazing are as follows:

- Changes in permitted AUMs in areas open to livestock grazing
- Changes in the kind of livestock permitted on allotments
- Prohibitions or limitations on the construction or maintenance of structural and nonstructural range improvements
- Modifications to or removal of structural range improvements
- Closures of areas to livestock grazing for the life of the plan
- Changes to the timing, duration, intensity or frequency of permitted use, including temporary closures

##### *Assumptions*

The analysis includes the following assumptions:

- All new and renewed leases and permits would be subject to terms and conditions determined to be necessary by the authorizing officer to achieve ~~the management and~~ GRSG habitat objectives for BLM- and National Forest System lands ~~as well as~~ ~~and to~~ meet land health standards for BLM-administered lands and desired conditions on National Forest System lands (see **Tables 2-X and 2-X**).

- The construction and maintenance of range improvements would continue in the ~~decision-planning~~ area, and would vary according to the constraints imposed by each alternative. New range improvements would be subject to limitations and may require additional maintenance, as defined ~~in the plan~~ management actions and RFDs. Range improvements are generally intended to improve livestock distribution and management, which would maintain or improve rangeland health and could benefit the forage base for livestock and wildlife and GRSG habitat.
- By definition in this plan, livestock grazing is not considered a surface-disturbing activity and is not included in the calculations for the disturbance threshold under Alternatives B, C, F, and G. ~~However livestock, but it~~ could affect the surface in areas where they livestock concentrate, such as around range improvements.
- If the ability to construct range improvements is limited, livestock grazing management options would be reduced.

#### 4.1.2 Nature and Type of Effects

Impacts on livestock grazing are generally the result of activities that affect forage production, areas open to grazing, the class of livestock, the season of use and timing, the ability to construct and maintain range improvements, and impacts from human disturbance, including disruption of livestock movement or unwanted dispersal. Key types of impacts are detailed below.

Protecting GRSG habitat may directly affect livestock grazing if management requires limitations to areas open to grazing, ~~or~~ available AUMs, modification of grazing strategies, or changes to season of use. ~~Such actions~~ This could increase ~~the time and~~ costs to permittees and lessees, both in time and expenses. For example, management actions to enhance habitat for GRSG could affect livestock ~~grazing~~ by restricting grazing intensity or season of use, retiring grazing privileges in some areas, or changing livestock ~~rotation~~ grazing systems and use patterns in order to maintain residual herbaceous cover in sagebrush-grouse habitat (NTT 2011). The listed restrictions could also decrease opportunities for livestock grazing, or even impact overall grazing operation viability (e.g., if no spring grazing areas are available).

However, managing vegetation to benefit GRSG may indirectly benefit livestock grazing by increasing vegetation productivity and improving the quality of available forage in the long term. This would be the case ~~especially~~ where current conditions are not meeting land health standards, ~~or desired conditions~~ or conditions. For example, in allotments with a history of intensive grazing, transitions in the composition of sagebrush communities may have occurred that have reduced cover or forage for GRSG (Cagney et al. 2010) and forage for livestock. ~~However, when~~ grazing ~~vegetation~~ management is designed put into place to promote health and vigor of the sagebrush plant herbaceous

~~communitiescommunity for livestock, beneficial impacts could this may also result in to supply sufficient herbaceous cover to meet habitat requirements for breeding GRSG, such as those specified by Connelly et al. (2000) as well as this may also providing improved livestock forage. (2000). However, note that some areas would require additional active restoration, such as reseeding native grasses and forbs or controlling invasive species.~~

Vegetation management designed to curb the incursion or encroachment of nonnative annual grasses ~~and shrubs~~ could temporarily reduce forage availability ~~in the short term~~. However, these treatments generally enhance rangeland conditions in the long term (NTT 2011).

~~Unregimented livestock grazing can have adverse impacts on riparian ecosystems (Armour et al. 1991); therefore,~~ managing riparian habitat can directly impact livestock grazing through excluding livestock at specific sites, increasing herding requirements, adding range improvements (such as cross fences and water gaps), and adjusting season of use and livestock numbers. Managing riparian habitat to maintain PFC is required for BLM-administered lands. It benefits grazing livestock by indirectly providing cleaner and more reliable water sources and more dependable forage availability. The BLM has been managing riparian and wetland areas for these objectives since at least 1997, though additional impacts could occur as additional management needs are identified and implemented.

Protecting water quality and watershed health is a requirement of standards and guidelines as well as state and federal water quality standards. If additional management needs are identified and implemented, changes could be required in livestock management, such as deferring or shortening grazing periods, adding range improvements, excluding grazing from riparian areas, establishing riparian pastures, and increasing livestock herding. ~~Increased costs to permittees could occur in areas requiring livestock exclusion of livestock or other restrictionsrestriction on livestock management such as these limitations could increase costs to permittees and lessees if changes reduced AUMs or increased livestock management costs.~~

Recreation can affect livestock grazing directly through human disturbance and indirectly through rangeland degradation. Direct disturbance can include ~~undesired animal dispersing or trespassing due to~~ recreationists leaving gates open ~~allowing livestock to move into areas they should not be (trespass), as well as animal displacement,~~ harassment, or injury from collisions, poisoning, or shooting. ~~It also can include~~ Damage to range improvements, particularly from ~~the use of~~ recreational vehicles or from sport shooting ~~can also occur~~. Disturbance ~~to livestock~~ could occur during the hunting season due to ~~the~~ increased presence of people, vehicles, and noise. Limitations on recreation in GRSG habitat could indirectly benefit livestock by reducing direct disturbances,

but could also concentrate [recreation](#) use in grazing allotments outside GRSG habitat, leading to more conflicts in those areas.

Other direct long-term recreation impacts include disturbance caused by increased levels of human activities. The degree of impacts would vary with the intensity of recreation (that is, large numbers of people for [special recreation permits \(SRP\)](#) use would likely have a higher level of disturbance than frequent use by a small number of visitors), the timing of recreation (for example, livestock could be more susceptible to disturbance during the spring when young are present), and location of recreation in the allotment (for example, a higher level of disturbance could occur near areas frequented by livestock, such as water sources or salt licks). As stated above, limitations on recreation in GRSG habitat could indirectly benefit livestock by reducing direct disturbances. [However, disturbance to livestock grazing outside of GRSG habitat areas may be increased if recreation use is concentrated in those areas as a result of restrictions within GRSG habitat.](#)

Limits on construction or use of transportation routes may affect livestock grazing practices. Road construction may cause loss of forage, harassment, and displacement; thus, reduction of these activities may benefit livestock by reducing disturbances. Closing roads or trails not leading to range improvements would ~~slightly also~~ increase forage availability when the area is rehabilitated or when natural rehabilitation occurs. Limitations on cross-country travel may impact permittees' and lessees' ability to effectively manage livestock if exemptions are not granted for access to allotments. Travel management actions for GRSG protection generally involve increased limitations or restrictions on travel management.

Wildfire alters sagebrush habitat because sagebrush takes a long time to regenerate, ~~which may allow for~~ [in addition](#), invasive species ~~to may~~ take hold [following wildfire](#) (NTT 2011). Wildland or prescribed fire would [temporarily](#) remove vegetation and forage ~~over the short term~~; however, ~~they can increase~~ forage [could increase](#) a few years post-fire as herbaceous vegetation increases [in the absence of](#) woody vegetation ~~burned in the fire is removed or reduced~~. Impacts on livestock operations could also occur when agency policies require a rest period following rehabilitation ~~and before grazing is reestablished~~.

Changes in wildfire suppression and fuels management to protect GRSG habitat would have varying effects on livestock grazing. Measures to protect sagebrush habitat might reduce the spread of wildfire and the associated disruption to livestock management. Use of livestock to manage fuel loads may provide some increased opportunities for grazing at a site-specific scale and on a temporary basis. [If fire suppression resources are redirected to protect GRSG habitat, grazing allotments outside of the fire suppression emphasis areas may be at increased risk of wildfire.](#)

The management of ~~habitat for~~ GRSG ~~habitats~~ using natural disturbance regimes, such as fire, and using vegetative treatments to accomplish ~~biodiversity objectives to improve~~ plant community resilience could also benefit livestock ~~grazing forage quality in the long term~~ by maintaining a balance of seral stages. ~~For example~~ ~~in general~~, removing encroaching junipers ~~from GRSG habitat would~~ benefits livestock ~~grazing~~ by creating a healthier grass and forage community.

Restrictions on ROWs or land transfers may indirectly impact grazing by reducing construction impacts from ~~ROW development~~ ~~development~~ ~~in developing these ROWs (such as~~ dust, displacement, and introduction of noxious weeds). Lands and realty actions taken to protect GRSG habitat would involve avoiding or excluding ROWs (e.g., for power lines, pipelines, and other structures) or land transfers in GRSG habitat. These measures could ~~slightly~~ decrease disturbance ~~to livestock~~ in these areas. However, ~~the development of such projects areas outside of GRSG habitat to which ROWs development may be relocated to general habitat~~ ~~may or non-habit resulting in~~ ~~could see~~ an increase in construction-related effects and associated disturbance or displacement of livestock ~~in these areas~~.

Energy and mineral development could impact grazing. During the exploration and testing phase of mineral development, the footprint of disturbance is usually small and localized; therefore, minimal acres available for grazing would be directly impacted. However, during the exploration phase, impacts on livestock dispersal and trespass could occur, increasing ~~time and cost~~ ~~cost~~ to permittees and lessees. Outside of the exploration and testing phase, surface-disturbing mineral development directly affects areas of grazing ~~in the short term~~ during construction of well pads, roads, pipelines, and other facilities. ~~A potential impact is an increased potential opportunity for the introduction and proliferation of noxious weeds in areas developed for minerals and energy. Noxious weeds that lack the nutritional value needed for productive grazing practices.~~ Other potential impacts are changes in available forage, limits on livestock movement, harassment, and temporary displacement of livestock. In the long term, a smaller amount of grazing acreage ~~is permanently~~ ~~would be lost~~ ~~lost from mining following rehabilitation~~ ~~until rehabilitation post mining operations~~. Improving roads associated with mineral development could facilitate livestock management operations by maintaining or improving access to remote locations within allotments. Properly implemented BMPs and reclamation mitigation measures would likely maintain rangeland health and forage levels for livestock. Reducing mineral development in GRSG habitat could reduce potential impacts on grazing, ~~as~~ described above.

Changes in livestock grazing management could impact grazing ~~opportunities~~ in a variety of ways. For example, implementing particular livestock grazing management requirements to benefit GRSG could affect livestock grazing by increasing operators' costs or changing required management actions. Some

management requirements may result in short-term and long-term increased costs to permittees and lessees, or AUMs could decrease for some permittees and lessees due to the following:

- ~~Implementation of m~~Modification ~~or modification~~ of a grazing strategy
- Change in season-of-use or livestock class
- Construction ~~or~~ modification ~~or removal~~ of range improvements, ~~that prevent or limit livestock distribution when ability to disperse livestock is impacted~~
- ~~Viability of existing operations could be compromised if s~~Seasons ~~or areas of use are eliminated or severely restricted~~ seasons ~~or areas of use are eliminated or severely restricted~~ from grazing

These management requirements could result in economic impacts on individuals and the community at large, both ~~directly direct~~ and ~~indirectly indirect~~. For example, ~~if a management action to reduce spring grazing is implemented on a BLM or FS allotment where the permittee is a ranch were dependent on spring forage seasonally on forage on BLM and/or National Forest System lands,~~ a reduction or elimination of AUMs ~~on BLM and/or National Forest System lands~~ may affect the entire ranching operation by reducing the total amount of available forage ~~(Torell et al. 2002) needed to sustain it (Torell et al. 2002).~~

Some management changes may require a short-term output of cost for permittees and lessees and/or agencies but will result in long-term benefits. For example, construction of range improvements to improve livestock distribution and allow use of a larger portion of the rangeland would generally enhance rangeland health in the long term; however, it would have short-term costs. Constructing off-site water sources and fencing riparian and spring sources could keep livestock away from sensitive riparian areas and provide a cleaner more reliable source of water for livestock; however, it would represent an increased cost for permittees and lessees: ~~if they are responsible for construction and/or maintenance of the projects.~~ Other requirements could increase annual operating costs, such as increased time feeding animals on private land, more complex pasture rotations, ~~or~~ herding ~~of livestock requiresing requiring~~ increased labor and fuels costs ~~for moving animals~~, or annually maintaining let-down fences.

In instances where an allotment is closed to grazing or AUMs reduced for GRSG objectives, ~~the agency may have to compensate~~ the permittee or lessee ~~may be compensated~~ for the value of range improvement projects constructed under a range improvement permit or cooperative agreement, in accordance with 43 CFR 4120.3-6(c), and 36 CFR 222.6 (a).

ACECs may be designated to protect sensitive habitat for the benefit of GRSG. Grazing availability would depend on the designated ACEC management objectives. Restrictions could include reducing grazing in the ACEC and limiting

the class of livestock animal or the season of use, duration, or location that livestock are allowed to graze.

#### 4.1.3 Alternative G

Under Alternative G, the functionality and capability of GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management zone designations (Core, Important, General). Project proposals and their effects would be evaluated based on the updated habitat information and values affected.

Under the Alternative G and all Alternatives, impacts from energy and mineral development would be limited. Due to a lack of leases for non-energy leasables in GRSG habitat, no impacts from management actions are anticipated. Similarly, no economically viable coal resources are found in Idaho. The Dillon RMP does not allow for coal extraction leasing~~Under the Dillon RMP, a plan amendment would be required to lease coal.~~ As a result, coal development in the project area and related impacts on livestock grazing are likely to be limited under all alternatives.

[NOTE NEED TO ADD FS ANALYSIS ONCE FS PLAN IS AVAILAIBLEFS Impacts to be Inserted]

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##### **Impacts from Lands and Realty Management**

Under the Alternative G, Core and Important Management Zones would be managed as ROW avoidance areas, but would be subject to RDFS, BMPs and seasonal timing limitation, resulting in limited new development in GRSG habitat. As a result, disturbance of livestock from development activities, as discussed under *Nature and Type of Impacts*, including disturbance of forage or unwanted dispersal of livestock, would be limited in GRSG habitat. Impacts could be disproportionately concentrated in non-habitat ~~HMA allotments~~ should development shift to these areas.

##### **Impacts from Habitat Restoration and Vegetation Management**

Under the Alternative G, vegetation rehabilitation would emphasize projects in areas with potential to improve GRSG habitat. Projects to remove conifers, and improve GRGS habitat may improve forage conditions for livestock ~~in the long term.~~

In addition, grazing management changes in restoration or rehabilitation ~~areas~~~~areas~~~~areas~~ could be required to maintain or improve GRSG habitat. Changes to grazing management could be required ~~during~~~~at the renewal of~~ livestock ~~permits~~~~permit~~~~renewal~~ in order to improve GRSG habitat. The intensity of impacts would vary based on site specific vegetation conditions. ~~Outside of Core Management Zones~~~~zones~~, impacts to grazing management could also occur where habitat restoration projects in burned areas adjacent to Core or Important Management zones are proposed ~~to restore outward from~~



~~existing habitat, with priority and related impacts on areas adjacent to Core first and Important second.~~

[Once language in VEG-7 clarified need to address impacts from this management action including the potential for removal of non-native vegetation that may be used as forage.]

Commented [ZG1]: NOTE TO BLM- this mgmt. action has still not had changes implemented per our previous discussion, needs to be revised.

**Impacts from Wildland Fire Management**

~~As discussed under Nature and Type of Effects, fuels projects and fire suppression to protect sagebrush ecosystems and associated GRSG habitat would benefit livestock grazing where areas available to grazing overlap this habitat, due to a long term reduction in wildfire frequency in areas currently occupied by annual grasses. this habitat. Implementing fuels projects and enhanced fire suppression would due to a long term reductionreduction in the likelihood of high intensity wildfire. Implementation ofShortShort frequency in areas currently occupied by annual grasses. In the Sshort term-term, fuels reduction projects may result in temporary reduction in available forage for livestock on a site specific basis. Rest from grazing may be required following fuels treatments, resulting in short-term reductions in forage availability. Fuels projects that remove encroaching trees would maintain forage species in affected grazing allotments.~~

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Under Alternative G, management actions for wildfire include an emphasis on fire suppression and reduction in fire risk in Core and Important Management Zones. ~~These actions have the, with potential tfor reduceerductionfor reduction in long term fire risk and the temporary related loss of forage in these areas. Wildland Fire and Invasive Species Assessments' identification of priority areas/treatment opportunities for fuels management, fire management, and restoration would further define areas most likely to be impacted by fire management activities. Should aAreas areas available for grazing contain high fire risk areas that are outside of the identified priority treatment areas, then these non-priority areas could be at an increased risk for wildfire, as treatment and suppression activities would be focused elsewhere. Impacts to forage or disruption of activities could occur in these areas, which include approximately XX acres available to grazing in general or non-habitat. [Include data from fire risk map/GRSG habitat/ WHB HMA overlay if available- waiting on GIS]~~

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Targeted grazing could result in some site-specific temporary increases in available forage ~~outside of permitted allotments~~, but location and levels would be unpredictable and temporary; thus, ~~impacts overall impacts on available forage would be impacts would be site specific and varied. Impacts would be further defined in site specific NEPA. minimalminimal.~~

Under the Alternative G, GRSG habitat objectives would be incorporated into ESR/BAER plans, ~~and Livestock~~ management activities may be altered ~~so~~ to meet GRSG objectives. ~~As a result, grazing could be excluded from restoration sites until GRSG objectives were met, seeded or naturally recovering vegetation is~~

~~adequate to facilitate making progress towards those objectives following resumption of grazing including no grazing of new seedling until at least the end of the second growing season.~~

However, incorporation of objectives would be based on site potential and therefore would vary on a site specific basis; ~~required~~ site specific changes to grazing management ~~required~~ would be determined at implementation. ~~[Note: refine if more specific information on limitations on grazing post fire are included.]~~

In addition, grazing management may be adjusted on sites adjacent to burned areas to mitigate the impact of a wildfire on GRGS populations. As a result, ~~some~~ permittees may be impacted by both exclusion of livestock from a burned area and/or reduction of grazing or changes to management in adjacent allotments. Specific management changes and intensity of impacts would vary based on site specific conditions and wildfire occurrences.

#### **Impacts from Energy and Mineral Development**

Under Alternative G energy and mineral development would have additional restrictions applied to limit disturbance on GRGS habitat as compared to Alternative A. As a result the likelihood of development and associated disturbance ~~to livestock of WHB to livestock grazing~~ would be reduced in areas with potential for these resources, ~~as compared with Alternative A.~~ Due to the limited conflicts between livestock grazing management and energy development ~~under existing conditions,~~ impacts would be negligible.

#### **Impacts from Travel and Transportation Management**

Under Alternative G, motorized travel would be limited to existing roads, primitive roads, and trails. Ability of permittees to access range improvements for maintenance or to utilize motorized vehicles to gather livestock could be impacted, as exceptions for administrative access would generally be granted only at permit renewal. Once travel management planning is implemented, any seasonal restrictions on motorized use could further impact ability of permittees to access allotments for management.

Limitations on motorized travel could also reduce any conflicts between livestock and recreation, as discussed under *Nature and Type of Impacts*.

#### **Impacts from Livestock Grazing Management**

Under the Proposed plan, ~~management actions and impacts would be based focused on Core and Important Habitat Zones. Changes~~ ~~Changes~~ to grazing management and associated impacts are most likely to occur in ~~Core and Important Habitat Zones~~ ~~these areas.~~ Permit renewal and ~~rangeland health and assessments and assessment~~ would be prioritized first by Conservation Areas where adaptive management triggers have been reached or where triggers are

4. Environmental Consequences

at risk of being met. Within Conservation Areas, priority would be given to Core, followed by Important, with management changes occurring in this order.

Acres available to grazing in Core, Important and General Habitat are displayed by Conservation Area in Table 4-X, Areas available to grazing and AUMs in GRSG habitat by Conservation Area.

Table 4-X  
Areas available to grazing and AUMs in GRSG habitat by Conservation Area

Conservation Area	Active AUMs		Important Habitat (acres)		General Habitat (acres)	
	Core Habitat (acres)					
BLM						
	AUMs	acres	AUMs	acres	AUMs	acres
Idaho Desert	861,600	96,000	596,500	71,400	627,700	89,370
Idaho Mountain Valleys	1,129,100	138,700	848,900	87,600	511,300	55,800
Idaho Southern	525,300	75,900	746,000	103,900	379,800	50,300
Idaho West Owyhee	1,423,200	142,000	461,800	49,300	279,300	23,400
SW Montana	453,500	57,900	0	0	235,200	28,600
<b>Total BLM</b>	<b>4,392,800</b>	<b>510,400</b>	<b>2,653,200</b>	<b>312,200</b>	<b>2,033,300</b>	<b>247,400</b>
Forest Service						
<b>Total FS</b>						

Source:

Existing grazing management would be maintained unless the current grazing system does not meet GRSG habitat objectives, or desired conditions. In many cases recommended GRSG habitat objectives would be similar to those currently assessed in the Habitat Assessment Framework (HAF). Adjustments to grazing management or authorized grazing use level would be applied on a site specific basis and tailored to achieve objectives-Desired Conditions for GRSG based on GRSG seasonal habitat type in the areas assessed (i.e. breeding, nesting, wintering, ~~et cetera~~) as detailed in Table 2.X Table 3. Seasonal Habitat Desired Conditions for Greater Sage-Grouse [table to be included if GIS data is available- GIS in progress]. ~~Although~~ Site specific review of livestock grazing in of seasonal habitat types istype would be required for rangeland health land assessment and if livestock grazing is a causative factor in not meeting GRSG objectives, management adjustments would be made. E- estimated acres available to grazing by GRSG seasonal habitat type are shown in

Commented [SEA2]: I still not sure how this will work if we lose our ability to issue permits under the rider. If we lose the rider then wouldn't expired permits, regardless of where they are located, be a priority? Also, if a hard trigger is met wouldn't we modify a current permit to fix the problem asap?

ZG response- might want to address these question to Brent/mgt team as to how to clarify this info in the mgmt. direction.

Nika- do we need to add anything here about other considerations as mentioned above.

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**Table 4-X**, Acres available to grazing by GRSG seasonal habitat type. Acres within Nesting/Early Brood Rearing habitat nesting habitat (XX estimated acres) may be more likely to require changes to grazing management, due to the desired conditions for this habitat type, including perennial grass height of at least 7 inches to allow adequate nesting cover. As a result, impacts would occur on an allotment or watershed scale as changes to land assessments, permit renewal and related management changes are/were implemented. The level and intensity of impacts would vary on a site specific basis. It should also be emphasized that seasonal habitat acres displayed in Table 4-X, represent landscape scale assessment estimates and exact acres within specific habitat types and related impacts would be defined with future site specific analysis.

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Under Alternative G, voluntary retirement or waiver of grazing privileges would be permitted; however, final use of the relinquished preference would be determined by the BLM or Forest Service as appropriate.

**Table 4 X**  
**Areas available to grazing and AUMs in GRSG habitat by Conservation Area**

<b>BLM</b>				
<b>Total Acres Available to Grazing</b>				
<b>Acres within Lek Habitat</b>				
<b>Acres within Nesting Habitat</b>				
<b>Acres within Brood-Rearing/Summer *</b>				
<b>Forest Service</b>				
<b>Total Acres Available to Grazing</b>				
<b>Acres within Lek Habitat</b>				
<b>Acres within Nesting Habitat</b>				
<b>Acres within Brood-Rearing/Summer *</b>				

\*Applies to all habitat outside of nesting/breeding and winter  
Source:-

~~Under Alternative G, permittees could voluntarily retire or waiver of grazing privileges, would be permitted. If the authorized officer may relinquish in whole or in part permitted AUMs. If enough AUMs are relinquished over time it could This may result in long term reduction of overall available AUMs overall. Subsequently, there could be socioeconomic on local communities depending on the extent of the reduction in AUMs, with potential for economic impacts on local communities that depend on livestock grazing. Economic impacts are further discussed in section XX, Socioeconomic impacts.~~

~~Under Alternative G, some additional limitations would apply to structural range improvements, as compared to Alternative A, including limitations on fence construction and construction of tall structuresstructuresstructure near occupied leks. These limitations are, as detailed in project Required Design Features and BMPs (Appendix X). These Restrictions could increase the time or costs for construction and maintenance of improvements, but should allow sufficientflexibility is allowed for that permittees to could utilize range improvements to effectively manage distribute livestock.~~

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**Table 4-X**  
**Areas available to grazing and AUMs in GRSG habitat by Conservation Area**

<u>BLM</u>				
<u>Total Acres Available to Grazing</u>				
<u>Acres within Lek Habitat</u>				
<u>Acres within Nesting Habitat</u>				
<u>Acres within Brood-Rearing/Summer *</u>				
<u>Forest Service</u>				
<u>Total Acres Available to Grazing</u>				
<u>Acres within Lek Habitat</u>				
<u>Acres within Nesting Habitat</u>				
<u>Acres within Brood-Rearing/Summer *</u>				

\*Applies to all habitat outside of nesting/breeding and winter

Source: BLM GIS 2014

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**Impacts from Special Designations Management**

No new special designation areas are proposed under the Proposed Action, therefore no impacts would occur to livestock grazing management.

**Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination**

Livestock grazing and related range improvements are not included as anthropogenic disturbances in calculation of the anthropogenic disturbance cap. Therefore, no direct impacts would occur to livestock grazing management as a result of the cap. Limitations of Anthropogenic disturbance would generally result in a reduction in development in GRSG habitat and a related reduction in disturbance to livestock.

If adaptive management soft triggers are met and livestock management is a causative factor in not achieving GRSG habitat objectives, then adjustment of management would be required as identified in the Adaptive Grazing Management Response, Appendix G. Individual allotments or pastures would be analyzed at fine and site scale-habitat assessments within the applicable Conservation Area. This analysis would determine the appropriate changes to grazing management required to maintain GRSG populations. Impacts from Management changes identified as necessary to meet GRSG habitat objectives would be implemented at the allotment or pasture level, and commensurate with the scope and scale of the identified management issues, as discussed under livestock grazing management impacts. While management changes would occur into allotments that do not identified to meet GRSG habitat objectives, as discussed under livestock grazing management impacts, impacts would be limited in scale to that determined necessary.

**Acronyms**

HAF- Habitat Assessment Framework

AUM- animal unit month

**References**

NA

## Brent Ralston

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**From:** Drew Vankat  
**Sent:** Monday, October 06, 2014 1:36 PM  
**To:** Wright, Jason S ([jswright@blm.gov](mailto:jswright@blm.gov)); [gburkhardt@blm.gov](mailto:gburkhardt@blm.gov); [sgcastro@blm.gov](mailto:sgcastro@blm.gov); Brown, William B ([wbbrown@blm.gov](mailto:wbbrown@blm.gov)); [tmetzger@fs.fed.us](mailto:tmetzger@fs.fed.us); [thayes@blm.gov](mailto:thayes@blm.gov); [mreid@blm.gov](mailto:mreid@blm.gov); [jmyslivy@blm.gov](mailto:jmyslivy@blm.gov)  
**Cc:** Meredith Zaccherio; 'bralston@blm.gov' ([bralston@blm.gov](mailto:bralston@blm.gov))  
**Subject:** RE: ID/MT GRSG Wildland Fire Impacts for Review  
**Attachments:** IDMT\_SG-FEIS\_CH4\_template\_REV\_fire-dv.docx

Hi Everyone,

I've attached the revised Chapter 4 Wildland Fire Management impacts section for your review. During our initial review period in early August, the only requested change was to make sure the reader could find a description of FRCC; I've added a note in the first Indicator referencing Section 3.7 where FRCC is discussed in detail. I have also made a few changes in light of revisions to the Proposed RMP. Thank you,

Drew

**Drew Vankat**

EMPSi Environmental Management and Planning Solutions, Inc.  
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**From:** Drew Vankat  
**Sent:** Friday, August 1, 2014 1:52 PM  
**To:** Wright, Jason S ([jswright@blm.gov](mailto:jswright@blm.gov)); [gburkhardt@blm.gov](mailto:gburkhardt@blm.gov); [sgcastro@blm.gov](mailto:sgcastro@blm.gov); Brown, William B ([wbbrown@blm.gov](mailto:wbbrown@blm.gov)); [tmetzger@fs.fed.us](mailto:tmetzger@fs.fed.us); [thayes@blm.gov](mailto:thayes@blm.gov); [mreid@blm.gov](mailto:mreid@blm.gov); [jmyslivy@blm.gov](mailto:jmyslivy@blm.gov)  
**Cc:** Meredith Zaccherio ([meredith.zaccherio@empsi.com](mailto:meredith.zaccherio@empsi.com))  
**Subject:** ID/MT GRSG Wildland Fire Impacts for Review

Hi Everyone,

I have attached the draft analysis of impacts on the Wildland Fire Management program for your review. Please let me know if you have any questions or edits. Thank you very much,

Drew

**Drew Vankat**

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**4. ENVIRONMENTAL CONSEQUENCES**

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# CHAPTER 4

## ENVIRONMENTAL CONSEQUENCES

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### 4.1 [INSERT NAME OF RESOURCE]

#### 4.1.1 Methods and Assumptions

##### *Indicators*

Indicators of impacts on wildland fire management are as follows:

- Alteration of vegetative cover that is likely to result in a substantial shift in fire regime condition class (FRCC) across the planning area (see Section 3.7 for a description of FRCC)
- A substantial change in the likelihood or severity of wildfire, based on level of restrictions on uses that may introduce sources of ignition
- Management actions that substantially inhibit a response to wildfire or appropriate treatments to prevent wildfire

##### *Assumptions*

The analysis includes the following assumptions:

- The spread of invasive annuals (e.g., cheatgrass) has lengthened the fire season in many parts of the planning area. These species often cure sooner than native perennial species and are more prone to ignition. Therefore, actions that reduce the spread or footprint of invasive annuals or restore perennial vegetation communities would reduce the frequency and intensity of wildfires, while reducing wildfire management costs.
- Fuels treatments using chemical methods to control invasive annuals are likely to be the most effective in reducing fine fuels and fire intensity and severity.
- Fire is an important functional natural disturbance in many of the ecological systems found in the planning area.

- In many cases, a direct relationship exists between fuel loading and potential fire intensity and severity.

#### 4.1.2 Nature and Type of Effects

Impacts on wildfire management result from changes in fire frequency and intensity and the ability to employ fire-suppression methods, both of which would affect management of fire and related costs within the planning area. As discussed in **Section 3.7**, most of the lands in the decision area have moderate to high levels of departure from historic conditions and related fire risk. Actions that change condition class from highly altered ecosystems to one closer to historical conditions could reduce the risk of key ecosystem loss, as well as decrease fire risk and management costs in the long term.

Many different resource uses may introduce additional ignition sources into the planning area. This increases the probability of wildfire occurrence and the need for fire-suppression activities. Fire intensity can be affected by activities that decrease fuel loading, such as vegetation treatments and timber product harvesting, and activities that alter the composition and structure of vegetation communities. High-intensity fires generally result in a greater loss of vegetation cover, changes to soil chemistry, damage to root structures, and a greater ability for nonnative species to become established (Verma and Jayakumar 2012).

Transportation and travel management can impact fire frequency by changing the level of risk of human-caused ignitions. The risk of ignition is increased where travel is less restrictive, particularly where motorized vehicles travel cross-country. All forms of travel encourage the spread of invasive weeds, particularly cheatgrass, which can shift fire regimes and increase fire behavior potential. Conversely, if management were to restrict access, wildfire risk may decrease. In addition, transportation management may impact fire suppression; when routes are closed and rehabilitated, they become unavailable for response to wildfires, limiting access opportunities.

Similarly, the level and type of recreation permitted can impact fire risk. Increased recreation may increase the probability of unintentional fires from human-caused ignitions and the need for fire suppression. Recreation management may reduce this risk by providing targeted activities and outcomes.

Surface disturbance caused by development would generally contribute to the modification of the composition and structure of vegetation communities (including increases in noxious weed proliferation) around developed areas. This would then be more likely to fuel high-intensity fires, which could increase program costs because of the increased potential for fire.

Lands and realty actions may indirectly result in development and associated fire risk. For example, issuing ROWs can result in indirect impacts by increasing the risk of human-caused ignition should transmission lines, renewable energy projects, or other development be constructed.

Likewise, the development of energy and minerals may increase the risk of wildfires by introducing new ignition sources (Shlisky et al. 2007). Associated facilities, infrastructure, and transmission lines can increase fire and fuels program costs, while decreasing fire management flexibility to respond to sub-regional conditions with regard to suppression options. Energy development also poses hazards to firefighters, including unknown toxins, facility protection, evacuation of industry personnel, and dangerous overhead power lines. Fire programs could incur additional costs to train firefighting personnel for emergency situations associated with energy development.

Additional limitations on mineral development would have an indirect effect of decreased fire. This would be due to less development, fewer vehicles, and less construction equipment, all of which would serve to decrease the chance of human ignition. Development of federal minerals underlying nonfederal lands may impact fire management on BLM- and Forest Service-administered lands when developed. This is particularly the case when ownership is in a patchwork pattern, as fires ignited on nonfederal lands may quickly spread onto and impact BLM- and Forest Service-administered lands.

Invasive species establishment or increase may follow construction and could impact fire management actions through increased risk of fire and need for fire management. If treatments in annual infested areas use an approved herbicide, those treatments would generally experience greater levels of success.

Prioritizing fuels treatments in areas dominated by invasive species would reduce the frequency and intensity of wildfire. The spread of invasive species, which cure earlier in the spring or summer, has lengthened the fire season in many parts of the planning area. If these areas revert to a perennial dominated community, the fire season would generally be shortened by two to four months, depending on moisture, weather, and other factors.

Range grazing management can impact the ability to manage fire as a natural process through changes in fine fuels availability (e.g., grasses). Livestock grazing reduces fuel loads, so retiring allotments may increase fuels in specific sites. Conversely, increasing AUMs could reduce fuel loads.

Vegetation and weed treatments that decrease standing vegetation could decrease the intensity of wildfires and allow fires to be more easily controlled. For example, efforts to reduce incursion of nonnative annual grasses (primarily cheatgrass) and proliferation of other noxious and invasive weeds would promote healthy plant communities and an associated lower risk of high-intensity wildfire (USGS 2006). Used appropriately, prescribed fire would be compatible with noxious weed control; however, the presence of noxious weeds and the potential of weeds to spread after a prescribed fire would need to be monitored on a site-specific basis. Conversely, management actions that retain shrub and cover may increase fuel loading and the likelihood and intensity of wildfire.

Management actions that are intended to improve, create, or reestablish healthy ecological conditions in various vegetation types benefit the fire and fuels program in the long term. They do this by promoting the most efficient use of fire and fuels management program resources. Conversely, prioritizing fire suppression can limit management options and increase costs for fire management programs.

Special designations, such as ACECs and sensitive resource management, can restrict fuels treatments on a site-specific basis. For example, in areas where preservation of particular species or habitats is emphasized, management options and fuels treatments may be limited. Conversely, restrictions on resource uses, such as travel and mineral extraction, in special designations areas could reduce fire risk in these locations.

Implementing management for the following resources would have negligible or would have no impact on wildfire management; therefore they are not discussed in detail: air quality, soil resources, water resources, wild horses and burros, cultural resources, paleontological resources, visual resources, wilderness characteristics, cave and karst resources, forestry, socioeconomics, and environmental justice.

#### **4.1.3 Proposed Plan**

With an emphasis on balancing resources and resource use among competing human interests, land uses, and the conservation of natural resources, the proposed plan would reduce FRCC shift and would result in a more natural (i.e., historic) frequency and intensity of wildfire.

##### ***Impacts from Lands and Realty Management***

Certain uses would be excluded in CMZ, reducing the type of development allowed in those areas. This restriction would limit opportunities for human-caused ignitions. There would be no similar restrictions in IMZ or GMZ, meaning the reduction in ignitions would be confined to a smaller area than under other alternatives.

##### ***Impacts from Habitat Restoration and Vegetation Management***

The proposed plan uses a more defined set of tools for wildfire management than other alternatives. In most instances, the proposed plan allows for management flexibility to respond to sub-regional conditions in designing fuels treatments and response to wildfire. For example, in CMZ the use of chemical, mechanical, and seeding treatments with appropriate plant materials is emphasized to prevent the dominance of invasive weeds. This would allow a greater success of those treatments. Using mechanical and chemical treatments to prepare areas in FRCC2 and FRCC3 for prescribed fire would have a similar impact.

Strategic wildland fire planning would help return CMZ to historic FRCC and natural fire intensities and intervals. Key actions driving this impact are as follows:

- Strategically placed fire-resistant vegetation or green-strip seedings
- Strategically placed pretreated areas that reduce fine fuels by such practices as mowing vegetation along roadsides, implementing grazing strategies, and applying herbicides
- Planned wildfire suppression tactics in important GRSG habitat

Prioritizing wildfire suppression in CMZ and conducting burn-out/backfiring operations in a manner that minimizes the loss of sagebrush may have limited ability to restore historic FRCC in CMZ.

Education, inventory, prevention, control, rehabilitation, and monitoring would be emphasized for invasive species management. By limiting the spread of invasive species, more GRSG-occupied habitat would be retained as a perennial-dominated community, which has a shorter fire season than those communities characterized by invasive annuals (which cure earlier in the year and are more prone to ignition).

Avoiding prescribed fire in GRSG habitat unless there would be a net benefit for GRSG could result in a greater use of other fuels treatment methods, such as chemical, biological, and mechanical treatments. It may also increase the risk of large unplanned fires, but the BLM could mitigate this risk if prescribed fire would result in a net benefit for GRSG.

#### ***Impacts from Wildland Fire Management***

Wildland fire management under the proposed plan is similar to Alternatives B and D, with additional management flexibility and guidance incorporated to tailor management to specific vegetation communities. The BLM and Forest Service would prioritize wildfire suppression planning and would consider targeted grazing to reduce fine fuels in CMZ. As a result, FRCC shift would be reduced and the frequency and intensity of wildland fire would be more natural. This is because post-fuel, restoration, and ESR management would be designed to ensure long term persistence of seeded or pre-burn native plants.

Likewise, several actions would improve the success of fuels treatments in CMZ. Specifically, a broad set of tools, including chemical, biological, mechanical fuels treatments and pretreating areas to reduce fine fuels would dramatically improve the fuel program's ability to improve GRSG habitat conditions.

When reseeding following fire, using species varieties that are adapted to a warmer climate may, in combination with potential climate change, reduce potential for unnatural levels of fire frequency and intensity.

Stationing first response firefighting resources to higher fire occurrence areas would reduce response time.

The Fire and Invasive Annuals Team protocol would help the wildland fire management program direct its efforts and resources efficiently, especially when combined with the variety of fuels treatment options available under the proposed plan.

Rural fire protection coordination would be stronger under the proposed plan than under any other alternative. Developing and implementing Rangeland Fire Protection Associations in coordination with the state would result in a more consistent inter-agency approach to wildland fire management. As a result, each agency's fire management team would deploy resources in a consistent manner, helping the BLM's fire and fuels program operate more efficiently.

#### ***Impacts from Non-Energy Leasable Minerals Management***

Seasonal limitations and restrictions on development near leks would reduce the potential for human-caused ignitions.

#### ***Impacts from Locatable Minerals Management***

Valid claims would require additional mitigation within GRSG habitat, likely resulting in site-specific improvements to FRCC and wildfire intensity and frequency.

#### ***Impacts from Salable Minerals Management***

Restoring salable mineral pits in CMZ would result in a temporary increase in the potential for human-caused ignitions. Restoration would reduce invasive species, though. Over the long term, this would reduce the frequency and intensity of wildfire and promote the establishment of native perennial species that are less combustible.

Prohibiting mineral material sales near occupied leks would also reduce opportunities for human-caused ignitions over the long term.

#### ***Impacts from Fluid Minerals Management***

There would be several measures (e.g., TL and NSO stipulations and RDFs) restricting surface disturbance that would reduce the potential for human-caused ignitions on unleased lands that could be leased in the future.

Allowing exploration and drilling on leased areas in IMZ from July through November would increase the risk of human-caused ignitions. Off-site mitigation requirements for new developments in CMZ could encourage a return to historic FRCC in areas where mitigation is implemented.

#### ***Impacts from Travel and Transportation Management***

Compared to cross-country travel, limiting motorized travel in Idaho field offices to designated routes would reduce the opportunity for ignitions. Per



regulations at 43 CFR 8340, fire vehicles being used for emergency purposes would be exempt from these limitations, thus preserving the wildland fire management program's access to respond to unplanned ignitions.

Restricting SRPs in sensitive seasons or in PPMA could result in temporary and site-specific reductions in human-caused ignitions.

Minimizing adverse recreation effects on GRSG within recreation management areas that overlap PPMA could result in use restrictions that may reduce the risk of human-caused ignitions.

#### ***Impacts from Livestock Grazing Management***

Potential restrictions on grazing, including retiring allotments, in CMZ could increase fine fuels and thus the severity of wildfires.

Evaluating, and potentially introducing, exotic grass seedings could increase the risk of wildfire, depending on the attributes of and range where the grass species is introduced.

Limiting the types of range improvements allowed in CMZ would decrease opportunities for human-caused ignitions during construction or maintenance.

Adjusting grazing management, including resting allotments, to meet ER&R objectives would mitigate the effects of wildland fire and may reduce the risk of large, unplanned fire in the future.

#### ***Impacts from Special Designations Management***

Current impacts would continue, and there would be less management flexibility for fuels treatments and wildfire response in existing ACECs.

#### ***Impacts from Anthropogenic Disturbance Management, Adaptive Management, and Coordination***

Limiting anthropogenic disturbances in nesting and wintering habitat within CMZ and IMZ within a Conservation Area would reduce the potential for human-caused ignitions. Requiring habitat restoration for new disturbances which would otherwise exceed the disturbance cap would help encourage a return to historic FRCC in restored areas.

Should adaptive management triggers be met, potential implementation measures would be identified and could include fire and fuels treatments. Impacts on the wildland fire management program are dependent upon the nature and location of implementation actions identified. However, actions to restore habitat would generally encourage a return to historic FRCC.

By potentially streamlining approaches to landscape-level fire and fuels treatments, cooperative planning efforts with other agencies and private landowners would generally improve the wildland fire management program's

ability to maintain or improve FRCC and its ability to respond to wildfire and utilize appropriate treatments to prevent wildfire.

## Brent Ralston

---

**From:** Lepak, Dominika  
**Sent:** Monday, October 20, 2014 1:51 PM  
**To:** Zoe Ghali  
**Cc:** bralston@blm.gov; Meredith Zaccherio (mzaccherio@blm.gov); Jonathan Beck  
**Subject:** Re: ID GRSG - livestock grazing revised draft proposed plan impacts  
**Attachments:** IDMT\_SG-FEIS\_CH4\_livestock\_Lepak\_Edits\_100714.docx

Zoe, here are my edits. Let me know if you have questions. Thanks!

On Mon, Oct 6, 2014 at 1:25 PM, Zoe Ghali <[zoe.ghali@empsi.com](mailto:zoe.ghali@empsi.com)> wrote:

Hi Nika,

Hope you are doing well. I have attached a revised version of the proposed plan impacts analysis for GRGS for your review. This draft includes revisions based on comments that you and others had on the initial draft as well as some changes based on revisions to the propose plan.

There are still some gaps, notably:

- Placeholder for Forest Service impacts analysis to be inserted once completed by the Forest Service.
- Missing GIS data; I have included placeholders for if/when we get this data.

There are also a few notes remaining in place for with questions for you. Note that this document has also not undergone technical edit or formatting.

Please let me know if you have questions, and feel free to pass this along to others on the grazing team for feedback if you'd like.

Thanks,

**Zoe Ghali**  
EMPSi Environmental Management and Planning Solutions, Inc.  
3775 Iris Avenue, Suite 1A  
Boulder, CO 80301  
tel: 303-447-7160 fax: 866-625-0707

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Nika Lepak  
Rangeland Monitoring and Ecology  
BLM, Idaho State Office  
(208)373-3810  
[dlepak@blm.gov](mailto:dlepak@blm.gov)

## Brent Ralston

---

**From:** Beck, Jonathan  
**Sent:** Thursday, February 12, 2015 7:03 AM  
**To:** Brent Ralston  
**Subject:** Re: gis query question

IDMT\_PUB\_9766  
6.3.d

Ok, thanks Jon

On Thu, Feb 12, 2015 at 7:01 AM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Paul,

I'll be in Twin Falls today – you can reach me on my cell phone if necessary – 208-850-3507.

Brent Ralston

Project Lead

Jarbidge Grazing Permit Team

208-373-3812

---

**From:** Paul Makela [mailto:[pmakela@blm.gov](mailto:pmakela@blm.gov)]  
**Sent:** Thursday, February 12, 2015 6:50 AM  
**To:** Brent Ralston  
**Cc:** Diane McConnaughey; Jonathan Beck  
**Subject:** Re: gis query question

Let's resolve today the issue of Butte relative to direct/indirect effects. Sounds like Diane could clip out the Butte stuff if needed.

Sent from my iPhone

On Feb 11, 2015, at 9:14 PM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

There is no priority habitat in the Butte Field Office and what general there is, is primarily located on non-BLM lands, so I'm not sure that makes any difference for the Cumulative Effects work that the NOC is doing. This would be minor if even discernable at the scale we are looking at.

Brent Ralston

Project Lead

Jarbidge Grazing Permit Team

208-373-3812

**From:** McConnaughey, Diane [mailto:[dmconnaughey@blm.gov](mailto:dmconnaughey@blm.gov)]

**Sent:** Wednesday, February 11, 2015 4:57 PM

**To:** Makela, Paul; Jonathan Beck; Brent Ralston

**Subject:** Re: gis query question

Should this have been done for the data being sent to the NOC - probably too late. Probably too small to see on the review maps that were made

Diane McConnaughey

GIS Analyst

BLM, Idaho State Office

1387 S. Vinnell Way

Boise, ID 83709

voice 208-373-3967

email [dmconnaughey@blm.gov](mailto:dmconnaughey@blm.gov)

On Wed, Feb 11, 2015 at 4:55 PM, McConnaughey, Diane <[dmconnaughey@blm.gov](mailto:dmconnaughey@blm.gov)> wrote:

We can tease out the Butte Field office from the overlays. But we need to know to do this. If I understand Brent's reply, for Alternative B-G the acres should reflect Alternative A for Butte. It might need to be two tables for each query, one that does not include Butte, and the other that is only Butte, which EMPSI would need to stitch together. Do we need to do this for the maps as well?

Diane McConnaughey  
GIS Analyst  
BLM, Idaho State Office  
1387 S. Vinnell Way  
Boise, ID 83709  
voice 208-373-3967  
email [dmcconnaughey@blm.gov](mailto:dmcconnaughey@blm.gov)

On Wed, Feb 11, 2015 at 3:55 PM, Makela, Paul <[pmakela@blm.gov](mailto:pmakela@blm.gov)> wrote:

Diane,

See Brent's explanation.

Paul

Paul Makela  
Wildlife Program Lead  
Idaho BLM State Office  
Branch of Resources and Science  
1387 S. Vinnell Way  
Boise, ID 83709  
  
Office (208) 373-3809  
Fax (208) 373-3805 Fax

[pmakela@blm.gov](mailto:pmakela@blm.gov)

----- Forwarded message -----

From: **Brent Ralston** <[bralston@blm.gov](mailto:bralston@blm.gov)>

Date: Wed, Feb 11, 2015 at 3:41 PM

Subject: Re: gis query question

To: "Makela, Paul" <[pmakela@blm.gov](mailto:pmakela@blm.gov)>

Cc: Jonathan Beck <[jmbeck@blm.gov](mailto:jmbeck@blm.gov)>

Paul,

Butte Field Office is included for effects analysis purposes only. None of the proposed decisions apply to the Butte FO and the Butte RMP is not being amended through this effort. So for impacts analysis the Butte FO would carry forward the no action alternative effects specific to those lands in all alternatives analysis. Since there are no new decisions in the Butte FO the effects analysis on those lands described in the no action alternative would carry forward to all alternatives. So for acreage calculations in GIS the analysis would report the same allocations for Butte as described in the no action. In the effects write up that EMPSi is working on it may be impossible to tease out any differences in Butte based on the area and habitat involved.

Brent Ralston

Project Lead

Jarbidge Grazing Permit Team

Idaho State Office

208-373-3812

Sent from my iPad

On Feb 11, 2015, at 3:35 PM, "Makela, Paul" <[pmakela@blm.gov](mailto:pmakela@blm.gov)> wrote:

Gents,

Before GIS folks do the calcs for the direct/indirect effects, I think you need to confirm or reconfirm how the Butte MT field office area is going to be handled.

For example Table 4-57 in the DEIS is titled "Oil and Gas Leasing Categories in the Decision Area, Alternatives B and F".

In the DEIS glossary, "Decision Area" is defined as "Lands and federal mineral estate within the planning area that are administered by the BLM and the Forest Service." The term "Planning Area" is not in the Glossary.



If planning area is defined by the subregion boundary it includes the Butte FO.

It has been my understanding that Butte FO was going to be part of the cumulative effects analysis but not the direct/indirect analysis since it is outside the decision space for the amendment---which is only relevant to the Dillon FO and the Beaverhead-Deerlodge NF.

I was meeting with Diane about lek issues, and noticed that when you turn on certain themes like "closed for oil/gas" some polygons in the Butte portion show up. See attached pdf and callout boxes.

So the question is do those acres in Butte FO still get rolled into Ch 4 tables for oil/gas closures, or not. If they do, they inflate the actual acres "closed" relative to the Dillon FO/BHDL NF amendment area. However, if we clip those by PHMA and GHMA designations (which only are in Dillon FO/BDHNF), or if we at least just exclude/clip out the Butte FO, then it's not an issue.

Please advise...

Paul

Paul Makela  
Wildlife Program Lead  
Idaho BLM State Office  
Branch of Resources and Science  
1387 S. Vinnell Way  
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<ButteFOQuestion.pdf>

--  
Jonathan Beck  
Bureau of Land Management  
Idaho State Office  
208-373-4070



United States Department of the Interior  
U.S. Fish and Wildlife Service  
Idaho Fish and Wildlife Office

1387 S. Vinnell Way, Room 368  
Boise, Idaho 83709  
Telephone (208) 378-5243  
<http://www.fws.gov/idaho>



JUN 11 2015

Memorandum

To: State Director, Idaho State Office, U.S. Bureau of Land Management, Boise, Idaho  
Regional Forester, Region 1, U.S. Forest Service, Missoula, Montana  
Regional Forester, Region 4, U.S. Forest Service, Ogden, Utah

From: *Acting* State Supervisor, Idaho Fish and Wildlife Office, U.S. Fish and Wildlife Service, Boise, Idaho *Deir Mackey*

Subject: Idaho/Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement—Multiple Counties in Idaho and Southwestern Montana and Box Elder County, Utah—Concurrence  
In Reply Refer To: 01EIFW00-2015-I-0502

This memorandum transmits the U.S. Fish and Wildlife Service's (Service) concurrence on the effects to species listed under the Endangered Species Act (Act) of 1973, as amended, from actions associated with the U.S. Bureau of Land Management's (Bureau) and U.S. Forest Service's (USFS) (collectively referred to as the action agencies) proposed Idaho/Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement (LUPA) which encompasses multiple counties in Idaho and Southwestern Montana<sup>1</sup> and Box Elder County, Utah. In a letter dated May 8, 2015, and received by the Service on May 12, the action agencies requested concurrence<sup>2</sup> with the determination, documented in the Biological Assessment (Assessment; USBLM and USFS 2015, entire), that implementation of the proposed LUPA may affect, and is not likely to adversely affect the grizzly bear (*Ursus arctos horribilis*) and *Spiranthes diluvialis* (Ute ladies'-tresses), both threatened species under the Endangered Species Act of 1973 (Act), as amended.

In addition, pursuant to the requirements of 7(a)(4) of the Act and CFR 402.10, the action agencies assessed the effects of the proposed actions and made non-jeopardy determinations for the proposed LUPA. The action agencies determined that the LUPA is not likely to jeopardize the continued existence of *Lepidium papilliferum* (slickspot peppergrass), a species currently proposed for listing as Endangered under the Act. The Bureau and USFS also determined that

<sup>1</sup> The LUPA planning area includes Ada, Blaine, Cassia, Camas, Canyon, Elmore, Gem, Gooding, Jerome, Lincoln, Minidoka, Oneida, Owyhee, Power, and Twin Falls counties in Idaho, and Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Lewis & Clark, Madison, Park, Powell, and Silver Bow counties in southwestern Montana.

<sup>2</sup> Although the Bureau's memorandum was transmitted under Bureau letterhead and signature, the Bureau specifically stated that this request was also on behalf of the USFS.

the proposed LUPA is not likely to result in the destruction or adverse modification of proposed critical habitat for the slickspot peppergrass and the western yellow-billed cuckoo (*Coccyzus americanus*). Though Director (Service) concurrence is not required by 7(a)(4) or CFR 402.10, the inclusion of these determinations in the Assessment creates a need under CFR 402.12(k) for the Service's concurrence with these determinations. After reviewing the action agencies' Assessment, the Service concurs with these determinations, and pursuant to language at CFR 402.12(k), a conference is not required.

The action agencies also determined that implementation of the LUPA will have no effect on the Canada lynx (*Lynx canadensis*) and its designated critical habitat, the northern Idaho ground squirrel (*Spermophilus brunneus brunneus*), the red knot (*Calidris canutus rufa*), the western yellow-billed cuckoo, the bull trout (*Salvelinus confluentus*) and its designated critical habitat, the Banbury Springs lanx (*Lanx* spp.), the Bliss Rapids snail (*Taylorconcha serpenticola*), the Bruneau hot springsnail (*Pyrgulopsis bruneauensis*), and the Snake River physa (*Physa natricina*). The Service acknowledges these no effect determinations.

## Project Overview

The Bureau and USFS prepared amendments to their respective land use plans (LUPs) in response to the need to inform the Service's March 2010 "warranted, but precluded" listing decision for the greater sage-grouse (*Centrocercus urophasianus*, GRSG). These documents provide direction for the conservation of GRSG, and analyze the environmental effects that could result from implementing the proposed LUPA. There are two selected actions, one for the Bureau and one for the USFS. Overall, the two plans are the same, with some minor differences between the plans primarily due to agency land management planning terminology. Full details of the Bureau and the USFS proposed LUPA are provided in the Assessment (USBLM and USFS 2015, Appendices D and E).

The LUPA addresses GRSG habitat within Idaho, southwestern Montana, and that portion of the Sawtooth National Forest located within Box Elder County, Utah. The LUPA covers Bureau-administered lands in the Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, and Upper Snake Field Offices in Idaho and the Butte<sup>3</sup> and Dillon Field Offices in Montana. The LUPA covers National Forest System lands in the Boise, Caribou-Targhee, Salmon-Challis National Forests, and Curlew National Grassland in Idaho, the Beaverhead-Deerlodge National Forest in Montana, and that portion of the Sawtooth National Forest located in Utah. The Proposed LUPA focuses on addressing public comments and comments from the States of Idaho and Montana, while continuing to meet Bureau and USFS legal and regulatory mandates (USBLM and USFS 2015, pp. 7-8).

The purpose of the LUPA is to identify and incorporate appropriate conservation measures in LUPs to conserve, enhance, or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Assessment further states that changes in action agency management

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<sup>3</sup> Butte Field Office-administered lands are not included as part of the analysis in the LUPA/EIS except as required in the GRSG cumulative effects analysis. For additional information, please see Chapter 1 of the Final Environmental Impact Statement for the LUPA.

of GRSG habitats are anticipated to have considerable benefits to present and future GRSG populations, and could reduce the need to list the GRSG as threatened or endangered under the Act (USBLM and USFS 2015, p. 8). The proposed LUPA incorporates the following GRSG goal: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners. GRSG habitat in Idaho is divided into three categories, listed here in order of higher to lower conservation value to GRSG: Priority Habitat Management Areas (PHMA), Important Habitat Management Areas (IHMA), and General Habitat Management Areas (GHMA). Only PHMA and GHMA are identified for GRSG in the southwestern Montana portion of this action (USBLM and USFS 2015, pp. 12-13).

The proposed action, a decision on direction for the conservation of the GRSG, is unlike a typical project in that it does not set in motion specific on the ground, environment-impacting activities. However since the LUPA does represent a final agency action, the Bureau and the USFS have reviewed the general nature of impacts that could potentially occur from the LUPA, including how they potentially affect listed species. At the LUP level, there is only sufficient information to generally evaluate the potential impacts of the LUPA on species protected under the Act and the circumstances or planning and operation constraints that may reduce those potential impacts. The same analytical constraints apply to the Assessment and to this Letter of Concurrence, especially since the LUPA does not specifically act as the decision document for site-specific future projects.

Programmatic plans are considered permissive in that they allow but do not authorize or approve any site-specific projects or actions. They are much like zoning ordinances under which future decisions are made. Decisions at the LUP level establish goals and objectives, identify the types of activities that are allowed or prohibited in specific areas, may specify management standards and minimum habitat condition goals either unit wide or for specific areas, and may establish a monitoring and evaluation program. The Assessment does not analyze site-specific actions, and specifically states that effects determinations should not be assumed to relate to site-specific projects. In the future, during project-level environmental planning and analysis, site-specific actions will continue to be analyzed to identify possible effects on listed species. Site-specific analysis of such actions may identify potential effects on listed species even when the programmatic Assessment determines no effect associated with GRSG management direction for LUP programs. As part of any future project-level environmental analysis, specific conservation measures and strategies to alleviate any potential adverse effects associated with GRSG management direction may be developed as the details of the future site-specific proposed actions become available (USBLM and USFS 2015, pp. 100-101).

The LUPA Assessment, associated section 7 consultation activities, and this Letter of Concurrence do not change the responsibility of the Bureau and the USFS to consult on site-specific projects as they are developed in the future. Even if those future actions are consistent with the LUPA, if those actions may affect any listed species, the Bureau and USFS bear the responsibility to consult with the Service under section 7 of the Act to ensure that their actions are not likely to jeopardize those species or adversely modify designated critical habitat.

This consultation on GRSG management and its LUPA direction is to be considered in the context of already existing LUPs and any consultations on those previous LUPs. This consultation does not substitute or replace any previous consultation on existing LUPs. The action agency's effects determinations and the Service concurrence have been made with this context in mind. The Service recommends that a copy of this memorandum be retained in agency overall LUP files with previously completed LUP consultations for future reference and to document that section 7 compliance for individual LUPs under the Act is complete.

## **Basis for Service Concurrence by Species**

The Bureau and USFS have determined, and the Service concurs, that the LUPA may affect, but is not likely to adversely affect two threatened species (the grizzly bear and the Ute ladies'-tresses). Service concurrence with Bureau and USFS determinations of effect for these listed species is based on the rationales highlighted below. In addition, the Bureau and USFS have determined, and the Service concurs, that the LUPA is not likely to jeopardize the continued existence of one species proposed for listing (the slickspot peppergrass) and will not destroy or adversely modify critical habitat proposed for two species (the slickspot peppergrass and the yellow-billed cuckoo) within some LUP units.

### **Grizzly Bear**

The Bureau and USFS determined that the LUPA decision and associated actions occurring on the Bureau's Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, and Four Rivers Field Offices; the USFS's Boise, Salmon-Challis, or Sawtooth National Forests; and the USFS's Curlew National Grassland will have no effect on the grizzly bear because these field offices and national forests/grassland do not contain occupied habitat for grizzly bears. The Service acknowledges these no effect determinations for the grizzly bear.

Service concurrence with the determination that the LUPA may affect, but is not likely to adversely affect the grizzly bear within the Bureau's Upper Snake and Dillon Field Offices and the USFS's Beaverhead-Deerlodge and Caribou-Targhee National Forests, is based on the following rationales.

- Overall, a total of 173,581 acres of occupied grizzly bear habitat overlap with PHMA, 116,465 acres overlap with IHMA, and 81,673 acres of GHMA within the LUPA area (compiled from USBLM and USFS 2015, pp. 47, 50, 63, 69).
- GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears—secure habitat, developed sites, food storage, livestock grazing, and four key food sources<sup>4</sup>—are expected to be neutral, result in beneficial effects, or minimal negative impacts. For example:

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<sup>4</sup> Four seasonal foods have been identified as being important to the grizzly bear population: winter killed ungulates, spawning cutthroat trout, seeds of whitebark pine, and alpine moth aggregation sites. The LUPA action area has no overlap with habitats supporting these four seasonal foods (USBLM and USFS 2015, p. 87).

- Fuels treatments, habitat restoration, and vegetation management treatments in GRSG HMAs will maintain, improve, or restore sagebrush habitat, benefitting all species that use sagebrush habitat, including grizzly bears.
- For recreation and travel management and lands and realty and infrastructure management programs, the GRSG LUPA decision will not authorize new roads. Rather, it will limit new road construction and existing road use, which could benefit grizzly bears by increasing the available amount of secure habitat.
- There is the potential for some negative effects on listed species from direction provided within the LUPA. For example, fuels treatments using targeted grazing or plant species used for seeding proposed within occupied grizzly bear habitat have the potential to negatively impact grizzly bears. In addition, prohibiting construction of new recreation facilities or infrastructure within GRSG PHMA and IHMA could push the construction of developed sites into preferred grizzly habitat. However, site-specific analyses will determine the scope and scale of any likely impacts that may occur associated with project-level activities. Furthermore, significant effects from these site-specific projects will be highly unlikely due to avoidance or other mitigations based on current laws, agency regulations, and other conservation measures in place to protect the grizzly bear. Any possible effects from future proposed actions will be addressed in site-specific analysis at the project level when reasonably certain, explicit actions are identified and proposed. Therefore, potential effects of site-specific projects proposed under LUPA programs that may affect the grizzly bear are expected to be reduced to insignificant or discountable levels.

### **Ute ladies'-tresses**

The Bureau and USFS determined that the Idaho-Southwestern Montana LUPA decision and associated actions occurring on the Bureau's Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Salmon, and Shoshone Field Offices; the USFS's Boise and Beaverhead-Deerlodge National Forests; and the USFS's Curlew National Grassland will have no effect on the Ute ladies'-tresses as suitable habitat for the Ute ladies'-tresses is not suspected to occur in these field offices and national forests/grassland. The Service acknowledges these no effect determinations for the Ute ladies'-tresses.

Service concurrence with determination that the LUPA may affect, but is not likely to adversely affect, the Ute ladies'-tresses within the Bureau's Dillon, Pocatello, and Upper Snake Field Offices and within the USFS's Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests, is based on the following rationales.

- There is no overlap between known Ute ladies'-tresses locations and GRSG HMAs. The closest known Ute ladies'-tresses location is over 0.6 mile from the IHMA located in Fremont County, Idaho.
- The areas most likely to support Ute ladies'-tresses populations (riparian areas along major river drainages) have mostly been excluded from GRSG HMAs. However, it is likely that suitable habitat for Ute ladies'-tresses is located within GRSG HMAs due to the inclusion of some wetland habitats.

- Because the proposed LUPA does not propose any specific ground-disturbing actions, no direct negative effects on Ute ladies'-tresses will occur from the LUPA action.
- Where travel management planning has not been completed or is in progress, and listed plant habitats are present, there may be a reduction of impacts from off-road vehicle use (BLM TM-1) in areas where Ute ladies'-tresses overlap with GRSG HMAs (pp. 102, 140). Restrictions for off-road vehicle use may provide a beneficial effect on listed plant species by reducing impacts from off road vehicle activities (plants crushed by tires). Thus, if any areas of occupied or suitable habitat for Ute ladies'-tresses within GRSG HMAs are currently open to off-road vehicle use, restrictions will be placed on vehicles to use only existing routes. This would provide a small and contemporaneous beneficial effect on Ute ladies'-tresses by reducing the likelihood of damage to Ute ladies'-tresses or its habitat from off-road vehicles.
- Proposed retrofitting of existing towers and structures consistent with required design features (RDFs) in the GRSG HMAs (BLM LR-12) to benefit GRSG has the potential to impact listed plants, including the Ute ladies'-tresses, if the plants are present in the right-of-way (ROW) corridors where retrofit activities are needed. Potential crushing of vegetation, including Ute ladies'-tresses, could occur due to parking vehicles off roads near each tower as well as foot traffic near the towers during retrofit activities. However, because towers, structures, and their access roads generally avoid riparian habitats, the Ute ladies'-tresses is not likely to be present on or directly adjacent to ROW roads or near existing towers. Therefore, potential effects of LUPA-related retrofitting of towers and structures on the Ute ladies'-tresses are extremely unlikely to occur, and therefore, are discountable.
- Although there is the potential for some negative effects on listed species from additional proposed actions associated with LUPA direction, significant effects will be highly unlikely due to avoidance or other mitigations based on current laws, agency regulations, and other conservation measures currently in place to protect listed plants. Any possible effects from future proposed actions will be addressed in site-specific analysis at the project level when reasonably certain, explicit actions are identified and proposed. Therefore, potential effects of site-specific projects proposed under LUPA programs that may affect the Ute ladies'-tresses are expected to be reduced to insignificant or discountable levels.

### **Slickspot Peppergrass**

The Bureau and USFS determined that the LUPA decision and associated actions occurring on the Bureau's Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices, the USFS's Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the USFS's Curlew National Grassland will have no effect on the slickspot peppergrass as these field offices and national forests/grassland are not suspected to contain suitable habitats for the slickspot peppergrass. The Service acknowledges these no effect determinations for the slickspot peppergrass.

After reviewing the Bureau and USFS Assessment, the Service concurs with the Bureau and USFS determination that the LUPA is not likely to jeopardize the continued existence of the

slickspot peppergrass within the Bureau's Four Rivers and Jarbidge Field Offices. As described above, pursuant to language at CFR 402.12(k), conference is not required for this Federal action agency non-jeopardy determination.

### **Proposed Critical Habitat for the Slickspot Peppergrass**

The Bureau and USFS determined that the LUPA decision and associated actions occurring on the Bureau's Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, and Upper Snake Field Offices; the USFS's Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests; and the USFS's Curlew National Grassland will have no effect on proposed critical habitat for the slickspot peppergrass as these field offices and national forests/grassland do not contain proposed critical habitat for the species. The Service acknowledges these no effect determinations for slickspot peppergrass proposed critical habitat.

After reviewing the Bureau and USFS Assessment, the Service concurs with the Bureau and USFS determination that the LUPA is not likely to destroy or adversely modify proposed critical habitat for the slickspot peppergrass within the Bureau's Four Rivers and Jarbidge Field Offices. As described above, pursuant to language at CFR 402.12(k), conference is not required for this Federal action agency no destruction or adverse modification determination.

### **Proposed Critical Habitat for the Yellow-billed Cuckoo**

The Bureau and USFS determined that the LUPA decision and associated actions occurring on the Bureau's Bruneau, Burley, Challis, Dillon, Four Rivers, Jarbidge, Owyhee, Pocatello, Salmon, and Upper Snake Field Offices, the USFS's Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, and Beaverhead-Deerlodge National Forests, and the USFS's Curlew National Grassland will have no effect on the proposed critical habitat for the western yellow-billed cuckoo because these field offices and national forests/grassland do not contain western yellow-billed cuckoo proposed critical habitat that overlaps with LUPA actions. The Service acknowledges these no effect determinations for western yellow-billed cuckoo proposed critical habitat.

After reviewing the Bureau and USFS Assessment, the Service concurs with the Bureau and USFS determination that the LUPA is not likely to destroy or adversely modify proposed critical habitat for the yellow-billed cuckoo within the Bureau's Shoshone Field Office. As described above, pursuant to language at CFR 402.12(k), conference is not required for this Federal action agency no destruction or adverse modification determination.

### **Conclusion**

This concludes informal consultation on the proposed LUPA with the Bureau and the USFS under section 7 of the Act. Reinitiation of consultation on this action may be necessary if new information reveals effects of the action that may affect listed species or designated habitat in a manner or to an extent not considered in the assessment, the action is subsequently modified in a manner that causes an effect to listed species that was not considered in the analysis, or a new species is listed or critical habitat is designated that may be affected by the proposed action (CFR 402.16).



Thank you for your continued interest in threatened and endangered species conservation. Please contact Barbara Schmidt of my staff at (208) 378-5259 if you require additional information regarding this memorandum.

cc: BLM ISO, Boise (Hoefler, Makela)  
BLM, WO, Washington (Tripp)  
USFS, Caribou Targhee National Forest, Pocatello (Colt)  
USFS, Ogden, UT (Stein)  
FWS, EIFO, Chubbuck (Ohr, Fisher)  
FWS, WFWO, Helena, MT (Bush)  
FWS, IFWO, Boise (Hendricks)  
FWS, UFWO, West Valley City, UT (Crist)  
FWS, Region 1, Portland (Brown)  
FWS, Region 6, Denver (Laye)  
FWS, Region 6, Cheyenne (Deibert)

## References Cited

- U.S. Bureau of Land Management and U.S. Forest Service (USBLM and USFS). 2015. Biological Assessment for the Idaho/Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement. May 11, 2015. Idaho State Office, Bureau of Land Management, Boise, Idaho. 140 pp. + appendices.
- U.S. Bureau of Land Management and U.S. Fish and Wildlife Service (USBLM and USFWS). 2014. Conservation agreement for Idaho Bureau of Land Management existing land use plans. Agreement to provide land use plan level conservation measures for slickspot peppergrass for all applicable existing Idaho Bureau of Land Management land use plans signed September 15, 2014. 8 pp. + appendices.
- U.S. Fish and Wildlife Service (USFWS). 2009. Biological Opinion for the Jarbidge Resource Management Plan, Kuna Management Framework Plan, Cascade Resource Management Plan, and Snake River Birds of Prey National Conservation Area Resource Management Plan for the Bureau of Land Management, Idaho. Tracking Number 14420-2010-F-0019. 57 pp. + appendices. Document available on-line at: [http://www.fws.gov/idaho/publications/BOs/0019\\_BLMLEPA\\_2010.PDF](http://www.fws.gov/idaho/publications/BOs/0019_BLMLEPA_2010.PDF) (last accessed May 26, 2015).

Biological Assessment  
for the  
  
Idaho/Southwestern Montana  
Greater Sage-Grouse  
Land Use Plan Amendment  
and  
Environmental Impact Statement

11 May 2015

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## Acronyms

BA	biological assessment
BAER	Burned Area Emergency Restoration
BLM	Bureau of Land Management
BMP	best management practice
BMU	bear management unit
BDNF	Beaverhead-Deerlodge National Forest
CFR	Code of Federal Regulations
COA	condition of approval
DPS	distinct population segment
EIS	environmental impact statement
ESA	Endangered Species Act
ESR	emergency stabilization and rehabilitation
ESU	evolutionarily significant unit
FEIS	final environmental impact statement
FIAT	Fire and Invasive Assessment Team
FO	Field Office
Montana FWP	Montana Fish, Wildlife, and Parks
GHMA	general habitat management area
GRSG	Greater Sage-Grouse
HMA	habitat management area
IGBC	Interagency Grizzly Bear Committee
IHMA	important habitat management area
LRMP	Land and Resource Management Plan
LUP	land use plan
LUPA	land use plan amendment
MIST	minimum impact suppression tactics
NCDE	Northern Continental Divide Ecosystem
NEPA	National Environmental Policy Act
NSO	no surface occupancy
PCA	primary conservation area
PCE	primary constituent element
PHMA	priority habitat management area
RDF	required design feature

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RMP	resource management plan
SFA	sagebrush focal area
T&E	threatened and endangered
USDI	United States Department of Interior
USFWS	United States Fish and Wildlife Service
WNAA	west and north analysis area
YGBE	Yellowstone Grizzly Bear Ecosystem

## INTRODUCTION

### Background

The Bureau of Land Management (BLM) and Forest Service have prepared amendments to their respective land use plans (LUPs). These documents provide direction for the conservation of Greater Sage-Grouse (*Centrocercus urophasianus*, GRSG) and analyze the environmental effects that could result from implementing the proposed plan. This land use plan amendment (LUPA) addresses GRSG habitat within Idaho, southwestern Montana, and the Sawtooth National Forest within Utah. The LUPA covers BLM-administered lands in the Bruneau Field Office, Burley Field Office, Challis Field Office, Four Rivers Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office, Shoshone Field Office, and Upper Snake Field Office in Idaho and the Butte Field Office<sup>1</sup> and Dillon Field Office in Montana. The LUPA covers National Forest System lands in the Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, and Curlew National Grassland in Idaho, the Beaverhead-Deerlodge National Forest (BDNF) in Montana, and the Sawtooth National Forest in Utah. The Proposed LUPA focuses on addressing public comments and comments from the States of Idaho and Montana, while continuing to meet the BLM's and Forest Service's legal and regulatory mandates.

The purpose of this biological assessment (BA) is to review the Proposed LUPA to determine the extent that implementing the LUPA may affect proposed, threatened, and endangered species and proposed or designated critical habitat in the planning area. Because the LUPA is a planning document, this BA focuses on the effects of management actions that will be implemented.

Under provisions of the Endangered Species Act (ESA) of 1973, as amended (16 [US Code] USC, Section 1531 et seq.), federal agencies are directed to conserve threatened and endangered (T&E) species and their habitats. Section 7(a)(1) states that all federal agencies should use “their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species....” Thus, the conservation and recovery of T&E species is not simply the responsibility of the US Fish and Wildlife Service (USFWS), but of all federal agencies. To meet this requirement, the BLM and Forest Service, through their LUPs, would implement management actions, standards and guidelines, protective stipulations, conditions of approval (COAs), conservation measures, required design features (RDFs), best management practices (BMPs), mitigation, habitat restoration, and protections.

Section 7(c) of the ESA requires the BLM to complete a BA to determine the effects of implementing a resource management plan (RMP) on listed species, based on compliance with Section 102 of the National Environmental Policy Act (NEPA). Federal agencies are required to consider, avoid, or prevent adverse impacts on fish and wildlife species. The agencies are also required to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of T&E species or their critical habitat. The ESA requires action agencies, such as the BLM and Forest Service, to not only consult or confer with the USFWS when there is discretionary federal involvement or control over the action, but to ensure that resources are afforded adequate consideration and protection. Formal consultation becomes necessary when the action agency requests consultation after determining that the proposed action is likely to adversely

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<sup>1</sup> Butte Field Office-administered lands are not included as part of the analysis in this LUPA/EIS except as required in the GRSG cumulative effects analysis. For additional information, please see Chapter 1 of the FEIS.



affect listed species or critical habitat, or the aforementioned federal agencies do not concur with the action agency's finding (USFWS 1998).

This programmatic BA provides documentation and analysis for the proposed action to meet the federal requirements and agreements set forth among the federal agencies. It addresses proposed and federally listed T&E species and proposed or designated critical habitat. It has been prepared under the 1973 ESA Section 7 regulations, as amended, in accordance with the 1998 procedures set forth by USFWS and the National Marine Fisheries Service. The BLM and Forest Service, in coordination with the USFWS, conducted an analysis of the effects of the proposed LUPA on listed species.

### **Purpose and Need for GRSG LUPA**

The BLM and Forest Service have prepared a LUPA with associated environmental impact statements (EISs) for LUPs containing GRSG habitat. This is in response to the need to inform the USFWS's March 2010 "warranted, but precluded" ESA listing decision. The inadequacy of regulatory mechanisms was identified as a significant threat in the USFWS finding on the petition to list the GRSG. The need is to ensure that the BLM and Forest Service have adequate regulatory mechanisms in the LUPs for consideration by USFWS a year in advance of its anticipated 2015 listing. The USFWS identified the principal regulatory mechanisms for the BLM and the Forest Service as conservation measures embedded in LUPs. Changes in management of GRSG habitats are necessary to avoid the continued decline of populations that are anticipated across the species' range. This LUPA will focus on areas affected by threats to GRSG habitat identified by the USFWS in the March 2010 listing decision.

The purpose of the LUPA is to identify and incorporate appropriate conservation measures in LUPs to conserve, enhance, or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. Changes in the BLM and Forest Service management of GRSG habitats are anticipated to have a considerable beneficial impact on present and future GRSG populations and could reduce the need to list the species as threatened or endangered under the ESA. This is because the BLM and Forest Service administer a large portion of GRSG habitat in the affected states.

### **Description of Planning Area**

The Idaho and Southwestern Montana Sub-region includes BLM-administered and National Forest System lands in Idaho and southwestern Montana, excluding the Idaho panhandle. The specific field offices and national forests included in the planning area are: Bruneau Field Office, Burley Field Office, Challis Field Office, Four Rivers Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office, Shoshone Field Office, Upper Snake Field Office, Boise National Forest, Caribou-Targhee National Forest, Curlew National Grassland, Salmon-Challis National Forest, and Sawtooth National Forest in Idaho; Butte Field Office, Dillon Field Office, and BDNF in southwestern Montana; and the portion of the Sawtooth National Forest within Box Elder County in Utah. A map of the planning area is provided as **Figure 1**, Idaho and Southwestern Montana Greater Sage-Grouse Land Use Amendment EIS Planning Area Boundaries.

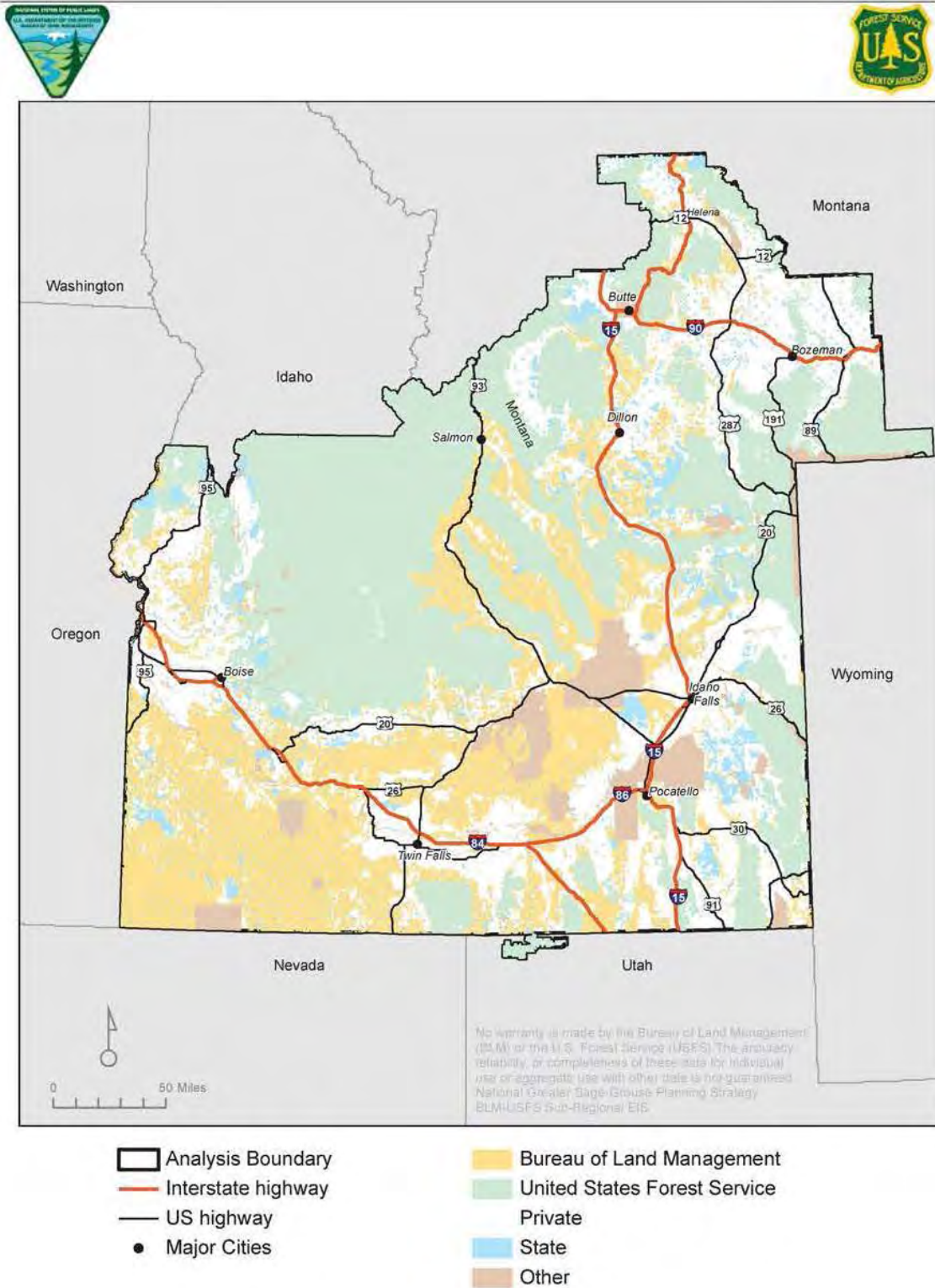
There are approximately 77,800 acres of BLM-administered lands in Elko County, Nevada, north of the Humboldt-Toiyabe National Forest and south of the Idaho-Nevada state line adjacent to the Bruneau and Jarbidge Field Offices in Idaho. For purposes of the GRSG LUPAs in Idaho and in

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Nevada, planning for these lands will occur through the Nevada and Northeastern California Greater Sage-Grouse LUPA, and the regulatory measures and decisions that are put in place for the GRSG through the Record of Decision (ROD) will be implemented and administered by the Jarbidge and Bruneau Field Offices in Idaho. Therefore, the decision and planning areas for the Idaho and Southwestern Montana GRSG LUPA end at the Idaho/Nevada state line and will not include lands in Nevada; however, maps will continue to include these Nevada lands as part of the Idaho and Southwestern Montana Sub-region based on the recognized administrative boundary.

Range-wide, approximately 52 percent of sagebrush habitat within GRSG management zones is on BLM-administered land, and approximately 8 percent is on National Forest System land; within the Idaho and Southwestern Montana Sub-region, approximately 51 percent of sagebrush habitat is on BLM-administered land and 10 percent is on National Forest System land. The planning area for the Idaho and Southwestern Montana GRSG LUPA/EIS is composed of land administered by the BLM, the Forest Service, and state and federal agencies, as well as private lands (Table 1).

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**Figure 1. Idaho and Southwestern Montana Greater Sage-Grouse Land Use Amendment EIS Planning Area Boundaries**

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Table 1. Priority, important and general habitat management areas (acres) by administrative unit.

Surface Land Management	PHMA <sup>1</sup> (acres)	IHMA (acres)	GHMA (acres)	Total Area (acres)
<b>BLM Total</b>	<b>4,627,161</b>	<b>2,737,637</b>	<b>2,205,311</b>	<b>9,570,109</b>
<b>BLM – Idaho</b>	<b>4,166,554</b>	<b>2,737,637</b>	<b>1,957,753</b>	<b>8,861,944</b>
Bruneau Field Office	941,756	106,203	129,785	1,177,744
Burley Field Office	103,980	257,640	173,022	534,642
Challis Field Office	335,317	313,514	111,218	760,049
Four Rivers Field Office	0	86,146	392,318	478,464
Jarbridge Field Office	421,265	380,472	116,476	918,213
Owyhee Field Office	649,265	357,049	158,289	1,164,603
Pocatello Field Office	31,070	179,424	111,800	322,294
Salmon Field Office	94,393	207,800	34,052	336,245
Shoshone Field Office	776,376	257,277	583,529	1,617,182
Upper Snake Field Office	813,132	592,112	147,264	1,552,508
<b>BLM – Montana</b>	<b>460,607</b>	<b>0</b>	<b>247,558</b>	<b>708,165</b>
Butte Field Office <sup>2</sup>	0	0	25,608	25,608
Dillon Field Office	460,607	0	221,950	682,557
<b>Forest Service Total</b>	<b>564,583</b>	<b>415,262</b>	<b>579,990</b>	<b>1,559,835</b>
<b>Forest Service - Idaho</b>	<b>330,302</b>	<b>415,262</b>	<b>345,987</b>	<b>1,091,551</b>
Sawtooth National Forest	58,722	151,883	231,795	442,400
Boise National Forest	0	21,045	57,035	78,080
Caribou-Targhee National Forest	56,642	75,604	29,911	162,157
Salmon-Challis National Forest	214,938	166,730	27,246	408,914
<b>Forest Service - Montana</b>	<b>162,366</b>	<b>0</b>	<b>234,003</b>	<b>396,369</b>
Beaverhead-Deerlodge National Forest	162,366	0	234,003	396,369
<b>Forest Service - Utah</b>	<b>71,915</b>	<b>0</b>	<b>0</b>	<b>71,915</b>
Sawtooth National Forest	71,915	0	0	71,915
<b>Other Agencies Total</b>	<b>2,351,717</b>	<b>1,536,213</b>	<b>3,424,696</b>	<b>7,312,626</b>
US Fish and Wildlife Service	39,628	0	1,194	40,822
National Park Service	0	232	128	360
Department of Energy	108,119	329,615	120,976	558,710
Department of Defense	12	11,143	2,447	13,602
Bureau of Reclamation	3,023	820	2,094	5,937
Indian Tribe	189,037	145,278	9,297	343,612
Idaho State	363,287	259,532	428,238	1,051,057
Montana State	224,942	0	172,371	397,313
Private	1,331,180	762,487	2,391,503	4,485,170
Other	92,489	27,106	296,448	416,043
<b>Total Acres:</b>	<b>7,543,461</b>	<b>4,689,112</b>	<b>6,209,997</b>	<b>18,442,570</b>

<sup>1</sup> PHMA = priority habitat management area; IHMA = important habitat management areas; GHMA = general habitat management area

<sup>2</sup> Butte Field Office-administered lands are not included as part of the analysis in this LUPA/EIS except as required in the cumulative effects analysis.

Source: BLM 2015

## DESCRIPTION OF THE PROPOSED ACTION

As a result of public comments, best available science, cooperating agency coordination, and internal review of the Draft LUPA/EIS, the BLM and Forest Service have developed the Proposed LUPAs/Final EISs (FEISs).

The proposed plans incorporate the following GRSG goals: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners. There are two selected actions, one for the BLM and one for the Forest Service. Largely, the two plans are the same. There are minor differences between the plans, primarily due to land management planning terminology. For the full details of each agency's proposed plan, please refer to Chapter 2 of the FEIS. (For purposes of USFWS review, the BLM and Forest Service plans are included as Appendices D and E, respectively.)

### *GRSG Habitat Management Area Definitions*

GRSG habitat management areas are shown in Figures 2 and 3, and are defined as follows:

- **Priority Habitat Management Areas** (PHMAs, analogous to core habitat zones)—Areas identified by the BLM and Forest Service, in coordination with respective state wildlife agencies, as having the highest conservation value to maintaining sustainable GRSG populations. These areas include breeding, late brood-rearing and winter concentration areas.
- **Important Habitat Management Areas** (IHMAs, analogous to Preliminary Medial Management Areas, Preliminary Restoration Management Areas, and Important Habitat Zones) —High value habitat and populations that provide a management buffer for the priority and sagebrush focal management areas and connect patches of priority and sagebrush focal management areas. IHMA encompass areas of generally moderate to high conservation value habitat and/or populations. In some conservation areas, they may include areas beyond those identified by USFWS as necessary to maintain redundant, representative, and resilient populations. The areas are typically adjacent to priority and sagebrush focal management areas but generally reflect somewhat lower GRSG population status or reduced habitat value due to disturbance, habitat fragmentation, or other factors. No IHMA are designated within the southwestern Montana portion of the planning area.
- **General Habitat Management Areas** (GHMAs, analogous to general habitat zones) — Areas identified by the BLM and Forest Service, in coordination with respective state wildlife agencies, as those areas outside of priority and sagebrush focal management areas and occupied by GRSG seasonally or year-round.
- **Sagebrush Focal Areas** (SFAs) —a subset of PHMA, identified by the USFWS, that are considered most vital to the species' persistence and therefore require the strongest levels of protection.

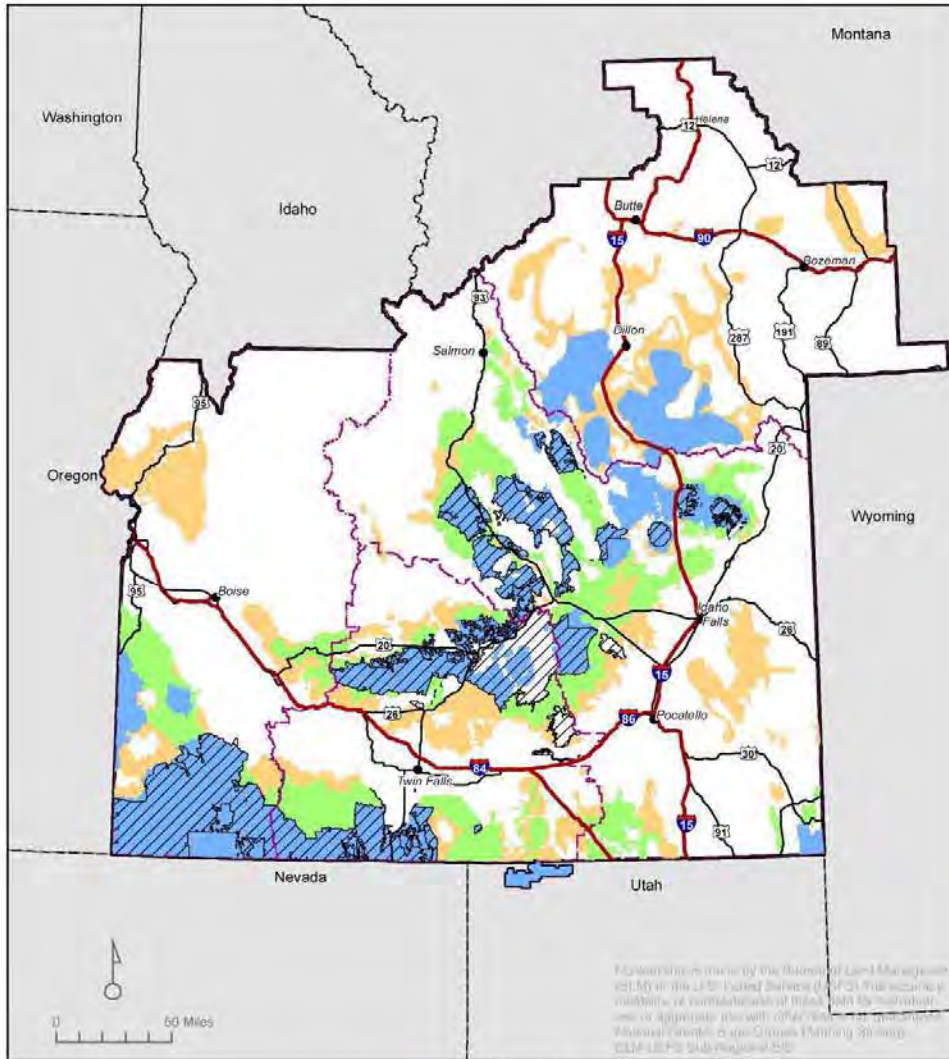
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Greater Sage-grouse Habitats



- Legend**
- BLM District Office Boundary
  - PHMA
  - IHMA
  - GHMA
  - Sagebrush Focal Area

Figure 2. Idaho/Southwest Montana Greater Sage-Grouse Habitats

## Idaho / SW Montana Greater Sage-grouse EIS Habitat and Sagebrush Focal Areas

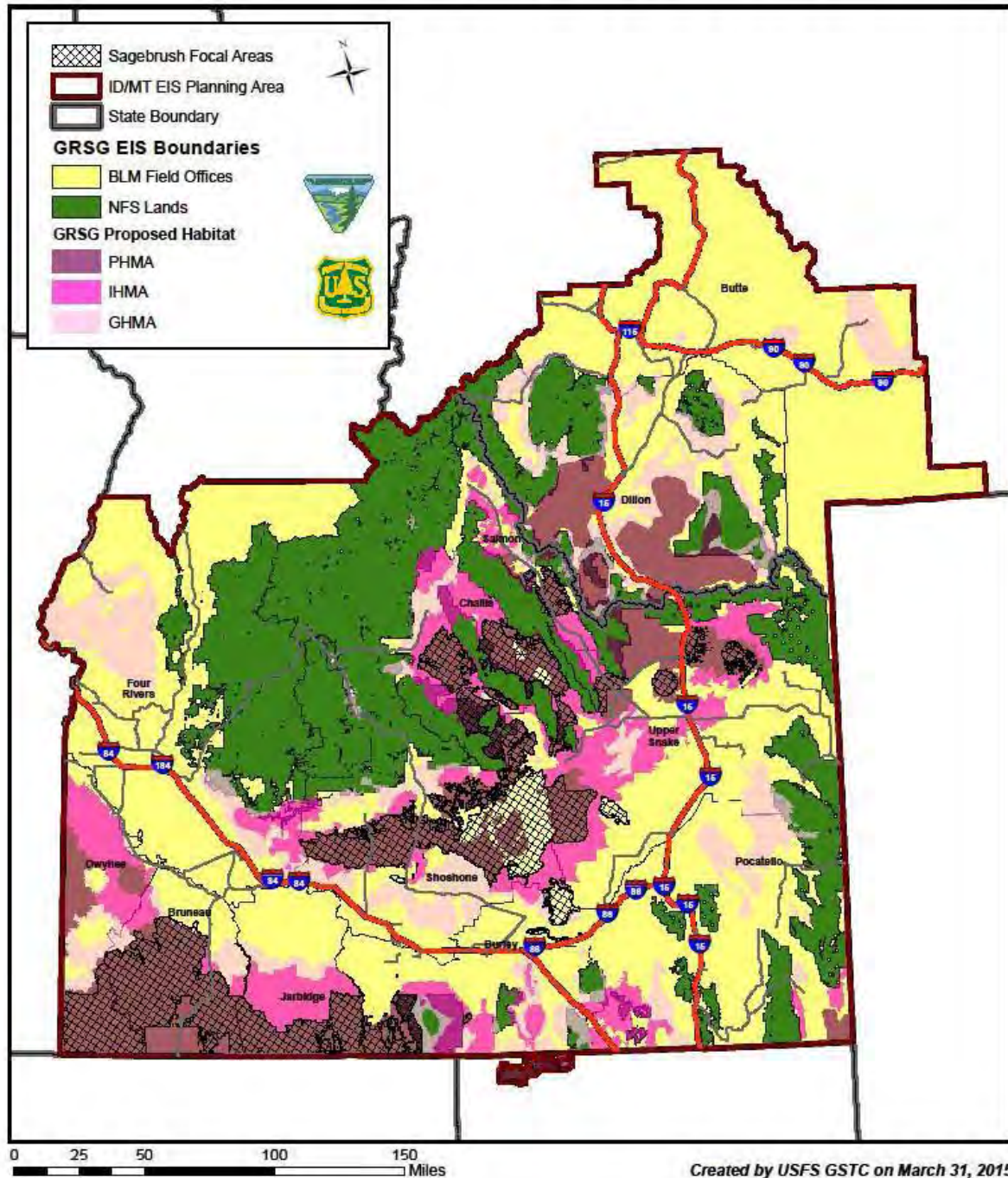


Figure 3. Idaho/Southwest Montana Greater Sage-Grouse Habitats and BLM/Forest Service Boundaries

The proposed plans seek to allocate resources among competing human interests and land uses and the conservation of natural resource values, including GRSG habitat. At the same time, they would sustain and enhance ecological integrity across the landscape, including plant, wildlife, and fish habitat. The plans incorporate adjustments made in response to public comments on the Draft LUPA, as well as cooperating agency input. Conservation measures are focused on PHMAs, IHMAs, and GHMAs as well as active leks (regardless of which type of habitat the active lek is in). Conservation measures are presented in categories of established program areas. The program areas are similar, but are not exactly the same, for each agency.

BLM program areas are:

- Special Status Species
- Vegetation
- Wildland Fire Management
- Livestock Grazing
- Wild Horses and Burros
- Lands and Realty
- Minerals
- Comprehensive Trails and Travel Management
- Recreation and Visitor Services

Forest Service program areas are:

- General Greater Sage-grouse
- Adaptive Management
- Lands and Realty
- Wind and Solar
- Greater Sage-grouse Habitat
- Livestock Grazing
- Fire Management
- Wild Horse and Burro
- Recreation
- Roads/Transportation
- Minerals

## **SPECIES CONSIDERED IN THE ANALYSIS**

This BA provides detailed analyses of all federally listed (endangered or threatened) species, proposed species, and designated or proposed critical habitat that may be affected by the actions proposed in the Idaho-Southwestern Montana Greater Sage-Grouse RMP/LMP Amendments document. Development of this BA was guided by the regulations on Interagency Cooperation (Section 7 of the ESA) in 50 Code of Federal Regulations (CFR) Part 402 and BLM Manual 6840.

The USFWS list of threatened, endangered, and proposed species is composed of plants, birds, mammals, amphibians, fish, and invertebrates. We conducted a review of those species or critical



habitat that may occur in the action area<sup>2</sup> or be affected by activities associated with the Proposed Plan in the FEIS. Occurrence and habitat information was gathered from the July 2014 Idaho Natural Heritage Program data, slickspot peppergrass habitat data from Idaho BLM, consultation with local biologists, and various planning documents and previous BAs from each of the management units involved.

Tables 2 and 3 list USFWS threatened, endangered, and proposed species that may be present or are known to be present within the planning area and designated or proposed critical habitat for those species. The species and critical habitat in Tables 2 and 3 were considered in this analysis and compared to the five criteria listed below. The criteria were used to identify species or proposed or designated critical habitat that would experience “no effect” from the implementation of the Proposed Plan and could therefore be eliminated from detailed analysis. These numerical categories below are referred to as *Evaluation Criteria* in the tables:

1. Action area is outside species’ range.
2. Potential habitat for the species does not exist within GRSG habitat (sagebrush-steppe) or is outside the elevation range of the GRSG.
3. The type or intensity of the activity in the proposed action is expected to have no impact/effect on these species or their habitat.
4. No overlap between critical habitat polygons and GRSG priority, important, or general habitat management areas (HMAs).
5. Critical habitat polygons may overlap with GRSG priority, important, or general HMAs, but primary constituent elements (PCEs) do not overlap; no “essential features” of critical habitat will be affected.

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<sup>2</sup> Action area = BLM-administered and National Forest Service System lands within the Land Use Plan Amendment boundary.

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**Table 2. USFWS endangered, threatened, and proposed species and critical habitat that may be present on BLM-administered lands in the action area and that may be influenced by the proposed plan.**

Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>											Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarvis FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO			
<b>Mammals</b>															
Grizzly bear (T) <i>Ursus arctos horribilis</i>	Contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Range includes portions of Idaho, Montana, Washington, and Wyoming.									X		X	NA	See detailed analysis below	
Canada lynx (T) <i>Lynx canadensis</i>	Montane and subalpine coniferous forests above 4,000 feet; lodgepole pine, subalpine fir, and Engelmann spruce.			X				X	X			X	3	No effect (See Appendix A)	

<sup>3</sup> E = Endangered; P-E = Proposed Endangered; T = Threatened; P-T = Proposed Threatened

<sup>4</sup> Sources include September 24, 2013 letter from Jerry Foss (BLM) to Brian Kelly (USFWS Ecological Services); May 29, 2014 email from Barbara Schmidt (USFWS) to Brent Ralston (Idaho State Office, BLM); Final Draft, 2014 BLM – Idaho Special Status Species table provided to the Idaho-Southwest Montana BA Team, via email, by Scott Hoefer (BLM), July 24, 2014  
FO = Field Office; NF = National Forest; X = Either Documented or Suspected; S = Species is suspected or potential habitat exists within the unit; D = Species or habitat documented within the unit; NA = Not applicable.

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
Canada lynx ( <i>Lynx canadensis</i> ) Designated Critical Habitat	There is no overlap of critical habitat and PHMA, IHMA, and/or GHMA within the action area.												4	No effect
Northern Idaho ground squirrel (T) <i>Spermophilus brunneus brunneus</i>	Known to occur in dry meadows surrounded by ponderosa pine and Douglas fir forests in Adams and Valley Counties of western Idaho.										X		2	No effect
<b>Birds</b>														

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
Red knot (P-T) <i>Calidris canutus rufa</i>	Migrant shorebird that breeds in Canadian Arctic and winters in South America. Within the action area, known only to occur as a migrant stopover in Madison County, Montana.											X	3	No effect (See Appendix A)
Western yellow-billed cuckoo (T)	Requires large blocks of riparian woodlands within low to moderate elevation arid to semiarid landscapes. Historic breeding range within western North America includes areas west of the crest of the Rocky Mountains in Canada and the United States, and portions of Mexico.	X	X	X	X	X	X	X	X	X	X		3	No effect (See Appendix A)

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
Western yellow-billed cuckoo <i>Coccyzus americanus</i> Proposed Critical Habitat	PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches > 325 ft. wide and 200 acres or > in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes. Approximately 405 acres of critical habitat overlap with PHMA on the Shoshone Field Office.								X				5	No effect (See Appendix A)
<b>Fish</b>														
Bull trout (T) <i>Salvelinus confluentus</i>	Cold-water fish of relatively pristine stream and lake habitats in western North America (Washington, Oregon, Idaho, Nevada, Montana and western Canada).	X		X	X			X		X	X		3	No effect (See Appendix A)

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Bull trout <i>Salvelinus confluentus</i> Critical Habitat	See Appendix A for PCEs of bull trout critical habitat. About 507 acres of lake and 432 miles of streams designated as critical habitat overlap PHMA, IHMA, and/or GHMA.	X		X	X			X		X			5	No effect (See Appendix A)
Chinook salmon (T) <i>Oncorhynchus tshawytscha</i> – Snake River spring/summer run	This evolutionarily significant unit (ESU), includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/summer-run Chinook salmon from 11 artificial propagation programs.			X				X					3	No Effect (See Appendix A)
Chinook salmon (T) <i>Oncorhynchus tshawytscha</i> – Snake River spring/summer run Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors. There is no overlap between chinook snake river			X				X	X			X	5	No effect (See Appendix A)

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
	spring/summer run critical habitat watersheds and PHMA, IHMA, or GHMA..													
Sockeye salmon (E) <i>Oncorhynchus nerka</i> Snake River	This ESU includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River basin, and also sockeye salmon from one artificial propagation program.			X				X					3	No effect (See Appendix A)
Sockeye salmon (E) Snake River Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors. Counties containing critical habitat within the planning area consist of Morrow, Umatilla, Wallowa, and Asotin.			X				X	X				5	No effect (See Appendix A)
Steelhead (T) <i>Oncorhynchus mykiss</i> Snake River Basin	Distinct population segment (DPS) includes naturally spawned anadromous steelhead originating below			X				X					3	No effect (See Appendix A)

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination		
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO	
	natural and manmade impassable barriers from the Snake River basin, and also steelhead from six artificial propagation programs.														
Steelhead Snake River Basin Critical Habitat	PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation. There is no overlap of critical habitat and PHMA, IHMA, or GHMA..			X				X	X			X		5	No effect (See Appendix A)
<b>Invertebrates</b>															
Banbury Springs limpet (E) <i>Lanx</i> sp.	Only known to occur in four isolated springs in a small area along the Middle Snake River. Inhabits spring run habitats with well-oxygenated water on boulder or cobble substrates.								X					3	No effect (See Appendix A)



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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Bliss Rapids Snail (T) <i>Taylorconcha serpenticola</i>	This snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley.	X	X		X				X		X		3	No effect (See Appendix A)
Bruneau hot springsnail (E) <i>Pyrgulopsis bruneauensis</i>	Found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders.	X			X								3	No Effect (See Appendix A)
Snake River Physa snail (E) <i>Physa natricina</i>	The species occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River.	X	X		X	X			X		X		3	No effect (See Appendix A)
<b>Plants</b>														

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination		
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO	
Slickspot peppergrass (P-E) <i>Lepidium papilliferum</i>	Slickspots occur within sagebrush-steppe, characterized by a near-surface distribution of soluble sodium salts, thin vesicular surface crusts, and shallow well-developed argillic horizons or layers that are impermeable when wet. The species' range is restricted to the volcanic plains of southwest Idaho, occurring primarily in the Snake River Plain and its adjacent northern foothills, with a single disjunct population on the Owyhee Plateau. This species is present in GRSG HMAs on Jarbidge and Four Rivers Field Offices.				D							D		NA	See detailed analysis below

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
Slickspot peppergrass (P-E) <i>Lepidium papilliferum</i> Proposed Critical Habitat	PCEs include 1) ecologically functional “slickspots” with high sodium and clay content with a specific 3-layered horizonation, and sparse vegetation, 2) relatively intact, native Wyoming big sagebrush vegetation surrounding the slickspots, 3) a diversity of native plants appropriate for supporting slickspot peppergrass pollinators, and 4) sufficient pollinators for successful seed production, mainly wasps, flies, and bees. See the Species Information and Critical Habitat section for a more detailed PCE description. About half of the proposed critical habitat overlaps with GRSG HMAs on BLM lands, and most of the overlap is in the Jarbidge Field Office area.				D						D		NA	See detailed analysis below

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Species (Status <sup>3</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area <sup>4</sup>										Evaluation Criteria	Initial Biological Determination	
		Bruneau FO	Burley FO	Challis FO	Jarbridge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO			Dillon FO
Ute ladies'-tresses (T) <i>Spiranthes diluvialis</i>	Occurs in Colorado, Idaho, Montana, Nebraska, Nevada, Utah, Washington, and Wyoming. Found in moist meadows associated with perennial stream terraces, floodplains, and oxbows; seasonally flooded river terraces; sub-irrigated or spring-fed abandoned stream channels and valleys; lakeshores; and human-modified wetlands (720-7,000 feet). There are no known occurrences overlapping GRSG HMAs on BLM or Forest Service lands, but there may be suitable habitat within these action areas. However, the riparian habitat where it may occur is not likely to be affected by the proposed LUP amendments.						D			D		D	NA	See detailed analysis below

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**Table 3. USFWS endangered, threatened and proposed species and critical habitat that may be present associated with Forest Service lands in the action area and that may be influenced by the proposed plan.**

Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination	
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG			
<b>Mammals</b>										
Grizzly bear (T) <i>Ursus arctos horribilis</i>	Contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Range includes portions of Idaho, Montana, Washington, and Wyoming.		D				D		NA	See detailed analysis below
Canada lynx (T) <i>Lynx canadensis</i>	Montane and subalpine coniferous forests above 4,000 feet; lodgepole pine, subalpine fir and Engelmann spruce.	D	D		D				3	No effect (See Appendix A)

<sup>5</sup> E = Endangered; P-E = Proposed Endangered; T = Threatened; P-T = Proposed Threatened

<sup>6</sup> Sources include September 24, 2013 letter from Jerry Foss (United States Department of the Interior [USDI] Bureau of Land Management) to Brian Kelly (USDI Fish and Wildlife Ecological Services); May 29, 2014 email from Barbara Schmidt (USDI Fish and Wildlife Service) to Brent Ralston (Idaho State Office, USDI Bureau of Land Management); Final Draft, 2014 BLM – Idaho Special Status Species table provided to the Idaho-Southwest Montana BA Team, via email, by Scott Hoefler (BLM), July 24, 2014

FO = Field Office; NF = National Forest; X = Either Documented or Suspected; S = Species is suspected or potential habitat exists within the unit; D = Species or habitat documented within the unit

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Canada lynx <i>Lynx canadensis</i> Proposed Critical Habitat	There is no overlap of critical habitat and Priority, Important and/or General HMAs within the action area.							4	No effect
Northern Idaho ground squirrel <i>Spermophilus brunneus brunneus</i>	Known to occur in dry meadows surrounded by ponderosa pine and Douglas-fir forests in Adams and Valley Counties of western Idaho.	D						2	No effect
<b>Birds</b>									

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Red knot (P-T) <i>Calidris canutus rufa</i>	Migrant shorebird that breeds in Canadian Arctic and winters in South America. Within the action area, known only to occur as a rare migrant stopover in Madison County, MT.							3	No effect (See Appendix A)
Western yellow-billed cuckoo (T) <i>Coccyzus americanus</i>	Requires large blocks of riparian woodlands within low to moderate elevation arid to semiarid landscapes. Historic breeding range within western North America includes areas west of the crest of the Rocky Mountains in Canada and the United States, and portions of Mexico.							3	No effect (See Appendix A)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Western yellow-billed cuckoo <i>Coccyzus americanus</i> Proposed Critical Habitat	PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches > 325 ft. wide and 200 acres or > in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes. Approximately 405 acres of critical habitat overlap with PHMAs on the BLM Shoshone Field Office.							5	No effect (See Appendix A)
<b>Fish</b>									
Bull trout (T) <i>Salvelinus confluentus</i>	Inhabit cold, complex and relatively pristine stream and lake habitats.	D		D	D	D		3	No effect (See Appendix A)



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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Bull trout <i>Salvelinus confluentus</i> Critical Habitat	See Appendix A for PCEs of bull trout critical habitat. About 507 acres of lake and 432 miles of streams designated as critical habitat overlap Priority, Important and/or General HMAs.	X		X	X	X		5	No effect (See Appendix A)
Chinook salmon (T) <i>Oncorhynchus tshawytscha</i> Snake River spring/summer run	This ESU, includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/summer-run Chinook salmon from 11 artificial propagation programs.	D		D	D			3	No effect (See Appendix A)
Chinook salmon Snake River spring/summer run Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, 4) adult migration corridors. There is no overlap between chinook snake river spring/summer run CH watersheds and Priority, Important, or General HMAs.	X		X	X			5	No effect (See Appendix A)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Sockeye salmon (E) <i>Oncorhynchus nerka</i> Snake River	This ESU, includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River basin, and also sockeye salmon from one artificial propagation program.			D	D			3	No effect (See Appendix A)
Sockeye salmon Snake River Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, 4) adult migration corridors. Counties containing critical habitat within the planning area consist of Morrow, Umatilla, Wallowa, and Asotin. There is no overlap between 8th-code watersheds containing critical habitat and sage-grouse Priority, Important, or General HMAs.			X	X			5	No effect (See Appendix A)
Steelhead (T) <i>Oncorhynchus mykiss</i> Snake River Basin	DPS includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Snake River basin, and also steelhead from six artificial	D		D	D			3	No effect (See Appendix A)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
	propagation programs.								
Steelhead Snake River Basin Critical Habitat	PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation. There is no overlap of critical habitat and Priority, Important, or General HMAs.	X		X	X			5	No effect (See Appendix A)
<b>Invertebrates</b>									
Banbury Springs limpet (E) <i>Lanx</i> sp.	Only known to occur in four isolated springs in a small area along the Middle Snake River. Inhabits spring run habitats with well oxygenated water on boulder or cobble substrates.							3	No effect (See Appendix A)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Bliss Rapids Snail (T) <i>Taylorconcha serpenticola</i>	This snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley.							3	No effect (See Appendix A)
Bruneau Hot springsnail (E) <i>Pyrgulopsis bruneauensis</i>	Found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders.							3	No effect (See Appendix A)
Snake River Physa snail (E) <i>Physa natricina</i>	The species occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River.							3	No effect (See Appendix A)
<b>Plants</b>									

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Slickspot peppergrass (P-E) <i>Lepidium papilliferum</i>	Slickspots within sagebrush-steppe, characterized by a near-surface distribution of soluble sodium salts, thin vesicular surface crusts, and shallow well-developed argillic horizons or layers that are impermeable when wet. The species' range is restricted to the volcanic plains of southwest Idaho, occurring primarily in the Snake River Plain and its adjacent northern foothills, with a single disjunct population on the Owyhee Plateau. This species is present in GRSG HMAs only on Jarbidge and Four Rivers Field Offices.							1	No Effect (for Forest Service Units)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Slickspot peppergrass (P-E) <i>Lepidium papilliferum</i> Proposed Critical Habitat	<p>PCEs include 1) ecologically functional “slickspots” with high sodium and clay content with a specific 3 layered horization, and sparse vegetation, 2) relatively intact, native Wyoming big sagebrush vegetation surrounding the slickspots, 3) a diversity of native plants appropriate for supporting slickspot peppergrass pollinators, and 4) sufficient pollinators for successful seed production, mainly wasps, flies, and bees. See the Species Information and Critical Habitat section for a more detailed PCE description.</p> <p>Proposed critical habitat for slickspot peppergrass does not occur on National Forest lands.</p>							4	No Effect (for Forest Service units)

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Species (Status <sup>5</sup> )	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area <sup>6</sup>						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Ute ladies'-tresses (T) <i>Spiranthes diluvialis</i>	Occurs in Colorado, Idaho, Montana, Nebraska, Nevada, Utah, Washington, and Wyoming. Found in moist meadows associated with perennial stream terraces, floodplains, and oxbows; seasonally flooded river terraces; sub-irrigated or spring-fed abandoned stream channels and valleys; lakeshores; and human-modified wetlands (720-7,000 feet). There are no known occurrences overlapping GRSG HMAs on BLM or FS lands, but there may be suitable habitat within these action areas. However, the riparian habitat where it may occur is not likely to be affected by the proposed LUP amendments.		D	S	S			NA	See detailed analysis below

## SPECIES INFORMATION AND CRITICAL HABITAT

### A. Terrestrial Wildlife

#### Grizzly Bear (*Ursus arctos horribilis*)

##### *Habitat Description*

*The grizzly (or brown) bear was once found in a wide variety of habitats including open prairie, brushlands, riparian woodlands, and semidesert scrub. Most populations require vast areas of suitable habitat to prosper. They forage for wild fruits, nuts, bulbs, roots, insect larvae in logs, and carcasses of elk, deer and cattle. This species is common only in habitats where food is abundant and concentrated, including white-bark pine, berries, and salmon or cutthroat runs, and where conflicts with humans are minimal. Research indicates it is important to maintain areas where grizzly bears can forage for a 24 to 48 hour period secure from human disturbance.*

*Winter dens are dug in north-facing slopes or more often at the base of large trees in areas away from humans in late fall or winter after snow has begun to fall. (BLM 2004)*

The grizzly has a broad range of habitat tolerance. Contiguous, relatively undisturbed mountainous habitat having a high level of topographic and vegetative diversity characterizes most areas where the species remains (USFWS 1993). Secure habitat consists of areas larger than 10 acres and more than 500 meters (1,650 feet) from a motorized access route or recurring helicopter flight line (Forest Service 2006).

Throughout the year, grizzly bears occupy a mosaic of dissimilar habitat types. Seasonal use of these types depends on availability of preferred foods, which are affected by weather, elevation, topography, precipitation, and temperature. The search for energy-rich food appears to be a driving force in grizzly bear behavior, habitat selection, and intra/inter-species interactions. Upon emergence from the den, they seek lower-elevation drainage bottoms, avalanche chutes, and ungulate winter ranges where their food requirements can be met. Throughout late spring and early summer, they follow plant maturity back to higher elevation. In late summer and fall, there is a transition to fruit and nut sources, as well as other plant materials. This is a generalized pattern, however, and it should be kept in mind that bears are individuals trying to survive and will go where they can best meet their food requirements. Specific to the Greater Yellowstone Area, four seasonal foods have been identified as being important to the population: ungulates (primarily elk and bison, but also deer and moose), spawning cutthroat trout, seeds of whitebark pine, and army cutworm moths (ICST 2007).



### ***Status, Distribution, and Designated or Proposed Critical Habitat***

On July 28, 1975, the grizzly bear (*Ursus arctos horribilis*) was designated as threatened throughout its range in lower 48 states.

On March 22, 2007, the USFWS announced that the Yellowstone DPS of grizzly bears were a recovered population no longer meeting the ESA definition of threatened or endangered.

On September 21, 2009, the Federal District Court in Missoula issued an order enjoining and vacating the delisting of the Yellowstone DPS grizzly bear population.

The grizzly bear is listed as threatened throughout its range in the lower 48 states. Populations in the Yellowstone DPS and the Northern Continental Divide Ecosystem (NCDE) are increasing in size and expanding in area (Forest Service 2012).

The historic range of the grizzly bear in the continental United States extended from the central Great Plains, west to California, and south to Texas and Mexico. Between 1800 and 1975, grizzly bear populations in the lower 48 states declined from over 50,000 to less than 1,000 animals. As Euro-American settlement expanded westward, the grizzly bear was extirpated from most of its historical range.

In the lower 48 states, there are seven ecosystems recognized as grizzly bear primary conservation areas (PCAs). Five of these ecosystems are known to currently support grizzly bears: Yellowstone (northwest Wyoming, eastern Idaho, and southwest Montana), Northern Continental Divide (north-central Montana), Selkirk Mountains (northern Idaho, northeast Washington, and southeast British Columbia), Cabinet–Yaak (northwest Montana, northern Idaho), and North Cascades (north-central Washington). The two remaining ecosystems, Bitterroot (east-central Idaho, western Montana) and San Juan Mountains (Colorado), currently do not contain grizzly bears. Critical habitat has not been designated or proposed for the grizzly bear. The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement action area overlaps with the Yellowstone Ecosystem.

### ***Grizzly Bear General Management Direction***

#### **1993 Recovery Plan**

In 1993, the Grizzly Bear Recovery Plan (USFWS 1993) outlined a strategy to recover grizzly bears built on the concept of recovery zones. Recovery zones were established to identify areas necessary for the recovery of the species and are defined as the area in each grizzly bear ecosystem within which the population and habitat criteria for recovery are measured. Areas within the recovery zones are to be managed to conserve grizzly bear habitat and managed primarily for grizzly bear habitat. The recovery zones are areas adequate for managing and promoting the recovery and survival of these grizzly bear populations (USFWS 1993). The recovery zones contain large portions of federal lands, including wilderness and national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. All federal lands within recovery zones, including multiple use lands, are managed

with grizzly bear recovery as a primary factor, in accordance with the Interagency Grizzly Bear Guidelines (IGBC 1986). As anticipated in the recovery plan, the Yellowstone Grizzly Bear Ecosystem (YGBE) grizzly bear population has responded favorably to these conditions.

Grizzly bears outside the recovery zones probably experience a higher level of adverse impacts due to land management actions than do grizzly bears inside recovery zones. The recovery plan outlined that such areas would not be managed primarily to provide or conserve grizzly bear habitat. Thus, we expect grizzly bears will occur at lower densities outside the recovery zones than within the recovery zones as a result of suboptimal habitat conditions, including higher road densities, fewer areas secure from motorized access, and more human presence and activity. The recovery plan anticipated that grizzly bears can and will exist outside recovery zone lines in many areas, but that the grizzly bears residing within the recovery zone were crucial to recovery goals and hence delisting. While land management direction outside of recovery zones may have adverse effects on some of the individual grizzly bears using those areas area now and into the future, land management within the recovery zones will continue to favor the needs of grizzly bears.

In 2013, the Service proposed a draft revised supplement to the 1993 Grizzly Bear Recovery Plan (USFWS 2013a). The supplement would revise the demographic recovery criteria for the Yellowstone ecosystem. Included within this draft revised supplement, a monitoring area is designated, within which all demographic criteria would be assessed. The areas within which mortalities are counted against the mortality limits for independent females and males and dependent young would be revised to be the same area where population size is estimated. Grizzly bear mortalities would no longer count against sustainable mortality limits in areas outside of this monitoring area. Conversely, grizzly bears observed outside of this monitoring area would not count toward the estimates of population size. Mortalities outside of the monitoring area would continue to be recorded and reported. Also, grizzly bear occupancy would not be actively discouraged outside of the monitoring area, but management emphasis would be on conflict response.

### 2007 Conservation Strategy

In 2007, the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (ICST 2007) was released to guide management and monitoring of the YGBE grizzly bear population and its habitat upon recovery and delisting. The Yellowstone Conservation Strategy identified a PCA, which is the same area as the YGBE Recovery Zone identified in the 1993 Grizzly Bear Recovery Plan (USFWS 1993).

Within this strategy, management direction is described for both the PCA and adjacent areas within the Greater Yellowstone Area. The habitat standards identified in the Yellowstone Conservation Strategy, including Secure Habitat<sup>7</sup>, Developed Sites<sup>8</sup>, Food Storage Order, and Livestock Allotments, would be maintained at identified levels inside the PCA. In addition,

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<sup>7</sup> Those areas more than 500 meters (550 yards) from a motorized access route during the non-denning period. They are especially important to the survival and reproductive success of grizzly bears, especially adult females.

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several other habitat factors, including Major Foods, would be monitored and evaluated. Habitat standards and habitat criteria monitoring focus on areas within the PCA. The goal is to maintain or improve habitat conditions existing as of 1998, as measured within each subunit within the PCA.

**Secure Habitat Standard:** The percent of secure habitat within each bear management unit (BMU) must be maintained at or above levels that existed in 1998. Permanent changes to secure habitat may occur provided that replacement secure habitat of equivalent habitat quality is provided in the same grizzly subunit. Temporary reductions in secure habitat can occur if only one project is active per grizzly subunit at any one time, total acreage within a given BMU does not exceed 1 percent of the acreage of the largest subunit within the BMU, and secure habitat is restored within one year after completion of the project.

**Developed Site Standard:** The number and capacity of developed sites within the PCA will be maintained at or below the 1998 level with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the PCA will be analyzed, and potential detrimental and positive impacts will be documented through biological evaluation or assessment by the action agency.

**Livestock Allotment Standard:** Inside the PCA, no new active commercial livestock grazing allotments will be created, and there will be no increases in permitted sheep Animal Months from the 1998 baseline. Existing sheep allotments will be monitored, evaluated, and phased out as the opportunity arises with willing permittees.

The Yellowstone Conservation Strategy states that state grizzly bear management plans, forest plans, and other appropriate planning documents will provide specific management direction for the adjacent areas outside the PCA.

The documents listed above that have been developed since the 1993 Recovery Plan are draft or in various stages of implementation. However, at this time, the Service holds that the strategies described in these documents, as updated, reflect the best available science on grizzly bear recovery (USFWS 2013b).

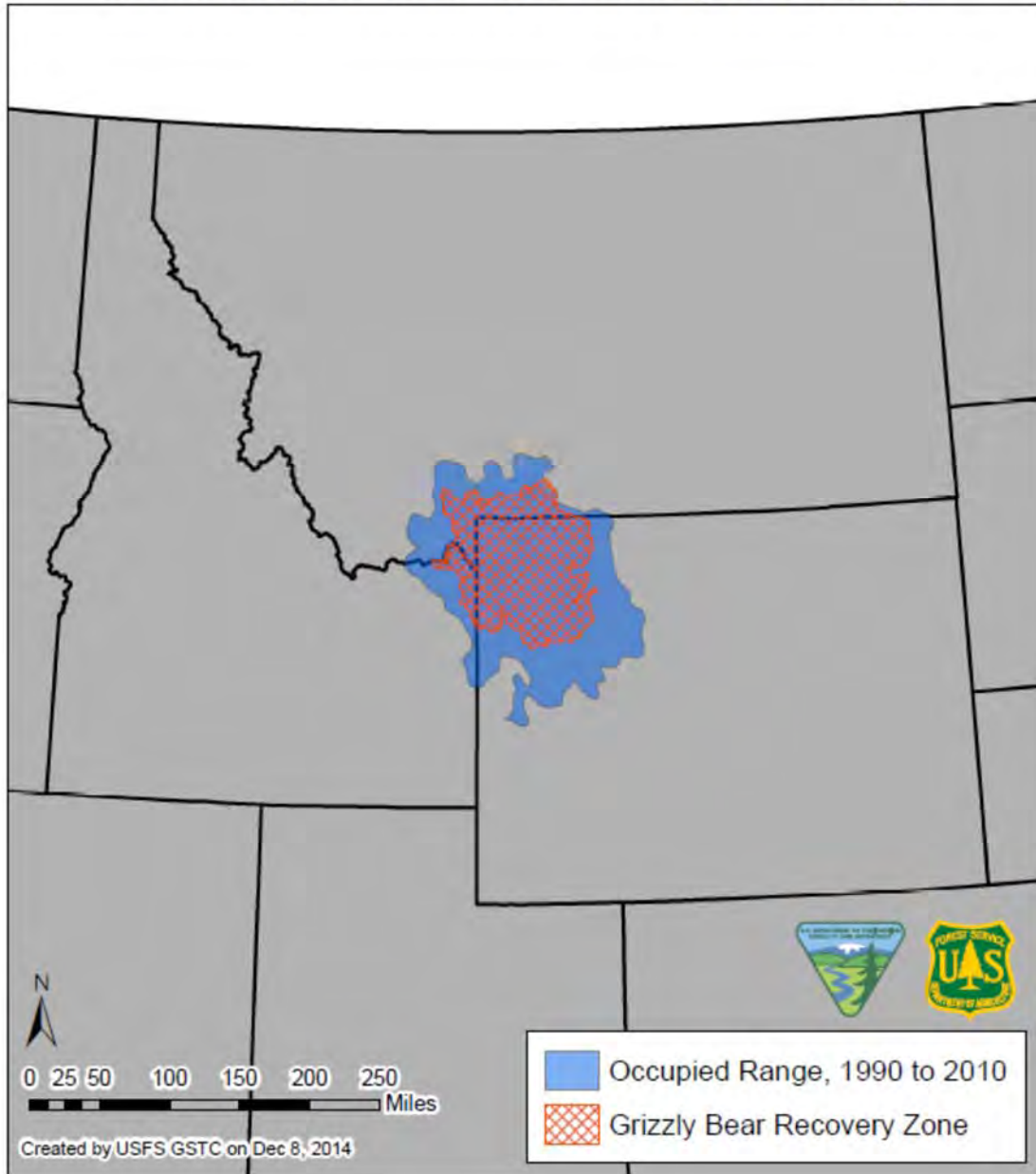
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<sup>8</sup> Sites on public land developed or improved for human use or resource development such as campgrounds, trailheads, lodges, administrative sites, service stations, summer homes, restaurants, visitor centers, and permitted resource development sites such as oil and gas exploratory wells, production wells, plans of operation for mining activities, work camps, etc.

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## Grizzly Bear

### Recovery Zones and Occupied Range



**Figure 4. Yellowstone Grizzly Bear Ecosystem Recovery Zone (i.e., Primary Conservation Area/PCA)**

### Status of the Grizzly Bear in the YGBE<sup>9</sup>

The 9,209-square-mile YGBE recovery zone includes portions of Wyoming, Montana, and Idaho (Figure 4), portions of six National Forests (Beaverhead-Deerlodge, Bridger-Teton, Custer, Gallatin, Shoshone, and Targhee), Yellowstone and Grand Teton National Parks, John D. Rockefeller Memorial Parkway, portions of adjacent private and state lands, and lands managed by the BLM. Grizzly bears also frequently use areas outside the defined YGBE recovery zone.

Population recovery criteria are measured within the recovery zone and an adjacent 10-mile buffer. A large proportion of the Yellowstone grizzly bear population occurs within the recovery zone. A large proportion of the grizzly bears in the YGBE recovery zone occur on protected lands in Yellowstone National Park, but grizzly bears also inhabit large areas outside the park boundary. Yellowstone and Grand Teton National Parks make up 39.4 percent of the YGBE recovery zone. Private holdings and other ownership make up 2.1 percent of the recovery zone, and the remaining 58.5 percent occurs on National Forest System lands. National Park Service and National Forest System lands support roughly 89 percent of the currently known distribution of the grizzly bears in the YGBE recovery zone. Grizzly bears also frequently occur in and use areas adjacent to the recovery zone.

The YGBE recovery zone is subdivided into smaller units to facilitate both the assessment of projects and recovery objectives. Eighteen BMUs were formally delineated throughout the YGBE. BMUs were designed to:

- Assess the effects of existing and proposed activities on grizzly bear habitat without having the effects diluted by consideration of too large an area;
- Address unique habitat characteristics and grizzly bear activity and use patterns;
- Identify contiguous complexes of habitat which meet year-long needs of the grizzly bear; and
- Establish priorities for areas where land use management needs would require cumulative effects assessments.

Three demographic criteria that were formerly in the 1993 Grizzly Bear Recovery Plan (USFWS 1993) have been reevaluated and updated. The second criterion pertaining to the distribution of females with offspring remains unchanged, while the first and third criteria pertaining to the minimum allowable number of females with cubs of the year and sustainable mortality limits have been revised and updated to reflect current methods based on the best available science (USFWS 2007). The current demographic recovery criteria to be appended to the 1993 Recovery Plan include the following:

- Demographic Recovery Criterion 1 – Maintain a minimum of 48 females with cubs of the year in the Greater Yellowstone Area, as indicated by the model-averaged Chao2 estimate for that year. The number of females with cubs of the year cannot drop below 48 for any 2 consecutive years.

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<sup>9</sup> Source: USFWS (2013a), unless otherwise noted

- Demographic Recovery Criterion 2 – Sixteen of 18 BMUs within the recovery zone must be occupied by females with young, with no two adjacent BMUs unoccupied, during a 6-year sum of observations. This criterion is important as it ensures that reproductive females occupy the majority of the recovery zone and are not concentrated in one portion of the ecosystem.
- Demographic Recovery Criterion 3 – For independent females (at least 2 years old), the current annual mortality limit not to be exceeded in 2 consecutive years and including all sources of mortality is 9 percent of the total number of independent females. For independent males (at least 2 years old), the current annual mortality limit not to be exceeded in 3 consecutive years and including all sources of mortality is 15 percent of the total number of independent males.
- For dependent young (less than 2 years old), the current annual mortality limit not to be exceeded in 3 consecutive years and including only known and probable human-caused mortalities is 9 percent of the total number of dependent young.

The first and third criteria were changed because the Service no longer considers the 1993 recovery plan criterion the best scientific method available. The Chao2 estimator is now used to calculate the total number of independent females from sightings and re-sightings of females with cubs. This allows calculation of total population size instead of the minimum population size used in the 1993 method. Also, we can now calculate unknown and unreported mortalities, which allows more conservative mortality management based on annually updated information rather than the estimate of unknown and unreported mortality used in the 1993 recovery plan. Data on the reproductive performance of Yellowstone grizzly bears, survival rates of cub and yearling Yellowstone grizzly bears, the trajectory of the Yellowstone grizzly bear population under alternate survival rates, and the impacts of spatial and environmental heterogeneity on the Yellowstone grizzly bear demographics has been improved and updated.

Based on verified sightings of females with cubs of the year during 2013 and using the Chao2 method, it was determined that the model-averaged number of females with cubs of the year was 59 (95% CI 49-72) and exceeded the demographic objective of 48 specified in the demographic criteria for the Greater Yellowstone Ecosystem (GYE). Using this number, the estimated Yellowstone grizzly bear population size for 2013 was 629 (95% CI = 566-693) based on previous demographic protocols and 741 (95% CI = 660-821) based on updated protocols. In addition to the Chao2 estimate, the number of females with cubs of the year was also estimated based on a mark-resight technique that does not include the underestimation bias of the Chao2 technique. The result of that estimate was 109, excluding observation at army cutworm moth aggregation sites; 14 additional females with cubs of the year were observed during moth site-only flights. The 3-year moving average (using 2011-2013 results) was 79 unique females with cubs of the year (95% interquartile range = 46-126) (Haroldson and Dickinson 2014).

Based upon the revised recovery criteria, independent females, males, and dependent young mortality limits were met in 2013 (IGBST 2014). Independent female and dependent young mortality limits were met in 2012, while independent male mortality limits were exceeded (IGBST 2013). The dependent young mortality limit was met in 2011, while independent female mortality was exceeded (IGBST 2012a). Independent male mortality was only fractionally

exceeded (less than one bear) in 2011. The criteria states that independent female mortality cannot be exceeded in 2 consecutive years and that independent male mortality cannot be exceeded in 3 consecutive years. Because the thresholds for dependent young has been met in each of the last three years and independent female mortality was not exceeded in 2012 or 2013, the revised demographic recovery criteria are met for dependent young and independent females. Since the thresholds for independent male mortality have been exceeded in only two of the three previous consecutive years (2011 and 2012), the revised demographic recovery criteria are also met for independent male grizzly bears. GYE grizzly bear demographic workshops have recently taken place to complete a demographic review of the GYE grizzly bear population. The objectives of the workshops were to revise current protocols for estimating population size of the GYE grizzly bear population; reevaluate current mortality limits as necessary based on a revised estimate of population size and updated demographic analyses; and discuss the possibility of zoning the ecosystem for mortality limits given the expanding population (IGBST 2012b).

Access management has long been an important tool for conserving grizzly bears and their habitat. The BMUs in the YGBE were further divided into smaller units, termed subunits. Subunits are approximately the size of an adult female grizzly bear home range and provide the basic scale for the analysis of impacts associated with access management and vegetation management projects.

Overall, conditions for grizzly bears related to access management in the YGBE are excellent (USFWS 2013b). The YGBE recovery zone, for example, contains large amounts of secure habitat and very low total and open road densities in the majority of the subunits (USFWS 2013b). In 2013, for the entire YGBE recovery zone, the mean secure habitat was 87.0 percent, the mean open motorized access route density was 9.9 percent in season one (March 1 - July 15) and 10.9 percent in season two (July 16 - November 30), and the mean total motorized access route density was 5.4 percent (USFWS 2013b).

The YGBE grizzly bear population has increased from estimates as low as 136 individuals when listed in 1975 to more than 580 animals as of 2004; this population had been increasing since the mid-1990s and was increasing at 4 to 7 percent per year. The population growth rate for the recent period is now stable to slightly increasing. The range of this population also has increased dramatically, as evidenced by the 48 percent increase in occupied habitat since the 1970s. Yellowstone grizzly bears continue to increase their range and distribution annually, and grizzly bears in the Yellowstone area now occupy habitats they have been absent from for decades. Roughly 90 percent of females with cubs occupy the PCA (i.e., recovery zone), and about 10 percent of females with cubs have expanded out beyond the PCA within the ecosystem.

The YGBE overlaps with portions of the GRSG action area on the Upper Snake and Dillon Field Offices and the Beaverhead-Deerlodge and Caribou-Targhee National Forests.

### **Status of the Grizzly Bear in the Upper Snake Field Office and Associated Management Direction**

The Upper Snake Field Office (FO) manages approximately 2,460 acres of public land within the 5,894,400-acre Greater Yellowstone PCA that encompasses northwestern Wyoming, eastern Idaho, and south-central Montana. With an increasing grizzly bear population, the area used by

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grizzly bears is expanding outside of the recovery zone. Within areas most likely to be used by grizzly bears in the future, the Upper Snake FO manages approximately 24,710 acres of public land, which consist of small, scattered parcels interspersed with other federal, private, and state lands.

Not all of the BLM-administered land within the PCA in the Upper Snake FO is suitable habitat for grizzly bears. It consists of small, isolated parcels with existing infrastructure that is not compatible with grizzly bear occupancy. None of the BLM-administered lands within the Upper Snake FO have been identified as providing ungulates, spawning cutthroat trout, seeds of whitebark pine, or army cutworm moths for grizzly bears.

The Upper Snake FO administers about 600 acres that have been identified as secure grizzly bear habitat within the recovery zone. Approximately 2,000 acres within the recovery zone were designated as the Henry's Lake ACEC in 1997. The intent of the ACEC was to recognize and conserve rare wetland vegetation communities, special status species and their habitats, including grizzly bears, and recreational values while maintaining multiple use activities on public lands administered by the BLM.

No grizzly bears have been killed by humans, nor have any humans been killed or injured by grizzly bears, on BLM-administered lands within the Upper Snake FO. One grizzly bear/livestock incident occurred in 2011 on BLM-administered lands in the Teton Basin area outside of the recovery zone. This involved a grizzly bear eating a domestic cow carcass. It was not determined whether the grizzly bear killed the cow, and no action was taken to capture or move the bear.

Within the GRSG action area, 4,637 acres of occupied grizzly bear habitat overlap with PHMA, and 116,166 acres overlap with IHMA in the Upper Snake FO. There is no overlap between occupied grizzly bear habitat and GHMA (Figure 5). In addition, 8 acres of the recovery zone overlap with IHMA on the Upper Snake FO, and 36 acres overlap with GHMA (Figure 6).

Management direction for the Upper Snake FO is contained in the Medicine Lodge Resource Management Plan (BLM 1985).

To the extent practicable, management actions within occupied grizzly bear habitat will be consistent with the goals and objectives in the Grizzly Bear Recovery Plan [USFWS 1993] and the guidelines developed through the Interagency Wildlife Monitoring Program for mineral exploration and development (BLM 1985, page 27).



## Idaho / SW Montana Greater Sage-grouse EIS Grizzly Bear Occupied Habitat

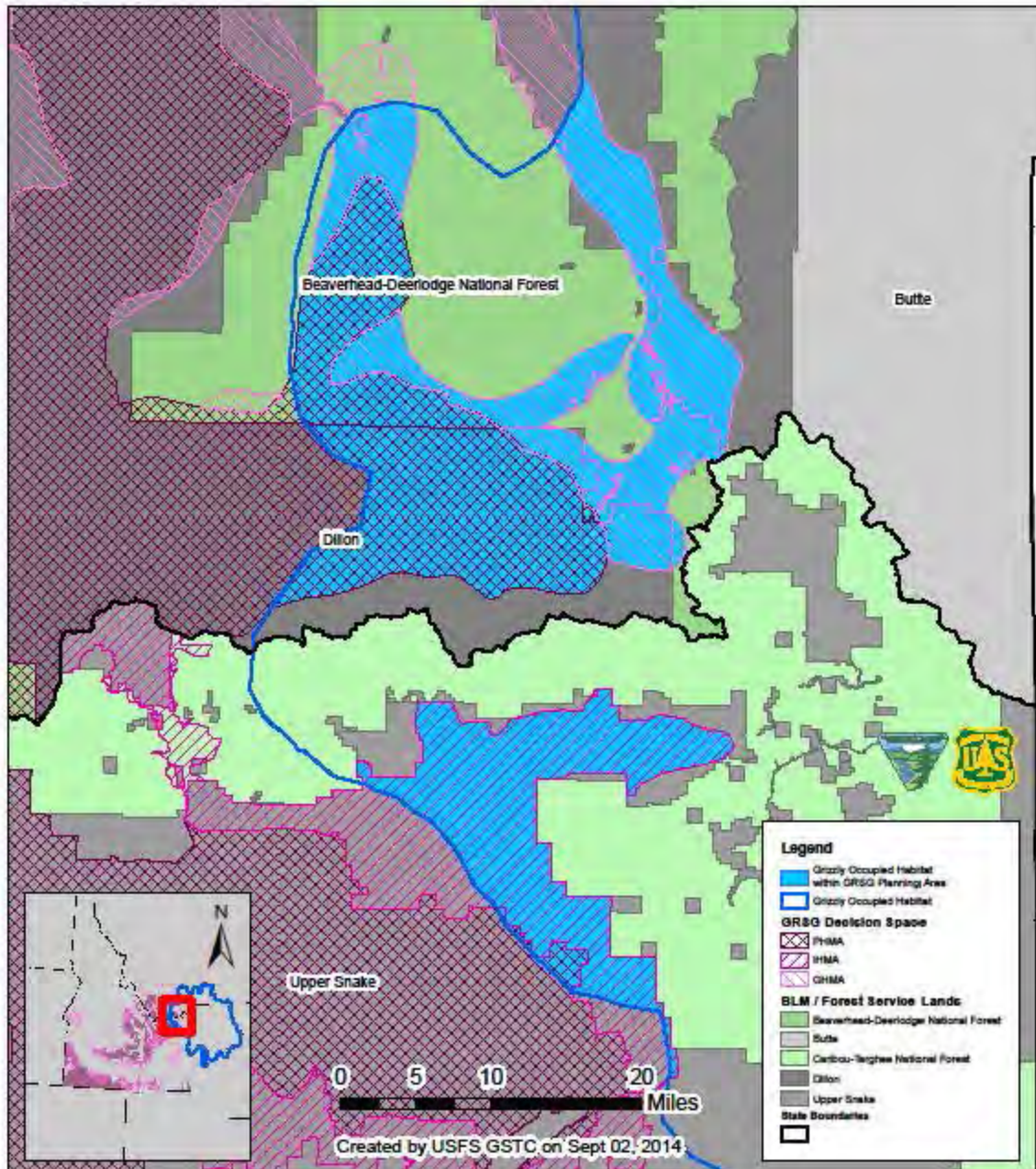


Figure 5. Grizzly bear occupied habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

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## Grizzly Bear

### Recovery Zone within GRSG Decision Space

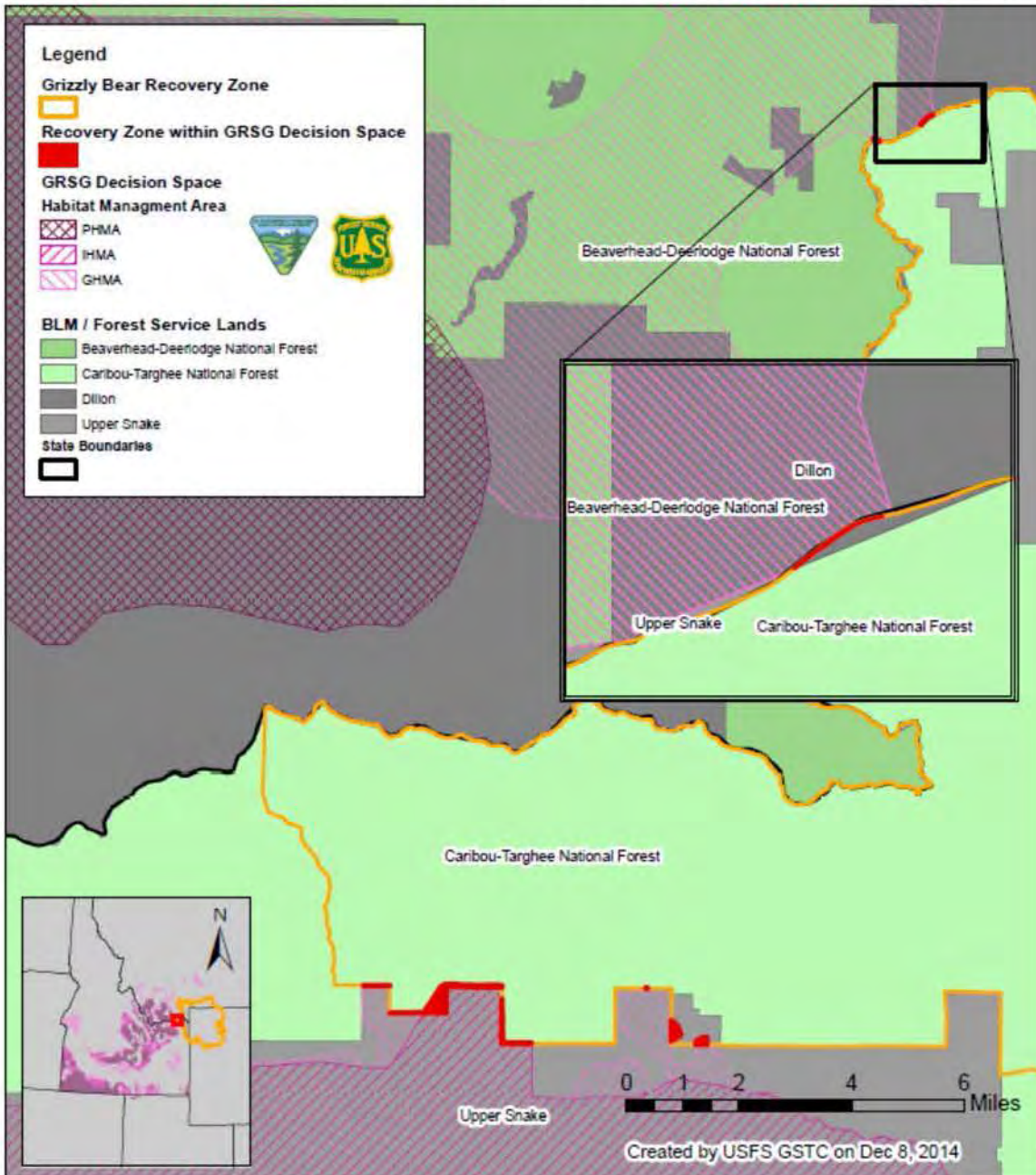


Figure 6. Grizzly bear recovery zone with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

**Status of the Grizzly Bear in the Dillon Field Office and Associated Management Direction**

*Grizzly bear observations on public lands in the Dillon Field Office have been rare until the mid-1990s, and were confined to the Centennial Mountains and areas adjacent to the Gravelly Range. As the grizzly population in Yellowstone has increased, bears have expanded into adjoining habitat outside the Yellowstone recovery zone, or primary conservation area (PCA). The Centennial Valley and the area surrounding the Gravelly and Snowcrest Ranges are now considered as an area where grizzly bear are likely to occur as an extension of bear habitat in the Yellowstone ecosystem. Within this area, the most suitable habitat is available in BLM Wilderness Study Areas (WSAs) around Axolotl Lakes, E.F. Blacktail, and the Centennial Mountains. The Barton-Idaho area east of Ruby Reservoir provides potential habitat adjacent to occupied grizzly bear habitat on Beaverhead-Deerlodge NF lands in the Gravelly Range and Greenhorn Mountains. Other habitat along the Continental Divide, in the Tendoy Mountains including the Maiden Peak area, and the Big Hole Divide support occasional grizzly bear use. Most observations appear to be of individual animals that are simply wandering into potential habitat.*

*Distribution information about grizzly bear has been derived from interagency monitoring and conservation strategy documents, and discussions with district biologists for adjoining BD NF lands. BLM has not conducted any inventories or monitoring specifically to identify grizzly bear occurrences or map suitable habitat on public lands. (BLM 2004)*

The Dillon Field Office does not contain land within the Yellowstone Grizzly Bear Recovery Zone (USFWS 2004a). Outside of the Yellowstone PCA, grizzly bears will be allowed to expand into biologically suitable and socially acceptable areas, but these areas are not considered as essential to recovery (USFWS 2004a). The objective is to maintain existing resource management and recreational uses and to allow agencies to respond to demonstrated problems with appropriate management actions.

Within the GRSG action area, 108,059 acres of occupied grizzly bear habitat overlap with PHMA, and 71,091 acres overlap with GHMA in the Dillon Field Office; there is no overlap between occupied grizzly bear habitat and IHMA (Figure 5).

Grizzly bear management direction for the Dillon Field Office (BLM 2006) is shown in the following table:

**Table 1. Dillon Field Office Resource Management Plan Direction Specific to the Grizzly Bear and Potential for Effect**

<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
Apply the following special management in	Centennial	No: There is very little

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>the ACEC boundary to protect the habitat it contains for grizzly bear, lynx, and wolf, its use as a wildlife migration corridor, its outstanding scenic value, and the only known occurrence in Montana of Whipple’s beardtongue (in the Taylor Mountain area).</p> <p>a. Incorporate landscape design principles into vegetation treatments to maintain scenic values.</p> <p>b. Do not authorize new permanent roads within the ACEC to maintain unfragmented habitat for wildlife migration.</p> <p>c. Evaluate proposed activities, including backcountry helicopter operations and winter recreational use, for their potential to affect important and relevant values in the area and do not permit any activities that interfere with protection of those values.</p> <p>d. Allow livestock use as currently authorized. Evaluate any proposed changes in grazing, including time and intensity of use, for impacts on relevant and important values and allow if relevant and important values in the ACEC are maintained or enhanced.</p> <p>e. Do not allow conversion of grazing permits from cattle to sheep to avoid potential conflicts with grizzly bear.</p>	<p>Mountains ACEC, page 21</p>	<p>overlap of GRSG management area with the Centennial Mountains ACEC (13,073 acres of PHMA).</p> <p>a. There is nothing proposed within the GRSG LUPA decision that will prevent the incorporation of landscape design principles into vegetation treatments.</p> <p>b. The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit roads or require co-location of new roads with existing infrastructure for special use authorization.</p> <p>c. GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines are not expected to negatively affect important and relevant values in the ACEC. Furthermore, grizzly habitat will be addressed at the site-specific level, and compatibility between ACEC direction, grizzly guidelines, and GRSG direction will be sought.</p> <p>d. Changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives.</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
		e. Potential modifications include, but are not limited to, changes in: season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. See the effects analysis section below.
19: Authorize no new domestic sheep permits or conversion of cattle permits to sheep within areas depicted on Map 33 in the RMP that contain suitable grizzly bear and wolf habitat (also known as the wildlife dispersal/migration corridors in the Centennial Mountains, Snowcrest Mountains, Gravelly Range, Greenhorn Mountains, Axolotl Lakes area, and along the Continental Divide from Monida to Lemhi Pass).	Livestock Grazing Action, page 43	Yes: Potential modifications include changes in kind of livestock. See the effects analysis section below.
20: Implement food storage strategies from the Southwest Montana State Grizzly Management Plan (MT FWP 2002) on BLM lands in the Grizzly Bear use areas outside of the Yellowstone Recovery Zone if grizzly bears are delisted. Until the grizzly bear is delisted, monitor the South Madison campground and undeveloped sites in the East Fork of the Blacktail and the Axolotl Lakes area for food storage problems related to grizzly bear use and the potential need for bear proof trash containers. Post major public land trailheads and access points in these areas and in the Centennial Mountains to advise recreationists about proper food storage to avoid back country conflict.	Recreation Action, page 54	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of food storage strategies.
3: Consider the following habitats priority wildlife habitats: • all listed and special status species habitats, with grizzly bear and lynx receiving the most	General Wildlife and Special Status Species	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>emphasis in coniferous forest habitats, and sage-grouse receiving the most emphasis in sagebrush steppe habitats</p> <ul style="list-style-type: none"> <li>• coniferous forest and sagebrush habitats that provide important big game winter habitat</li> <li>• sagebrush habitats that provide bighorn sheep year-long or seasonal habitats</li> <li>• sagebrush habitats that provide sage-grouse breeding, early brood rearing, or winter habitat</li> <li>• mountain mahogany and sagebrush steppe habitat associations in the Lima Sweetwater Breaks key raptor management area</li> <li>• all riparian and wetland habitats</li> </ul>	<p>Actions, page 69</p>	<p>the consideration of priority wildlife habitats, and it is consistent with grizzly bear and lynx receiving the most emphasis in coniferous forest habitats, and GRSG receiving the most emphasis in sagebrush steppe habitats.</p>
<p>4: Consider the following species priority wildlife species:</p> <ul style="list-style-type: none"> <li>• all listed and special status species, with grizzly bear, lynx, and sage-grouse receiving the most emphasis</li> <li>• bighorn sheep</li> <li>• migratory birds listed on the USFWS Region 10 Birds of Conservation Concern list and in Montana Bird Conservation Plan (see Appendix R of the RMP).</li> </ul>	<p>General Wildlife and Special Status Species Actions, page 69</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the consideration of priority wildlife species.</p>
<p>32: Consult with the USFWS when impacts are anticipated to threatened or endangered species or designated habitat.</p> <p>a. Use the interagency analysis screens for T&amp;E species to facilitate consistent consultation and streamline consultation on actions that have insignificant or discountable effects (see Appendix S).</p> <p>b. Use the analysis screens for bald eagle, gray wolf, and grizzly bear in Appendices S, T, and U in conjunction with the joint BLM-FS evaluation form to evaluate proposed actions and projects to determine effects and the need for additional consultation with the USFWS.</p> <p>Analysis Screen Part 1 (Appendix V, page 188). (1) The area must be in compliance with</p>	<p>General Wildlife and Special Status Species Actions, page 71</p>	<p>Yes: Analysis screen for the grizzly bear will be used in the analysis:</p> <p>Analysis Screen Part 1 (Appendix B): Grizzly bears and their habitat will be addressed, as necessary, at the site-specific level and, at this time, there is no reason to believe that GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines utilized for individual projects will preclude compliance with appropriate access management, food storage</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>the appropriate access management direction. (2) Human foods, livestock feed, garbage, and other attractants must be managed by the application of an adequate “food storage rule” similar to the NCDE or Yellowstone food storage orders. If no specific rule exists for the area, use of either the Yellowstone or NCDE order will be considered adequate. (3) Projects that involve seeding or planting of grasses, forbs, or shrubs must do so in a manner that will tend not to attract bears into areas where increased mortality risk or interaction between bears and people is likely.</p> <p>Analysis Screen Part 2 (Appendix V, pages 189-191). The Screening Criteria Table displays activities and criteria that, when met, will allow the project to meet “screening elements.” If the project does not meet the identified criteria, the project should proceed through the established consultation process.</p>		<p>order, and avoidance of human/bear interaction direction.</p> <p>Analysis Screen Part 2 (Appendix C): Based on the types of actions applicable to the GRSG LUPA decision (prescribed fire, range, roads and road maintenance, and weed control), at this time, it appears that the GRSG LUPA decision meets the screening criteria leading to a “Not Likely to Adversely Affect (NLAA) determination for the grizzly bear. Please refer to the effects analysis section below for additional discussion.</p>
<p>34: Implement the following nondiscretionary terms and conditions to ensure that actions conducted under the plan do not result in unexpected consequences that affect more grizzly bears or impart additional effects to grizzly bears than anticipated in the USFWS biological opinion of October 29, 2004 (incidental take of no more than two bears over the life of the plan as a result of habituation and/or food conditioning of grizzly bears or conflicts with livestock, an unquantifiable level of take from displacement effects of road densities and activity in project areas, and no more than one bear over the life of the plan as a result of conflicts with sheep used for BLM weed control projects):</p> <ul style="list-style-type: none"> <li>• If more than ten miles of road construction is planned or completed annually, BLM Dillon Field Office will consult with the USFWS.</li> </ul>	<p>General Wildlife and Special Status Species Actions, pages 71-72</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of the nondiscretionary terms and conditions.</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<ul style="list-style-type: none"> <li>• Temporary roads will be closed and reclaimed within two years following the end of road use or project completion.</li> <li>• The BLM will maintain an up-to-date record of grizzly bear management actions that take place on BLM lands or as a result of activities authorized by BLM Dillon Field Office.</li> <li>• If an incident of depredation or use of improperly stored food items results in removal of a grizzly bear, BLM shall follow the Interagency Grizzly Bear Committee (IGBC) guidelines in reporting the incident to the USFWS.</li> <li>• BLM shall report any depredation or food storage incidences to the USFWS Montana Ecological Services Sub-office in Billings, or Montana Ecological Services Field Office in Helena in addition to the reporting required in the IGBC guidelines.</li> <li>• To monitor changes in road densities and potential effects on grizzly bear or their habitat, BLM will provide an annual report to the USFWS documenting:               <ul style="list-style-type: none"> <li>a. the number of miles of new road constructed</li> <li>b. the number of miles of road closed to public use and reclaimed</li> <li>c. the number of miles of temporary road on the landscape, and length of time since construction of the temporary road</li> <li>d. how open road densities may have changed relative to target densities of one mile per square mile within the analysis area for projects. (USFWS recommends the use of 6<sup>th</sup> code hydrologic units for an unbiased and consistent analysis of open road density, using the unit containing the project and the adjoining 3-6 units with similar habitat).</li> </ul> </li> </ul>		
<p>35: Require the following measures for any projects located in areas where grizzly bear use is known or likely to occur (see Map 34) where domestic sheep are used to control</p>	<p>General Wildlife and Special Status Species</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines do not specifically</p>



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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>noxious weeds:</p> <ul style="list-style-type: none"> <li>• Domestic sheep grazing to control noxious weeds will not be used where previous livestock depredations have occurred from grizzly bears or wolves.</li> <li>• Domestic sheep will be removed from a project area if depredation or encounters occur from grizzly bears or wolves.</li> <li>• Any contracts or agreements to use domestic sheep grazing to control noxious weeds will specify that no control actions against grizzly bears or wolves will be requested by the contractor if depredations or encounters occur as part of the weed grazing action. Any encounters with wolves or grizzly bears will be reported to Montana Fish, Wildlife, and Parks (Montana FWP) and the United States Department of Agriculture Wildlife Services.</li> <li>• Domestic sheep will be herded, and will be attended by guard dogs at all times.</li> <li>• Temporary, predator-proof electric fencing will be used to protect night bedding areas where potential for predation by wolves and grizzly bears exists.</li> </ul>	<p>Actions, page 72</p>	<p>propose to utilize domestic sheep to control invasive species, and there are currently no site-specific proposals. In addition, grizzly habitat will be addressed at the site-specific level, and compatibility between grizzly bear actions and GRSG direction will be sought.</p>
<p>36: Implement the following conservation actions recommended by USFWS as discretionary actions to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information:</p> <ul style="list-style-type: none"> <li>• Participate in ongoing interagency efforts to identify, map, and manage linkage habitats essential to grizzly bear movement between ecosystems. (Contact the USFWS grizzly bear recovery coordinator office at (406) 243-4903 for more information).</li> <li>• Continue to manage road access on BLM lands to achieve lower road densities where possible.</li> <li>• Manage garbage food and livestock feed storage to prevent access to bears to benefit grizzly bears as well as black bears and other</li> </ul>	<p>General Wildlife and Special Status Species Actions, page 72</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of the conservation actions recommended by USFWS as discretionary actions to minimize or avoid adverse effects of a proposed action on grizzly bears. In addition, grizzly habitat will be addressed at the site-specific level, and compatibility between grizzly bear actions and GRSG direction will be sought.</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>carnivores. Reduction in human/carnivore interactions will also increase public safety.</p> <ul style="list-style-type: none"> <li>• Where grizzly bear use is known or likely to occur and where practicable, delay disturbance activities during the spring in spring habitats to minimize displacement of grizzlies.</li> <li>• Include security cover needs for grizzly bears in timber and vegetation management activity plans to increase the utility of habitat for grizzly bears across the Dillon planning area. Specifically, adjust the size and shape of cutting and harvest units to reduce the distance to cover, adjust edges, and leave patches of trees and understory within cutting units to reduce line-of-sight distances.</li> </ul>		
<p>37: Reinitiate consultation with USFWS if:</p> <ul style="list-style-type: none"> <li>• The amount or extent of incidental take is exceeded. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.</li> <li>• New information reveals an agency action may affect listed species or critical habitat in a manner or to an extent not considered in this opinion</li> <li>• An agency action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in the USFWS Biological Opinion on the Dillon RMP</li> <li>• A new species is listed or critical habitat designated that may be affected</li> </ul>	<p>General Wildlife and Special Status Species Actions, page 72</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude reinitiation of consultation with USFWS if the amount or extent of grizzly bear incidental take is exceeded or an agency action is subsequently modified in a manner that causes an effect on grizzly bears that was not considered in the USFWS Biological Opinion on the Dillon RMP. GRSG conservation measures are not expected to result in incidental take or an effect on grizzly bears beyond what was specified in the 2004 RMP BO. However, site-specific analysis will be conducted and a decision will be made at that time. Critical habitat has not been designated for the grizzly bear.</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>Management and Monitoring of Grizzly Bear/Human Conflicts: Outside the PCA, state management plans will direct the management of nuisance bears. Management of nuisance bears usually falls into one or more of the following categories:</p> <ul style="list-style-type: none"> <li>• Removing or securing the attractant</li> <li>• Deterring the bear from the site through the use of aversive conditioning techniques</li> <li>• Capturing and relocating the nuisance bear</li> <li>• Removing the bear from the wild, including lethal control</li> </ul> <p>The focus and intent of nuisance grizzly bear management inside and outside the PCA will be predicated on strategies and actions to prevent grizzly bear/human conflicts. It is recognized that active management aimed at individual nuisance bears will be required in both areas. Management actions outside the PCA will be implemented according to state management plans. These actions will be compatible with grizzly bear population management objectives for each state for the areas outside the PCA.</p> <p>In circumstances that result in a nuisance bear situation outside the PCA, more consideration will be given to existing human uses. Site-specific conflict areas within and outside the PCA will be documented and prioritized to focus proactive management actions to minimize grizzly bear/human conflicts and address existing and potential human activities that may cause future conflicts. Past conflict management has demonstrated that grizzly bears can coexist with most human activities. Management of all nuisance bear situations will emphasize resolving the human</p>	<p>Conservation Actions for Grizzly Bears (CAGB)<sup>10</sup></p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude management and monitoring of grizzly bear/human conflicts or the use of state management plans to manage nuisance bears outside the PCA. In addition, proposed GRSG direction is not expected to result in circumstances that result in a nuisance bear situation outside the PCA.</p>

<sup>10</sup> CAGB = Conservation actions for grizzly bears. The following excerpts from the Yellowstone Conservation Strategy and Grizzly Bear Management Plan for Southwestern Montana are pertinent to grizzly bear management in the Dillon Field Office (USDI Bureau of Land Management 2006, Appendix V).

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>cause of the conflict. Relocation and removal of grizzly bears may occur if other management actions are not successful.</p> <p>Before any removal, except in cases of human safety, management authorities will consult with each other prior to judging the adequacy of the reason for removal. Captured grizzly bears identified for removal may be given to public research institutions or public zoological parks for appropriate non-release educational or scientific purposes as per regulations of states and national parks. Grizzly bears not suitable for release, research, or educational purposes will be removed as described in appropriate state management plans or in compliance with national park management plans. All grizzly bear relocations and removals will be documented and reported annually in the Interagency Grizzly Bear Study Team Annual Report.</p>		
<p>Montana FWP will seek to maintain road densities of one mile or less per square mile of habitat as the preferred approach. This is the goal of the statewide elk management plan (including the southwestern Montana areas covered by this plan). The goal seeks to meet the needs of a variety of wildlife while maintaining reasonable public access. If additional management is needed based on knowledge gained as bears reoccupy areas, it should be developed and implemented by local groups as suggested in this plan.</p>	CAGB	<p>Yes: The GRSG LUPA decision will not authorize new roads in GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.</p>
<p>1. Identify and evaluate, for each project proposal, the cumulative effects of all activities, including existing uses and other planned projects. Potential site-specific effects of the project being analyzed are a part of the cumulative effects evaluation which will apply to all lands within a designated “biological unit”. A biological unit is an area</p>	CAGB	<p>No: A cumulative effects analysis is being completed at this GRSG LUPA decision planning level and will be completed for each project occurring at the site-specific level.</p>

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
of land which is ecologically similar and includes all of the year-long habitat requirements for a sub-population of one or more selected wildlife species.		
2. Avoid human activities, or combinations of activities, on seasonally important wildlife habitats that may result in an adverse impact on the species or reduce long-term habitat effectiveness.	CAGB	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines within sagebrush habits are not expected to negatively affect habitats seasonally important to grizzly bears.
3. Base road construction proposals on a completed transportation plan which considers important wildlife habitat components and seasonal use areas in relation to road location, construction period, road standards, seasons of heavy vehicle use, road management requirements, and more.	CAGB	Yes: The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.
4. Use minimum road and site construction specifications based on projected transportation needs. Schedule construction times to avoid seasonal-use periods for wildlife as designated in species-specific guidelines.	CAGB	Yes: GRSG LUPA decision RDFs for road construction occurring within the analysis area will complement this direction which could benefit grizzly bears. See the effects analysis section below.
5. Locate roads, drill sites, landing zones, etc., to avoid important wildlife habitat components based on site-specific evaluation.	CAGB	No: GRSG LUPA decision RDFs will complement this direction.
6. Roads that are not compatible with area management objectives, and are no longer needed for the purpose for which they were built, will be closed and reclaimed. Native plant species will be used whenever possible to provide proper watershed protection on disturbed areas. Wildlife forage and/or cover species will be used in rehabilitation projects where appropriate.	CAGB	Yes: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will complement this direction, which could benefit grizzly bears. See the effects analysis section below.
7. Impose seasonal closures and/or vehicle restrictions based on wildlife, or other	CAGB	No: GRSG LUPA decision goals, objectives, desired

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<b>Dillon Field Office RMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
resource needs, on roads that remain open and enforce and prosecute illegal use by off-road vehicles if given authority. Montana FWP will actively work to secure authority through the appropriate process and identify funding to support enforcement efforts.		conditions, standards, guidelines, and RDFs will complement this direction.
8. Montana FWP supports the U.S. Forest Service and BLM restrictions banning all off-road/trail use.	CAGB	NA: This is a Montana FWP position statement.
9. Efforts will be directed towards improving the quality of habitat in site-specific areas of habitually high human-caused bear mortality. Increased sanitation measures, seasonal road closures, etc., could be applied.	CAGB	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude this direction.

In addition, it contains a grizzly bear screening process (BLM 2006, Appendix V, and Appendices B and C in this document) intended to facilitate ESA processing of project consultation requirements for minor projects, when a “no effect” or “not likely to adversely affect” determination is “clearly” the appropriate conclusion. Projects not meeting or included in the criteria presented must follow standard processes for conducting project analysis, BA development, and consultation. The GRSG LUPA decision has been screened (see table above) using these criteria to estimate its potential for effects on grizzly bears.

## Idaho / SW Montana Greater Sage-grouse EIS Dillon Field Office and ACEC's

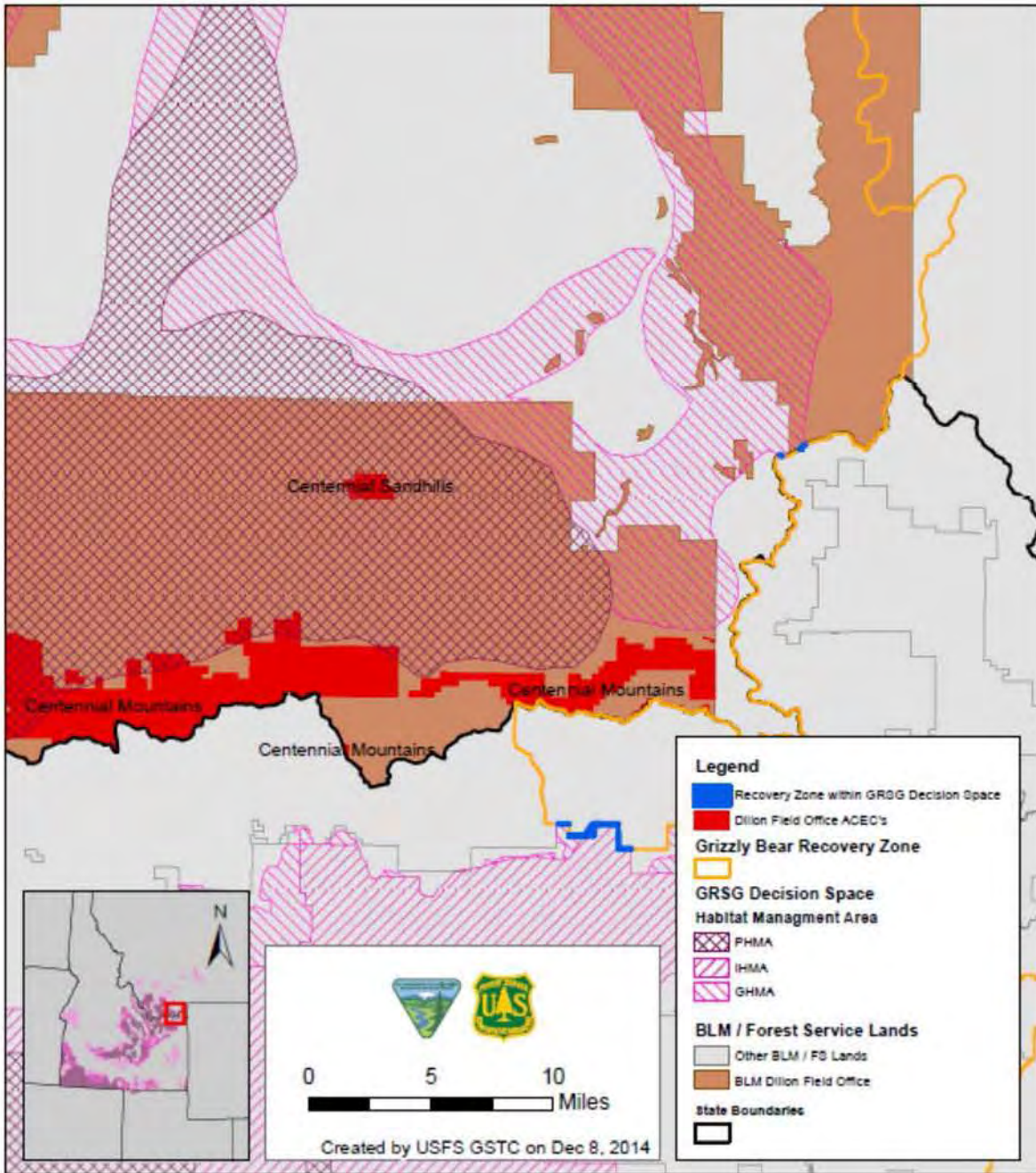


Figure 7. Centennial Mountains ACEC with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

**Status of the Grizzly Bear on the Beaverhead-Deerlodge National Forest and Associated Management Direction**

The Forest Plan revision process occurred over an 8-year period from 2002 to 2010, with the first Record of Decision signed in January 2009, and a second Record of Decision signed in February 2010. The BDNF entered into early consultation with the Montana Field Office of the USFWS on the forest plan revision process in 2003. Consultation on the 2009 Revised Forest Plan for the Yellowstone DPS of grizzly bears was completed in August 2010.

The BDNF 2009 Revised Forest Plan incorporated the 2006 Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (Forest Service 2006). The 2006 Forest Plan Amendment adopted the habitat standards and other relevant provisions of the March 2003 Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem (2003 Conservation Strategy). The 2006 Forest Plan Amendment encompasses the former Beaverhead National Forest, though the primary focus of the 2006 Forest Plan Amendment is on the conditions and actions that occur within the PCA of the YGBE. With the reclassification of the grizzly bear as threatened in 2009, the BDNF retained the direction of the 2006 Forest Plan Amendment and 2003 Conservation Strategy in the 2009 Revised Forest Plan. The 2006 Forest Plan Amendment and 2003 Final Conservation Strategy apply only to the area of the former Beaverhead National Forest.

Within the GRSG action area, 60,727 acres of occupied grizzly bear habitat overlap with PHMA, and 81,664 acres overlap with GHMA in the BDNF (Figure 5); there is no overlap between occupied grizzly bear habitat and IHMA on the BDNF. There is no overlap between the Grizzly Bear Recovery Zone and GRSG habitat occurring on the BDNF (Figure 6).

**Table 2. Beaverhead-Deerlodge National Forest Land and Resource Management Plan (LRMP) Grizzly Bear Habitat Conservation Goals, Standards, and Guidelines and Potential for Effect**

<b>Beaverhead-Deerlodge LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
Manage grizzly bear habitat within the Primary Conservation Area to sustain the recovered Yellowstone grizzly bear population. Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, accommodate grizzly bear populations to the extent that accommodation is compatible with the goals and objectives of other uses.	Goal, Appendix G, Page 5	No: There is no overlap between the PCA (i.e., Grizzly Bear Recovery Zone) and the GRSG LUPA decision action area on the BDNF (Figure 6). In addition, GRSG LUPA goals, objectives, desired conditions, standards, or guidelines will not preclude accommodation of grizzly bear populations outside of the PCA, to the extent that accommodation is compatible with the goals and



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<b>Beaverhead-Deerlodge LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
		objectives of other uses.
Inside the Primary Conservation Area, maintain the percent of secure habitat in BMU subunits at or above 1998 levels. Projects that change secure habitat must follow the Application Rules.	Standard 1, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, maintain the number and capacity of developed sites at or below 1998 levels, with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the Primary Conservation Area is analyzed and potential detrimental and positive impacts on grizzly bears are documented through a biological evaluation or assessment. Projects that change the number or capacity of developed sites must follow the Application Rules.	Standard 2 – Developed Sites, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, do not create new active commercial livestock grazing allotments, do not increase permitted sheep animal months from the identified 1998 baseline, and phase out existing sheep allotments as opportunities arise with willing permittees.	Standard 3 – Livestock Grazing, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.	Standard 5 – Nuisance Bears, Appendix G, page 5	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude coordination with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.
Inside the Primary Conservation Area, minimize grizzly bear/human conflicts using food storage, information and education, and other management tools.	Standard 6 – Food Storage, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, use localized area restrictions to address conflicts with winter use activities, where conflicts	Guideline 1 – Winter Motorized	No: There is no overlap between the PCA and the GRSG LUPA decision action

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<b>Beaverhead-Deerlodge LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
occur during denning or after bear emergence in the spring.	Access, Appendix G, Page 5	area on the BDNF.
Inside the Primary Conservation Area, cattle allotments or portions of cattle allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees. Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, livestock allotments or portions of allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees.	Guideline 2 – Livestock Grazing Access, Appendix G, Page 6	<p>Inside the PCA: No. There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.</p> <p>Outside of the PCA: Yes. GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude retiring livestock allotments or portions of allotments outside the PCA with recurring conflicts that cannot be resolved through modification of grazing practices. In addition, GRSG LUPA decision direction that modifies livestock management practices to benefit GRSG or their habitat, including voluntary retirement of vacant allotments, could complement protection of grizzly bears and their habitat. See the effects analysis section below.</p>
Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, emphasize proper sanitation techniques, including food storage orders, and information and education, while working with local governments and other agencies.	Guideline 3 – Food Storage, Appendix G, Page 6	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude emphasis of proper sanitation techniques, including food storage orders, and information and education.
Inside and outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy,	Guideline 4 – Food Sources, Appendix G, Page 6	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.

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<b>Beaverhead-Deerlodge LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>maintain the productivity, to the extent feasible, of the four key grizzly bear food sources as identified in the Conservation Strategy. Emphasize maintaining and restoring whitebark pine stands inside and outside the Primary Conservation Area.</p>		<p>The GRSG LUPA decision action area is unlikely to contain whitebark pine stands. GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude maintenance of the productivity, to the extent feasible, of ungulates, cutthroat trout, army cutworm moths, or whitebark pine seeds.</p>

Likewise, the 2010 Biological Assessment and corresponding Biological Opinion for Effects of the Revised Land and Resource Management Plan (USFWS 2010a) for the BDNF on Grizzly Bears only applies to a portion of the BDNF. The 2010 Biological Opinion only applies to the area of the Yellowstone DPS, which encompasses the Madison, Gravelly, and Tobacco Root landscapes in their entirety and a small portion of the Jefferson River and Upper Clark Fork landscapes. The small portion of the Jefferson River and Upper Clark Fork landscapes in the Yellowstone DPS is National Forest System lands in the Highland Mountains south of and bounded by Interstate highways 15 and 90.

An additional BA was prepared in 2012 to supplement the BA prepared for the 2010 consultation on the Yellowstone DPS; new information demonstrated that grizzly bears from the NCDE and other grizzly bear ecosystems are advancing on to the northern tier of the BDNF, and the BDNF reinitiated consultation based on the new information. For purposes of reinitiation of consultation, the USFWS referred to two analysis areas on the BDNF: the Yellowstone analysis area (the area used for analysis in 2010 consultation) and the west and north analysis area (WNAA), which includes the areas of the BDNF west and north of the Yellowstone analysis area.

Grizzly bears currently occupy the southeast and northwest portions of the BDNF. The Yellowstone DPS is in the southeast portion of the BDNF, and the Madison and Gravelly mountain ranges are currently occupied by grizzly bears. To our knowledge, the Tobacco Root and Highland Mountains (also within the Yellowstone DPS) are not occupied by grizzly bears at this time (Forest Service 2012).

Grizzly bears are gradually moving south onto the BDNF from the NCDE and other grizzly bear ecosystems. At this time, it appears that grizzly bears are using the northern portions of the BDNF in the Boulder River, Clark Fork-Flints, and Upper Rock Creek landscapes (Forest Service 2012).

**The Biological Opinion (USFWS 2013b) specifies the amount or extent of take anticipated for the Yellowstone Analysis Area and WNAA of the Forest Plan:**

**First surrogate measures of incidental take - access management:**

If permanent increases in linear road density depart from conditions described in the BO (pages 79-80) over the life of the Revised Forest Plan (15 years), then the level of incidental take anticipated in the first surrogate measure of take would be exceeded, and therefore the level of take exempted would be exceeded.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

**Second surrogate measure of incidental take – temporary roads**

The Forest has estimated that 70 miles of temporary roads may be constructed across the Forest over the life of the Revised Forest Plan. If the Forest constructs more than 70 miles of temporary motorized routes over the life of the Revised Forest Plan, then the level of incidental take anticipated by the USFWS in their second surrogate measure of take would be exceeded, and the level of take exempted would be exceeded.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

**Third surrogate measure of incidental take – access management/winter motorized use**

The timeframe between the third week in March and the winter use season ending date of May 15 is the timeframe where the potential exists for interactions between snowmobiles and recently emerged female grizzly bears with cubs. This timeframe represents the third surrogate measure of incidental take anticipated as a result of the Revised Forest Plan.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

**Fourth surrogate measure of incidental take – acres of denning habitat open to snowmobiling during the life of the Revised Forest Plan**

In the Yellowstone analysis area, approximately 55,026 acres of denning habitat will be open to snowmobiling during the life of the Revised Forest Plan. In the WNAA, approximately 228,356 acres of denning habitat will be open to snowmobiling during the life of the Revised Forest Plan. These acres represent our fourth surrogate measure of the incidental take that the USFWS anticipates as a result of the Revised Forest Plan.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

**Fifth surrogate measure of incidental take - harm**

The USFWS anticipates that the fifth surrogate measures of incidental take resulting from the Revised Forest Plan in the form of harm is proportional to the number of grizzly bears that are removed or killed within the each of the analysis areas for defense of human life or property, as a result of obtaining anthropogenic food or other attractants due to inadequate storage.

GRSG LUPA decision conservation measures are not expected to result in incidental take. LUPA decision goals, objectives, desired conditions, standards, or guidelines utilized for individual projects will not preclude compliance with existing food storage order and avoidance of human/bear interaction direction.

**West and North Analysis Area (WNAA)**

Should more than one grizzly bear be killed or removed from either analysis area of the Forest at any time during for the life of the Revised Forest Plan because it has become habituated in relation to food and attractant storage, incidental take will be exceeded and the Forest must reinitiate consultation with the USFWS. Additionally, should the level of incidental take associated with food and attractant storage reach, but not exceed, the anticipated incidental take level for either area, the Forest should informally consult with the USFWS regarding the adequacy of existing mechanisms to minimize potential take.

GRSG LUPA decision conservation measures are not expected to result in incidental take. LUPA decision goals, objectives, desired conditions, standards, or guidelines used for individual projects will not preclude compliance with existing food storage order and avoidance of human/bear interaction direction.

**Sixth surrogate measure of incidental take - the number of grizzly bears that are killed within the action area as a result of livestock grazing**

The USFWS anticipates take in the form of harm to grizzly bears as a consequence of livestock grazing and the associated livestock management operation in habitats commonly used by grizzly bears. The habitat modification of adding a significant, anthropogenic food source that results in the death or injury of bears can itself be considered “take” in the form of harm. The likely depredation of some of the permitted livestock represents an impairment of natural feeding behavior that will in some cases ultimately lead to management removal or death of grizzly bears.

Should more than two grizzly bears in the Yellowstone analysis area or one grizzly bear within the WNAA be killed or removed as a result of management action related to livestock grazing within the action area during the life of the Revised Forest Plan, incidental take will be exceeded and the Forest must reinitiate consultation with the USFWS. Additionally, should the level of

incidental take associated with the Revised Forest Plan reach, but not exceed, the anticipated incidental take level, the Forest should informally consult with the USFWS regarding the adequacy of existing mechanisms to minimize potential take.

Although GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take, changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives. Potential modifications include, but are not limited to, changes in: season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. See the effects analysis section below.

### **Status of the Grizzly Bear on the Caribou-Targhee National Forest and Associated Management Direction**

Within the GRSG action area, 150 acres of occupied grizzly bear habitat overlap with IHMA on the Caribou-Targhee National Forest; there is no overlap between occupied grizzly bear habitat and PHMA or GHMA on the Caribou-Targhee National Forest (Figure 5). In addition, 92 acres of the Grizzly Recovery Zone overlap with IHMA on the Caribou-Targhee National Forest, and 2 acres of the Grizzly Recovery Zone overlap with GHMA (Figure 6).

Although portions of the Forest are within three BMUs (Henry's Lake BMU, which is divided into 2 subunits; Plateau BMU, which is divided into 2 subunits; and Bechler-Teton BMU, which is not divided into subunits), all overlap between the Caribou-Targhee National Forest, GRSG action area, and Grizzly Recovery Zone falls within the Henry's Lake BMU and Henry's Lake 1 Subunit (Figure 6).

**Targhee National Forest LRMP Direction Specific to Grizzly Bears and Potential for Effect**

<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<b>Relevant Forestwide Standards and Guidelines - Wildlife</b>		
Problem grizzly bears will be addressed according to the IGBC nuisance bear guidelines (IGBC 1994)	General Habitat Standard, Page III-16	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude or conflict with implementation of this standard.
Habitat conditions will be sufficient to sustain a recovered population of grizzly bears	Goals – Grizzly Bear Habitat, Page III-17	Yes: There is a total of 158 acres of overlap of occupied grizzly habitat with GRSG management areas (149 acres IHMA, 9 acres GHMA) on the CTNF.
Allow for unhindered movement of bears (continuity with Yellowstone National Park and adjacent BMUs)	Goals – Grizzly Bear Habitat, Page III-17	No: There is little expected disturbance expected on the small area of overlap.
Meet recovery criteria in the current Grizzly Bear Recovery Plan	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective.
Implement guidelines developed by the IGBC	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to conflict with implementation of the IGBC guidelines. Furthermore, grizzly bear habitat will be addressed at the site-specific level, and compatibility between grizzly bear guidelines and GRSG direction will be sought.
Provide safe, secure sites for nuisance bears as defined by Interagency Grizzly Bear Guidelines	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective.
Achieve the road density standards in the BMUs within three years of the	Objectives - Grizzly Bear Habitat, Page III-	No: GRSG LUPA decisions will not approve new roads

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
implementation of the ROD in coordination with USFWS and State Wildlife agencies	18	within GRSG habitat. Rather, it will generally limit them.
Develop fire management plans for each of the BMUs to address wildfires and prescribed fires	Objectives - Grizzly Bear Habitat, Page III-18	Yes: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective and will likely complement it by maintaining, improving, or restoring sagebrush habitat. Please see the effects analysis section below.
The grizzly bear education program will focus on residents in residential and summer home areas, developed recreation site users, wilderness users, hunters, outfitters and guides, and permittees (Guideline)	Grizzly Bear Habitat Standards and Guidelines, Page III-18	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of this guideline.
Those areas shown as Management Situation 3 (MS3) habitat on Map #5 of the 1985 Forest Plan will continue to be managed as MS3 habitat (Standard)	Grizzly Bear Habitat Standards and Guidelines, Page III-18	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of this standard.
<b>Relevant Forestwide Standards and Guidelines – Forest Use and Occupation</b>		
The Forest road and trail system is cost effective and integrates human needs with those of other resource values, particularly grizzly bear, elk, and native cutthroat trout	Forest Use and Occupation – Access Goals, Page III-23	No: The GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them.
Elk vulnerability is decreased and grizzly bear security is increased	Forest Use and Occupation – Access Goals, Page III-23	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas, including juniper.
2. Administrative Use on Restricted Roads and Trails and in Restricted Areas  A. The Open Road and Open Motorized Trail Route Density	Forest Use and Occupation – Access Standards and Guidelines, Page III-23	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of these standards.



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<p>Standards prescribed for each prescription area do not restrict responses to emergency events to protect human life, property values and structures, and forest resources. Responses to emergency events include law enforcement, search and rescue, and fire suppression (S)</p> <p>B. Prudent cross-country motorized access is allowed to implement projects consistent with prescription objectives, in all prescription areas except for grizzly bear core areas and designated wilderness.</p> <p>Administrative uses, including, but not limited to, planned project work such as firewood harvest, timber sales, tree planting, prescribed burns, wildland survey, or fish and wildlife habitat improvements on restricted roads, trails or areas will only be allowed under the following conditions:</p> <p>1) Any motorized vehicle access on a restricted road or trail or in a restricted area will be for official administrative business only and must be approved by the District Ranger</p> <p>2) When motorized vehicle access on a restricted road or trail or area is necessary, a sign will be posted while project work is being accomplished</p> <p>3) Motorized vehicle access on a restricted road or trail or area will be allowed by permit under the following conditions when approved by the Forest Supervisor or District Ranger:</p> <p>a. Project work is one mile or 30 minutes' walk or greater</p> <p>b. Equipment is being used that is unreasonable to carry to the project</p>		

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>work site</p> <p>c. Contract inspectors working with contractors who have motorized equipment and vehicles which are necessary for the contract work</p> <p>This direction (in Item 2B, above) supersedes direction in access tables for individual prescriptions (S)</p> <p>C. Needs for motorized cross-country administrative access will be presented and considered in analysis documents for proposals, including, but not limited to, prescribed burning, fish and wildlife habitat improvement, timber sales, and personal use firewood harvest. The proposal will limit access to that reasonably needed to conduct the project. Prudent cross-country access to implement these projects may be allowed consistent with project-level NEPA decisions and prescription objectives in all prescription areas except for grizzly bear core areas and designated wilderness. This direction supersedes direction in access tables for individual prescriptions (S)</p>		
<p>Figures appearing in the access tables for individual prescriptions represent direction for those prescription areas. If no figure appears, refer to the following direction (S):</p> <p>Total Motorized Access Route Density<sup>11</sup> for Henry's Lake BMU Subunit 1: 1.0 mi/mi<sup>2</sup></p>	<p>Forest Use and Occupation – Access Standards and Guidelines, Page III-24</p>	<p>Yes: The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.</p>

<sup>11</sup> Includes all open and restricted roads and motorized trails. Density may be displayed as follows: 1) Density (miles/square mile) for an analysis area (such as a watershed or a management prescription area); or 2) Density is displayed as a percentage of the analysts area in a defined density category (example. 20% ~2.0 miles per square mile).

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
Open Road and Open Motorized Trail Route Density <sup>12</sup> for Henry's Lake BMU Subunit 1: 0.6 mi/mi <sup>2</sup>		
<b>Relevant Forestwide Standards and Guidelines – Production of Commodity Resources</b>		
C.3. Do not convert from a cattle allotment to a sheep allotment within bighorn sheep habitat or in grizzly bear management prescriptions (S)	Allotment Management Planning Standards and Guidelines, Page III-30	Yes: Will likely apply to MA 5.3.5 and potential modifications to allotments, including “kind of livestock”
<b>Relevant Subsections:</b> There is overlap between the GRSG action area and the Following Subsections: Lemhi-Medicine Lodge (19,279 acres of overlap with IHMA and 57,367 acres of overlap with PHMA); Centennial Mountains (745 acres of overlap with GHMA; 9,606 acres of overlap with IHMA; 84 acres of overlap with PHMA); Island Park (1 acre of overlap with GHMA; 3,039 acres of overlap with IHMA); and Caribou Range Mountains (17,664 acres of overlap with GHMA)		
Lemhi/Medicine Lodge Subsection	N/A	No: No subsection management direction specific to grizzly bear
Any activities will need to address concerns associated with grizzly bear.	Centennial Mountains Subsection Desired Future Condition, Page III-42	No: The purpose of this analysis is to assess the potential effects of GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines on grizzly bears. Furthermore, grizzly bears and their habitat will be addressed at the site-specific level, and compatibility between grizzly bear management direction and GRSG management direction will be sought at that time.
To better manage grizzly bear habitat, all sheep allotments on the Island Park Ranger District will be phased out on an opportunity basis. Domestic sheep grazing within the grizzly bear recovery area will be managed	Island Park Subsection Standard, Page III-44.	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines for range management/livestock grazing will not conflict with

<sup>12</sup> Includes all open roads and open motorized trails. Density may be displayed as follows: 1) Density (miles/square mile) for an analysis area (such as a watershed or a management prescription area); or 2) Density is displayed as a percentage of the analysis area in a defined density category (example. 20% > 2.0 miles per square mile).

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<p>according to Management Situation 2 guidelines and will be phased out on an opportunity basis. When all sheep allotments in the portion of the subsection within the grizzly bear recovery area have been vacated, all of the allotments will be closed in that portion of the subsection. The intent of not closing these individual allotments as they are vacated is to provide an opportunity to minimize conflicts between grizzly bears and domestic sheep in the event of an encounter with grizzlies on sheep allotments. (S)</p> <p>A. Opportunities to vacate an allotment include such events as nonuse violations, term permit waivers where the permit is waived back to the government, resource protection, or permit actions resulting in cancellation of the permit. If opportunities do not arise, then efforts will be made to relocate or accommodate sheep to other areas</p> <p>B. Vacated allotments in these areas will be made available as needed to resolve grizzly bear/sheep conflicts in other sheep allotments in Situation 2 habitat.</p>		<p>implementation of these standards.</p>
<p>Important Forestwide objectives in this subsection focus on grizzly bear habitat management and elk. Road closures and vegetation treatments aimed at improving cover and maintaining forest health are opportunities to achieve these objectives.</p>	<p>Island Park Subsection Desired Future Condition, Page III-48.</p>	<p>No: GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them.</p> <p>The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas, including juniper.</p>
<p>Caribou Range Subsection</p>	<p>N/A</p>	<p>No: No subsection management direction specific to grizzly bear.</p>

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<b>Grizzly Bear-Themed Management Areas</b>		
Management Area 2.6.1 (a) Grizzly Bear Habitat (No ASQ, No Cross-Country, No Sheep)	Grizzly Bear Habitat Forest Use and Occupation (Access) Standard and Production of Commodity Resources (Range and Timber) Standards, Page III-98	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 2.6.2 Grizzly Bear Core Area	Grizzly Bear Core Area Goals, Objectives, and Standards and Guidelines, Pages III-98 through III-100	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 2.6.5 Grizzly Bear Security Area	Grizzly Bear Security Area Goals and Standards and Guidelines, Pages III-101 through III-103	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 5.3.5 <sup>13</sup> Grizzly Bear Habitat (NIC for ASQ, No Cross Country, Phase out Sheep)		
1 Make nonfederal lands within this area a high priority for acquisition	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to conflict with implementation of this goal.
2. Maintain grizzly bear security through a low density of open, motorized roads and trails.	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them.
3. Manage recreation to minimize grizzly conflicts with humans	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision recreation goals, objectives, desired conditions, standards, and guidelines that manage existing recreation uses to minimize adverse effects on GRSG or their habitat, or

<sup>13</sup> The Interagency Grizzly Bear Guidelines for Management Situation 1 habitat apply to this management prescription, except that livestock grazing in existing Management Situation 2 habitat will continue to be managed under Management Situation 2 guidelines.

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
		prevent construction of new recreation facilities in PHMA and IHMA, will not conflict with managing recreation to minimize grizzly bear conflicts with humans.
Wildlife habitat improvement projects will maintain or improve grizzly bear habitat. Vegetation manipulation to improve grizzly bear habitat includes treatment to maintain long-term ecosystem vegetation patterns.	MA 5.3.5 Goal, Page III-147	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat. In addition, GRSG LUPA decision vegetation and fuels management goals, objectives, desired conditions, standards, and guidelines that conserve, enhance, and restore GRSG habitat will not conflict with this goal. They may, if anything, benefit grizzly secondary habitat.
Effects of proposals will be analyzed at multiple scales. Analysis areas will follow ecological boundaries, watersheds, and topographic breaks. Cumulative effects will be analyzed on no less than a BMU subunit scale.	MA 5.3.5 Ecological Processes and Patterns Guideline, Page III-147	No: Site-specific proposals will be analyzed according to LRMP MA direction.
Insects and disease are allowed to play their natural role in ecosystem development, unless this conflicts with the maintenance of grizzly bear habitat.	MA 5.3.5 Ecological Processes and Patterns – Insects and Disease Guideline, Page III-147	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this guideline.
Prescribed fire is allowed to maintain or improve grizzly habitat	MA 5.3.5 Ecological Processes and Patterns – Fire/Fuels Guideline, Page III-147	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat. In addition, GRSG vegetation and fuels management goals, objectives, desired conditions, standards, and guidelines that conserve, enhance and restore GRSG

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
		habitat will not conflict with this goal. And, if anything, might complement this guideline within grizzly bear secondary habitat.
<p>All operating plans and special use permits will specify measures to meet grizzly bear management goals and objectives for grizzly bear habitat. The following will be required:</p> <ol style="list-style-type: none"> <li>1. Temporary cessation or modification of permitted activities will occur to resolve grizzly bear conflicts.</li> <li>2. Human food, refuse, and prepared livestock/pet foods associated with the permitted activity will be made unavailable to grizzlies through proper storage, handling, and disposal. Proper storage includes a) inside a bearproof container, b) suspended horizontally from adjacent posts or trees, c) stored in a hard-sided vehicle or trailer, or d) other methods approved by the District Ranger. The exception is when the food is being eaten or prepared for eating, or when food and similar organic matter is being transported. Unburned human foods, garbage or other refuse will be carried off the forest as often as practical.</li> <li>3. Any observation of grizzly bear or grizzly bear sign will be reported to the District Ranger as soon as practical.</li> <li>4. Access roads that are not open on the travel plan will be low standard roads and gated to allow access only to the operators. Nonwinter motorized use behind locked gates is authorized only for permitted</li> </ol>	<p>MA 5.3.5 Ecological Processes and Patterns - Physical Elements (Minerals/Geology) Standard, Page III-148</p>	<p>No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard because it will not authorize operating plans or special use permits.</p>

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
activities.		
Maintain snag habitat at greater than 60 percent of the biological potential for woodpeckers.	MA 5.3.5 Ecological Processes and Patterns – Biological Elements (Wildlife) Guideline, Page III-148	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat.
Environmental analysis areas (for NEPA purposes) will be at least 7,000 acres in size.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	No: The GRSG LUPA decision analysis area is roughly 49 million acres in size.
Long-term activities <sup>14</sup> must be concentrated in activity areas on an annual basis between April 1 and September 15. Each activity area shall not exceed 7,000 acres in size	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Standard, Page III-148	No: Only eighty-seven acres of important GRSG habitat and two acres of general habitat overlap with MA 5.3.5. In addition, GRSG LUPA decision timing restrictions are limited to the lekking season (March 15 – May 15), which will only slightly overlap with this direction.
Long-term activities should be concentrated in space and be of as short a duration as is practical.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Long-term activity areas should generally follow ecological boundaries, watersheds, and topographic breaks. Activity areas should be distributed such that no less than 7,000 acres lie between them.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Inventory, monitoring, and short-term activities <sup>15</sup> should be concentrated in time and space.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Short-term management activities	MA 5.3.5 Ecological	

<sup>14</sup> Long-term activities, for purposes of this prescription, are those activities which may last more than one field season, or may be expected to recur in different areas year after year. They may occur over a larger geographic area than short-term activities. These include timber sales, firewood harvesting, prescribed burns, road reclaiming, tree thinning, and trail construction.

<sup>15</sup> Short-term activities, for purposes of this prescription, are those activities that are typically accomplished within one field season and will not necessarily recur on an annual basis. These activities generally occur over a more limited spatial extent than long-term activities. These include tree planting, trail maintenance, spraying weeds, and range maintenance activities.



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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
should be planned to be concentrated in one consecutive 30-day period. Exceptions should be implemented over as short a duration as is practical.	Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-149	
Management activities may take place during winter (December 15 to April 1) and shall be addressed on a case-by-case basis. The primary concern during the winter will be the changes the activity may have on habitat quality and quantity.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-149	
Administrative Responsibilities - emergency cessation or modification of activities will occur when those activities are in conflict with grizzly bear management objectives. Scheduled activities will not occur during the season of bear use in areas where foraging opportunities are limited in their availability, in area, or time.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Standard, Page III-149	No: Only 87 acres of IHMA and 2 acres of GHMA overlap with MA 5.3.5. Therefore, it is unlikely that GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will conflict with grizzly bear management objectives. However, LRMP consistency will be determined and addressed for site-specific proposals.
Please refer to Table in LRMP stating season, type of access (pedestrian; horse/pack stock; mountain bike; motorized, by type), cross-country travel (yes/no/n/a), and road and trail travel (yes/no).	MA 5.3.5 Forest Use and Occupation - Access Standard. Page III-149	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not authorize new types of access or change existing access.
New or relocated roads should meet the following guidelines: 1. Avoid high quality (such as whitebark pine habitat) grizzly bear habitat 2. Minimize sight lines on temporary roads and skid trails 3. Revegetate temporary roads following use 4. Follow minimum required construction standards	MA 5.3.5 Forest Use and Occupation – Roads Guideline. Page III-149	No: The GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them. In addition, the portion of the GRSG action area overlapping the Targhee NF does not include forested areas.
Motorized administrative use on restricted roads and restricted	MA 5.3.5 Forest Use and Occupation -	No: GRSG LUPA decision goals, objectives, desired

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motorized trails by personnel of resource management agencies is acceptable at low-intensity levels as defined in existing cumulative effects analysis models. This includes contractors and permittees in addition to agency employees (See Roads and Trails in the LRMP Glossary for definitions).	Roads Standard. Page III-149	conditions, standards, or guidelines are not expected to result in motorized administrative use on restricted roads and motorized trails beyond what is acceptable at low-intensity levels.
Special Use Activities which adversely affect grizzly bear populations or their habitat will not be permitted.	MA 5.3.5 Forest Use and Occupation – Recreation (Special Uses) Standard. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, and standards and guidelines will not conflict with this standard.
New or relocated trails will avoid high-quality grizzly bear habitat	MA 5.3.5 Forest Use and Occupation – Recreation (Trails) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not authorize new trails. However, travel management goals and objectives that address travel management planning and design to minimize negative effects to wildlife or their habitats will complement this guideline.
New or relocated trails will be located so as to minimize the risk of human/bear interactions (for example, do not place trails along roaring streams where bears cannot hear humans approaching)	MA 5.3.5 Forest Use and Occupation – Recreation (Trails) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with the current ROS guideline for MA 5.3.5.
ROS - Primitive to semi-primitive motorized.	MA 5.3.5 Forest Use and Occupation – Recreation (ROS) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with the current VOQ guideline for MA 5.3.5.
VOQ - Retention to partial retention.	MA 5.3.5 Forest Use and Occupation – Recreation (VOQ) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with this heritage resource
No new interpretation/enhancement of cultural sites	MA 5.3.5 Forest Use and Occupation – Heritage Standard. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with this heritage resource

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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
Forestwide standards and guidelines apply for the management of domestic sheep grazing in Management Situation 2, grizzly bear habitat.	MA 5.3.5 Production of Commodity Resources – Range Guideline, Page III-150	standard. Please see Relevant Forestwide Standards and Guidelines – Production of Commodity Resources section above.
Cattle grazing is allowed. Allotment Management Plans will specify measures to meet agency grizzly goals and objectives.	MA 5.3.5 Production of Commodity Resources – Range Standard, Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard; the GRSG LUPA decision will not authorize livestock grazing.
<p>Permittee’s full compliance in meeting grizzly bear management goals and objectives for grizzly bear habitat will be a condition of the permit. In addition, the following will be required:</p> <ol style="list-style-type: none"> <li>1. Temporary cessation or modification of permitted livestock grazing activities will occur to resolve grizzly bear conflicts with humans or livestock.</li> <li>2. Livestock carcasses will be disposed of or rendered unattractive to bear within 24 hours after they are discovered. Disposal may include removing the carcass from the area, burning, using an acceptable chemical repellent, or other methods approved by the District Ranger. Disposal shall be in accordance with other governing agencies such as the Wyoming Game and Fish Department in order to determine cause of death for reimbursement purposes.</li> <li>3. Human food, refuse, and prepared livestock/pet foods associated with the livestock operation will be made unavailable to grizzlies through proper storage, handling, and disposal. Proper storage includes a)</li> </ol>	MA 5.3.5 Production of Commodity Resources – Range Standard, Pages III-150 through III-151	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard; the GRSG LUPA decision will not authorize livestock grazing.

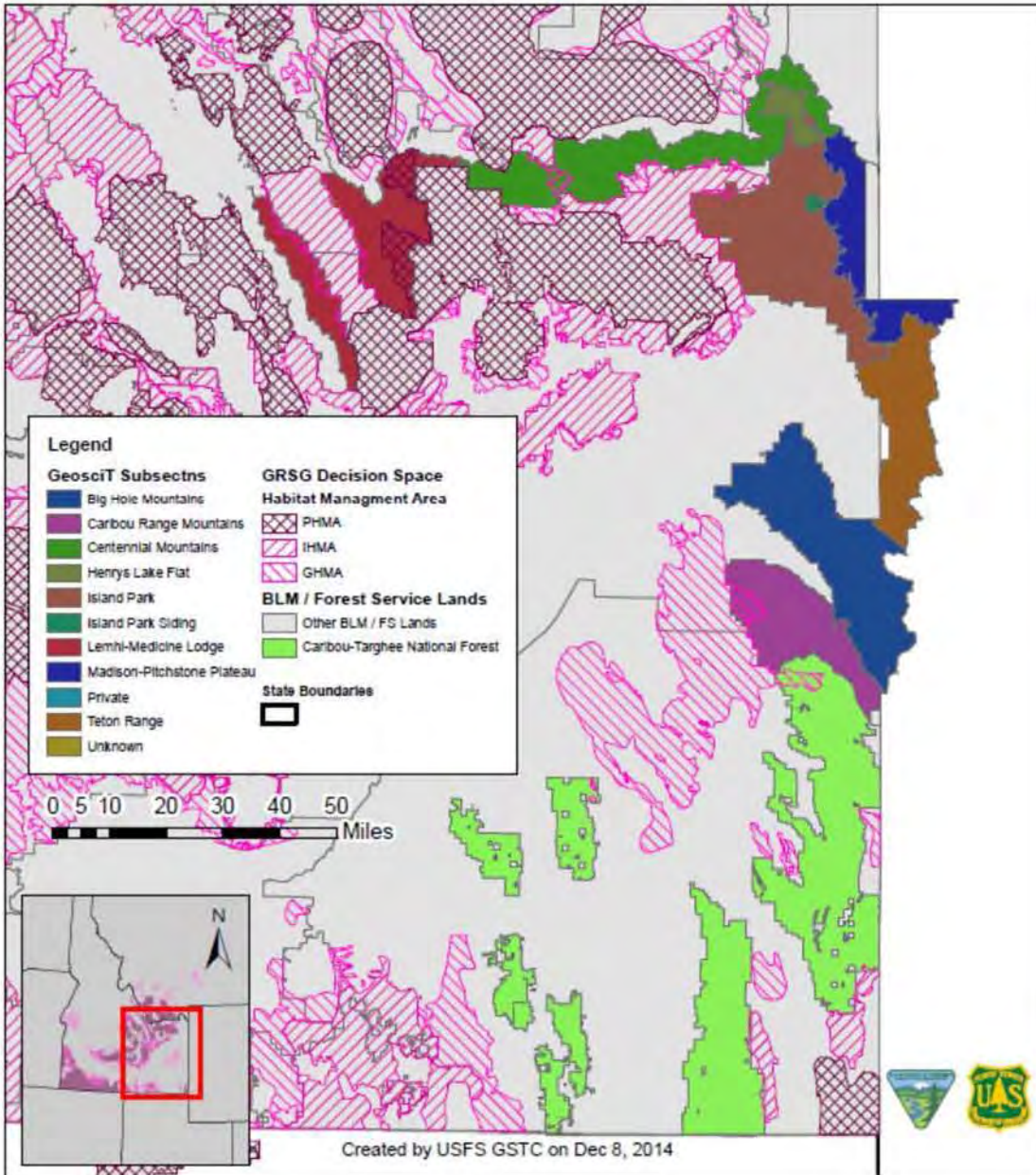
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<b>Targhee National Forest LRMP Direction</b>	<b>Type/Location</b>	<b>Need for Additional Analysis (Yes/No) and Rationale</b>
<p>inside a bearproof container, b) suspended horizontally from adjacent posts or trees, c) stored in a hard sided vehicle or trailer, or d) other methods approved by the District Ranger. The exception is when the food is being eaten or prepared for eating, or when food and similar organic matter is being transported. Unburned human foods, garbage, or other refuse will be carried off the Forest as often as practical.</p> <p>4. High quality food production areas for grizzlies (wet alpine and subalpine meadows, stream bottoms, aspen groves, and other riparian areas) will receive special grazing direction such as light, once-over grazing, special utilization standards, or complete closure. These sites and their corresponding direction will be identified in the Annual Operating Plan.</p> <p>5. Livestock depredation believed to be associated with bears will be reported within 24 hours after they are discovered to the District Ranger and the proper State agencies.</p> <p>6. Any observation of grizzly bear or grizzly bear sign will be reported to the District Ranger as soon as practical.</p> <p>7. Any action taken by the permittee or their agents which violates the ESA will be grounds for cancellation of their grazing permit.</p>		
<p>Please refer to LRMP, Pages III-150 through III-151</p>	<p>MA 5.3.5 Production of Commodity Resources – Timber Standards and Guidelines, Pages III-150 through III-151</p>	<p>No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include timber (i.e., juniper).</p>

Idaho / SW Montana Greater Sage-grouse EIS

Caribou-Targhee National Forest

Geosci Subsections



**Figure 8. Caribou-Targhee National Forest LRMP subsections with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.**

Idaho / SW Montana Greater Sage-grouse EIS  
Caribou-Targhee National Forest  
Grizzly Bear-Themed Prescriptions

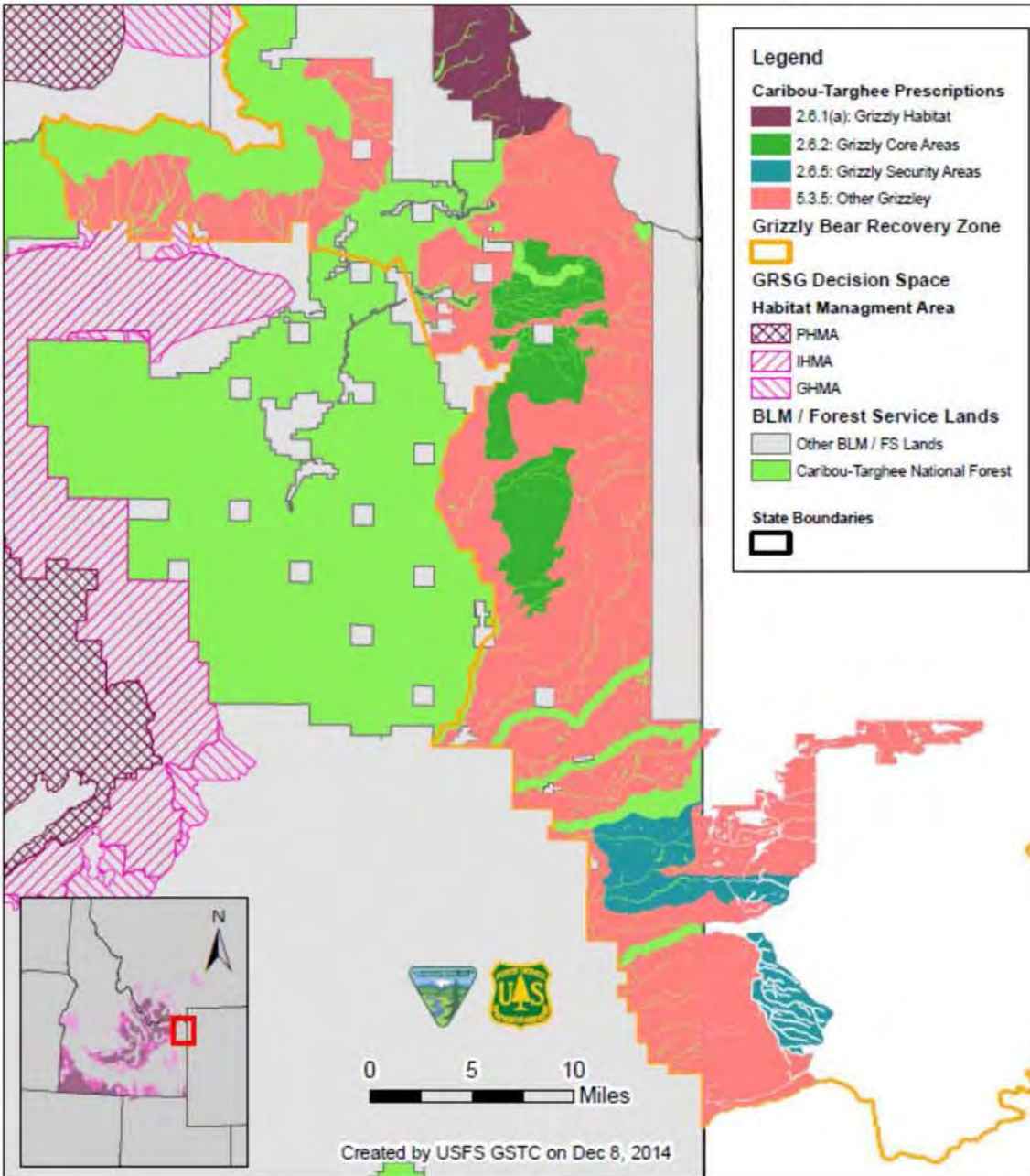


Figure 9. Caribou-Targhee National Forest LRMP grizzly bear-themed prescriptions with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

### **2007 Conservation Strategy Direction**

The following direction only applies to the portions of the action area within the PCA.

#### **Secure Habitat Standard**

The percent of secure habitat within each bear management subunit must be maintained at or above levels that existed in 1998. Application rules, criteria, and definitions are provided in the Conservation Strategy on pages 39-42 and will not be repeated here. According to the application rules for secure habitat, activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. There is no road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation associated with this project. Therefore, this project meets all of the direction for maintaining secure habitat.

The Conservation Strategy provides the following information with regard to access conditions and secure habitat in several BMUs on the Forest: “Several other subunits were listed as needing improvement in the 2000 Draft Conservation Strategy (Plateau #1, Plateau #2, and Henry’s Lake #1). The draft stated that upon full implementation of the access management changes in the revised Targhee Forest Plan, those subunits will be acceptable for mean open motorized access route density, total motorized access route density, and secure habitat. Those access management changes have been fully implemented and those subunits are no longer identified as having potential for improvement. This is due to road decommissioning that was completed following the signing of the 1997 revised Targhee Forest Plan and the 1999 FEIS for the Targhee Travel Plan (Open Road and Open Motorized Trail Analysis (motorized road and trail travel plan).”

#### **Developed Site Standard**

The number and capacity of developed sites within the PCA will be maintained at or below the 1998 level with some following exceptions. The GRSG LUPA decision will not authorize construction of developed sites although it will place limitations on construction of new sites. Please see the effects analysis section below.

#### **Food Storage Order Standard**

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to preclude compliance with the food storage order; therefore, no additional analysis is necessary at this time.

### **Livestock Allotment Standard**

Inside the PCA, no new active commercial livestock grazing allotments will be created, and there will be no increases in permitted sheep Animal Months (AMs) from the identified 1998 baseline.

The GRSG LUPA decision will not authorize livestock grazing. However, changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives. Potential modifications include, but are not limited to, changes in season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. Therefore, additional analysis is necessary and provided below.

### **Four Key Food Sources**

Four seasonal foods have been identified as being important to the grizzly bear population: winter killed ungulates, spawning cutthroat trout, seeds of whitebark pine, and alpine moth aggregation sites. The action area has none of these four seasonal foods. Therefore, the project will have no effect on these four seasonal foods, and project activities will not prevent grizzly bears from having access to these four seasonal foods that exist in other areas of the ecosystem.

### ***Life History***

Grizzly bears are in the family *Ursidae*. Grizzly bears are generally larger than black bears and can be distinguished by having longer front foot claws (2 to 4 inches), a distinctive shoulder hump, rounded ears that are proportionately smaller than the black bear, and a dished-in profile between the eyes and end of the snout. Pelage coloration is highly variable, ranging from light brown to nearly black. Guard hairs are often paled at the tips and give the bear a grizzled appearance. Spring shedding, new growth, nutrition, and climate all influence coloration.

Grizzly bears are generally larger than black bears, with longer, curved claws, distinctive humped shoulders, and a concave face. Pelage coloration is variable. In the continental US, male grizzly bears average 400 to 600 pounds and females average 250 to 300 pounds. An occasional male may attain 800 to 1,000 pounds. Adults stand 3.5 to 4.5 feet at the hump and rear up to more than 8 feet on their hind legs.

In the continental US, the average adult male grizzly bear weighs between 400 to 600 pounds, and the average female weighs between 250 to 350 pounds. Grizzly bears are long-lived, and many individuals live over 20 years. Adult bears are individualistic in behavior and normally are solitary wanderers. Females with cubs and bears defending food supplies are common causes of confrontation between humans and bears.

Home ranges of adult bears may overlap. The home ranges of adult male grizzly bears are generally two to four times larger than those of adult females. The home ranges of females are smaller while they have cubs but increase when the cubs become yearlings. Home ranges vary in



relation to food availability, weather conditions, and interactions with other bears. Home ranges are larger in the GYE compared to the more productive habitats in the northern ecosystems.

The age of first reproduction and litter size varies and may be related to the nutritional state of the female bear. The age at first reproduction averages 5.5 years and ranges from about 3.5 to 8.5 years. Reproductive intervals for females average 3 years, and litter size averages 2 cubs (1 to 4 cubs per litter). The limited reproductive capacity of grizzly bears precludes rapid increases in population. Grizzly bears have one of the lowest reproductive rates among terrestrial mammals. During a female's lifetime, if she has litters of two cubs with a 50:50 sex ratio, and a 50 percent survivorship of young to age 5.5 years, at best a breeding female can replace herself with one other breeding age female in the first decade of her life.

Adult bears are normally solitary except for breeding and while the female cares for cubs. The young will stay with the female for approximately two years. Siblings may stay together for several years after being weaned.

Grizzly bears excavate dens as early as September or prior to entry in November. Dens are usually dug on steep slopes where wind and topography cause an accumulation of deep snow and where snow is unlikely to melt during warm periods. Dens are generally found at high elevations well away from human activity and development.

Grizzly bears are opportunistic feeders and will prey or scavenge on almost any available food. Plants with high crude protein content and animal matter are the most important food items. The search for food has a prime influence on grizzly bear movements. Upon emergence from the den grizzlies move to lower elevations, drainage bottoms, avalanche chutes, and ungulate winter ranges where their food requirements can be met. Throughout spring and early summer grizzly bears follow plant phenology back to higher elevations. In late summer and fall, there is a transition to fruit and nut sources, as well as herbaceous materials. This is a generalized pattern, and it should be noted that bears will go where they can best meet their food requirements.

The grizzly bear has a broad range of habitat tolerance. Occupied habitat is generally characterized as contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Historical declines are related to habitat loss and human-caused mortality.

The management of human use levels through access route management is one of the most powerful tools available to balance the needs of grizzly bears with the activities of humans. Secure habitat for grizzly bears is accomplished through managing access routes at low levels.

## **Threats**

Historical declines are related to habitat loss and direct and indirect human-caused mortality (USFWS 1993). Human-caused mortality can be classified into six major categories: 1) direct human/bear confrontations (hikers, backpackers, photographers, hunters, etc.); 2) attraction of grizzly bears to improperly stored food and garbage associated with towns, subdivisions, farms, hunter camps, campers, etc.; 3) careless livestock husbandry, including the failure to dispose of dead livestock in a manner that minimizes grizzly interactions; 4) protection of livestock; 5) loss of grizzly bear habitat for economic values; and 6) lawful and illegal hunting. The first five reduce space and increase the potential for human/bear conflicts (USFWS 1993). Reducing grizzly bear/human conflicts and grizzly bear/livestock conflicts have been important management goals in the Yellowstone recovery area.

## **B. Plants**

### **Slickspot peppergrass (*Lepidium papilliferum*)**

#### ***Habitat Description***

Slickspot peppergrass occurs in close association with slickspots. These are visually distinctive openings characterized by natric soils and distinct clay layers. They tend to be highly reflective and relatively light in color, making them easy to detect on the landscape. Slickspots are distinguished from the surrounding sagebrush matrix as having the following characteristics: microsites where water pools when rain falls; sparse native vegetation, distinct soil layers with a columnar or prismatic structure, higher alkalinity and clay content, and natric properties; and reduced levels of organic matter and nutrients due to lower biomass production (Fisher et al. 2006). Slickspots have a smooth, pan-like surface that is structureless and slowly permeable when wet but moderately hard and cracked when dry (Fisher et al. 2006). Most slickspots are between 10 and 20 square feet in size. Slickspot peppergrass has infrequently been documented outside of slickspots on disturbed soils, such as along graded roadsides and badger mounds. These are rare observations, and the vast majority of plants are found within slickspots.

The native, semiarid sagebrush-steppe habitat of southwestern Idaho where slickspot peppergrass is found can be divided into two plant associations: Wyoming big sagebrush-Thurber's needlegrass and Wyoming big sagebrush-bluebunch wheatgrass habitat types (Moseley 1994). Menke and Kaye (2006) describe high-quality matrix habitat conditions for slickspot peppergrass as sagebrush-steppe habitat in late seral condition, and Fisher et al. (1996) note that "habitat with vigorous slickspot peppergrass populations has not been recently burned, is not heavily grazed, has an understory of native bunchgrasses, and a well-developed microbotic soil crust." Moseley (1994) suggests that slickspot peppergrass serves as an indicator species for the health of the sagebrush-steppe ecosystem in the western Snake River Plain.

A well-developed microbotic soil crust (also known as a biological soil crust) is one component of quality habitat for slickspot peppergrass. Such crusts are commonly found in semiarid and arid ecosystems and are formed by living organisms, primarily bryophytes, lichens, algae, and

cyanobacteria, that bind surface soil particles together (Moseley 1994). Biological soil crusts play an important role in stabilizing the soil and preventing erosion, increasing the availability of nitrogen and other nutrients, and regulating water infiltration and evaporation levels. In addition, an intact biological soil crust appears to aid in preventing the establishment of invasive plants (Brooks and Pyke 2001). These crusts are sensitive to disturbance that disrupt crust integrity, such as compression due to livestock trampling or off highway vehicle use, and are subject to damage by fire.

### *Status and Distribution*

Slickspot peppergrass was listed as a threatened species under the ESA of 1973, as amended, in October 2009 (USFWS 2009a). On August 8, 2012, the United States District Court for the District of Idaho ordered that the final rule listing slickspot peppergrass as a threatened species be vacated and remanded for further consideration consistent with the court's decision. On February 12, 2014, the USFWS published a Federal Register notice that addressed the Court's request that a specific definition of foreseeable future for slickspot peppergrass be provided. In addition, the USFWS proposed that threatened status be reinstated for slickspot peppergrass under the ESA. A final decision on the USFWS's proposal to reinstate slickspot peppergrass as threatened under the ESA is anticipated in 2015.

Slickspot peppergrass is restricted to small slickspot microsites on the Boise Foothills, Snake River Plains, and Owyhee Plateau physiographic regions, from southern Payette County, northwest of Caldwell, to near Glenn's Ferry, and southward to a disjunct population around Juniper Butte in southwestern Owyhee County. It occurs on the Four Rivers and Jarbidge Field Offices, and is not suspected to occur on any other BLM field offices or on national forests.

### *Habitat category definitions and mapped distribution*

Six slickspot peppergrass habitats are defined in the 2014 slickspot peppergrass Conservation Agreement (BLM 2014). Four of those habitat categories are used in this analysis to estimate the proportions of slickspot peppergrass and its habitats that would be affected by the proposed LUPA. The habitat category definitions are:

- Element occurrences: Areas where slickspot peppergrass exists and has been documented or identified as an element occurrence. Element occurrences are defined by grouping occupied slickspots that occur within 1 kilometer of each other; all occupied slickspots within a 1-kilometer distance of another occupied slickspot are aggregated into a single element occurrence.
- Occupied habitat: Occurrences plus the area generally within a 0.5-mile buffer around the occurrences that is important to maintain or improve habitat integrity and pollinator populations necessary for species conservation. As currently mapped, these areas may or may not contain additional slickspots, slickspot peppergrass plants, or non-habitat beyond the included occurrence areas. Further refinement of occupied habitat may be accomplished through field surveys considering existing resource conditions as well as specific habitat quality and integrity.
- Potential habitat: Areas within the known range of slickspot peppergrass that have certain general soil and elevation characteristics that indicate the potential for the area to support

slickspot peppergrass, although the presence of suitable slickspots or the plant is unknown. These currently mapped areas meet the following criteria:

- Natric and natric-like soils forming “slickspots” and associated soil series, or phases thereof, which support Loamy 7- to 10-inch and 10- to 13-inch Wyoming big sagebrush ecological sites (Major Land Resource Areas 11-Snake River Plains, and 25-Owyhee High Plateau) and have a aridic bordering on xeric soil moisture regime; and
- 2,200 to 5,400 feet elevation.
- Slickspot peppergrass habitat: Potential habitat areas with Wyoming big sagebrush ecological sites that through Stage 1 surveys have documented slickspot microsites (natric and natric-like soil types) within 2,200 feet and 5,400 feet elevation in southwest Idaho. Slickspot peppergrass habitat includes areas with slickspots of unknown occupancy and in some cases may be dominated by nonnative vegetation such as annual grasses or crested wheatgrass. In addition, to maintain ecological continuity, if there is less than 0.5 mile between areas defined as slickspot peppergrass habitat, then the entire area is considered slickspot peppergrass habitat. Surveyed potential habitat not meeting these criteria will no longer be considered habitat for slickspot peppergrass.

Initial slickspot peppergrass habitat mapping of the above categories has been done. Results of Stage 1 field surveys of modeled potential habitat in 2012 have indicated that no suitable slickspots occur on the Bruneau Field Office because the slickspots observed there have different clay layers, more rock armoring, and a flatter shape than slickspots occupied by slickspot peppergrass (BLM 2012). Slickspot peppergrass habitat has been initially evaluated in Stage 1 surveys for the Four Rivers Field Office, resulting in some areas of previously mapped slickspot peppergrass potential habitat being determined to be slickspot peppergrass habitat. There is no available information at this time on the extent of slickspot peppergrass habitat on the Jarbidge Field Office, so its potential habitat areas remain classified as slickspot peppergrass potential habitat.

Overlap between the currently known habitat categories and GRSG habitats (PHMA, IHMA, and GHMA) has been identified. Within GRSG HMAs influenced by the currently proposed LUPA (lands on which BLM or Forest Service have decision authority), there are no occurrences, critical habitat, occupied habitat, or potential habitat on Forest Service lands. Where BLM has decision authority on lands overlapping GRSG HMAs, 646 acres of element occurrences are on the Four Rivers Field Office and 614 acres of element occurrences are on the Jarbidge Field Office, but 10,428 acres (89 percent) do not overlap GRSG HMAs at all. For slickspot peppergrass occupied habitat within GRSG HMAs on BLM-administered lands, 5,568 acres are on the Four Rivers Field Office and 55,301 acres are on the Jarbidge Field Office, leaving 64,196 acres (51 percent) outside GRSG HMAs. Slickspot peppergrass potential habitat on BLM-administered lands within GRSG HMAs occurs on 250 acres on the Four Rivers Field Office and 283,717 acres on the Jarbidge Field Office, leaving 405,661 acres (59 percent) outside GRSG HMAs. Finally, the areas identified as slickspot peppergrass habitat on BLM-administered lands are all on the Four Rivers Field Office, with 40,823 acres in GRSG HMAs, leaving the remaining 190,375 acres (82 percent) outside GRSG HMAs.

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Lands administered by the BLM with slickspot peppergrass habitats are summarized in the following tables.

**Table 3. BLM-administered slickspot peppergrass element occurrences.**

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
<b>Four Rivers Field Office</b>	<b>GHMA</b>	<b>646</b>
<b>Jarbidge Field Office</b>	<b>PHMA</b>	<b>6</b>
<b>Jarbidge Field Office</b>	<b>IHMA</b>	<b>608</b>
<b>All Field Offices</b>	<b>No HMA overlap</b>	<b>10,428</b>
<b>TOTAL</b>		<b>11,688</b>

**Table 4. BLM-administered slickspot peppergrass occupied habitat (includes element occurrences plus 0.5-mile buffer).**

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
<b>Four Rivers Field Office</b>	<b>IHMA</b>	<b>102</b>
<b>Four Rivers Field Office</b>	<b>GHMA</b>	<b>5,466</b>
<b>Jarbidge Field Office</b>	<b>PHMA</b>	<b>1,710</b>
<b>Jarbidge Field Office</b>	<b>IHMA</b>	<b>53,591</b>
<b>All Field Offices</b>	<b>No HMA overlap</b>	<b>64,196</b>
<b>TOTAL</b>		<b>125,065</b>

**Table 5. BLM-administered slickspot peppergrass potential habitat.**

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
<b>Four Rivers Field Office</b>	<b>IHMA</b>	<b>10</b>
<b>Four Rivers Field Office</b>	<b>GHMA</b>	<b>240</b>
<b>Jarbidge Field Office</b>	<b>PHMA</b>	<b>53,643</b>
<b>Jarbidge Field Office</b>	<b>IHMA</b>	<b>164,201</b>
<b>Jarbidge Field Office</b>	<b>General HMA</b>	<b>66,025</b>
<b>All Field Offices</b>	<b>No HMA overlap</b>	<b>290,626</b>
<b>TOTAL</b>		<b>574,745</b>

**Table 6. BLM-administered slickspot peppergrass habitat (confirmed).**

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
<b>Four Rivers Field Office</b>	<b>IHMA</b>	<b>5,918</b>
<b>Four Rivers Field Office</b>	<b>GHMA</b>	<b>34,905</b>
<b>All Field Offices</b>	<b>No HMA overlap</b>	<b>190,375</b>
TOTAL		<b>231,198</b>

### *Life History*

Slickspot peppergrass is a tap-rooted annual or biennial plant, averaging 2 to 8 inches, but occasionally reaching 16 inches high. The species flowers once and then dies. The annual form of the plant flowers, sets seed, and dies in one growing season. The biennial form initiates growth in the first year as a vegetative rosette but does not flower until the second growing season. Biennial rosettes must survive generally dry summer conditions, and consequently many die before flowering and producing seed. Although annual forms generally outnumber biennials (Moseley 1994), they produce fewer seeds than the biennials (Meyer et al. 2005). The proportion of annuals versus biennials in a population can vary greatly from year to year, as can the presence of any plants at all. Although the low permeability of slickspots appears to help hold moisture (Moseley 1994), once the thin crust dries out, slickspot peppergrass seedling survival depends on their ability to extend taproots into the argillic horizon (soil layer with high clay content) to extract moisture from the deeper natric zone.

Although slickspot peppergrass is able to self-pollinate, it is primarily an outcrossing species requiring pollen from separate plants for more successful seed production. Known slickspot peppergrass pollinators include several families of bees, beetles, flies, and other insects (Robertson and Klemash 2003).

## Idaho / SW Montana Greater Sage-grouse EIS Slickspot Peppergrass Occurrence, Proposed Critical Habitat, and Confirmed/Occupied/Potential Habitat

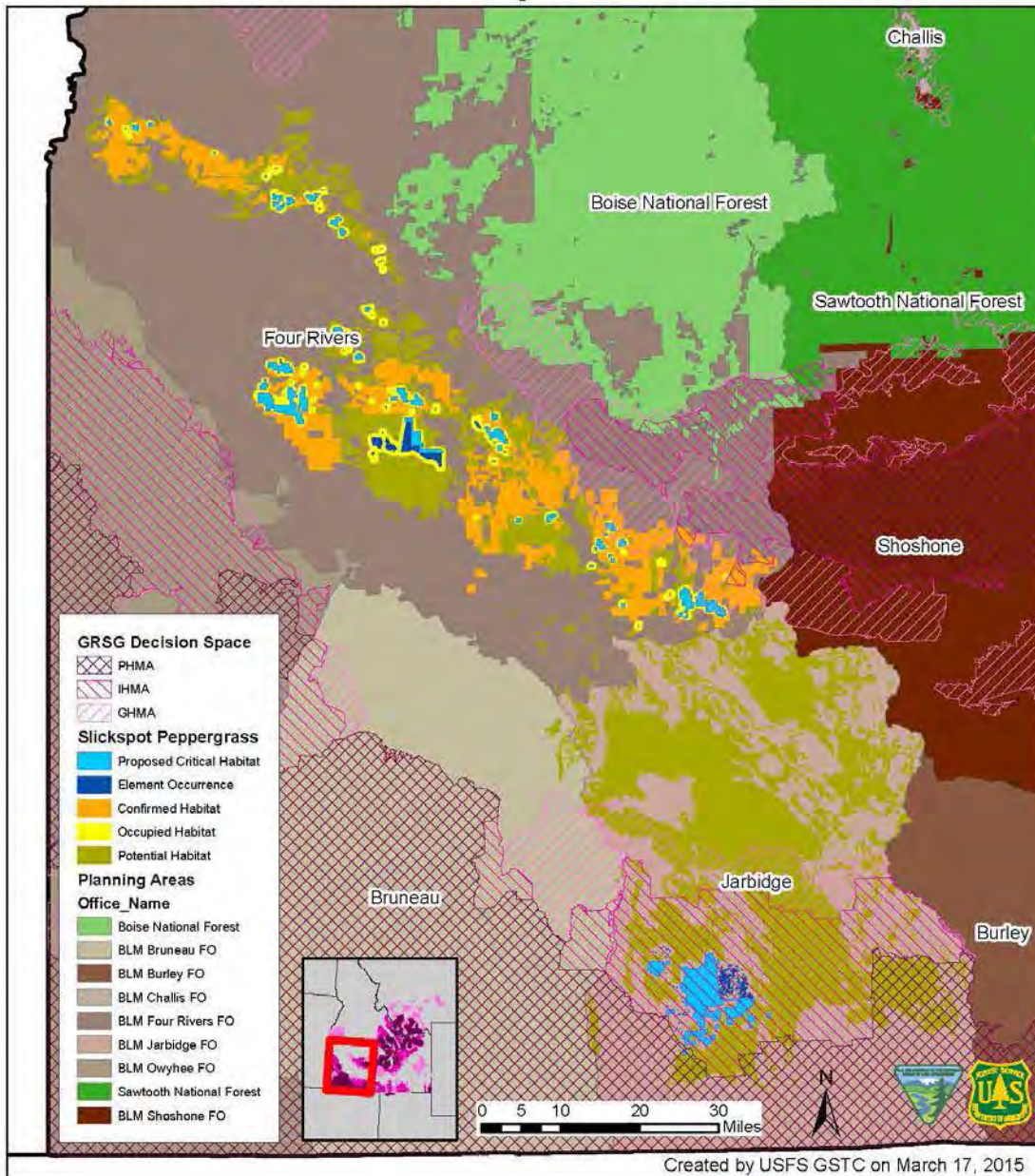


Figure 10. Slickspot peppergrass habitat categories and GRSG HMAs

### Threats

The primary threat to slickspot peppergrass is the present or threatened destruction, modification, or curtailment of its habitat and range due to the increased frequency and extent of wildfires under a fire regime modified and exacerbated by the spread of invasive plants, particularly nonnative annual grasses such as cheatgrass. Other threats include human development, potential seed predation by harvester ants, and habitat fragmentation and isolation of small populations (USFWS 2009a). The threats of urban and rural development, agriculture, and infrastructure development are more substantial in the Boise Foothills and Snake River Plains regions, while very little of this development has happened in the Owyhee Plateau region (where most of the overlap with GRSG habitat occurs). Additional impacts on slickspot peppergrass habitat can result from livestock grazing, off-highway vehicle use, and infestation of habitats by nonnative invasive species and potentially invasive plants such as intermediate wheatgrass and forage kochia, which are sometimes proposed for use in vegetated fuel breaks.

### Slickspot Peppergrass Proposed Critical Habitat

Critical habitat was proposed for the slickspot peppergrass on May 10, 2011, and the specific areas were revised in February 2014 (USFWS 2014a). The PCEs for slickspot peppergrass (USFWS 2011) include the following:

1. Ecologically functional microsites or “slickspots” that are characterized by:
  - a. A high sodium and clay content and a three-layer soil horizonation sequence, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty, vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer with an abrupt boundary with the surface layer that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features) (the restrictive layer). The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer); and
  - b. Sparse vegetation with low to moderate introduced invasive, nonnative plant species cover.
2. Relatively intact, native *Artemisia tridentata* ssp. *wyomingensis* (Wyoming big sagebrush) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 250 meters of *Lepidium papilliferum* element occurrences to protect slickspots and *Lepidium papilliferum* from disturbance from wildfire, slow the invasion of slickspots by nonnative species and native harvester ants, and provide the habitats needed by *L. papilliferum*'s pollinators.
3. A diversity of native plants whose blooming times overlap to provide pollinator species with sufficient flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of *Lepidium papilliferum* to occur, pollinators must be able to move freely between slickspots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when



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*Lepidium papilliferum* is not flowering, when distances between slickspots are large, and in years when *L. papilliferum* is not a prolific flowerer.

4. Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespidae wasp families, species of the bombyliid and tachinid fly families, honeybees, and halictid bee species, most of which are solitary insects that nest outside of slickspots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

The distribution of land ownership in the full extent of slickspot peppergrass proposed critical habitat is presented in the table below, and the extent of slickspot peppergrass proposed critical habitat in relation to GRSG habitats (priority, important, and general HMAs) is represented in Figure 11. About 50 percent of the proposed critical habitat (30,625 of 61,311 acres) is within GRSG habitats on BLM-administered lands. The majority of this overlap (27,523 acres IHMA and 194 acres PHMA) occurs in the Jarbidge Field Office near Juniper Butte, and the remainder of the overlap (2,908 acres GHMA) occurs in the Four Rivers Field Office between Mountain Home and Glenn's Ferry.

**Table 7. Slickspot peppergrass proposed critical habitat land ownerships**

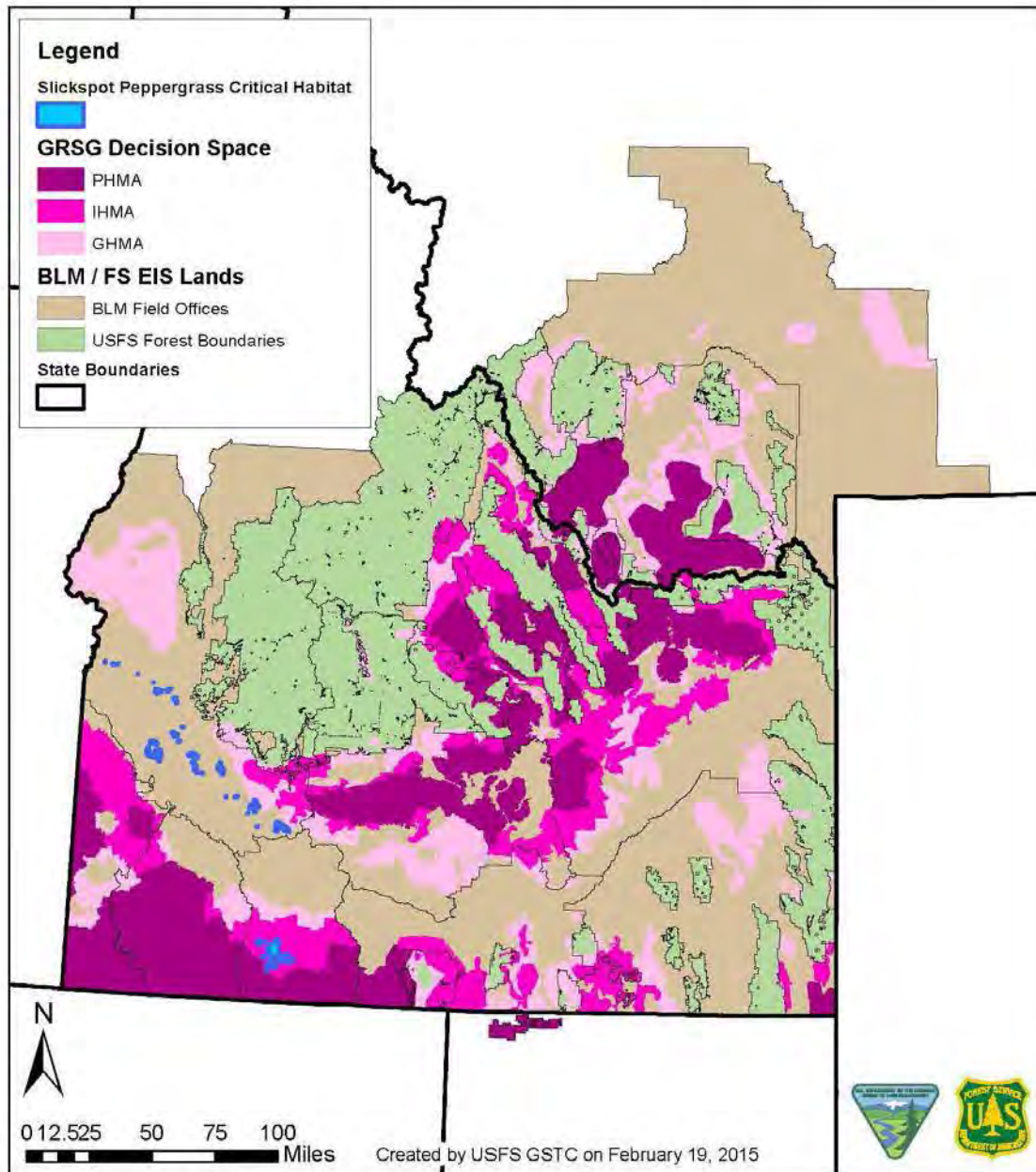
Ownership	Acres
Bureau of Land Management	52,533
Bureau of Reclamation	366
Private	3,771
State of Idaho	4,641
<b>TOTAL</b>	<b>61,311</b>

The table below displays the acreage of slickspot peppergrass proposed critical habitat in relation to GRSG HMAs.

**Table 8. BLM-administered slickspot peppergrass proposed critical habitat.**

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
<b>Four Rivers Field Office</b>	<b>GHMA</b>	<b>2,908</b>
<b>Jarbidge Field Office</b>	<b>PHMA</b>	<b>194</b>
<b>Jarbidge Field Office</b>	<b>IHMA</b>	<b>27,523</b>
<b>All Field Offices</b>	<b>No HMA overlap</b>	<b>21,908</b>
	<b>TOTAL</b>	<b>52,533</b>

## Idaho / SW Montana Greater Sage-grouse EIS Slickspot Peppergrass Proposed Critical Habitat



**Figure 11. Slickspot peppergrass proposed critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.**

## **Ute ladies'-tresses (*Spiranthes diluvialis*)**

### ***Habitat Description***

When Ute ladies'-tresses was listed in 1992, it was known primarily from moist meadows associated with perennial stream terraces, floodplains, and oxbows at elevations between 4,300 and 6,850 feet (USFWS 1992). Surveys since 1992 have expanded the number of vegetation and hydrology types occupied by Ute ladies'-tresses to include seasonally flooded river terraces, subirrigated or spring-fed abandoned stream channels and valleys, and lakeshores (USFWS 2014d). This species was originally thought to be limited to undisturbed riparian habitats but is now known to occur in agricultural lands and managed riparian systems where frequent human-influenced disturbance events such as mowing, prescribed fire, and livestock grazing can simulate natural early to mid-seral conditions (Fertig et al. 2005). Additional populations have been discovered along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside barrow pits, reservoirs, and other human-modified wetlands. Currently, the known elevation range of the species is from 720 to 7,000 feet (USFWS 2014d).

### ***Status and Distribution***

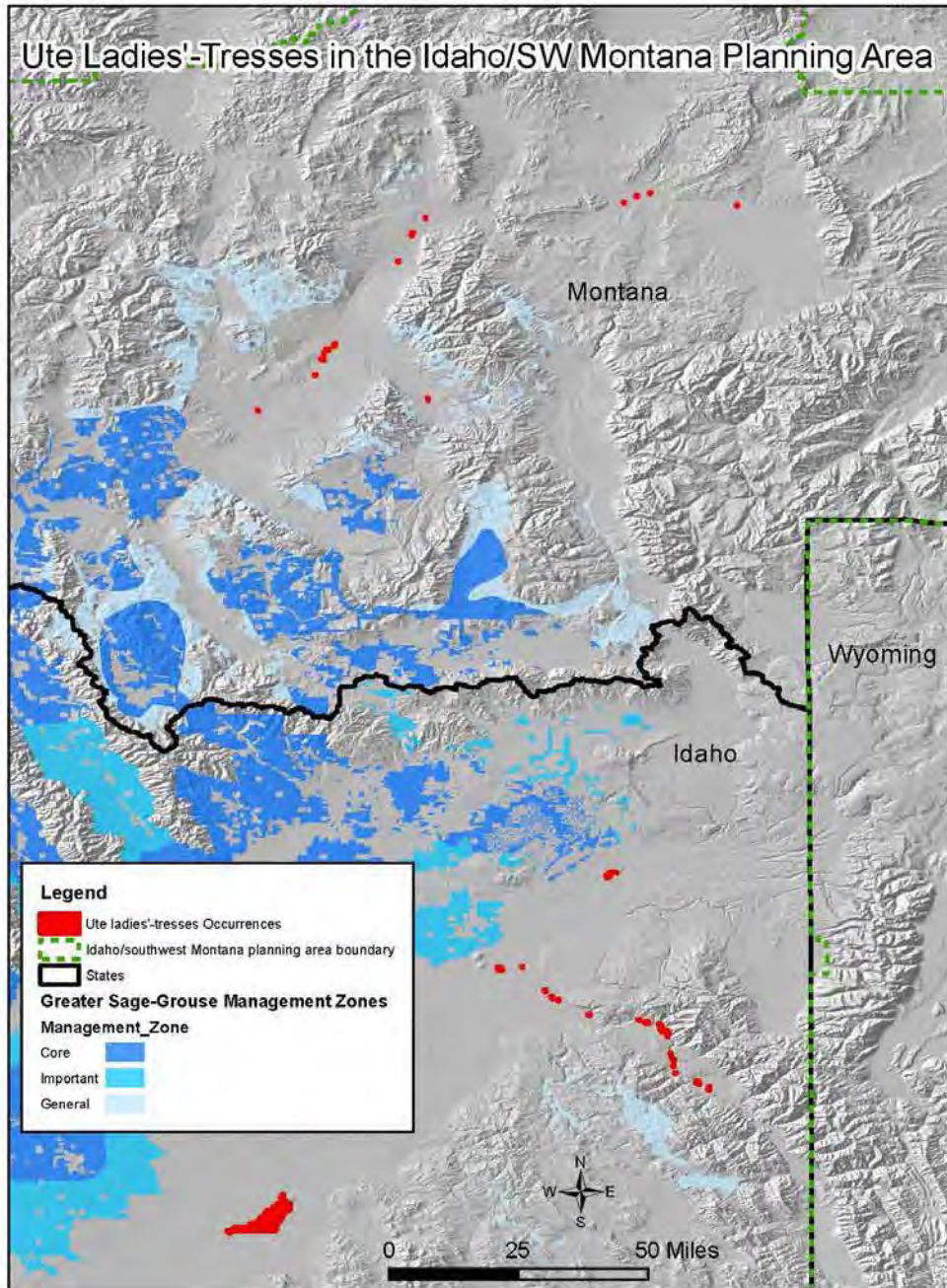
Ute ladies'-tresses was listed as threatened in 1992. In 2004, the USFWS issued a petition to delist the species and initiate a 5-year review (USFWS 2004b). The associated status review is ongoing. When first listed, the species was known only from Colorado, Nevada, and Utah, but additional populations have since been discovered in Idaho, Montana, Nebraska, Washington, and Wyoming.

### ***Populations and Habitat within the Analysis Area***

Figure 12 shows the known populations of Ute ladies'-tresses in the analysis area. In Montana, Ute ladies'-tresses grows along major river drainages on private and state lands in Beaverhead, Broadwater, Gallatin, Jefferson, and Madison Counties. The nearest occurrence to GRSG HMAs in Montana is over 2 miles from the GHMA, in Madison County.

In Idaho, this species is found along major river drainages in the eastern portion of the state (Bingham, Bonneville, Fremont, Jefferson, and Madison Counties). Some populations are found on BLM and Forest Service lands (Dillon, Pocatello, and Upper Snake Field Offices, and Caribou-Targhee National Forest), but none are within GRSG HMAs. The closest known location is over 0.6 mile from the IHMA, in Fremont County.

Although the extent and specific locations are not known, it is likely that some areas of suitable habitat for Ute ladies'-tresses do exist within GRSG HMAs because some wetland habitats are included. The areas most likely to support populations (riparian areas along major river drainages) have mostly been excluded from GRSG HMAs.



**Figure 12. Ute ladies'-tresses occurrences within the Idaho-Southwestern Montana GRSG LUPA and EIS action area.**

*Life History*

Ute ladies'-tresses is a long-lived perennial forb that probably reproduces exclusively by seed (USFWS 2014d). As with other orchid species, Ute ladies'-tresses seeds are microscopic, dust-like, and readily dispersed by wind or water. It is hypothesized that germinated seedlings must quickly establish a symbiotic relationship with mycorrhizal soil fungi in order to survive. The absence or rarity of appropriate fungal symbionts in the soil may be a major factor limiting the establishment of new Ute ladies'-tresses populations. New vegetative shoots are produced in October and persist through the winter as small rosettes. These resume growth in the spring and develop into short-stemmed, leafy, photosynthetic plants. Depending on site productivity and conditions, vegetative shoots may remain in this state all summer or develop inflorescences. Vegetative individuals die back in the winter to subterranean roots or persist as winter rosettes. Across its range, Ute ladies'-tresses blooms from early July to late October. Flowering typically occurs earlier in sites that have an open canopy and later in well-shaded sites. Bees are the primary pollinators of Ute ladies'-tresses, particularly solitary bees in the genus *Anthophora*, bumblebees (genus *Bombus*), and occasionally nonnative honeybees (*Apis mellifera*) (Sipes and Tepedino 1995). Of these species, *Anthophora terminalis* is apparently the most effective pollinator.

### **Threats**

Threats to Ute ladies'-tresses include competition from invasive species, vegetation succession, construction, hydrologic changes, grazing, recreation, urbanization, flooding, haying/mowing, natural herbivory, loss of pollinators, and drought (Fertig et al. 2005). General threats present in 1992 (habitat loss and modification, overcollection, competition from exotic weeds, and herbicides) continue to exist, but competition from invasive plants, vegetative succession, changes in hydrology (through flood control and dewatering), habitat disturbance associated with road construction, and impacts from recreation (mostly from camping and foot traffic) are now the most widespread potential threats (Fertig et al. 2005). Off-road vehicles are identified as a threat to several occurrences along the Snake River in Idaho (Fertig et al. 2005).

## **GENERAL DISCUSSION OF POTENTIAL IMPACTS AND MECHANISMS OF PROGRAM AREAS WITH RESPECT TO PLANTS**

### **Actions Evaluated and General Effects**

Because the proposed LUPAs do not propose any specific ground-disturbing actions, there would be no direct effects to any threatened, endangered, or proposed species (listed species). The environmental baseline is set by the existing conditions, including the current authorized activities and programs already analyzed and for which there has been consultation within the jurisdiction of each LUP. Various activities, including grazing, mining, recreation, travel management, invasive species control, and others, are already analyzed at the LUP level. Each activity may also have been assessed for environmental impacts through project-level, site-specific NEPA analysis. Examples of these are Allotment Management Plans, Noxious Weed Control Plans, or Travel Management Plans. All of the associated conservation measures concerning listed species would still be valid. Because existing LUP programs have already gone through Section 7 consultations, only the additional effects associated with the GRS G LUPAs are addressed in this analysis.

Programmatic plans are considered permissive in that they allow but do not authorize or approve any site-specific projects or actions. They are much like zoning ordinances under which future

decisions are made. Decisions at the LUP level establish goals and objectives, identify the types of activities that are allowed or prohibited in specific areas, may specify management standards and minimum habitat condition goals either unit wide or for specific areas, and may establish a monitoring and evaluation program. This BA does not analyze site-specific actions. Effects determinations made in this document should not be assumed to relate to site-specific projects. In the future, during project-level environmental planning and analysis, site-specific actions will continue to be analyzed to identify possible effects on listed species. Site-specific analysis of such actions may identify potential effects on listed species even when this programmatic assessment determines no effect. As part of any future project-level environmental analysis, specific conservation measures and strategies to alleviate any potential adverse effects may be developed as the details of the future proposed actions become available.

The proposed actions were evaluated for possible indirect effects on listed plants. Many of the amendment actions are restrictive of anthropogenic disturbances for the benefit of GRSG, reducing the potential impacts from various activities on GRSG and its habitat. Some examples of restrictive actions are to not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within PHMA and IHMA unless the development would have a net conservation gain to GRSG habitat (BLM REC-2 and FS GRSG-R-GL-002-Guideline), to not approve new site authorizations for salable minerals in PHMA (BLM SAL-1), to not exceed a 3 percent disturbance cap within the biologically significant unit (BLM AD-1 and FS GRSG-GEN-ST-001-Standard), and all of the energy and minerals conservation measures. No adverse effects on listed plants are expected from these types of actions because these restrictive measures would only reduce potential impacts on GRSG habitats, and these same measures may also benefit listed plants by reducing the likelihood of potential impacts in those areas. However, these possible beneficial effects would occur in the future as individual projects are proposed or leases and permits are reissued, and so the effects would not be contemporaneous with the LUPAs, and are not considered in this analysis.

Many other proposed management actions for GRSG establish guidance for resource management planning and establish priority and emphasis for sound GRSG habitat management. One example is stated in BLM WFS-6: *Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.* This is an action that prioritizes the implementation of an existing program. T&E species already have a priority for protection in wildfire suppression below firefighter and public safety and property protection. This measure says to include GRSG (currently a candidate species) at the same priority level as T&E species.

Some proposed management actions for GRSG are more directive in nature, presenting somewhat specific actions to benefit GRSG. One such action, to “*work with ROW holders to retrofit existing towers and structures consistent with required design features (RDFs)*” (BLM LR-12) has potential to impact listed plants from personnel and vehicles accessing the towers, if the plants are present in the ROW corridors where retrofit activities are needed. This action is reasonably certain to occur, and disturbances to vegetation would be from vehicle access along

the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. If present in these areas, listed plants may be damaged by the crushing action of vehicle tires and foot traffic. This is the one action identified as possibly having negative effects on listed plants from this programmatic decision. However, the effects from this action are discountable based on the extremely small likelihood that effects on listed plants would occur.

Restrictions for off-road vehicle use may provide a beneficial effect on listed plant species by reducing impacts from this activity. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.* Where travel management planning has not been completed or is in progress, and listed plant habitats are present, there may be a reduction of impacts from off-road vehicle use. Restricting motorized travel as described above would occur soon after the decision to amend LUPs, and so this possible benefit would be contemporaneous with the decision action. This is the only action identified as possibly having a contemporaneous beneficial effect on listed plants.

These actions have potential to benefit listed plants and their habitats in the future by reducing impacts from livestock grazing and invasive plants. Changes in livestock grazing may or may not occur, depending on whether current management is meeting or making progress toward GRSG habitat objectives. Both of the above measures would be implemented in the future, probably a considerable time after the decision to amend LUPs, and so any beneficial effects on listed plants would not be contemporaneous with the decision.

There is also potential for further specific actions to be proposed when implementing GRSG conservations measures. At this programmatic planning level, we are unable to effectively analyze effects from future actions not specifically identified in this programmatic decision, because the actions are unknown or too speculative to allow any meaningful analysis of their effects. Many actions are simply too vague to analyze their effects at this time. For example, BLM WFP-9 states to *implement activities identified within the FIAT [Fire and Invasive Assessment Team] Assessments*, BLM VEG-1 states to *implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical, and seeding treatments*, and BLM INV-4 says to *require project proponent to ensure that noxious weed and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project.* BLM RM-1 (and a similar measure, FS GRSG-LG-GL-001-Guideline) states that “*existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary*

*adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.* Changes in livestock grazing may or may not occur, depending on whether current management is meeting or making progress toward GRSG habitat objectives. It is not known whether such actions would take place, and if so, it is not known when, where, or how the possible actions might occur. Beneficial effects, such as reduced impacts from grazing and invasive species, are possible from these actions, but the extent of benefit and likelihood of occurrence are too speculative to quantify. Although there is also potential for some negative effects on listed species from additional proposed actions, significant effects would be highly unlikely due to avoidance or other mitigations based on current laws, agency regulations, and other conservation measures in place to protect them. Any possible effects from future proposed actions would be addressed in site-specific analysis at the project level when reasonably certain, explicit actions are identified and proposed.

Sagebrush focal areas (SFA) are considered to be a subset of PHMA, and would be managed the same as PHMA with the exception of a few additional restrictions. Because the management of SFA would be the same or more restrictive than PHMA, the same effects on plant species are expected, and SFA is not evaluated separately from PHMA in the effects analysis for plants.

## **ANALYSIS OF EFFECTS OF THE PROPOSED ACTION BY SPECIES**

### **A. Terrestrial Wildlife**

#### **Grizzly Bear**

##### **Direct and Indirect Effects by Program Area**

###### ***1. Recreation/Travel***

Existing recreation uses and sites will be managed to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers, and seasonal restrictions. The GRSG LUPA decision will not authorize new recreation facilities; however, it will place limitations upon them. New recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) will not be constructed within PHMA and IHMA unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities, or unless the development is required for visitor safety or resource protection. It is too speculative at this time to determine whether or not prohibiting construction of new recreation facilities within PHMAs and IHMAs would push the construction of developed sites into preferred grizzly habitat. However, site-specific analysis will occur for applicable projects, and a determination for grizzly bear will be made at that time.

The GRSG LUPA decision will not authorize new roads. Rather, it will limit new road construction and existing road use. Conservation measures specific to travel management would limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a LUP decision or



areas that are under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge, and Upper Snake Field Offices. Upon completion of travel management plans, the designation would change to limited to designated roads, primitive roads, and trails. In general, actions that limit roads or place restrictions on motorized travel have the potential to benefit grizzly bears by increasing the amount of available secure habitat.

## *2. Lands and Realty/Infrastructure*

With respect to lands and realty and infrastructure management, conservation measures that apply to developed sites or road construction would be those with potential to affect grizzly bears. The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit the existing amount of roads or require collocation of new roads with existing infrastructure for special use authorization. This may benefit grizzly bears by increasing the amount of secure habitat where grizzly bear habitat overlaps with GRSG habitat. PHMA will be designated and managed as ROW avoidance areas and exclusion areas for utility-scale wind and solar testing and development and for nuclear and hydropower energy development. Developing commercial service airports and facilities or new or expanded landfills will not be allowed in PHMA. IHMA will be designated and managed as ROW, wind and solar testing and development, nuclear and hydropower development, commercial service airports and facilities, and new or expanded landfills avoidance areas. GHMA will be designated and managed as open (avoidance in Montana) to ROW development, wind and solar testing and development (avoidance in Montana), nuclear and hydropower development, commercial service airports and facilities, and new or expanded landfills with proposals subject to RDFs, buffers, and seasonal timing restrictions. In PHMA, IHMA, and GHMA and SFAs, new infrastructure will be collocated with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts on GRSG or its habitat.

It is too speculative at this time to determine whether or not exclusion or avoidance of new infrastructure (i.e., developed sites) within PHMA and IHMA would push the construction of developed sites into preferred grizzly habitat. However, site-specific analysis will occur for applicable projects, and a determination for grizzly bear will be made at that time.

## *3. Range*

In general, range management and livestock grazing conservation measures will be neutral to beneficial to grizzly bears because they will either maintain existing conditions or reduce the amount of livestock grazing. Generally speaking, existing areas designated as available or unavailable for livestock grazing will be maintained. Existing active AUMs for livestock grazing within the planning area will not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations. Range management/livestock grazing conservation measures include conducting land health assessments and establishing forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitats. When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives,

changes in grazing management may be made through grazing authorization modifications or allotment management plan implementation. Potential modifications include, but are not limited to, changes in: 1) Season or timing of use; 2) Numbers of livestock; 3) Distribution of livestock use; 4) Duration and/or level of use; 5) Kind of livestock (e.g., cattle, sheep, horses, or goats); 6) Voluntary measures such as temporary non-use; and 7) Grazing schedules (including rest or deferment).

When an allotment in either PHMA or IHMA becomes vacant or grazing preference is relinquished, the BLM will consider retiring the allotment or grazing preference in whole or in part or converting the area to a forage reserve/buffer when doing so would maintain or enhance GRSG habitat. When an allotment in GHMA becomes vacant or grazing preference is relinquished, the BLM will consider converting the allotment to a forage reserve/buffer to use during fire rehabilitation or restoration efforts when such actions will result in a net benefit to GRSG habitat and other priority resources. In particular, permit modifications resulting in reductions of numbers of livestock or retirement/conversion of allotments could benefit grizzly bears by reducing the potential for grizzly bear/livestock conflicts. However, without site-specific projects identified at this time, it is too speculative to determine the potential extent of this benefit. Although grazing authorization modifications could include proposals for changes in kind of livestock that could negatively impact grizzly bears by increasing the potential for livestock/grizzly conflicts (i.e., sheep), it is too speculative to determine whether or not these types of proposals will actually occur or where they will occur. Site-specific analysis will be conducted at the project level, and a determination of effect will be made at that time.

#### *4. Energy and Minerals*

In general, energy and minerals conservation measures are expected to be neutral to beneficial on grizzly bears because they will either maintain existing conditions or improve GRSG sagebrush habitats. Following is a summary of GRSG LUPA energy and minerals direction. In Idaho, areas within PHMA and IHMA will be open to fluid mineral leasing and development and geophysical exploration subject to no surface occupancy (NSO) with a limited exception: A lease waiver, exception, or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-GRSG habitat, the area is not used by GRSG, or the proposed lease would have no direct, indirect, or cumulative effects on GRSG or its habitat. Idaho GHMA would be open to mineral leasing and development and geophysical exploration subject to buffers, seasonal timing restrictions, and standard stipulations. In Montana, areas within PHMA will be open to leasing subject to NSO. No waivers, exceptions, or modifications would be allowed unless approved by the State Director. GHMA would be open to leasing subject to buffers, seasonal timing restrictions, and standard stipulations.

Lands will remain open (except SFA) to locatable mineral entry in all management areas. Reasonable and appropriate RDFs and BMPs will be applied as COAs to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or Forest Service approval.

For salable minerals, no new site authorizations will be approved in PHMA. New site authorizations could be considered in IHMA, provided the Anthropogenic Disturbance Development Criteria can be met and subject to RDFs, buffers, and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA will be subject to seasonal timing restrictions. GHMA will be open to new site authorizations subject to RDFs, buffers, and seasonal timing restrictions. Existing sites will be open to new sales subject to seasonal timing restrictions. Salable mineral pits no longer in use will be restored to meet GRSG habitat management objectives. Reclamation bonding will require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA.

For mineral split estates in which the BLM owns the mineral estate and there is a non-federal surface owner, stipulations, BLM will apply conservation measures and design features consistent with those applied to BLM- and Forest Service-administered lands in coordination with the surface owner. For mineral split estates in which the BLM owns the surface and there is a non-federal mineral estate owner, the BLM will recommend timing restrictions, COAs, and buffers around occupied leks to the state regulatory entity and mineral estate owner when concurring with the approval of authorizations for mineral-related surface disturbance on lands within GRSG habitat.

Without identified site-specific projects, it is too speculative at this time to determine the potential for or extent of any benefits on grizzly bears. However, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

## 5. *Fire/Fuels Management*

Fire and fuels conservation measures with potential to impact grizzly bears include prescribed fire, coordination with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions, and fuels treatments. Prescribed fire will be restricted in GRSG wintering or breeding and nesting habitat unless it reduces the potential for wildfire. In PHMA, SFA, and GHMA, prescribed fire will only be used if it is necessary to facilitate site preparation for restoration of GRSG habitat consistent with desired condition. The associated NEPA analysis must identify how GRSG desired conditions would be met, why alternative techniques were not selected, and how potential threats to GRSG habitat would be minimized.

In PHMA, IHMA, GHMA, and SFA, fuels treatments will be designed and implemented to reduce the potential for start, spread, and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control). Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat. This process will consider a full range of cost-effective fuel reduction techniques, including chemical, biological (including grazing and targeted grazing), mechanical, and prescribed fire treatments.

Fuel breaks would incorporate existing vegetation treatments (seedings), or they would be located adjacent to existing linear disturbance areas, where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and foster suppression options to protect existing intact habitat.

Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of unwanted wildfires may be implemented within existing grazing authorizations if feasible. Such authorizations include temporary nonrenewable authorizations or contracts, agreements, or other appropriate means separate from existing grazing authorizations and permits. Targeted grazing to achieve fuels management objectives should conform to the following criteria:

- Targeted grazing should be implemented strategically on the landscape and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
- Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
- Where feasible and applicable, coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations.

Using native seeds for fuels management treatment will be prioritized based on availability, adaptation (site potential), and probability of success. Nonnative seeds could be used to meet GRSG habitat objectives to trend toward restoring the fire regime where probability of success or native seed availability is low or not economical. Fire-resistant native and nonnative species will be used when reseeding, as appropriate, to provide for fuel breaks.

The effectiveness of fuels projects, including fuel breaks, will be maintained to ensure long-term success, including persistence of seeded species or other treatment components, while maintaining the integrity of adjacent vegetation.

Generally speaking, fuels treatments will maintain, improve, or restore sagebrush habitat, benefitting all species that use sagebrush habitat, including grizzly bears. Targeted grazing fuels treatments will be implemented within existing grazing authorizations, when feasible. It is too speculative to know whether or not this would be proposed within occupied grizzly bear habitat and whether or not it would lead to an increase in livestock grazing that could negatively impact grizzly bears. Similarly, it is too speculative to know where fuels management treatments would occur or the types of species that would be proposed for seeding and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears. In all instances, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

Coordinating with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human-caused ignitions would complement existing grizzly bear food storage orders designed to prevent human/bear interactions and conflicts, thereby having the potential to benefit grizzly bears. However, because no site-specific projects have been identified, it is too speculative to determine the potential extent of this benefit.

## ***6. Habitat Restoration and Vegetation Management***

Like fire and fuels treatments, habitat restoration and vegetation management treatments will generally maintain, improve, or restore sagebrush habitat. This will benefit species that utilize sagebrush habitat, including grizzly bears. Adequate rest from livestock grazing will be provided to allow natural recovery of existing vegetation and successful establishment of seeded species. Livestock management on adjacent unburned areas will be adjusted, as appropriate, to mitigate the effect of the burn on local GRSG populations. Habitat rehabilitation or restoration projects will be implemented in areas that have the potential to improve GRSG habitat. These projects will use a full array of treatment activities, as appropriate, including chemical, mechanical, and seeding treatments. Vegetation rehabilitation or manipulation projects will be implemented to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat. Prescribed fire may need to be used as a site preparation technique to remove annual grass residual growth prior to applying herbicides in the restoration of certain lower-elevation sites (e.g., Wyoming big sagebrush). Such efforts will be carefully planned and coordinated to minimize impacts on GRSG seasonal habitats.

Native seeds will be required for restoration based on availability, adaptation (ecological site potential), and probability of success. Nonnative seeds may be used as long as they support GRSG habitat objectives. Nonnative seeds may be used to increase probability of success, when adapted seed availability is low, or to compete with invasive species, especially on harsher sites.

Management changes in restoration and rehabilitation areas will be implemented, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat, and ensure long-term

persistence of improved GRSB habitat. Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.

During land health assessments, the compatibility of existing nonnative seedings for GRSB habitat will be evaluated. This evaluation will determine whether to keep nonnative seedings as a component of a grazing system, to develop a forage reserve, or to be used as a fuelbreak or during restoration development. If nonnative seedings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, the nonnative seedings in and adjacent to PHMA will be evaluated to determine if they should be diversified or converted to native grasses, forbs, and shrubs, including sagebrush.

Using prescribed fire in GRSB habitat will be avoided unless evaluation of site-specific conditions demonstrates that there would be a net benefit for GRSB. If prescribed fire is used in GRSB habitat, the NEPA document will include an analysis that indicates how GRSB goals and objectives will be addressed and met by its use, why alternative techniques were not selected, and a risk assessment to address how potential threats to GRSB habitat would be minimized.

It is too speculative to know where habitat restoration or vegetation management treatments would occur, the types of species that would be proposed for seeding, and whether the seedings would be palatable forage species that could have the potential to negatively impact grizzly bears. In all instances, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

### *Cumulative Effects*

To evaluate cumulative effects, future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The GRSB LUPA action area includes GRSB habitats within BLM-administered and National Forest System lands. The only state or private projects that would occur on these lands would have some type of federal nexus and would require separate Section 7 consultation. Therefore, no cumulative effects are expected as part of this project.

### *Summary and Determination of Effects on Grizzly Bear*

GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears, including secure habitat, developed sites, food storage, livestock grazing, and four key food sources, are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time.

With respect to recreation and travel management and lands and realty and infrastructure management, the GRSG LUPA decision will not authorize new roads. Rather, it will limit new road construction and existing road use, which could benefit grizzly bears by increasing the available amount of secure habitat. It is too speculative to determine whether or not prohibiting construction of new recreation facilities or infrastructure within PHMA and IHMA would push the construction of developed sites into preferred grizzly habitat.

In general, range management and livestock grazing conservation measures will be neutral to beneficial to grizzly bears, because they will either maintain existing conditions or reduce the amount of livestock grazing permit modifications. This will reduce the number of livestock or retire or convert allotments, which could benefit grizzly bears by reducing the potential for grizzly bear/livestock conflicts. Without site-specific projects identified at this time, it is too speculative to determine the potential extent of this benefit. Although grazing authorization modifications could include proposals for changes in the kind of livestock and thus could negatively impact grizzly bears by increasing the potential for livestock/grizzly conflicts (i.e., sheep), it is too speculative to determine whether or not these types of proposals will actually occur or where they would occur.

In general, energy and minerals conservation measures are expected to be neutral to beneficial on grizzly bears, because they will either maintain existing conditions or improve GRSG sagebrush habitats. Without identified site-specific projects, it is too speculative to determine the potential for or extent of any benefits on grizzly bears.

Generally speaking, fuels treatments will maintain, improve, or restore sagebrush habitat, benefitting all species that use sagebrush habitat, including grizzly bears. Targeted grazing fuels treatments will be implemented within existing grazing authorizations, when feasible. It is too speculative to know whether or not this would be proposed within occupied grizzly bear habitat and whether or not it would lead to an increase in livestock grazing that could negatively impact grizzly bears. Similarly, it is too speculative to know where fuels management treatments would occur, the types of species that would be proposed for seeding, and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears. Coordinating with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human-caused ignitions would complement existing grizzly bear food storage orders that are designed to prevent human/bear interactions and conflicts, thereby having the potential to benefit grizzly bears. However, without site-specific projects identified, it is too speculative to determine the potential extent of this benefit.

Like fire and fuels treatments, habitat restoration and vegetation management treatments will generally maintain, improve, or restore sagebrush habitat, benefitting species that utilize sagebrush habitat, including grizzly bears. However, it is too speculative to know where habitat restoration or vegetation management treatments would occur, the types of species that would be proposed for seeding, and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears.

**The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision, and associated actions occurring on the Upper Snake or Dillon Field Offices or the Beaverhead-Deerlodge or Caribou-Targhee National Forests, may affect, but are not likely to adversely affect, the grizzly bear or its habitat.**

GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears, including secure habitat, developed sites, food storage, livestock grazing, and four key food sources, are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time. Furthermore, adverse effects would likely be avoided because site-specific analysis and mitigation would occur at the project level.

## **B. Plants**

### **Slickspot peppergrass (*Lepidium papilliferum*)**

#### ***Land Use Plan Consultation History***

On January 24, 2004, the USFWS published its decision to withdraw the proposal to list slickspot peppergrass as endangered in the Federal Register. The species was subsequently dropped from inclusion in BLM's efforts to consult on existing LUPs.

On August 19, 2005, the US District Court for the District of Idaho reversed the decision to withdraw the proposed rule to list slickspot peppergrass as endangered, with directions that the case be remanded to the Secretary of the Department of the Interior for reconsideration of whether a proposed rule listing the slickspot peppergrass as either threatened or endangered should be adopted.

On August 15, 2006, the BLM and USFWS entered into a consultation agreement to provide for effective and efficient Section 7 consultation for slickspot peppergrass on existing Idaho BLM LUPs, pursuant to a National Agreement regarding plan- and program-level consultations.

On August 22, 2006, the BLM and USFWS entered into a conservation agreement to implement conservation measures for slickspot peppergrass through implementation of LUPs.

On January 12, 2007, the USFWS published its decision to withdraw the proposal to list slickspot peppergrass under the ESA in the Federal Register, and efforts to complete Section 7 consultation on existing LUPs and ongoing actions for slickspot peppergrass ceased.



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On June 4, 2008, the US District Court for the District of Idaho reversed the decision to withdraw the proposed rule, with directions that the case be remanded to the USFWS for further consideration consistent with the court's opinion.

On August 27, 2009, the BLM and USFWS entered into an updated Conservation Agreement to implement conservation measures for slickspot peppergrass through implementation of LUPs.

On October 8, 2009, the USFWS published its decision to list slickspot peppergrass as threatened under the ESA in the Federal Register.

On November 30, 2009, the USFWS completed formal consultation for the Jarbidge RMP, the Kuna Management Framework Plan, the Cascade RMP, and the Snake River Birds of Prey National Conservation Area RMP on the effects of LUP programs on slickspot peppergrass. The USFWS concurred with the BLM determination that these LUP programs may affect, and are likely to adversely affect, the species. The USFWS Biological Opinion concluded that continued implementation of the existing LUP programs with conservation measures will not jeopardize the survival and recovery of slickspot peppergrass (USFWS 2009b).

On August 8, 2012, the US District Court for the District of Idaho ordered that the final rule listing slickspot peppergrass as a threatened species be vacated and remanded for further consideration consistent with the court's decision.

On February 12, 2014, the USFWS published a Federal Register notice that addressed the US District Court for the District of Idaho's request that a specific definition of foreseeable future for slickspot peppergrass be provided. In addition, the USFWS proposed that threatened status be reinstated for slickspot peppergrass under the ESA. A final decision on the USFWS's proposal to reinstate slickspot peppergrass as threatened under the ESA is anticipated in 2015.

On September 14, 2014, a conservation agreement was signed between the Bureau of Land Management, Idaho State Office, and the USFWS, Idaho Fish and Wildlife Office, to provide for the conservation of slickspot peppergrass related to existing Idaho BLM LUPs and a subset of ongoing actions (BLM 2014).

### ***2014 Slickspot Peppergrass Conservation Agreement***

Included in the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendments and Environmental Impact Statement are RDFs. One of the RDFs mandates that the conservation agreement for slickspot peppergrass and its specific conservation measures and implementation actions be included in its entirety with the decision for the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendments. In addition, any future updates or revisions to the slickspot peppergrass conservation agreement would also be adopted as binding management direction. Particularly relevant conservation measures from the agreement pertaining to each program area are presented below within each program area heading.

On September 14, 2014, a conservation agreement was signed between the Bureau of Land Management, Idaho State Office, and the USFWS, Idaho Fish and Wildlife Office, to provide for

the conservation of slickspot peppergrass related to existing Idaho BLM LUPs and a subset of ongoing actions (BLM 2014). The conservation agreement and associated conservation measures guide the BLM management actions and serve as a basis for consultation or conference on these LUPs between the BLM and the USFWS regarding slickspot peppergrass, a species proposed for listing under the ESA, as amended.

There are three LUPs that are addressed under the scope of the conservation agreement—the 1983 Kuna Management Framework Plan, the 1987 Jarbidge RMP, and the 1988 Cascade RMP. At the time these LUPs were prepared, there was no requirement to consult with the USFWS on slickspot peppergrass. LUP revisions are in progress for the Jarbidge Field Office and the Four Rivers Field Office that will update and replace these three LUPs. The BLM and the USFWS will consult on these revised LUPs when they are at the appropriate state of development and depending on the outcome of the proposed reinstatement of slickspot peppergrass as a threatened species under the ESA. The conservation agreement also addresses ongoing actions authorized by the BLM, including livestock grazing, rights-of-way activities, and military training.

The conservation measures describe desired recovery and conservation objectives, with corresponding implementation actions. The conservation measures replace or create guidance within the LUPs regarding programmatic management direction for slickspot peppergrass. It is the intent of the BLM and the USFWS that specific conservation measures will be fully implemented, and that the conservation agreement will remain in effect and binding on both parties until such time as new LUPs or amendments are prepared, Section 7 compliance is completed, as appropriate, and Records of Decision are signed. At that time, programmatic management direction for slickspot peppergrass will be included in the new or revised LUP or amendment, and the conservation agreement, or portions thereof in the case of programmatic amendments, will no longer apply to the planning area. Programmatic planning conservation measures include those that are needed for consultation at all planning levels, including future LUPs, ongoing activities, and proposed projects. For example, the conservation agreement is not applicable to the Snake River Birds of Prey planning area, because Section 7 consultation has been completed on the 2008 Snake River Birds of Prey RMP, which contains management direction for slickspot peppergrass similar to what is found within Appendix A of the 2006 version of the conservation agreement. Additionally, the conservation measures associated with the agreement may be modified based on current USFWS analysis of new information and assessment of threats being conducted as part of the listing determination process. Any additional information that becomes available prior to completing the LUPs that may enhance conservation of the species may trigger an update of conservation measures within the agreement. Such new information may be provided when the species is listed, critical habitat is designated, and a recovery plan is completed.

While a high priority for the BLM, both the BLM and the USFWS recognize that funding constraints may affect the ability to implement specific conservation measures as planned. BLM will work to leverage stakeholder partnerships to allow for flexible cost recovery associated with conservation actions. Where funding is lacking, the BLM and the USFWS will cooperate to set priorities and adjust dates for accomplishment. In addition, minor modifications to conservation measures may be necessary as the conference process progresses. Any modification must be

agreed to by the BLM and the USFWS and shall not materially alter the meaning or intent of a conservation measure as stated at the time of signature of this agreement.

Conservation measures were developed for each LUP program and sub-program covered by the conservation agreement. Responsibilities for implementing the actions are indicated, along with time frames for implementation. Most of the conservation measures will be implemented as standard operating actions conducted during day-to-day management activities. In addition, LUP conservation measure guidance and direction will be applied to ongoing actions. However, as site-specific information will be available for the ongoing actions, additional conservation measures may be considered.

In the conservation agreement, measures common to all program areas are specified for Special Status Animal and Plant Management. These measures are summarized below:

1. BLM will cooperate with others to:
  - a. Develop and use survey protocols consistent with the USFWS Rare Plant Survey Guidelines to conduct Stage 1, 2, and 3 surveys.
  - b. Refine slickspot peppergrass habitat and potential habitat maps, and identify and map slickspot peppergrass occurrences.
  - c. Regularly monitor slickspot peppergrass population trends and land health conditions on BLM lands, and follow current monitoring protocols. Land health conditions include forb diversity to support pollinators and habitat for slickspot peppergrass.
  - d. Participate in research essential to conservation of the species.
  - e. Continue to support seed banks in a long-term seed storage facility.
  - f. Support the establishment and maintenance of new populations in habitat categories for slickspot peppergrass.
2. BLM will ensure that ongoing federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass. This includes surveying, reviewing activities, and modifying activities as necessary to avoid or minimize negative impacts and, where feasible, promote species conservation. Section 7 compliance will be completed for activities that may affect slickspot peppergrass and its habitat. Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
3. BLM will ensure that new federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass. This includes surveying as needed, modifying activities to avoid or minimize negative impacts, and, where feasible, promote species conservation. Section 7 compliance will be completed for activities that may affect slickspot peppergrass and its habitat. Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.

### Direct and Indirect Effects by Program Area

The effects of current LUP programs on slickspot peppergrass have already been addressed at the LUP level in previous Section 7 consultation for the Jarbidge RMP, the Kuna Management Framework Plan, the Cascade RMP, and the Snake River Birds of Prey National Conservation

Area RMP, and it was determined that the existing LUP programs may affect, and are likely to adversely affect, slickspot peppergrass. The USFWS Biological Opinion concluded that continued implementation of the existing LUP programs with conservation measures will not jeopardize the survival and recovery of slickspot peppergrass (USFWS 2009b). The current programs are not being reevaluated with this analysis. Only the effects of the proposed LUP amendments are addressed here.

### **1. Recreation/Travel**

Off-road vehicle use is the main threat to slickspot peppergrass in this program area, as such use may directly impact individuals through mechanical damage or deep burying of a portion of the seed bank and may cause degradation of habitat by damaging the soil characteristics and biological soil crust. In addition, vehicle use on and off roads and trails is a major contributor to the spread of nonnative invasive plants, one of two primary threats identified by the USFWS to slickspot peppergrass.

Off-road vehicle impacts are mainly known to occur on the Four Rivers Field Office. Off-road vehicles are not a concern on the Jarbidge Field Office, where the majority of slickspot peppergrass populations and habitat overlap with the action area; however, off-road vehicle uses could become a concern in the future.

With this proposed action, no additional travel or vehicle uses are proposed. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.* Where travel management planning has not been completed or is in progress, and slickspot peppergrass habitat categories are present, there may be a reduction of impacts from off-road vehicle use. If any areas of slickspot peppergrass habitat categories within GRSG HMAs are currently open to off-road vehicle use, restrictions would be placed on vehicles to use only existing routes, becoming effective at the time of this decision. This would provide a small and contemporaneous beneficial effect on slickspot peppergrass and its habitat by reducing the likelihood of damage from off-road vehicles.

Additional beneficial effects may occur in the future as a result of restrictive or guidance conservation measures; however, the actions and resulting benefits would take place in the future, probably a considerable time after the decision to amend LUPs, and so these possible beneficial effects would not be contemporaneous with the decision. Furthermore, most actions that may result from implementing the proposed LUP amendments are highly speculative. The type of activity, locations, timing, and methods of implementation are not known, nor is whether the actions would even be needed. Examples of these speculative actions in the Recreation/Travel program area include: BLM REC-1, *manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions*; BLM REC-2, *limit construction of new recreation facilities*; BLM

*TM-2, consider temporary travel closures or restrictions; and BLM TM-4, plan and design travel systems to minimize adverse effects on GRSG (including a statement to give special attention to protect endangered or threatened species and their habitats).*

There is the potential for indirect effects (effects caused by the action, but later in time) from future site-specific ground-disturbing actions relating to the recreation and travel program. However, at this programmatic planning level, these future project actions are unknown and are not reasonably certain to occur; therefore, any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level.

The 2014 slickspot peppergrass conservation agreement, which is included in this decision as an RDF, would be followed for any proposed activities in slickspot peppergrass habitat categories. It contains additional direction to avoid or minimize impacts from developed and dispersed recreation use areas through public education or closures as needed to protect the species and its habitat. With implementation of the conservation agreement, new development of recreation facilities or expansion of existing facilities in habitat categories of slickspot peppergrass would be avoided if negative impacts are expected. Commercial and noncommercial recreation permits would also be subject to restrictions or denial of authorizations for activities if negative impacts are anticipated. Travel management activities would also be subject to restrictions to reduce ground disturbance if negative impacts on habitat categories are occurring or anticipated. In addition, compliance checks would be performed on OHV closures to protect occupied habitat.

## Recreation/Travel Summary

One conservation measure for GRSG is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails). This measure would provide a contemporaneous beneficial effect on slickspot peppergrass and its habitats within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass habitat categories. Possible effects from the proposed conservation measures concerning other potential activities in the recreation and travel program area are not considered in this analysis and determination of effects, because specific activities are unknown and too speculative to be meaningfully addressed.

## ***2. Lands and Realty***

The lands and realty program area has potential to impact slickspot peppergrass by authorizing changes in land use (possibly resulting in infrastructure and facility development and associated loss of habitat and/or damage to individuals), by changing land ownership (possibly resulting in decreased protection of listed species), and by administering the use of rights-of-way.

The proposed conservation measures for GRSG in the Lands and Realty program area state that existing ROWs, developing new or amended ROWs, utility-scale (20 MW) wind and solar

testing and development, nuclear and hydropower energy development, developing commercial service airports and facilities, and developing new landfills would all be subject to RDFs, which includes the slickspot peppergrass conservation agreement. Retaining or acquiring federal ownership of priority or important HMAs may benefit slickspot peppergrass in the future by reducing the likelihood of its habitat being converted to agriculture, urbanization, or other uses. All but one of the actions related to the lands and realty program area are unknown or too speculative at this time to be meaningfully addressed in this programmatic analysis. Any possible effects from future proposed actions would be addressed in site-specific analyses when explicit actions are identified and proposed for implementation.

The one conservation action in the lands and realty program area that may affect slickspot peppergrass is BLM LR-12, which states to “*work with ROW holders to retrofit existing towers and structures consistent with RDFs.*” This action is reasonably certain to occur. Implementing this action would involve transporting personnel and supplies to each tower or structure needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. There have been extremely rare instances where slickspot peppergrass plants have been found outside slickspots. Specifically, only a few individuals were documented on graded roadsides and badger mounds. These instances do not represent viable, long-term occurrences due to the lack of appropriate habitat components that would support a persistent population. If they are present along right-of-way roads or near towers, slickspot peppergrass individuals may be damaged by the crushing action of vehicle tires and foot traffic. Because of the extremely rare occurrence of slickspot peppergrass outside slickspots, it is highly unlikely that individuals would be present on or directly adjacent to right-of-way roads or near existing towers. Thus, the likelihood of damage to the plants is extremely small, and is therefore discountable. In addition, the unlikely, but possible impacts on slickspot peppergrass individuals due to this action would not significantly impact any local populations, because the adjacent core habitats would be unaffected.

The slickspot peppergrass conservation measures in the conservation agreement state that private lands containing slickspot peppergrass habitat categories would be acquired where feasible, and that occupied slickspot peppergrass habitat in federal ownership would be retained unless such a transfer would result in a net benefit to the species.

### Lands and Realty Summary

One proposed conservation measure for GRSG (BLM LR-12, retrofitting existing towers and structures) is reasonably certain to occur and may impact slickspot peppergrass plants that might occur on roadsides or near towers. It is highly unlikely that plants would occur in areas affected by vehicles accessing the sites or foot trampling near the towers; thus, the possible adverse effects are discountable. Possible negative effects from other future actions within the lands and realty program area are not considered in this analysis and determination of effects, because specific actions are undecided and too speculative to be meaningfully addressed.

### 3. Range

Livestock grazing is currently authorized in many areas affected by the proposed LUP amendments. Livestock grazing and trampling can cause degradation or loss of habitat, impact the seedbank, crush plants, introduce nonnative plant competitors, degrade the integrity of slickspots, and redistribute organic matter through deposition of feces.

Active AUMs for livestock grazing would remain the same, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations (BLM RM-1). BLM RM-6 states, *When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation.* The habitat assessment framework, or other BLM or Forest Service approved methodology, would be used to determine whether vegetation structure, condition, and composition are meeting GRSG habitat objectives, including riparian and lentic areas (BLM RM-4). BLM RM-5 states, *When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.* When GRSG habitat objectives are not being met or progress toward them is not being made, potential modifications may include changes in season or timing of use, numbers or distribution of livestock, duration and/or level of use, kind of livestock, and possible periods of rest or deferment. These possible changes may reduce the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions in livestock use. Possible changes in timing of use could either increase or decrease the likelihood of negative impacts on soils or slickspot peppergrass individuals. However, because potential changes to current livestock grazing are undecided and speculative at this time, the type and extent of effects on slickspot peppergrass cannot be meaningfully evaluated. Effects from these possible changes would be evaluated when the details of such actions become available. With implementation of conservation measures in the slickspot peppergrass conservation agreement as an RDF, further evaluation of effects on slickspot peppergrass would occur with the continued livestock grazing.

In addition to the slickspot peppergrass conservation measures in the conservation agreement that are common to all program areas, specific measures for livestock grazing direct the BLM to manage livestock grazing and trailing to conserve suitable habitat conditions for slickspot peppergrass while implementing rangeland health standards and guidelines, and to apply the included direction in *Implementation of Annual Grazing Adaptive Management* (an appendix to the conservation agreement) when modifying livestock grazing. Surveys in slickspot peppergrass habitat categories would be conducted as needed. More specific measures include the following actions:

- As part of range readiness assessments, delay livestock turnout when saturated soils are a negative factor in slickspot peppergrass species conservation.
- Minimize gathering livestock in element occurrences.
- Avoid impacts on element occurrences from herd movement through rested and deferred pastures.

- Trailing permits will not be authorized through element occurrences unless conducted on existing roads. In the Jarbidge Field Office of the Twin Falls District, no livestock trailing will be authorized through element occurrences, proposed critical habitat, or occupied habitat. In the Four Rivers Field Office of the Boise District, livestock trailing permits will not be authorized through element occurrences, proposed critical habitat, or occupied habitat unless conducted on existing roads or historic routes described within the Four Rivers Field Office 2012 livestock trailing consultation with USFWS.
- Sheep grazing permits will be modified to restrict bedding, trailing, or watering herds within 1/2 mile of element occurrences.
- Supplements will be placed at least 1/2 mile from element occurrences. Supplements will be placed so that livestock are drawn away from the element occurrences and avoid trailing through the element occurrences en route to the supplement or a water source.
- No new domestic horse AUMs will be authorized in pastures containing element occurrences to avoid trampling impacts.
- As part of adaptive management, the BLM will conduct scheduled compliance inspections in pastures with occupied habitat.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the range program area, such as adjusting locations of salt placements, fences, and water developments. However, at this programmatic planning level, these future project actions are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

#### Range Summary

Possible changes to livestock grazing may reduce or increase the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions or changing the timing of livestock use. There is also potential for positive or negative effects from changes to locations of salt placements, fences, and water developments. However, because potential changes to current livestock grazing are undecided and speculative at this time, the type, location, timing, and extent of effects on slickspot peppergrass cannot be meaningfully evaluated at this planning level. Therefore, these potential effects are not considered in the determination of effects for this programmatic decision.

#### *4. Energy and Minerals*

The energy and minerals program may cause degradation or loss of habitat, impacts on the seedbank, crushing of slickspot peppergrass plants, and introduction of nonnative plants due to ground disturbance from mining activities, including road construction and pipelines.

Changes in current management of mineral leases would include only restrictions to these uses, and implementing all RDFs are often specified. Any unchanged management would be a continuation of current management; thus, the proposed LUP amendments would not be



authorizing an increase of these uses. Conservation measures proposed for GRSG include the following:

- BLM AD-1 limits anthropogenic disturbance to 3 percent as calculated within the biologically significant unit.
- BLM Fluid Minerals FLM-1: Idaho: Areas within PHMA and IHMA would be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (FLM-3). GHMA would be open to mineral leasing and development and geophysical exploration subject to CSU, which includes buffers, seasonal timing restrictions, and standard stipulations.
- BLM Salable Minerals SAL-1: In PHMA, no new site authorizations would be approved. In IHMA and GHMA, new site authorizations could be considered provided the Anthropogenic Disturbance Development Criteria (AD-4) can be met, and subject to RDFs, buffers, and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. GHMA would be open to new site authorizations subject to RDFs, buffers, and seasonal timing restrictions.
- BLM Non-Energy Leasables (NEL)-1: PHMA would be closed to leasing. In IHMA and GHMA, areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA outside of KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers, and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. In GHMA, lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily), and standard stipulations.

Since the current RDFs include implementation of the 2014 slickspot peppergrass conservation agreement, the following specific measures in that agreement would be required:

- Approve plans of operations or allow notice-level operations (for locatable minerals, saleable minerals, and leasable minerals) so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - To the extent allowed by law, modify [existing] plans of operation or notice-level operations (for locatable minerals) that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts.
  - To the extent allowed by law, avoid approving plans of operation or notice-level operations (for locatable minerals) that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to habitat categories for slickspot peppergrass, apply stipulations to support or to not preclude species conservation.

- Modify existing mineral leases (for salable and leasable minerals) if negative impacts are occurring.
- Avoid development of saleable or leasable minerals in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to habitat, apply stipulations to support or to not preclude species conservation.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the energy and minerals program area, such as development of extraction facilities and access roads. However, at this programmatic planning level, these future projects actions are currently unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

With implementation of the proposed conservation measures, the slickspot peppergrass conservation measures, and RDFs, impacts from new and currently authorized mining activities may be reduced or prevented. However, these possible reductions or avoidance of potential impacts are unidentified at this time and would occur at some unknown time in the future; any beneficial effects would not be contemporaneous with this decision. Potential beneficial effects from the action with respect to energy and mineral development are therefore not considered for the determinations in this programmatic-level analysis but will be addressed in subsequent site-specific analyses.

### ***5. Fire/Fuels Management***

Fire is one of the two primary threats to slickspot peppergrass because it can alter soil characteristics, promote establishment and spread of invasive nonnative plants such as cheatgrass and medusahead, and negatively affect its pollinators' habitats, as well as destroy the current season's seed production. Fire suppression activities include creating fire breaks, fire camps, and staging areas, potentially causing degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. The use of fire retardant may add nutrients to slickspot peppergrass habitat and may improve conditions for plant competitors. Fuels management activities such as prescribed fire and creating vegetated fuel breaks may also cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants such as forage kochia and intermediate wheatgrass as well as invasive species. In addition, wildfire restoration/rehabilitation (including Emergency Stabilization and Rehabilitation [ESR]) activities may cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, and introduction of nonnative plants. Because all of these potential fire and fuels management activities are unknown at this time, their type, location, and timing is too speculative to allow a meaningful analysis at this programmatic planning level. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

## Wildfire Management

The proposed wildfire preparedness/prevention measures do not specify any actions that would predictably affect management of slickspot peppergrass. BLM WFP-9 states to “*implement activities identified within the FIAT Assessments,*” but the potential activities are unknown at this time. Proposed wildfire suppression measures include completing FIAT Assessments to identify priority areas and establish strategies for fuels management, suppression, and restoration activities, with an analysis of response times and water capacity for suppression purposes (BLM WFS-1, WFS-2, WFS-3). During high fire danger, measures specify staging initial attack and securing additional resources closer to priority areas identified in the Wildfire and Invasive Species Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern, and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat (BLM WFS-4). At some unknown time in the future, the large area of disjunct occurrences of slickspot peppergrass near Juniper Butte could benefit from additional fire suppression resources providing quicker response times in the Southern Conservation Area by reducing fire impacts on occurrences and habitat categories in these areas.

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Fire suppression efforts will be conducted, as possible, to protect habitat categories for slickspot peppergrass. Place a high priority on protecting habitat categories for slickspot peppergrass.
  - Fire Management Plans will include Standard Operating Procedures (SOPs) that address conservation of slickspot peppergrass.
  - BLM will provide adequate fire suppression coverage at all stations to meet management objectives with the intent to suppress 90 percent of fires to the acreages specified in the fire management plans for slickspot peppergrass. As funding allows, BLM will maintain existing remote fire guard stations easily accessible to occupied habitat (for example, Juniper Butte fire guard station) and explore opportunities to establish additional stations to provide better initial attack and reduced response times for wildfires in slickspot peppergrass habitat.
  - Apply minimum impact suppression tactics (MIST) in habitat categories for slickspot peppergrass, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts.
  - Although MIST are preferred, aggressive fire suppression tactics (e.g., blade lines, back fires, etc. in habitat) may be applied if element occurrences are threatened.
  - Do not locate fire base camps, staging areas, and fueling areas within occupied habitat.
- As needed, coordinate with appropriate agency personnel regarding fire suppression activities in or adjacent to habitat categories for slickspot peppergrass.
  - BLM and cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators, and Fire Operations Supervisors.

- BLM and cooperators will distribute maps and inform fire crews on locations of the element occurrences to maximize fire protection and to avoid or minimize impacts from fire suppression activities.
- When developing wildland fire use plans, do not allow wildland fire use in habitat categories for slickspot peppergrass.

Along with implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities and may benefit slickspot peppergrass and its habitats at some unknown time in the future. Because slickspot peppergrass habitat categories overlap with GRSG habitats, measures that manage wildfires and suppression activities to protect GRSG habitats may also generally benefit slickspot peppergrass habitats in these areas of overlap. However, because the potential benefits would occur at some unknown time in the future, the beneficial effect would not be contemporaneous with this decision.

### Fuels Management

For fuels management activities, the proposed LUP amendments include conservation measures that emphasize maintenance, protection, and expansion of sagebrush ecosystems, as well as reduction of wildfire threats (BLM FM-1). Fuels management strategies would be developed as part of FIAT Assessments, and fuel treatments would be designed through an interdisciplinary process to benefit GRSG habitats, including considering a full range of methods such as grazing, targeted grazing, prescribed fire, chemical, biological, and mechanical techniques (BLM FM-6). Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (BLM FM-7). Fuel breaks would incorporate existing vegetation treatments (seedings) or would be located adjacent to existing linear disturbance areas where appropriate (BLM FM-8). The use of native seeds would be prioritized for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, fire-resistant native and nonnative species would be used, as appropriate, to provide for fuel breaks (BLM FM-13).

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Prescribed fire in habitat categories for slickspot peppergrass will only be used as a tool for assisting with species conservation (for example, a burn in preparation to decrease cheatgrass litter before herbicide application, or to clear fencelines of accumulated windblown weeds).
- Avoid fuels management projects in occupied and critical habitat, unless such projects would enhance species conservation or are necessary for hazardous fuels reduction near the urban interface. Implement protection measures to avoid or minimize negative impacts on the species. In critical and occupied habitat categories for slickspot peppergrass, design native seed mixes that emphasize locally adapted plant material that will promote species conservation. When appropriate, use native plant materials and seed

during project activities, and select species that benefit slickspot peppergrass insect pollinators.

- Because of potential negative impacts on habitat categories for slickspot peppergrass from linear fuel breaks, which can act as weed dispersal corridors, the following measures will be applied in habitat categories for slickspot peppergrass:
  - BLM will monitor the effectiveness of existing fuel breaks (location, dry fuel load, and weed composition) in protecting habitat categories for slickspot peppergrass.
  - BLM may create and maintain fuel breaks where frequent fires can threaten habitat categories for slickspot peppergrass. New fuel breaks in habitat categories for slickspot peppergrass will be designed to conserve and/or enhance species habitat. Where appropriate and where objectives will be met, native vegetation should be emphasized in the creation of new fuel breaks. Other fuel break methods may include mowing or brown strips. If native vegetation or seed will not meet objectives, or site disturbance or site conditions preclude their use, fuel breaks may include nonnative, noninvasive species that will not invade slickspots.
  - Potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will not be used within 1.5 miles of element occurrences. When used in fuel break projects, control measures for potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will be incorporated into project design features.
  - Consider actions to repair or restore fuel breaks so they function as desired.
  - In addition to the reduction in fuels associated with appropriately managed livestock grazing, BLM may create fuel breaks using techniques such as mowing or targeted grazing to strategically reduce fuel loads where frequent fires can threaten habitat categories for slickspot peppergrass if the benefit of these actions can be demonstrated to outweigh the risks to slickspot peppergrass and its habitat.

With implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories.

#### Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation

The proposed LUP amendments include the following conservation measures for post-wildfire activities:

- Use the findings and restoration/rehabilitation strategy developed as part of the FIAT Assessment process to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct ESR (BLM) or Burned Area Emergency Restoration (BAER) (Forest Service) actions after fire (BLM ESR-1).
- Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the restoration/rehabilitation strategy (BLM ESR-2).

- Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species within burned/ESR areas. All new seedlings of grasses and forbs should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems, which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ESR objectives (BLM ESR-3).
- Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSB populations (BLM ESR-4).

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Implement ESR activities to consider slickspot peppergrass in and adjacent to slickspot peppergrass habitat rehabilitation.
  - Wildfires within habitat categories for slickspot peppergrass will be evaluated for ESR treatments, regardless of size, with an emphasis on retaining native plant resiliency, including early seral native grasses, forbs, and biological soil crusts.
  - As needed, protect disturbed and recovering areas using temporary closures or other measures. BLM will continue to rest areas from land use activities to meet ESR objectives as defined through ESR plans.
  - BLM ESR efforts for slickspot peppergrass, subject to funding availability, should enhance shrub establishment and forb diversity. BLM will implement the following measures during fire ESR efforts:
    - BLM will use seeding techniques that minimize soil disturbance; such techniques may include minimum-till drills and rangeland drills equipped with depth bands when ESR projects have the potential to impact occupied or proposed critical habitat categories for slickspot peppergrass.
    - BLM will use native plant materials and seed during ESR activities. BLM will include native forbs in seed mixtures that will benefit slickspot peppergrass insect pollinators commensurate with ESR program policy.
    - If native plant materials and seed are not available, or where site capability precludes the use of natives due to past disturbances, noninvasive, nonnative species may be used for stabilization activities in habitat categories for slickspot peppergrass.
    - In slickspot peppergrass habitat and potential habitat, nonnative species are acceptable for stabilization activities where site disturbances exceed the capability for extant native vegetation to regenerate. Potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will not be used within 1.5 miles of element occurrences. Within slickspot peppergrass habitat and potential habitat, potentially invasive nonnative species such as intermediate wheatgrass and forage kochia may be used for stabilization activities that are specifically designed as greenstrip fuel break projects, if an environmental analysis determines that the benefits of their use outweigh the risk of invasion to slickspot

peppergrass and its habitat relative to other alternative fuel break methods. For these projects, environmental analyses will use the best available scientific and biological information, current BLM and USFWS guidance, and will incorporate a comprehensive monitoring strategy.

With implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities, and therefore may reduce the risks to slickspot peppergrass. The main contributors to the potential reduction of negative effects would be to limit the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, to use seeding techniques that minimize ground disturbance, and to protect disturbed and recovering areas using temporary closures or other measures. Closures may include resting burned and adjacent areas from livestock grazing, or limiting public access. As compared with the current management direction, the proposed conservation measures for GRSG, including implementing the 2014 slickspot peppergrass conservation agreement, would provide a benefit to slickspot peppergrass and its habitat categories by reducing threats from post-wildfire management activities.

#### Fire/Fuels Management Summary

In the fire/fuels management program area, no ground-disturbing activities would be authorized by the proposed LUP amendments. These program activities may cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. However, the type, location, and timing of potential activities are unknown and speculative at this time, preventing a meaningful analysis of effects at this programmatic planning level. Therefore, these potential impacts are not considered in the determination of effects. Any future project proposals, including actions involving ground disturbance, vegetation management, and seedings, would be subject to site-specific environmental analysis at the project level and Section 7 consultation as necessary. They would also be subject to the applicable conservation measures in the 2014 slickspot peppergrass conservation agreement.

Potentially beneficial effects may result from the fire/fuels management program area; however, because the potential benefits would occur at some unknown time in the future, the beneficial effects would not be contemporaneous with this decision. Proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities, which may benefit slickspot peppergrass and its habitats. Conservation measures for the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories. Conservation measures for the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities by limiting the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, using seeding techniques that minimize ground disturbance, and protecting disturbed and recovering areas using temporary closures or other measures.

## *6. Habitat Restoration and Vegetation Management*

The proposed LUP amendments contain several conservation measures for GRSG concerning habitat restoration and vegetation management. Habitat restoration and vegetation management projects for GRSG could involve a variety of methods, including chemical, mechanical, and seeding treatments. Such activities may include herbicide application, prescribed fire, cutting of encroaching juniper, and managing native seed resources. Potential negative effects from these activities include possible damage from herbicides, degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. Possible beneficial effects may result from general enhancement of sagebrush habitats, including possible enhancement of forb species important for slickspot peppergrass pollinators and possible reductions of invasive plant species. It is important to keep in mind that although some of the following measures may appear to be proposing specific activities, no site-specific actions are being proposed. The type, location, and timing of future habitat restoration and vegetation management activities are unknown and too speculative to allow a meaningful analysis of effects at this programmatic planning level. Further analysis of any future projects will include Section 7 consultation if necessary, and site-specific environmental analysis and determination of effects will occur when the details of such proposals become available. In addition, the 2014 slickspot peppergrass conservation agreement would be implemented, as it is included in the current proposal as an RDF.

The following conservation measures for GRSG are proposed for any future habitat restoration and vegetation management activities:

- Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical, and seeding treatments (BLM VEG-1).
- Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site-specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e., is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower-elevation sites (e.g., Wyoming big sagebrush), but such efforts will be carefully planned and coordinated to minimize impacts on GRSG seasonal habitats (BLM VEG-2).
- Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Nonnative seeds may be used as long as they support GRSG habitat objectives to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites (BLM VEG-3).
- Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat, and to ensure long-term persistence of improved GRSG habitat. Management changes could be considered



during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way (BLM VEG-4).

- Consider establishing seed harvest areas that are managed for seed production to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities (BLM VEG-5).
- Allocate use of native seed to GRSG or ESA-listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of PHMA or IHMA to those inside it. Reestablishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts (BLM VEG-6).
- During land health assessments evaluate the compatibility of existing nonnative seedings for GRSG habitat to keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak or during restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits on GRSG habitat outweigh the other potential uses of the nonnative seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation (BLM VEG-7).

These conservation measures are generally compatible with management of slickspot peppergrass habitat categories, in that they would promote healthy sagebrush communities that are important for conservation of slickspot peppergrass. Additional conservation measures in the 2014 slickspot peppergrass conservation agreement address concerns from upland vegetation management activities:

- Although non-chemical methods will be the preferred approach in occupied habitat, when appropriate, projects involving the application of pesticides (including herbicides, fungicides, and other related chemicals) in habitat categories for slickspot peppergrass that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure. Site-specific stipulations will be developed locally using these criteria:
  - Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, biocontrols, hand pulling).
  - Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals.
  - Explore opportunities to eradicate competing nonnative invasive plants in habitat categories for slickspot peppergrass where slickspots are being invaded by such plants.
  - Implement appropriate revegetation and weed control measures to reduce the risks of nonnative invasive plant infestations following ground/soil-disturbing actions in habitat categories for slickspot peppergrass.
  - BLM will provide United States Department of Agriculture APHIS with the location of habitat categories of slickspot peppergrass. Mormon cricket,

- grasshopper, or other insect control in habitat categories for slickspot peppergrass will only include those methods that minimize impacts on the plant's pollinators.
- Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of noxious weeds in upland areas through cooperative weed management programs. [BLM will] take advantage of coordination opportunities as they arise.
  - BLM will promote diversity, richness, and health of native plant communities to support pollinators and habitat for slickspot peppergrass. BLM will focus slickspot peppergrass habitat conservation and restoration efforts in habitat categories for slickspot peppergrass to encourage connectivity among populations through the following measures:
    - Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
    - BLM will select and implement specific projects to restore habitat categories for slickspot peppergrass in degraded areas as funding allows, such as planting shrubs and forbs and controlling weeds, within and adjacent to occupied habitat.
    - Vegetation treatment projects undertaken in habitat categories for slickspot peppergrass will be compatible with species habitat restoration objectives.
    - When conducting vegetation treatment projects in habitat categories for slickspot peppergrass, BLM will use seeding techniques that minimize soil disturbance such as minimum-till drills and rangeland drills equipped with depth bands, use native plant materials and seed during restoration activities, and select native forbs that benefit slickspot peppergrass insect pollinators.
  - (From Wildlife and Wildlife Habitat Management program area) Any restoration efforts for wildlife within habitat categories for slickspot peppergrass will be compatible with the species' habitat requirements.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the habitat restoration and vegetation management program area, such as prescribed fire, mechanical vegetation treatments, herbicide application, and associated vehicle access. At this programmatic planning level, these future project actions are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and by implementing the slickspot peppergrass conservation measures.

Some negative impacts on slickspot peppergrass habitat categories may potentially occur with future project implementation, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. The 2014 slickspot peppergrass conservation agreement provides direction to evaluate and weigh the benefits of these activities against the potential negative effects, and to explore less damaging methods such as biocontrol and hand-pulling. Appropriate spatial or temporal buffers would also be implemented during chemical applications to avoid or minimize exposure of slickspot peppergrass plants or seeds.

Although some localized negative effects on slickspot peppergrass and its pollinators may potentially occur from implementing habitat restoration and vegetation management projects, significant negative effects are highly unlikely. Any habitat-disturbing activities would be subject to site-specific, project-level environmental analysis (including Section 7 consultation as needed), and appropriate mitigation measures would be applied in accordance with the 2014 slickspot peppergrass conservation agreement (or updated version, as applicable). In addition, there may be long-term benefits from these activities because they would promote healthier, more resilient sagebrush communities by maintaining healthy sagebrush communities with fewer nonnative, invasive species.

### Invasive Species

Although there are many references to invasive species management in several other program areas, there are also a few conservation measures in the proposed LUP amendments specific to the invasive species topic. They include the following:

- Incorporate results of the FIAT Assessments into projects and activities addressing invasive species (BLM INV-1).
- Implement noxious weed and invasive species control using integrated weed management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners (BLM INV-2).
- Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRS habitat quality using a variety of eradication and control techniques, including chemical, mechanical, and other appropriate means (BLM INV-3).
- Require project proponent to ensure that treatments of noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project (BLM INV-4).

Most of the above measures are already integrated into the existing invasive species program activities. The requirement to treat noxious weeds and invasive species for at least 3 years after project disturbances further specifies a minimum time period to conduct control treatments, and thus may result in improved conditions of slickspot peppergrass habitat categories after any authorized disturbances.

Additional conservation measures in the 2014 slickspot peppergrass conservation agreement that address concerns from invasive species include measures already presented under the various program areas above. The proposed LUP amendments, in concert with the 2014 slickspot peppergrass conservation agreement as an RDF, may result in reduced impacts from invasive plant species. One particular concern, already discussed in the wildfire management, fuels management and wildfire restoration/rehabilitation - ESR program areas above, is for the intentional use of potentially invasive species such as intermediate wheatgrass and forage kochia to provide greenstrip fuel breaks. In order for potentially invasive nonnative species to be used, an environmental analysis must determine that the benefits of their use outweighs the risk of invasion to slickspot peppergrass and its habitat relative to other alternative fuel break methods.

If used, a comprehensive monitoring strategy would be implemented, and control measures for the potentially invasive species would be incorporated into project design features. Potentially invasive nonnative species would not be used within 1.5 miles of slickspot peppergrass element occurrences.

The dominance of cheatgrass in an area may also be positively related to the density of Owyhee harvester ants (*Pogonomyrmex salinus*), which represent an emerging threat to slickspot peppergrass. The replacement of sagebrush by annual grasses such as cheatgrass apparently creates conditions favorable to nesting of the native harvester ant, leading to expanded range and density of this potentially important seed predator of slickspot peppergrass (USFWS 2009a). There are potential negative consequences for plant reproduction and maintenance of the slickspot peppergrass seed bank due to Owyhee harvester ants removing mature, seed-bearing fruits from the plants or removing seeds already dropped to the ground and returning them to their nests outside the slickspot habitats.

### Habitat Restoration and Vegetation Management Summary

With this decision, no specific habitat restoration and vegetation management activities are proposed. At this programmatic planning level, future habitat restoration and vegetation management actions are unknown and not reasonably certain to occur. Any possible effects are too speculative to meaningfully evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation.

Even though the type, location, timing, and extent of effects are not possible to analyze at this time, it is possible that some negative impacts on slickspot peppergrass habitat categories may potentially occur with future project implementation, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. Although invasive and potentially invasive nonnative species will likely remain on the landscape and continue to impact slickspot peppergrass populations and habitat categories, their effects may possibly be reduced by the proposed increase of emphasis on invasive species control and the particular conservation measures required by the 2014 slickspot peppergrass conservation agreement. Because specific future projects are unknown, these potential effects are not considered in the determination of effects for this proposed action.

### ***Cumulative Effects***

To evaluate cumulative effects, the future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The action area for the current proposal is limited to PHMA, IHMA, and GHMA occurring on BLM- and Forest Service-administered lands. No state, tribal, local, or private lands exist within the action area, and no state, tribal, local, or private actions are planned or expected to occur in the action area. Only federal actions are expected to occur in the action area; therefore, no cumulative effects are expected.

### *Summary and Determination of Effects on Slickspot Peppergrass*

The decision to adopt the proposed LUP amendments does not propose any ground-disturbing actions. Some site-specific activities in support of GRSG habitat management may be proposed that have some future potentially negative impacts on slickspot peppergrass habitat categories (e.g., establishing vegetated fuel breaks with potentially invasive plant species, using mechanical methods or chemical applications for habitat restoration and vegetation management projects, or relocating salt placements and water developments relating to livestock grazing). However, the type, location, timing, and extent of such activities are unknown at this time and are too speculative to allow a meaningful analysis of their effects. Because specific future projects are unknown, these potential effects are not considered in the determination of effects for this proposed action. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and by implementing the slickspot peppergrass conservation measures.

The 2014 slickspot peppergrass conservation agreement is included in this decision as an RDF and would be followed for any proposed activities in slickspot peppergrass habitat categories. The slickspot peppergrass conservation agreement measures common to all program areas state that surveys would be conducted, habitat categories would be mapped, and population trends would be monitored. In addition, ongoing federal actions would be reviewed and modified as necessary to avoid or minimize negative impacts, and Section 7 compliance would be completed for activities that may affect slickspot peppergrass and its habitat.

One conservation measure for GRSG is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails). This measure would provide a contemporaneous beneficial effect on slickspot peppergrass and its habitats within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass habitat categories.

Another proposed conservation measure for GRSG (BLM LR-12, retrofitting existing towers and structures) is somewhat specific and reasonably certain to occur. This measure may impact slickspot peppergrass plants that might occur on roadsides or near towers, but it is highly unlikely that plants would occur in areas affected by vehicles accessing the sites or foot trampling near the towers. Thus, the possible adverse effects are discountable.

The remaining proposed conservation measures for GRSG that have potential to negatively affect slickspot peppergrass are not known at this time and are too speculative to allow a meaningful analysis of effects. Therefore, the following summary of such potential program area effects are described at a very general level and are not considered in the determination of effects:

- Examples of speculative actions in the recreation/travel program area include: REC-1, manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers, and seasonal restrictions; REC-2, limit

construction of new recreation facilities; TM-2, consider temporary travel closures or restrictions; and TM-4, plan and design travel systems to minimize adverse effects on GRSG (including a statement to give special attention to protect endangered or threatened species and their habitats). These restrictive actions could reduce the likelihood of negative impacts on slickspot peppergrass.

- Retaining or acquiring federal ownership of PHMA or IHMA lands may benefit slickspot peppergrass by reducing the likelihood of its habitat being converted to agriculture, urbanization, or other uses. Specific measures in the slickspot peppergrass conservation agreement state that private lands containing slickspot peppergrass habitat categories would be acquired where feasible and that occupied slickspot peppergrass habitat in federal ownership would be retained.
- Possible changes to livestock grazing may reduce or increase the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions or changing the timing of livestock use. There is also potential for positive or negative effects from the possibility of changes to locations of salt placements, fences, and water developments.
- With implementation of the proposed conservation measures for GRSG regarding the energy and minerals program area, plus the slickspot peppergrass conservation measures and other RDFs, impacts from new and currently authorized mining activities may be reduced or prevented because the measures are restrictive in nature.
- Proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities and may benefit slickspot peppergrass and its habitats. Conservation measures for the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories. Conservation measures for the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities by limiting the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, using seeding techniques that minimize ground disturbance, and protecting disturbed and recovering areas using temporary closures or other measures.
- There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the habitat restoration and vegetation management program area, such as prescribed fire, mechanical vegetation treatments, herbicide application, and associated vehicle access. Negative impacts on slickspot peppergrass habitat categories may potentially occur with future projects in the habitat restoration and vegetation management program area, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. The effects from invasive and potentially invasive nonnative species may possibly be reduced by the proposed increase of emphasis on invasive species control and the relevant conservation measures required by the 2014 slickspot peppergrass conservation agreement.

**The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to jeopardize the continued existence of slickspot peppergrass.** The estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided. Site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.

Because no suitable habitats for slickspot peppergrass are suspected to occur within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices or the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass in these areas.

### Slickspot Peppergrass Proposed Critical Habitat

The PCEs of slickspot peppergrass proposed critical habitat include four elements:

1. Ecologically functional microsites or “slickspots” that are characterized by:
  - a. A high sodium and clay content and a three-layer soil horizonation sequence, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty, vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer with an abrupt boundary with the surface layer that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features) (the restrictive layer). The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer); and
  - b. Sparse vegetation with low to moderate introduced, invasive, nonnative plant species cover.
2. Relatively intact, native *Artemisia tridentata* ssp. *wyomingensis* (Wyoming big sagebrush) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 250 meters of *Lepidium papilliferum* element occurrences to protect slickspots and *Lepidium papilliferum* from disturbance from wildfire, slow the invasion of slickspots by nonnative species and native harvester ants, and provide the habitats needed by *L. papilliferum*'s pollinators.
3. A diversity of native plants whose blooming times overlap to provide pollinator species with sufficient flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of *Lepidium papilliferum* to occur, pollinators must be able to move freely between slickspots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when

*Lepidium papilliferum* is not flowering, when distances between slickspots are large, and in years when *L. papilliferum* is not a prolific flowerer.

4. Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespidae wasp families, species of the bombyliid and tachinid fly families, honeybees, and halictid bee species, most of which are solitary insects that nest outside of slickspots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

## Direct and Indirect Effects by Program Area

### 1. Recreation/Travel

Off-road vehicle use can disturb important soil horizons in slickspots, damage individuals or nests of pollinators, and contribute to the spread of nonnative invasive plants. One conservation measure for GRSG that is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails) may provide a contemporaneous beneficial effect on slickspot peppergrass proposed critical habitat within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass proposed critical habitat. Possible effects as a result of the proposed conservation measures concerning other potential activities in the recreation and travel program area are not considered in this analysis and determination of effects, because specific activities are unknown and too speculative to be meaningfully addressed.

### 2. Lands and Realty

The lands and realty program area has potential to affect slickspot peppergrass proposed critical habitat by authorizing changes in land use (possibly resulting in infrastructure and facility development and associated loss of habitat and/or damage to individuals), by changing land ownership (possibly resulting in decreased protection of listed species), and by administering the use of rights-of-way.

All but one of the actions related to the lands and realty program area are unknown or too speculative at this time to be meaningfully addressed in this programmatic analysis. The one conservation action in the lands and realty program area that may affect slickspot peppergrass is BLM LR-12, which states to “*work with ROW holders to retrofit existing towers and structures consistent with RDFs.*” This action is reasonably certain to occur. Implementing this action would involve transporting personnel and supplies to each tower or structure needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. Ecologically functional slickspots are not likely to be present in the areas that may be impacted by this activity (access roads and areas directly adjacent to existing towers and structures) due to the previous disturbance involved with installation of the structures and access roads. Thus, there is an extremely low likelihood of impacts on ecologically functional slickspots from tower retrofit activities, and the effect is discountable. Furthermore, the same impacts may occur from maintenance activities that are already analyzed and consultation completed in previous environment analysis. The retrofit activity would not constitute an increase in the currently authorized use of these rights-of-way.



Because the expected retrofit activities involve very little, if any, disturbance to vegetation or soils, it is also highly unlikely that the other three PCEs (relatively-intact Wyoming big sagebrush vegetation, diversity of plants for pollinators, and presence of pollinators) would be impacted.

### ***3. Range, Energy and Minerals, Fire/Fuels Management, and Habitat Restoration and Vegetation Management***

Specific activities in these remaining program areas are not identified at this time. The type, location, timing, and extent of future activities are unknown and too speculative to allow a meaningful analysis of effects at this programmatic planning level. Further analysis of any future projects will include Section 7 consultation if necessary, and site-specific environmental analysis and determination of effects will occur when the details of such proposals become available. In addition, the 2014 slickspot peppergrass conservation agreement would be implemented, as it is included in the current proposal as an RDF.

### ***Summary and Determination of Effects on Slickspot Peppergrass Proposed Critical Habitat***

**The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to result in destruction or adverse modification of slickspot peppergrass proposed critical habitat.** The estimated effects on proposed critical habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and indirect negative effects may result (but are extremely unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on slickspot peppergrass proposed critical habitat from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided, because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.

Because no slickspot peppergrass proposed critical habitat exists within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices or the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass proposed critical habitat in these areas.

### ***Ute Ladies'-tresses (*Spiranthes diluvialis*)***

Ute ladies'-tresses is known to occur on the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee National Forest. None of the known populations are within PHMA, IHMA, or GHMA. The closest known location is over 0.6 mile from IMHA, in Fremont County, Idaho. It is also suspected to occur on the Salmon-Challis and Sawtooth National Forests. Although the extent and specific locations are not known, it is likely that some areas of suitable habitat for Ute ladies'-tresses do exist within GRSG HMAs because some wetland habitats are included. The areas most likely to support populations (riparian areas along major river drainages) have mostly been excluded from GRSG HMAs.

Threats to Ute ladies'-tresses include off-road vehicle use, competition with aggressive nonnative plants, alteration of hydrologic regimes through stream management, urbanization (conversion of potential habitat and increasing demands for water), drought, trampling from livestock, wild horses, and burros, and recreational use (Fertig, et. al 2005, USFWS 1995). Of these threats, effects from off-road vehicle use, competition with nonnative plants, and trampling could potentially occur from proposed actions.

### ***Direct and Indirect Effects by Program Area***

#### ***1. Recreation/Travel***

Off-road vehicle use is a threat to Ute ladies'-tresses because direct contact can damage or kill individuals. Soil disturbance as a result of off-road vehicle use can also increase erosion. In addition, recreation and vehicle uses can contribute to the spread of nonnative invasive plants. Off-road vehicle use and recreation impacts do not typically occur in Ute ladies'-tresses habitats, except for the occasional campers with such vehicles, trampling from fishing access, and possibly vehicle use associated with right-of-way maintenance.

With this action, no additional travel or vehicle uses are proposed. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open and currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge, and Upper Snake Field Offices. Upon completion of travel management plans, the designation would change to limited to designated roads, primitive roads, and trails.* Where travel management planning has not been completed or is in progress, and Ute ladies'-tresses habitat is present, there may be a reduction of impacts from off-road vehicle use. Thus, if any areas of occupied or suitable habitat for Ute ladies'-tresses within GRSG HMAs are currently open to off-road vehicle use, restrictions would be placed on vehicles to use only existing routes. This would provide a small and contemporaneous beneficial effect on Ute ladies'-tresses by reducing the likelihood of damage from off-road vehicles.

#### ***2. Lands and Realty***

Only one conservation measure in the lands and realty program area may affect Ute ladies'-tresses. BLM LR-12 states to “*work with ROW holders to retrofit existing towers and structures consistent with RDFs.*” This action is reasonably certain to occur and because the level of disturbance would be minimal, it is not expected to be analyzed in future environmental analysis. Implementing this action would involve transporting personnel and supplies to each tower needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. If present in these areas, Ute ladies'-tresses individuals may be damaged by the crushing action of vehicle tires and foot traffic. Because towers, structures, and access roads generally avoid riparian habitats, Ute ladies'-tresses is not likely to be present on or directly adjacent to right-of-way roads or near existing towers. Thus, the likelihood of damage to the plants is very small and, furthermore, the

expected magnitude of impact would be so small as to be insignificant. If any plants are affected, they would likely have survived much greater disturbances or would have become established within previously disturbed areas along the right-of-way. If individual plants are impacted by vehicles or foot traffic, aboveground portions of the plants may be damaged, but the perennial tuberous-thickened roots would not be damaged and the plants would not be killed. Seed production for the affected individuals may be lost for that growing season. In addition, the unlikely but possible impacts on Ute ladies'-tresses individuals due to this action would not significantly impact the local populations because the adjacent core habitat would be unaffected.

### *3. Range*

Livestock grazing is authorized in many areas affected by the proposed LUP amendments. Active stocking rates for livestock grazing would remain the same, though the stocking on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, allotment management plan development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers and season of use in accordance with applicable regulations. Certain levels and timing of grazing are compatible maintenance of Ute ladies'-tresses habitats. For instance, winter grazing has been shown to be beneficial to Ute ladies'-tresses populations in Colorado by reducing competing vegetation and escape cover for voles (Fertig, et. al 2005). However, decreased flower and fruit production have been observed at sites that are grazed or trampled in summer (Fertig, et. al 2005).

With the proposed LUP amendments, when GRSG habitat objectives are not being met or progress toward them is not being made, potential modifications may include changes in season or timing of use, numbers or distribution of livestock, duration and/or level of use, kind of livestock, and possible periods of rest or deferment (BLM RM-6 and FS GRSG-LG-GL-001-Guideline). Changes in livestock grazing may or may not be considered as a result of the LUP amendments, and the location, timing, and type of possible change is not known at this time. This programmatic decision would not authorize changes to current range management. Because changes in livestock grazing are speculative, the effects on Ute ladies'-tresses cannot be reasonably foreseen at this time. Due to the considerable uncertainty of changes to current grazing, these effects are not addressed in this analysis. Possible beneficial effects would not be concurrent with this programmatic decision, and possible negative effects would be too speculative to allow a meaningful analysis. If changes are proposed in the future, the effects on Ute ladies'-tresses and other resources would be evaluated and analyzed through the NEPA process and ESA Section 7 consultation as needed when the site-specific actions are considered.

### *4. Energy and Minerals*

Energy and mineral development is not currently a threat identified by the USFWS for Ute ladies'-tresses. This may be due to widespread general restrictions on these activities in riparian habitats. Regardless of whether they are identified threats, the proposed action only places restrictions on these activities, which could have potential for beneficial effects. No new energy and mineral activities are proposed. Several conservation measures in the proposed action may

prevent or reduce general impacts from energy and mineral activities, but these measures would become effective in the future as the activities are proposed or parcels are leased. Therefore, any potential beneficial effects on Ute ladies'-tresses from reduced impacts of energy and mineral development would be analyzed in the future at the site-specific level and would not be contemporaneous with this decision. Potential beneficial effects from the action with respect to energy and mineral development are therefore not considered in this programmatic level analysis but will be addressed in subsequent site-specific analyses.

### ***5. Fire/Fuels Management***

The conservation measures in the fire and fuels management program area have little relevance to Ute ladies'-tresses, because generally no fire and fuels management activities are conducted in riparian habitats, and fire is not considered a threat to this species. No direct negative effects are expected because no new fire and fuels management activities are proposed. Restrictive measures in this program area may benefit this species by reducing the likelihood of impacts from the fire and fuels management program activities, but the measures would become effective in the future as specific activities are proposed. Therefore, any potential beneficial effects on Ute ladies'-tresses would not be concurrent with this decision. Furthermore, any potential effects from future activities will be addressed in subsequent site-specific analyses.

### ***6. Habitat Restoration and Vegetation Management***

Ute ladies'-tresses would not be negatively affected by conservation measures in the proposed LUP amendments for the habitat restoration and vegetation management program areas because no new activities are proposed. Vegetation management activities in riparian habitats can alter Ute ladies'-tresses habitat components (such as maintaining earlier successional conditions, or allowing successional changes to proceed), but no specific activities are proposed.

Noxious weed and invasive species treatments would be required on disturbed project construction areas for at least 3 years (BLM INV-4). This conservation measure has potential to benefit Ute ladies'-tresses by reducing the threat of increased competition from invasive species. If treatments were to occur within occupied habitats, there is a possibility of negative effects from exposure to herbicides. However, noxious weed and invasive species treatments would occur with implementation of future projects that are unknown at this time and are thus speculative and uncertain to occur. All potential effects from future activities will be addressed in subsequent site-specific analyses.

### ***Cumulative Effects***

To evaluate cumulative effects, the future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The action area for the current proposal is limited to PHMA, IHMA, and GHMA occurring on BLM- and Forest Service-administered lands. No state, tribal, local, or private lands exist within the action area, and no state, tribal, local, or private actions are planned or expected to occur in the action area. Only federal actions are expected to occur in the action area; therefore, no cumulative effects are expected.

### *Summary and Determination of Effects on Ute ladies'-tresses*

Because the proposed LUP amendments do not propose any specific ground-disturbing actions, there would be no direct effects on Ute ladies'-tresses from this programmatic decision.

A potential beneficial effect on Ute ladies'-tresses may result in PHMA and GHMA from the action of restricting vehicle use to existing roads and trails (BLM TM-1, where travel planning has not previously been completed). A slight chance of damage to individuals may result from retrofitting existing towers with perch deterrents (BLM LR-12), but the likelihood of damage is very small and the expected magnitude of impact would be so small as to be insignificant.

There is potential for beneficial effects from reduced impacts from energy and minerals, fire/fuels management, habitat restoration, and vegetation management activities. Although these threats may be reduced by the proposed LUP amendments, any benefit due to restricted or prohibited actions would occur in future years, and thus the benefit would not be contemporaneous and is not considered in this analysis. All potential effects will be considered during future site-specific analyses.

There is also potential for additional indirect effects (effects caused by the action, but are later in time) from future site-specific ground-disturbing actions in many program areas. At this programmatic planning level, these future projects are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on Ute ladies'-tresses would be avoided, minimized, or mitigated through site-specific analysis at the project level.

**The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement may affect, but will not likely adversely affect, Ute ladies'-tresses.** The estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis and mitigation would occur at the project level.

Because no suitable habitats for Ute ladies'-tresses are suspected to occur within the Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Salmon, or Shoshone Field Offices, or the Boise or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland, there would be no effects on Ute ladies'-tresses in these areas.

## DETERMINATIONS OF EFFECTS SUMMARY BY SPECIES

Species	Status <sup>16</sup>	Determination <sup>17</sup>	Rationale
Grizzly bear <i>Ursus arctos horribilis</i>	T	NLAA	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Four Rivers Field Offices, the Boise, Salmon-Challis, or Sawtooth National Forests, and the Curlew National Grassland will not affect grizzly bears because these field offices and national forests/grassland do not contain occupied habitat for grizzly bears. Similar actions occurring within the Upper Snake or Dillon Field Offices or the Beaverhead-Deerlodge or Caribou-Targhee National Forests may affect, but are not likely to adversely affect, the grizzly bear or its habitat. GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears—secure habitat, developed sites, food storage, livestock grazing, and four key food sources—are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time. Furthermore, adverse effects would likely be avoided, because site-specific analysis and mitigation would occur at the project level.
Canada lynx <i>Lynx canadensis</i>	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, Four Rivers, or Dillon Field

<sup>16</sup> E = Endangered; P = Proposed Endangered; T = Threatened; P-T = Proposed Threatened

<sup>17</sup> NE = No Effect (Will not affect the species); NLJ = Not likely to jeopardize the continued existence of the species; NLAA = May affect, but is not likely to adversely affect; NLDAM = Not likely to result in destruction or adverse modification of proposed critical habitat

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			Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Canada lynx because these field offices and national forests/grassland do not contain suitable habitat for Canada lynx.
Canada lynx critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Canada lynx designated critical habitat because these units do not contain Canada lynx designated critical habitat.
Northern Idaho ground squirrel <i>Spermophilus brunneus</i>	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Dillon Field Offices, the Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect northern Idaho ground squirrel because these field offices and national forests/grassland do not contain suitable habitat for northern Idaho ground squirrel. Similar actions occurring within the Four Rivers Field Office or Boise National Forest will not affect the northern ground squirrel or its habitat because potential habitat for northern ground squirrel within these units does not exist within sagebrush-steppe GRS habitat.
Red knot <i>Calidris canutus rufa</i>	P-T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect red knot because these field offices and national forests/grassland do

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			not contain suitable habitat for the red knot. Similar actions occurring within the Dillon Field Office will not affect the red knot or its habitat because there are no actions within this LUPA decision that would impact aquatic conditions that may serve as migratory stopover habitat for red knot. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the red knot will be made at that time (See Appendix A).
Western yellow-billed cuckoo <i>Coccyzus americanus</i>	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement and associated actions occurring on the Dillon Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, BDNF, or Curlew National Grassland will not affect the western yellow-billed cuckoo or its habitat because this field office and these national forests/grassland are either outside of the range of or are not known to contain suitable habitat for the western yellow-billed cuckoo. Similar actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Four Rivers Field Offices will not affect the western yellow-billed cuckoo or its habitat because it is unlikely that western yellow-billed cuckoos are breeding within the action area and the LUPA and EIS contain no actions that would adversely impact riparian areas. Site-specific analysis will be conducted at the project level, and a determination of effects for the yellow-billed cuckoo will be made at that time.
Western yellow-billed cuckoo critical habitat	Proposed	NLDAM	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Dillon, Jarbidge, Owyhee, Pocatello, Salmon, Upper Snake, or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect western yellow-billed cuckoo proposed critical habitat because these units do not contain yellow-billed cuckoo proposed critical habitat. Similar



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			actions occurring on the Shoshone Field Office are not likely to lead to the destruction or adverse modification of western yellow-billed cuckoo proposed critical habitat because the LUPA and EIS contain no actions that would adversely impact proposed critical habitat PCEs, and site-specific analysis will be conducted at the project level and a determination of effects for yellow-billed cuckoo proposed critical habitat will be made at that time.
Bull trout <i>Salvelinus confluentus</i>	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley Field Office, Owyhee Field Office, Pocatello Field Office Shoshone Field Office, Dillon Field Office, the Caribou-Targhee National Forest, or the Curlew National Grassland will not affect bull trout because these field offices and national forests/grassland do not contain suitable habitat for bull trout. Similar actions occurring within the Bruneau, Challis, Jarbidge, Salmon, Upper Snake, or Four Rivers Field Offices, or the Boise, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests will not affect bull trout or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in lakes, rivers, or streams occupied by bull trout (See Appendix A).
Bull trout Critical Habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley, Owyhee, Pocatello, Shoshone, or Dillon Field Offices, the Caribou-Targhee National Forest, or the Curlew National Grassland will not affect bull trout critical habitat because these field offices and national forests/grassland do not contain suitable habitat for bull trout. Similar actions occurring within the Bruneau, Challis, Jarbidge, Salmon, or Upper Snake Field Offices or the Boise, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests will not affect bull trout critical habitat because there are no actions within this LUPA decision that would impact PCE of bull trout critical habitat by altering

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			water quality or quantity or natural conditions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for bull trout critical habitat will be made at that time.
Chinook salmon <i>Oncorhynchus tshawytscha</i> Snake River spring/summer run	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Chinook salmon because these field offices and national forests/grassland do not contain suitable habitat for Chinook salmon. Similar actions occurring on the Challis and Salmon Field Offices, or the Boise, Salmon-Challis, or Sawtooth National Forests will not affect Chinook salmon or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Chinook salmon Snake River critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Spring/Summer Run Chinook salmon designated critical habitat because Chinook salmon critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, Shoshone, and Four Rivers Field Offices, and the Boise, Salmon-Challis, and Sawtooth National Forests will not affect Chinook Salmon critical habitat because there is no overlap between Chinook salmon critical habitat on these units and GRSB PHMA, GHMA, or IHMA.
Sockeye salmon <i>Oncorhynchus nerka</i> Snake River	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise,

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			Caribou-Targhee, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect sockeye salmon because these field offices and national forests/grassland do not contain suitable habitat for sockeye salmon. Similar actions occurring on the Challis and Salmon Field Offices or the Salmon-Challis or Sawtooth National Forests will not affect sockeye salmon or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Sockeye salmon Snake River critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise, Caribou-Targhee, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River sockeye salmon designated critical habitat because Snake River sockeye salmon critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, and Shoshone Field Offices and the Salmon-Challis and Sawtooth National Forests will not affect Snake River sockeye salmon critical habitat because there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.
Steelhead <i>Oncorhynchus mykiss</i> Snake River Basin	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Basin steelhead because these field offices and national forests/grassland do not contain suitable habitat for Snake River Basin steelhead. Similar actions occurring on the Challis and Salmon Field Offices or the Boise, Salmon-Challis, or Sawtooth National Forests will not affect Snake River Basin steelhead or its habitat because there are no actions within this LUPA decision that

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			would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Steelhead Snake River Basin critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Basin steelhead designated critical habitat because Snake River Basin steelhead critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests will not affect Snake River Basin steelhead critical habitat because there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.
Banbury Springs limpet <i>Lanx sp.</i>	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Upper Snake, Dillon or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Banbury Springs limpet because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring within the Shoshone Field Office will not affect the Banbury Springs limpet or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Banbury Springs limpet habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Banbury Springs limpet will be made at that time (See Appendix A).
Bliss Rapids Snail <i>Taylorconcha</i>	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated

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<i>serpenticola</i>			actions occurring on the Challis, Owyhee, Pocatello, Salmon, Upper Snake, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Bliss Rapids snail because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau, Burley, Jarbidge, Shoshone, and Four Rivers Field Offices will not affect the Bliss Rapids snail or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Bliss Rapids snail habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Bliss Rapids snail will be made at that time (See Appendix A).
Bruneau Hot springsnail <i>Pyrgulopsis bruneauensis</i>	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley, Challis, Owyhee, Pocatello, Shoshone, Salmon, Upper Snake, Dillon or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Bruneau hot springsnail because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau or Shoshone Field Offices will not affect the Bruneau hot springsnail or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause groundwater withdrawals in Bruneau hot springsnail habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Bruneau hot springsnail will be made at that time (See Appendix A).
Snake River Physa snail <i>Physa natricina</i>	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Challis, Pocatello, Salmon, Upper Snake, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis,

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			Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Physa because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Shoshone, and Four Rivers Field Offices will not affect Snake River Physa or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Snake River Physa habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for Snake River Physa will be made at that time (See Appendix A).
Slickspot peppergrass <i>Lepidium papilliferum</i>	P-E	NLJ	<p>The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to jeopardize the continued existence of slickspot peppergrass because the estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.</p> <p>Because no suitable habitats for slickspot peppergrass are suspected to occur within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices, the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass in these areas.</p>
Slickspot peppergrass critical habitat	Proposed	NLDAM	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to result in

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Species	Status <sup>16</sup>	Determination <sup>17</sup>	Rationale
			<p>destruction or adverse modification of slickspot peppergrass proposed critical habitat because the estimated effects on proposed critical habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles. Indirect negative effects may result (but are extremely unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on slickspot peppergrass proposed critical habitat from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.</p> <p>Because no slickspot peppergrass proposed critical habitat exists within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices, the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass proposed critical habitat in these areas.</p>
<p>Ute ladies'-tresses <i>Spiranthes diluvialis</i></p>	<p>T</p>	<p>NLAA</p>	<p>The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement may affect, but will not likely adversely affect, Ute ladies'-tresses because the estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided, because site-specific analysis and mitigation would occur at the project level.</p>

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<b>Species</b>	<b>Status<sup>16</sup></b>	<b>Determination<sup>17</sup></b>	<b>Rationale</b>
			Because no suitable habitats for Ute ladies'-tresses are suspected to occur within the Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Salmon, or Shoshone Field Offices, the Boise or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland, there would be no effects on Ute ladies'-tresses in these areas.



## LITERATURE CITED

Brooks, M. L., and D. A. Pyke. 2001. Invasive plants and fire in the deserts of North America. Pages 1–14 in K. E. M. Galley and T. P. Wilson (eds.). Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species. Fire Conference 2000: the First National Congress on Fire Ecology, Prevention, and Management. Miscellaneous Publication No. 11, Tall Timbers Research Station, Tallahassee, FL.

Fertig, W., R. Black, and P. Wolken. 2005. Rangewide status review of Ute Ladies'-Tresses (*Spiranthes diluvialis*). Prepared for the US Fish and Wildlife Service and Central Utah Water Conservancy District. 30 September 2005.

Fisher, H., L. Eslick, and M. Seyfried. 1996. Edaphic factors that characterize the distribution of *Lepidium papilliferum*. April 1996. Technical Bulletin No. 96-6, Idaho Bureau of Land Management, Boise, ID.

Haroldson, M. A. and C. Dickinson. 2014. Bear monitoring and population trend. Pages 5-31 in F.T van Manen, M.A. Haroldson, K. West, and S.C. Soileau, editors. Yellowstone Grizzly bear investigations: annual report of the Interagency Grizzly Bear Study Team, 2013. US Geological Survey, Bozeman, Montana.

Interagency Conservation Strategy Team (ICST). 2007. Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem.

Interagency Grizzly Bear Committee (IGBC). 1986. Interagency grizzly bear guidelines. Interagency Grizzly Bear Committee, Missoula, Montana.

\_\_\_\_\_. 1994. Interagency grizzly bear nuisance bear guidelines. Interagency Grizzly Bear Committee, Missoula.

Interagency Grizzly Bear Study Team (IGBST). 2012a. 2011 annual report summary. Internet website: <http://www.nrmssc.usgs.gov/files/norock/products/IGBST/2011Summary.pdf>.

\_\_\_\_\_. 2012b. Updating and evaluating approaches to estimate population size and sustainable mortality limits for grizzly bears in the Greater Yellowstone Ecosystem. Interagency Grizzly Bear Study Team, US Geological Survey, northern Rocky Mountain Science Center, Bozeman, Montana, USA.

\_\_\_\_\_. 2013. 2012 annual report summary. Internet website: <http://www.nrmssc.usgs.gov/files/norock/products/IGBST/2012Summary.pdf>.

\_\_\_\_\_. 2014. 2013 annual report summary. Internet website: <http://www.nrmssc.usgs.gov/files/norock/products/IGBST/2013Summary.pdf>.

Biological Assessment for the Idaho and Southwestern Montana Greater Sage-Grouse  
Land Use Plan Amendment and Environmental Impact Statement

Menke, C. A., and T. N. Kaye. 2006. *Lepidium papilliferum* (slickspot peppergrass) habitat integrity index data analysis (1998-2001). Final Report. March 2006. Cooperative project between the Bureau of Land Management, Idaho Department of Fish and Game, and the Institute for Applied Ecology. 22 pp.

Meyer, S. E., D. L. Quinney, and J. Weaver. 2005. A life history study of the Snake River Plains endemic *Lepidium papilliferum* (Brassicaceae). *Western North American Naturalist*. 65(1):11-23.

MT FWP (Montana Fish, Wildlife, and Parks). 2002 Southwest Montana State Grizzly Management Plan. Montana Fish, Wildlife and Parks, Helena, MT

Moseley, R. K. 1994. Report on the conservation status of *Lepidium papilliferum*. Idaho Conservation Data Center, Idaho Department of Fish and Game. Status Survey Report prepared for Idaho Department of Parks and Recreation through Section 6 funding from US Fish and Wildlife Service. Region 1.

NOAA Fisheries. 2014. Pacific salmonids: major threats and impacts. Internet website: <http://www.nmfs.noaa.gov/pr/species/fish/salmon.htm>. Accessed on November 1, 2014.

Robertson, I. C., and D. K. Klemash. 2003. Insect-mediated pollination in slickspot peppergrass, *Lepidium papilliferum* L. (Brassicaceae), and its implications for population variability. Department of Biology, Boise State University, Boise, Idaho. *Western North American Naturalist*. 63(3):333-342.

Sipes, S. D., and V. J. Tepedino. 1995. Reproductive biology of the rare orchid, *Spiranthes diluvialis*: breeding system, pollination, and implications for conservation. *Conservation Biology* 9(4): 929-938.

Forest Service (US Department of Agriculture Forest Service). 2006. Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests. Record of Decision.

\_\_\_\_\_. 2012. Supplemental Biological Assessment for the Grizzly Bear on the Beaverhead-Deerlodge National Forest Service 2009 Revised Beaverhead-Deerlodge Forest Plan.

BLM (US Department of the Interior, Bureau of Land Management). 1985. Medicine Lodge Resource Management Plan. Idaho Falls District, ID.

\_\_\_\_\_. 2004. Biological Assessment Bureau of Land Management Dillon Resource Management Plan Threatened, Endangered, Proposed and Candidate Species. Dillon Field Office. Dillon, Montana.

Biological Assessment for the Idaho and Southwestern Montana Greater Sage-Grouse  
Land Use Plan Amendment and Environmental Impact Statement

\_\_\_\_\_. 2006. Record of Decision and Approved Dillon Resource Management Plan. Dillon Field Office. Dillon, Montana.

\_\_\_\_\_. 2012. Summary of survey results for slickspot peppergrass on the Bruneau Field Office. Unpublished report on file at Bureau of Land Management, Boise District, Boise, Idaho.

\_\_\_\_\_. 2014. Conservation Agreement: Idaho Bureau of Land Management Existing Land Use Plans and On-going Actions Affecting Slickspot Peppergrass. Memorandum of Understanding between US Bureau of Land Management, Idaho State Office, and US Fish and Wildlife Service, Idaho Fish and Wildlife Office. September, 2014.

USFWS. 1992. Endangered and Threatened Wildlife and Plants; Final Rule to List the Plant *Spiranthes Diluvialis* (Ute Ladies'-Tresses) as a Threatened Species. Federal Register Vol. 57, No. 12. January 17, 1992.

\_\_\_\_\_. 1993. Grizzly bear recovery plan. Missoula, MT. Available online:  
[http://www.fws.gov/mountain-prairie/species/mammals/grizzly/Grizzly\\_bear\\_recovery\\_plan.pdf](http://www.fws.gov/mountain-prairie/species/mammals/grizzly/Grizzly_bear_recovery_plan.pdf)

\_\_\_\_\_. 1998. Endangered Species Act Consultation Handbook; Procedures for Conducting Section 7 Consultations and Conferences. US Fish and Wildlife Service National Marine Fisheries Service. March 1998. Available online: [https://www.fws.gov/ENDANGERED/esa-library/pdf/esa\\_section7\\_handbook.pdf](https://www.fws.gov/ENDANGERED/esa-library/pdf/esa_section7_handbook.pdf)

\_\_\_\_\_. 2004a. Biological Opinion on the Effects of the Bureau of Land Management Resource Management Plan for the Dillon Field Office on Grizzly Bears.

\_\_\_\_\_. 2004b. Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to Delist the Ute Ladies'-Tresses Orchid and Initiation of a 5-Year Review. Federal Register Vol. 69, No. 196. October 12, 2004.

\_\_\_\_\_. 2009a. Endangered and Threatened Wildlife and Plants; Listing *Lepidium papilliferum* (Slickspot Peppergrass) as a Threatened Species Throughout its Range. Federal Register Vol. 74, No. 194. October 8, 2009.

\_\_\_\_\_. 2009b. Biological Opinion for the Jarbidge Resource Management Plan, Kuna Management Framework Plan, Cascade Resource Management Plan, and Snake River Birds of Prey National Conservation Area Resource Management Plan for the Bureau of Land Management, Idaho. US Fish and Wildlife Service, Idaho Fish and Wildlife Office, Boise, Idaho. November 30, 2009.

\_\_\_\_\_. 2010a. Endangered Species Act Section 7 Consultation Draft Biological Opinion on the Effects of the Revised Land and Resource Management Plan (2008) for the Beaverhead-Deerlodge National Forest on Grizzly Bears.

Biological Assessment for the Idaho and Southwestern Montana Greater Sage-Grouse  
Land Use Plan Amendment and Environmental Impact Statement

\_\_\_\_\_. 2010b. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States; Final Rule. Federal Register (75)200:63898-64070. October 18, 2010.

\_\_\_\_\_. 2011. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Lepidium papilliferum* (Slickspot Peppergrass); Proposed Rule. Federal Register Vol. 76, No. 90. May 10, 2011.

\_\_\_\_\_. 2013a. Grizzly Bear Recovery Plan Draft Revised Supplement: Revised Demographic Recovery Criteria for the Yellowstone Ecosystem.

\_\_\_\_\_. 2013b. Endangered Species Act Section 7 Consultation, Supplement to the Biological Opinion (2010) on the Effects of the 2009 Revision of the Beaverhead-Deerlodge National Forest Land and Resource Management Plan on Grizzly Bears, Beaverhead-Deerlodge National Forest. File: M19 Beaverhead-Deerlodge National Forest (06E11000-2012-F-0352 Revised Forest Plan). Ecological Services, Montana Field Office. Helena, Montana.

\_\_\_\_\_. 2013c. Endangered and threatened wildlife and plants; proposed threatened status for the western distinct population segment of the yellow-billed cuckoo (*Coccyzus americanus*); proposed rule. Federal Register (78)192:61622-61666. October 3, 2014.

\_\_\_\_\_. 2014a. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Lepidium papilliferum* (Slickspot Peppergrass); Revised Proposed Rule. Federal Register Vol. 79, No. 29. February 12, 2014.

\_\_\_\_\_. 2014b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo; Proposed Rule. Federal Register Vol. 79, No. 158:48548-48652. August 15, 2014.

\_\_\_\_\_. 2014c. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (*Coccyzus americanus*); Final Rule. Federal Register Vol. 79, No. 192:59992-60038. October 3, 2014.

\_\_\_\_\_. 2014d. Species Profile for Ute ladies'-tresses (*Spiranthes diluvialis*). Environmental Conservation Online System. US Fish and Wildlife Service. Updated August 12, 2014.

## **APPENDIX A: Additional Rationale for No Effect Determinations for Select Species or Groups of Species in Tables 2 and 3**

### **Canada Lynx**

#### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

Canada lynx and its habitat will not be affected by this project. In Table 2, the BLM Field Offices: Challis, Salmon, Shoshone, and Dillon indicate that Canada lynx have either been documented or suspected to occur within those units. Table 3 indicates that Canada lynx have been documented on the Boise, Caribou-Targhee, and Sawtooth National Forests. The Caribou, Beaverhead-Deerlodge, and Salmon-Challis National Forests are mapped as secondary, unoccupied habitat, while most of the Targhee National Forest is secondary habitat but is considered occupied habitat. Sagebrush habitat is not considered a primary or secondary habitat for Canada lynx in Idaho or Southwestern Montana. Therefore, there are no actions within this LUPA decision that will affect habitat quality or availability. Potential beneficial effects are possible from improved conditions of connective habitat as well as reducing or co-locating anthropogenic disturbances for Canada lynx. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for Canada lynx will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Canada lynx or its habitat.

#### ***Discussion and Determination***

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the Canada lynx or its habitat. No suitable habitat occurs within the action area. The reported sightings within the action area are located outside of PHMA, GHMA, or IHMA. There are no actions within this LUPA decision that will affect Canada lynx suitable habitat quality or availability. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for Canada lynx will be made at that time.

### **Canada Lynx Designated Critical Habitat**

#### ***Environmental Baseline***

No overlap occurs between designated critical habitat and PHMA, GHMA, or IHMA. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect designated critical habitat for Canada lynx.

## Idaho / SW Montana Greater Sage-grouse EIS Canada Lynx Designated/Proposed Critical Habitat

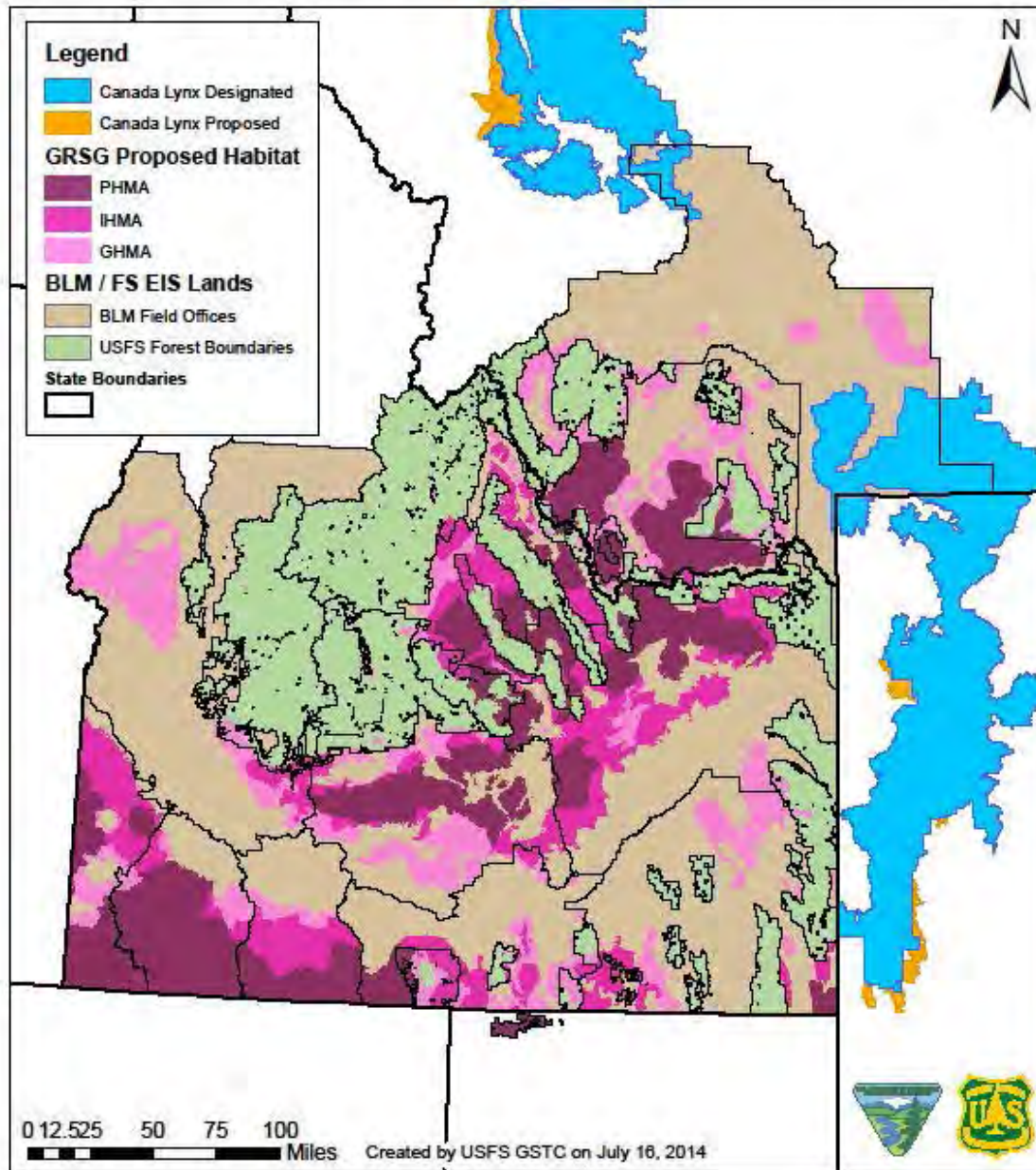


Figure 13. Canada lynx designated and proposed critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

### ***Discussion and Determination***

Canada lynx critical habitat will not be affected by this project. No overlap occurs between designated critical habitat and PHMA, GHMA, or IHMA. Therefore, the actions within this LUPA decision will not impact PCE of Canada lynx critical habitat by altering natural conditions. The Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Canada lynx critical habitat.

### **Red Knot**

#### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

The red knot is a migrant shorebird that breeds in the Canadian Arctic and winters in South America. Within the action area, it is known only to occur as a rare migrant stopover in Madison County, Montana. Only one sighting has been reported within the Montana portion of the action area (Dillon Field Office), presumably during migration; the reported site location does not coincide with mapped GRSG PHMA, GHMA, or IHMA. Neither the red knot nor suitable habitat for the red knot is known or suspected to be present in the remaining units occurring within the action area: Bruneau Field Office, Burley Field Office, Challis Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office Shoshone Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, or BDNF. Critical habitat has not been proposed or designated for the red knot.

### ***Discussion and Determination***

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the red knot or its habitat. No breeding or wintering habitat occurs within the action area. The only reported sighting within the action area was outside of PHMA, GHMA, or IHMA. There are no actions within this LUPA decision that will affect aquatic habitat quality or availability. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for red knot will be made at that time.

### **Western Yellow-billed Cuckoo**

#### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

The western DPS of the yellow-billed cuckoo (*Coccyzus americanus*) was federally listed as threatened by the USFWS on October 3, 2014; the ruling became effective November 3, 2014 (USFWS 2014c). The western yellow-billed cuckoo is not known or suspected to be present on the following units within the action area: Dillon Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, or BDNF. The following units either contain suitable habitat and/or documented sightings for the yellow-billed cuckoo: Bruneau Field Office, Burley Field Office, Challis Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office Shoshone Field Office, Upper Snake Field Office, and Four Rivers Field Office. The western yellow-billed cuckoo requires large blocks of riparian woodlands within low to moderate elevation in arid to semiarid landscapes.

### ***Discussion and Determination***

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the yellow-billed cuckoo or its habitat; the LUPA and EIS contain no actions that will adversely impact riparian areas and, if anything, conservation measures that maintain or improve riparian habitat, such as maintaining proper functioning condition, will inadvertently benefit yellow-billed cuckoo and its habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the yellow-billed cuckoo will be made at that time.

### **Western Yellow-billed Cuckoo Proposed Critical Habitat**

#### ***Environmental Baseline and Threats***

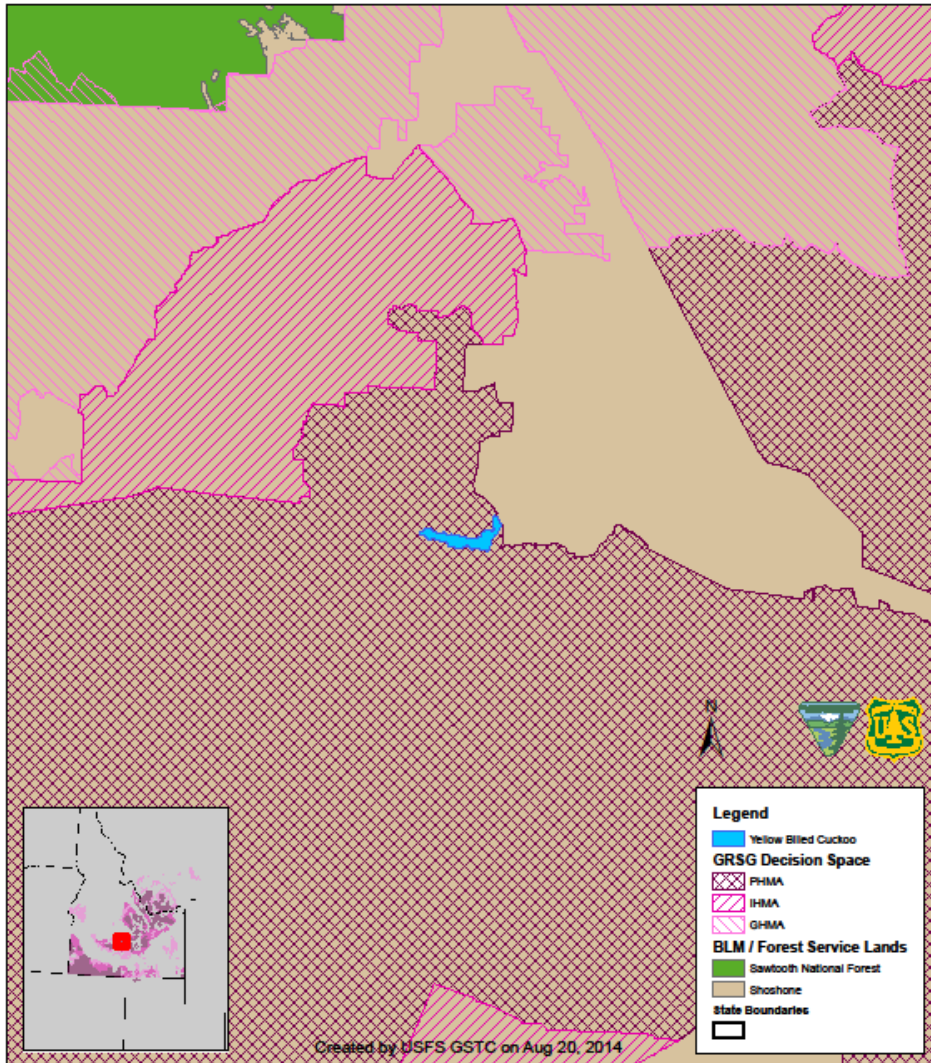
Critical habitat for the western DPS of the yellow-billed cuckoo was proposed on August 15, 2014 (USFWS 2014b). The Shoshone Field Office is the only unit within the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision action area that contains proposed critical habitat for the western yellow-billed cuckoo; 405 acres of proposed western yellow-billed cuckoo critical habitat overlap with GRSG PHMA (Figure 14).

PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches greater than 325 feet wide and 200 acres or greater in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; and 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes.

The primary threats to the yellow-billed cuckoo result from habitat destruction, modification, and degradation from dam construction and operations; water diversions; river flow management; stream channelization and stabilization; conversion to agricultural uses; urban and transportation infrastructure; and increased incidence of wildfire (USFWS 2013c).



## Idaho / SW Montana Greater Sage-grouse EIS Yellow Billed Cuckoo Proposed Critical Habitat



**Figure 14. Yellow-billed cuckoo proposed critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.**

### *Discussion and Determination*

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect yellow-billed cuckoo proposed critical habitat; the LUPA and EIS contain no actions that will adversely impact proposed critical habitat PCEs and, if anything, conservation measures that maintain or improve riparian habitat, such as maintaining proper functioning condition, will inadvertently benefit western yellow-billed cuckoo proposed critical habitat. In addition, site-specific analysis will be conducted at the

project level, and a determination of effects for yellow-billed cuckoo proposed critical habitat will be made at that time.

## **Bull trout**

### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

Bull trout have been documented and bull trout critical habitat is present within the following units in the action area: Bruneau Field Office, Challis Field Office, Jarbidge Field Office, Salmon Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Salmon-Challis National Forest, Sawtooth National Forest, and BDNF. Neither bull trout nor bull trout habitat is known to be present on the Burley Field Office, Owyhee Field Office, Pocatello Field Office, Shoshone Field Office, Dillon Field Office, or Caribou-Targhee National Forest. Declines in bull trout distribution and abundance are the results of combined effects of the following: habitat degradation and fragmentation, the blockage of migratory corridors, poor water quality, angler harvest and poaching, entrainment (process by which aquatic organisms are pulled through a diversion structure or other device) into diversion channels and dams, and introduced nonnative species. Land and water management activities that continue to depress bull trout populations and degrade habitat include dams and other diversion structures, forest management practices, livestock grazing, agriculture, road construction and maintenance, mining, and urban and rural development.

### ***Discussion and Determination***

Bull trout and bull trout habitat will not be affected by this project. There are no actions within this LUPA decision that will degrade or fragment bull trout habitat, block migratory corridors, decrease water quality or availability, affect vulnerability to angler harvest or poaching, alter the distribution of nonnative fish species, or authorize livestock grazing, habitat-altering forest management practices, road construction and maintenance, mining, or development. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for bull trout will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect bull trout or its habitat.

## **Bull Trout Designated Critical Habitat**

### ***Environmental Baseline and Threats***

Bull trout critical habitat is present within the following units in the action area: Bruneau Field Office, Challis Field Office, Jarbidge Field Office, Salmon Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Salmon-Challis National Forest, Sawtooth National Forest, and BDNF. On the Boise National Forest, 4 miles of bull trout critical habitat overlap with GRSG GHMA and 2 miles of critical habitat overlap with GRSG IHMA. On the Bruneau Field Office, only 1 mile of critical habitat overlaps with IHMA. On the Challis National Forest, bull trout critical habitat overlaps with GRSG PHMA (33 miles), GHMA (105 miles), and IHMA (115 miles). On the Jarbidge Field Office, bull trout critical habitat overlaps with GRSG habitat by the following amounts: 31 miles (PHMA), 5 miles (GHMA), and 16 miles (IHMA). On the Salmon Field Office, bull trout critical habitat overlaps with GRSG PHMA (21 miles), GHMA (7 miles), and IHMA (6 miles). Bull trout critical habitat overlaps with GRSG

habitat on the Salmon-Challis National Forest: PHMA (11 miles), GHMA (2 miles), and IHMA (25 miles). Bull trout critical habitat overlaps with 30 miles of GHMA on the Sawtooth National Forest, 8 miles of GHMA on the Shoshone Field Office, and 10 miles of PHMA on the Upper Snake Field Office (Figure 15).

PCEs of bull trout habitat (USFWS 2010b) include:

*(1) Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia. (2) Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers. (3) An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish. (4) Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure. (5) Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence. (6) In spawning and rearing areas, substrate of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. A minimal amount of fine sediment, generally ranging in size from silt to coarse sand, embedded in larger substrates, is characteristic of these conditions. The size and amounts of fine sediment suitable to bull trout will likely vary from system to system. (7) A natural hydrograph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, minimal flow departure from a natural hydrograph. (8) Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited. (9) Sufficiently low levels of occurrence of nonnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout.*

Threats to bull trout critical habitat include threats to water quality, water diversion, and reservoir development, and alterations to natural habitat conditions that increase nonnative species. Suspended sediment and environmental contaminants can increase turbidity and impact salmonids and their prey, affect swimming, feeding, or gill function by reducing visibility and ability to pursue prey, and by interrupting proper physiological gill function. Water diversion and reservoir development can reduce stream flow, reduce the amount of water available in a stream channel, change water quality, and alter groundwater regimes. These changes may collectively impact habitat and passage for bull trout, and can cause increases in water temperatures. Alterations to natural habitat conditions may also increase nonnative species predation and competition, which can significantly affect bull trout populations. Depending on local conditions,

bull trout recovery may be either reduced or precluded by the presence of nonnative and competitive species.

***Discussion and Determination***

Bull trout critical habitat will not be affected by this project. There are no actions within this LUPA decision that will impact PCEs of bull trout critical habitat by altering water quality or quantity or natural conditions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for bull trout critical habitat will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect bull trout critical habitat.

## Idaho / SW Montana Greater Sage-grouse EIS Bull Trout Designated Critical Habitat

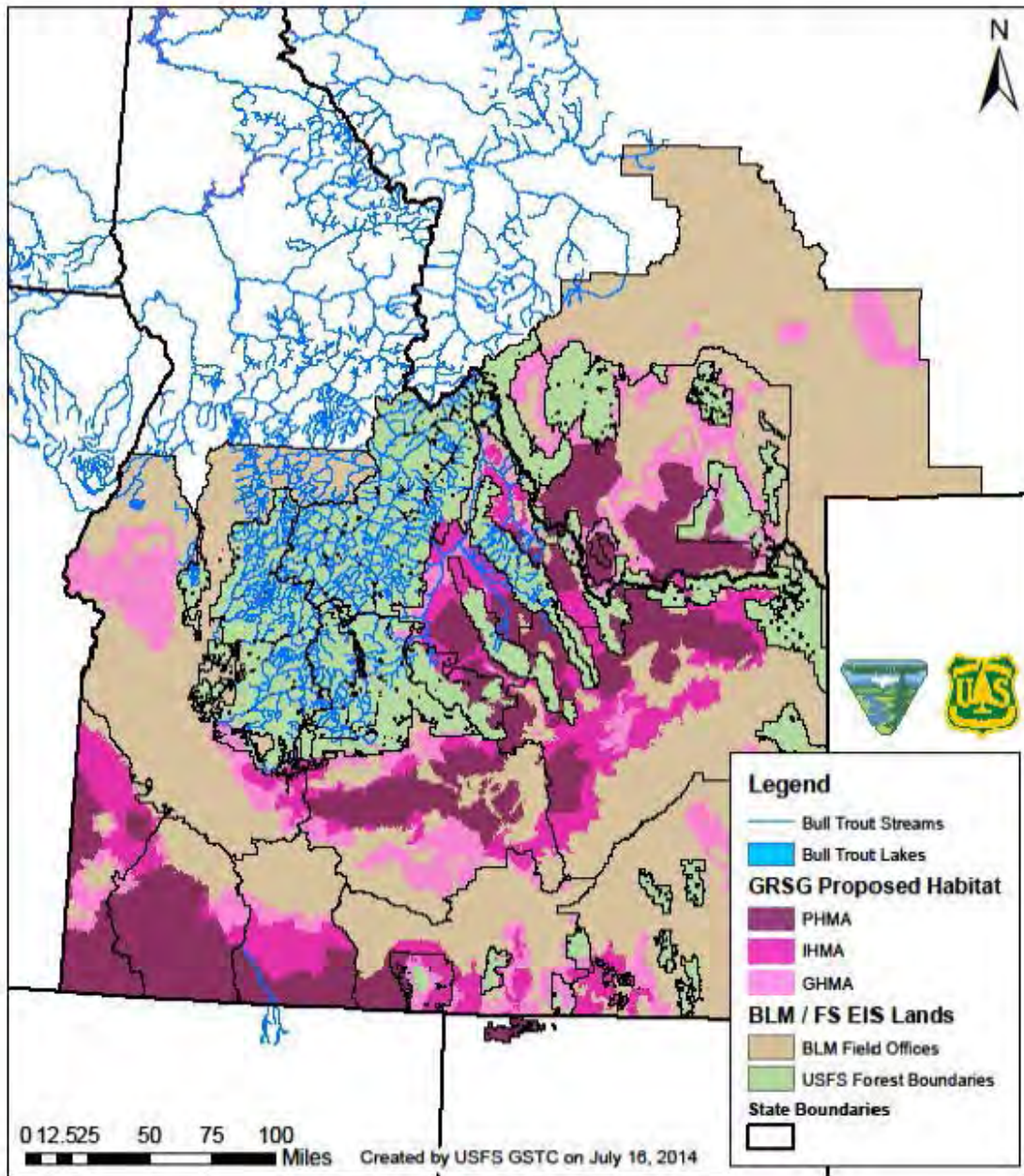


Figure 15. Bull trout designated critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

## **Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead)**

### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

Snake River Spring/Summer Run Chinook salmon are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Boise, Salmon-Challis, and Sawtooth National Forests. This ESU, includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/summer-run Chinook salmon from 11 artificial propagation programs. Although critical habitat has been designated for this species, there is no overlap of critical habitat with the action area (see below). Critical habitat PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors.

Snake River sockeye salmon are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Salmon-Challis and Sawtooth National Forests. This ESU, includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River Basin, and also sockeye salmon from one artificial propagation program. Critical habitat PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors.

Snake River Basin steelhead are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Boise, Salmon-Challis, and Sawtooth National Forests. DPS, includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Snake River Basin, and also steelhead from six artificial propagation programs. Critical habitat PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation.

There is no single factor solely responsible for the decline of Salmonid species on the West Coast of the United States. Factors include reduction or elimination of habitat by water storage, withdrawal, conveyance, and diversions for agriculture, flood control, domestic, and hydropower purposes; modification of natural flow regimes that have increased water temperatures, changed fish community structures, depleted flows necessary for migration, spawning, rearing, flushing of sediments from spawning gravels, gravel recruitment, and transport of large woody debris; natural resource use and extraction leading to habitat modification; recreational and commercial fishing; introduction of nonnative species and modification of habitat that increase predator populations and salmonid predation in river and estuarine systems; natural environmental conditions such as flooding and persistent drought conditions that have reduced already limited spawning, rearing, and migration habitat; climatic shifts over a decadal time scale that appear to have resulted in decreased ocean productivity; and competition, genetic introgression, and disease transmission resulting from hatchery introductions (NOAA Fisheries 2014).

### ***Discussion and Determination***

Snake River endangered and threatened fish species will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause water depletions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for federally listed Snake River salmonids will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Snake River Spring/Summer Run Chinook salmon, Snake River sockeye salmon, Snake River Basin steelhead, or their habitats.

### **Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead) Critical Habitats**

#### ***Environmental Baseline and Threats***

Although Snake River Spring/Summer Run Chinook salmon designated critical habitat occurs on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

Although Snake River sockeye salmon designated critical habitat occurs on the Challis, Salmon, and Shoshone Field Offices and the Salmon-Challis and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

Although Snake River Basin steelhead critical habitat occurs on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

### ***Discussion and Determination***

Critical habitat for Snake River Spring/Summer Run Chinook Salmon, Snake River Sockeye Salmon, and Snake River Basin Steelhead will not be affected by this project because the Idaho-Southwestern Montana LUPA decision action area does not overlap critical habitats for these species.

### **Middle Snake River Snails (Banbury Springs limpet, Bliss Rapids snail, Snake River Physa)**

#### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

The Banbury Springs limpet is only known to occur in four isolated springs in a small area along the Middle Snake River. It inhabits spring run habitats with well oxygenated water on boulder or cobble substrates. Within the action area, it only occurs on the Shoshone Field Office.

The Bliss Rapids snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley. Within the action area, it occurs on the Bruneau Field Office, Burley Field Office, Jarbidge Field Office, Shoshone Field Office, and Four Rivers Field Office.

The Snake River Physa occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River. Within the action area, it occurs in the following field offices: Bruneau, Burley, Jarbidge, Owyhee, Shoshone, and Four Rivers.

Critical habitat has not been proposed or designated for the Banbury Springs limpet, Bliss Rapids Snail, or Snake River Physa. Water depletions, water level fluctuations, and effects on water quality in the Middle Snake River and its tributaries are the major threats to these species.

#### ***Discussion and Determination***

Snake River endangered and threatened snails will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause water depletions in these drainages. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for federally listed snails in the Middle Snake River will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect the Banbury Springs limpet, Bliss Rapids snail, Snake River Physa, or their habitats.

#### **Bruneau Hot Springsnail**

##### ***Environmental Baseline, Critical Habitat, and Threats to the Species***

The Bruneau hot springsnail is found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders. Within the action area, the Bruneau hot springsnail only occurs on the Bruneau and Jarbidge Field Offices.

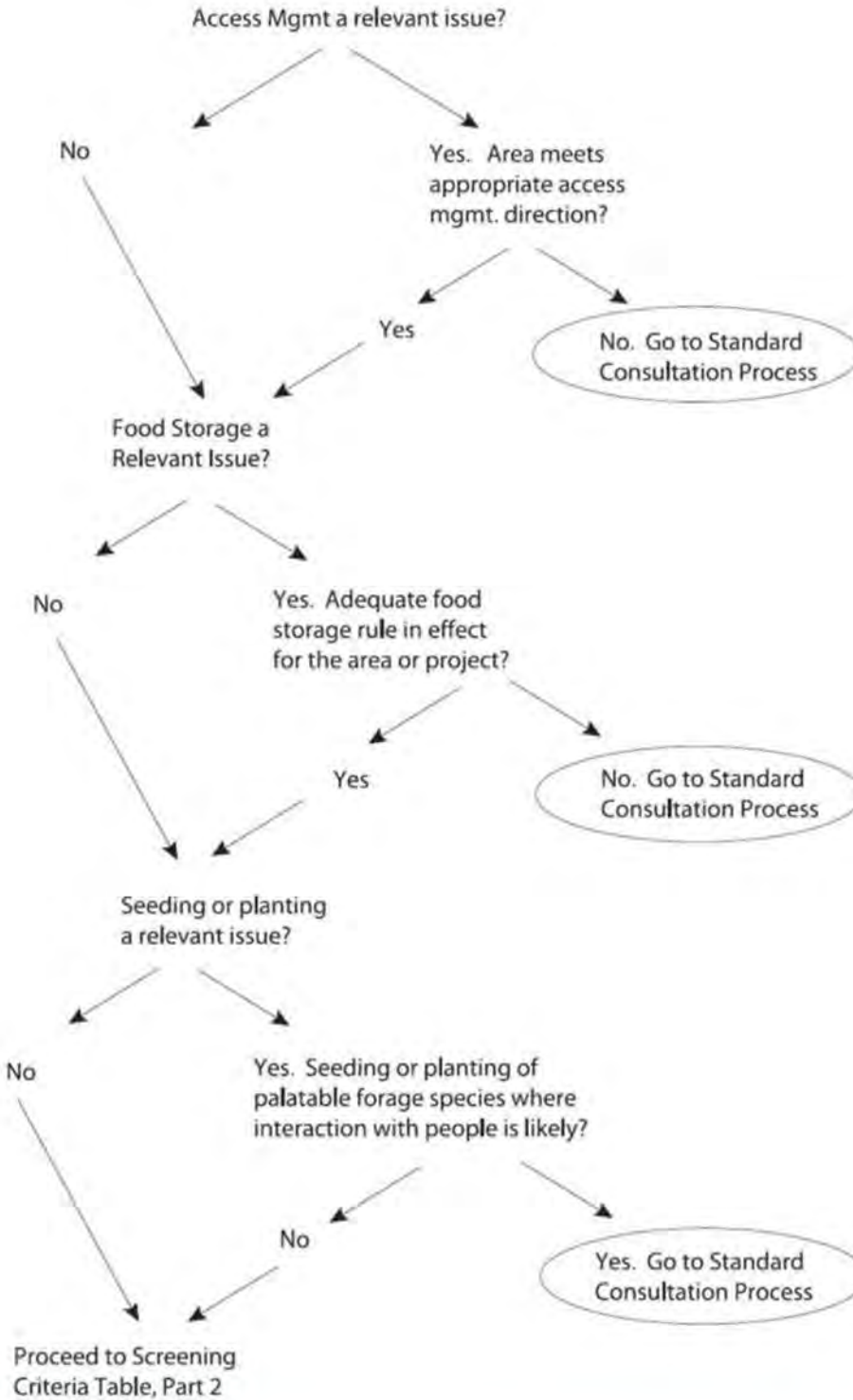
Critical habitat has not been proposed or designated for the Bruneau hot springsnail. The principal threat to this species is the reduction and/or elimination of its geothermal habitats as a result of groundwater withdrawal.

#### ***Discussion and Determination***

Bruneau hot springsnail will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause groundwater withdrawals. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for Bruneau hot springsnail will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect the Bruneau hot springsnail or its habitats.



## APPENDIX B: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 1



## APPENDIX C: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 2

**Part 2:** The following Screening Criteria Table displays activities and criteria, that when met, will allow the project to meet "screening elements". If the project does not meet the identified criteria, the project should proceed through the established consultation process.

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
1	Forest Products	Personal use firewood collection, berry picking, low/incidental mushroom picking, and collection of "other forest products" (such as bear grass greens, medicinal herbs, pachistima, etc)	Day and overnight use	Does not include off road mechanical skidding. Include "bear aware" education message	NLAA
		Commercial firewood collection, berry picking, and "other forest products" (such as bear grass greens, medicinal herbs, pachistima, etc), but does not include mushrooms.	Day use only or camping of $\leq 20$ individuals and $\leq 5$ days total/analysis area	Does not include off road mechanical skidding. Enforce sanitation standards, and Include "bear aware" education message.	NLAA
2	Mechanical	Off road heavy equip operation, such as site prep, fuel piling, log yarding, etc	NA	NA	Potential LAA, go to Standard Consultation process
		Helicopter use for monitoring, prescribed fire ignition, wildlife relocations, etc	Use includes few trips and $\leq 2$ activities/year and $\leq 2$ days/activity/analysis area	NA	NLAA
3	Habitat Restoration	See timber harvest, mechanical treatments, roads, weed control, and prescribed fire. Also includes monitoring, exclosure development, fish barrier development, fish spp removal/trapping, rotenone treatment, interpretation/Con Ed, meadow restoration, riparian planting and restoration, snag creation, and water source development.	Day use only or camping of $\leq 20$ individuals and $\leq 5$ days/analysis area	Project occurs between July 1 through March 31 or completed in $\leq 1$ day in riparian areas. Project does not result in an increase in public use or user type.	NLAA
4	Prescribed Fire	General support, ignition, mop-up	Day use only or camping of $\leq 20$ individuals and $\leq 5$ days/analysis area	Does not include riparian areas	NLAA
		Fire line construction	Same as support	Fire line does not/will not function as a travel way	NLAA
		Defensible space treatments (within 100m of structure)	Same as support	Planting and/or seeding does not include palatable forage spp.	NLAA
5	Range	Infrastructure development	NA	NA	NLAA
		Grazing		Maintains or reduces existing livestock grazing or changes livestock class to a less vulnerable spp, and no history of depredation or control actions	NLAA

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#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
		Grazing		Increases livestock grazing, introduces new grazing into areas where depredation more likely, or history of livestock depredation	Potential LAA, go to Standard Consultation process
6	Recreation	Trail maintenance or reconstruction	NA	Results in increased use or change of user type	Potential LAA, go to Standard Consultation process
		Trail maintenance or reconstruction		Does not result in increase in use or change in user type	NLAA
		New Trail construction			Potential LAA, go to Standard Consultation process
		Facility operations, including developed and dispersed camping		Educate public campers and enforce sanitation standards. Does not increase use or change user type	NLAA
		Facility operations, including developed and dispersed camping		Sanitation standards are not enforced or use is increased or user type is changed.	Potential LAA, go to Standard Consultation process
7	Roads & Road Maintenance	Opening closed road			Potential LAA, go to Standard Consultation process
		Reclaiming road outside of riparian/spring habitat		Meets administrative use levels	NLAA
		Reclaiming road in riparian spring hab		Project occurs between July 1 through March 31 or completed in $\leq 1$ day, and meets administrative use levels	NLAA
		Reclaiming road		Does not meet administrative use levels, or occurs in riparian/spring habitat and active during 4/1-6/30	Potential LAA, go to Standard Consultation process
		Road Maint: blading, culvert cleaning, brushing, etc		Road is open, or use meets administrative use criteria	NLAA
		New road construction			Potential LAA, go to Standard Consultation process

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#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
		Bridge or stream culvert replacement		Project occurs between July 1 through March 31 or completed in $\leq 1$ day	NLAA
8	Silviculture Activities	Reforestation hand planting	Day use only or camping of $\leq 20$ individuals and $\leq 5$ days/analysis area	Does not include snow plowing for access	NLAA
		Reforestation mechanical treatments	NA	NA	Potential LAA, go to Standard Consultation process
		Insect suppression Aerial chemical application	NA	Chemicals do not effect cutworm moth or habitat	NLAA
		Insect suppression Aerial chemical application	NA	Chemicals affect cutworm moth or habitat, and in moth habitat	Potential LAA, go to Standard Consultation process
		Insect suppression ground chemical application	NA	NA	NLAA
		Insect suppression survey, fertilization, manual treatment, individual tree fire treatment, or pheromone treatment	NA	NA	NLAA
		Precommercial thinning			Potential LAA, go to Standard Consultation process
9	Timber harvest	Harvest, skidding, and/or hauling of timber products	NA	NA	Potential LAA, go to Standard Consultation process
10	Watershed restoration	Includes erosion control structures, sediment control, monitoring. Also, see reforestation, timber harvest, mechanical treatments, etc.	Day use only or camping of $\leq 20$ individuals and $\leq 5$ days/analysis area	Project occurs between July 1 through March 31 or completed in $\leq 1$ day	NLAA
11	Weed control	Chemical, aerial or ground application	NA	NA	NLAA
		Sheep or goat grazing	NA	NA	Potential LAA, go to Standard Consultation process

## APPENDIX D: BLM Proposed Plan Amendment

The Proposed Plan represents a management strategy to address GRSG, their habitat and associated threats within the Idaho and Southwestern Montana Sub-region. The Plan has been developed through a coordinated partnership of BLM, Forest Service, the States of Idaho and Montana and the USFWS.

The Plan incorporates appropriate conservation measures to conserve, enhance, and restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Plan is also consistent with the objectives described in the USFWS Conservation Objectives Team Report (USFWS 2013) to: ‘Conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future...’ through ‘Maintaining viable, connected, and well-distributed populations and habitats across [the range of GRSG], through threat amelioration, conservation of key habitats, and restoration activities’.

To achieve these objectives the Plan includes a combination of: goals and objectives including vegetation/habitat management objectives to be applied during project development and implementation (FEIS Table); land allocation decisions (FEIS Table); delineation of five Conservation Areas (FEIS Figure) to support evaluation of the adaptive management strategy and 3 percent anthropogenic disturbance cap; delineation of PHMA, IHMA, and GHMA (FEIS Figure) with associated program management direction; a mitigation framework and strategy; development of Wildfire and Invasive Species Assessments; and associated monitoring to support these decisions.

The decisions described in this Plan apply to BLM lands in both Montana and Idaho unless identified differently. Several notable differences include the Adaptive Management Strategy and the Disturbance Density evaluation. In both cases Idaho and Southwestern Montana have separate approaches which are described in the applicable sections. Southwestern Montana’s approach in both cases is the same as the approaches being applied in the rest of Montana, this supports a consistent approach within the entire state that can be implemented in coordination with State and Federal partners.

The proposed plan incorporates the following GRSG goals:

- GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
- GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies’ direction for multiple use and sustained yield as described in FLPMA and the NFMA.
- GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.

**Table 2-9**  
**Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary<sup>1</sup>**

PHMA	IHMA	GHMA
<b>Solar/Wind/Nuclear/Hydropower</b>		
Exclusion (LR-2)	Avoidance (LR-2)	Idaho: Open (LR-2) Montana: Avoidance
<b>Commercial Service Airports</b>		
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
<b>Landfills</b>		
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
<b>Utility Corridors</b>		
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain “open” (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as PHMA (LR-7)	Same as PHMA (LR-7)
<b>ROWs and Land Use Authorizations/Permits – High Voltage Transmission Lines and Large Pipelines</b>		
Avoidance (LR-1)	Avoidance (LR-1)	Idaho: Open (LR-1) Montana: Avoidance
<b>ROWs and Land Use Authorizations/Permits – Minor ROWs</b>		
Avoidance (LR-1)	Avoidance (LR-1)	Open (LR-1)
<b>Land Tenure Adjustments</b>		
Retention with exceptions for exchange; available for exchange with no net loss of GRSG Key habitat within PHMA and IHMA. Not available for disposal. (LR-14)	Same as PHMA (LR-14)	Available for exchange only
<b>Fluid Mineral Resource Allocation (Includes Geothermal)</b>		
Idaho and Montana: Open subject to No Surface Occupancy (NSO) without waiver, or	Idaho: Open subject to NSO with a limited exception. Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to Controlled Surface Use and Timing Limitations (FLM-1)

**Table 2-9**  
**Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary<sup>1</sup>**

<b>PHMA</b>	<b>IHMA</b>	<b>GHMA</b>
modification. (FLM-1)		
<b>Locatable Minerals</b>		
Areas not previously withdrawn are open.	Same as PHMA.	Same as PHMA.
<b>Non-Energy Leasables</b>		
Closed to leasing. (NEL-1) There are no Known Phosphate Leasing Areas (KPLAs) in PHMA.	KPLAs are Open subject to standard leasing stipulations. Areas outside KPLAs are Open subject to standard and GRSG stipulations (required design features, seasonal timing restrictions). (NEL-1)	Open to leasing with standard and GRSG stipulations (required design features and seasonal timing restrictions) (NEL-1)
<b>Mineral Materials (Salable Minerals)</b>		
Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to Anthropogenic Disturbance Criteria (AD-4). Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
<b>Travel Management</b>		
BLM Idaho: Limited to Existing (TM-1) BLM Montana: Limited to Designated (Decisions described in Dillon RMP)	BLM: Limited to Existing (TM-1)	BLM: Limited to Existing (TM-1) BLM Montana: Limited to Designated (Decisions described in Dillon RMP)

- GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and Forest Service management actions.
- GOAL-5: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners.

***Special Status Species***

*Objectives*

- MA-OBJ-1 (Management Area – Objective): Maintain a resilient population of GRSG in Idaho and Southwestern Montana.
- MA-OBJ-2: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.
- MA-OBJ-3: Identify and strategically protect larger intact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.
- HM-OBJ-1 (Habitat Management): Maintain or make progress toward at least 70 percent of lands within PHMAs and IHMAs capable of producing sagebrush at 10 to 30 percent canopy cover and conifers absent to uncommon within 1.86 miles of occupied leks.
- HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 2-3) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species or at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:

- A specific objective is not applicable to the site-specific conditions of the project or activity;

- An alternative objective is determined to provide equal or better protection for GRSG or its habitat (based on appropriate scientific findings); or

- Analysis concludes that following a specific objective would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

**Table 2-10  
Seasonal Habitat Desired Conditions for GRSG**

Attribute	Indicator	Desired Condition	Reference
<b>BREEDING HABITAT (LEK AND NESTING/EARLY BROOD REARING)</b>			
<b>Breeding and Nesting (Seasonal Use Period March 1 – June 15)</b>			



**Table 2-10**  
**Seasonal Habitat Desired Conditions for GRSG**

Attribute	Indicator	Desired Condition	Reference
Lek Security	Proximity of trees	Trees (i.e., in Idaho mainly juniper, conifers, and does not include old-growth juniper, pinyon pine and mountain mahogany; in Montana mainly Douglas-fir) absent or uncommon on shrub/grassland ecological sites within 1.86 miles (3 km) of occupied leks.	Baruch-Mordo et al. 2013 <sup>7</sup> Stiver et al. <i>in press</i> <sup>13</sup>
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover within 328 ft (100 m) of an occupied lek	Stiver et al. <i>in press</i> <sup>13</sup>
<b>NESTING/EARLY BROOD REARING<sup>5,10,12,13,14</sup></b>			
Cover and Food	Seasonal habitat extent (Percent of Seasonal Habitat Meeting Desired Conditions)	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).	Connelly et al. 2000 <sup>8</sup>
	Sagebrush cover <sup>2</sup> (Canopy Cover)	15-25%	Connelly et al. 2000 <sup>8</sup> Connelly et al. 2003 <sup>9</sup> Hagen et al. 2007 <sup>11</sup>
	Sagebrush height		Connelly et al. 2000 <sup>8</sup>
	Arid sites <sup>3</sup> Mesic sites <sup>4</sup>	12-31 inches (30-80cm) 16-31 inches (40-80cm)	
	Predominant sagebrush shape	Predominantly spreading shape <sup>5</sup>	Stiver et al. <i>in press</i> <sup>13</sup>
	Perennial grass cover <sup>2</sup> Arid sites <sup>3</sup> Mesic sites <sup>4</sup>	≥10% ≥15%	Connelly et al. 2000 <sup>8</sup> Stiver et al. <i>in press</i> <sup>13</sup>
	Perennial grass (and forb) height	≥ 7 inches	Connelly et al. 2000 <sup>8</sup> Connelly et al. 2003 <sup>9</sup> Hagen et al. 2007 <sup>11</sup> Stiver et al. <i>in press</i> <sup>13</sup>
	Perennial forb (canopy) cover <sup>2</sup> Arid sites <sup>3</sup> Mesic sites <sup>4</sup>	≥5% ≥10%	Connelly et al. 2000 <sup>8</sup>
	Perennial forb availability	Preferred forbs are common with several species present <sup>6</sup>	Stiver et al. <i>in press</i> <sup>13</sup>
<b>LATE BROOD-REARING/SUMMER<sup>1,15</sup> (July-October)<sup>1</sup> Late brood-rearing areas, such as riparian, meadows, springs, higher elevation mesic uplands, etc. may occur within other mapped seasonal habitat areas. Apply late brood rearing/summer habitat desired conditions locally as appropriate.</b>			
Cover and Food	Seasonal habitat extent (Percent of Seasonal Habitat Meeting Desired Condition)	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to	Connelly et al. 2000 <sup>8</sup>

**Table 2-10**  
**Seasonal Habitat Desired Conditions for GRSG**

Attribute	Indicator	Desired Condition	Reference
		ecological site potential, etc.)	
	Sagebrush (canopy) cover <sup>2</sup>	Uplands 10-25% Riparian/Meadow: Sagebrush cover within 100 m	Connelly et al. 2000 <sup>8</sup>
	Sagebrush height	16 to 32 inches (40-80cm)	Connelly et al. 2000 <sup>8</sup>
	Perennial grass and forb cover <sup>2</sup>	>15%	
	Upland and riparian perennial forb availability <sup>2</sup>	Preferred forbs are common with appropriate numbers of species present <sup>6</sup>	Stiver et al. <i>in press</i> <sup>13</sup>
	Riparian and/or meadow habitat condition	Proper Functioning Condition	Stiver et al. <i>in press</i> <sup>13</sup>
<b>WINTER<sup>1</sup> November-March<sup>1</sup> (Apply to areas of known or likely winter-use)</b>			
Cover and Food	Seasonal habitat extent (Percent of Seasonal Habitat Meeting Desired Condition)	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).	Connelly et al. 2000 <sup>8</sup>
	Sagebrush cover and height above snow	Sagebrush is at least 10 inches (25 cm) above snow and ≥10% cover <sup>16</sup>	Connelly et al. 2000 <sup>8</sup> Stiver et al. <i>in press</i> <sup>13</sup>

#### NOTES AND REFERENCES

<sup>1</sup> Seasonal dates can be adjusted by local unit according to geographic region.

<sup>2</sup> Since plant species and/or life forms may overlap, total vegetative cover, inclusive of shrubs, forbs and grasses may exceed 100%.

<sup>3</sup> Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>4</sup> Mesic corresponds to the ≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>5</sup> Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*.

Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.

<sup>6</sup> Preferred forbs are listed in Stiver et al. *In press*. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

<sup>7</sup> Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving sage-grouse from trees. *Biological Conservation* 167:233-241.

<sup>8</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. *Wildlife Society Bulletin*

**Table 2-10**  
**Seasonal Habitat Desired Conditions for GRSG**

Attribute	Indicator	Desired Condition	Reference
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28:967-985.

<sup>9</sup> Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.

<sup>10</sup> Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.

<sup>11</sup> Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. *Wildlife Biology* 13 (Supplement 1):42-50.

<sup>12</sup> Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107:742-752.

<sup>13</sup> Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: A Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference 6710-1. U.S. Bureau of Land Management, Denver, Colorado.

<sup>14</sup> Connelly, J.W., A. Moser, and D. Kemner. 2013. Greater Sage-Grouse breeding habitats: Landscape-based comparisons. *Grouse News* 45. Research Reports.

<sup>15</sup> Some late brood habitat occurs at higher elevations outside of mapped nesting habitat and some is embedded within nesting landscapes especially areas such as wet meadows, riparian areas, springs and seeps.

<sup>16</sup> Winter habitat metrics are a guideline but snow depths and habitat availability may vary widely depending on winter severity, topography and elevation.

### *Coordination*

- CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non-governmental organizations.
- CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, Forest Service and State of Idaho. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's Executive Order No. 10-2014.
- CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.
- CC-4: Idaho: The BLM would coordinate with the State of Idaho and the Idaho Sage-Grouse Implementation Task Force regarding proposed management

changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management, anthropogenic disturbance and livestock grazing (FEIS Appendix).

- CC-5: Montana: The BLM would coordinate with the State of Montana and the Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and anthropogenic disturbance (FEIS Appendix).
- CC-5: Upon completion of the Record of Decision the BLM will develop an initial Implementation Guide for BLM District and Field Offices within a year of issuance of the Record of Decision. This Guide would define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan and would be updated and expanded as needed to respond to issues and concerns.
- CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate regional recommendations for GRSG conservation at broader scales.
- CC-7: At the state level, BLM and Forest Service would coordinate with the appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.
- CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

*Greater Sage-Grouse Management Areas*

MA-1 (Management Area): Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in FEIS Figure. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, including GRSG habitat in the Salmon and Challis areas, and habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan

Karaus Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry’s Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon Butte BLM Field Office and Beaverhead-Deerlodge National Forest boundaries (the Butte RMP is not being amended and since there are limited GRSG federal GHMAs, management actions do not apply in the Butte Field Office).

In general, GRSG habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to more complex topography, and elevational differences and/or effects from wildfires, agriculture, urbanization or other factors.

MA-2:

Within each Conservation Area designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (FEIS Figure). Priority Habitat Management Areas (PHMAs) focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. Specifically, these include a meta-population north of the Snake River, inclusive of the North Magic Valley, Big Desert and Basin and Range areas and another south of the Snake River comprised of south central Idaho, the upper Bruneau-Jarbidge Plateau, and the Owyhee Uplands. PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. PHMAs include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Habitat Management Areas (IHMA)**s contain additional habitat and populations that provide a management buffer for the PHMA and to connect patches of PHMA. IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some Conservation Areas includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors.

There are no IHMAs designated within the Southwestern Montana Conservation Area. **General Habitat Management Areas (GHMAs)** encompass habitat that is outside of PHMAs or IHMAs. GHMAs contain approximately 10 percent of the occupied leks that are also of relatively low male attendance compared to leks in PHMA or IHMA. GHMAs are generally characterized by lower quality disturbed or patchy habitat of low lek connectivity.

- MA-3: In Idaho, Designate PHMA and IHMA to encompass 90 percent of the breeding males in Idaho. In Montana, designate PHMA to encompass Montana Fish, Wildlife, and Parks 2009 Greater Sage Grouse Core Area designations.
- MA-4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.
- MA-5: Prioritize activities and mitigation to protect, enhance and restore GRSG habitats (i.e., fire suppression activities, fuels management activities, vegetation treatments, invasive species treatments etc.) first by Conservation Area, if appropriate (Conservation Area under adaptive management or at risk of engaging adaptive management), followed by PHMAs, then IHMAs then GHMAs within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in FEIS Appendix. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat.
- MA-6: The management area map and Biologically Significant Unit (BSU) baseline map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust PHMA, IHMA or GHMA or the habitat baseline. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map. Results from the Wildfire and Invasive Species Assessments, such as identified focal or emphasis areas would also be used to help inform mapping adjustments during this evaluation.
- MA-7: GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management area designations (PHMA, IHMA, GHMA). Project proposals and their effects would be evaluated based on the habitat and values affected.
- MA-8: Idaho BLM will annually update the Key Habitat map as described in FEIS Appendix, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies

indicate that GRSG are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, GRSG Local Working Groups, or agency partners in GRSG conservation. Project-level evaluations of GRSG habitat during the NEPA process may also be used to inform the annual update.

- MA-9: Areas of habitat outside of delineated management areas identified during the Key habitat update process would be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix F), seasonal timing restrictions (Appendix G) and buffers (Appendix H) would be included as part of project design. These areas would be further evaluated during plan evaluation and the 5-year update to the management areas, to determine whether they should be included as PHMAs, IHMAs, or GHMAs.
- MA-10: Designate Sagebrush Focal Areas (SFA) as shown in FEIS Figure. SFAs will be managed as PHMA, with the following additional management:
- Recommended for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.
  - Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.
  - Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions).

*Adaptive Management*

- AM-1 (Adaptive Management): Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.
- AM-2: Utilize monitoring information collected through the Monitoring Framework (FEIS Appendix) to determine when adaptive regulatory triggers have been met.
- AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the Forest Service and IDFG, using the process described in FEIS Appendix.
- AM-4: Idaho: BLM would coordinate with the IDFG regarding population information collected and maintained by the IDFG to track and identify population changes to assess the population trigger in the adaptive management approach.
- AM-5: Idaho: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management triggers have been met.

- AM-6: Idaho: Adaptive habitat regulatory triggers would be individually calculated across all ownerships within the BSUs (FEIS Appendix). The BSU is defined as the IDFG modeled nesting and wintering habitat (IDFG 2013, unpublished data) within PHMAs and IHMAs within a Conservation Area. The sagebrush component of the BSU is represented by the Key habitat within the BSU present during the 2011 baseline and as mapped during subsequent annual Key habitat map updates. Key habitat is defined as areas of generally intact sagebrush that provide GRSG habitat during some portion of the year (ISAC 2006).
- AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:
- A 20 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline, inclusive of all land ownerships or
  - A 20 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.
- AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:
- A 10 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline; or
  - A 10 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.
- AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:
- A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change ( $\lambda$ ) significantly below 1.0 within PHMA within a Conservation Area over the same 3-year period; or
  - A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change ( $\lambda$ ) significantly below 1.0 within IHMA within a Conservation Area over the same 3-year period.
- Significance is defined by the 90 percent confidence interval around the current 3-year finite rate of change. If the 90 percent confidence interval is less than, and does not include 1.0, then the finite rate of change is considered significant. The finite rate of change and variance will be calculated following Garton et al. (2011).
- AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:
- A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change ( $\lambda$ ) below 1.0 within PHMA within a Conservation Area over the same 3-year period; or



A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change ( $\lambda$ ) below 1.0 within IHMA within a Conservation Area over the same 3-year period.

- AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities (FEIS Appendix).
- AM-12: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met then PHMA management actions would be applied to the IHMA within that Conservation Area and the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities.
- AM-13: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in FEIS Appendix.
- AM-14: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of the 2011 baseline values within the associated Conservation Area in accordance with the Adaptive Management Strategy.
- AM-15: Montana: Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and USFWS experts.
- AM-16: Idaho and Montana: When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project-level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response.

*Anthropogenic Disturbance*

AD-1 (Anthropogenic Disturbance): If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA (or IHMA in Idaho) Habitat Management Areas in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within GRSG PHMAs and IHMAs in any given BSU until the disturbance has been reduced to less than the cap. As measured according to the Monitoring Framework (FEIS Appendix) for the intermediate scale.

If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area (FEIS Appendix) in a

PHMA (or IHMA in Idaho), then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.).

Montana will use a 3 percent disturbance cap until the state of Montana strategy, similar to WY's Core Area Strategy that uses a 5 percent disturbance cap for all lands and all disturbances, is fully implemented. If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5 percent within a project analysis area, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within a project analysis area until the disturbance has been reduced to less than the cap.

For Idaho the BSU (FEIS Figure) is defined as the currently mapped nesting and wintering habitat within PHMA and IHMA within a Conservation Area, inclusive of all ownerships for evaluation. For Montana the BSU is defined as the PHMA in Montana. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes activities described in FEIS Table. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (powerlines, pipelines and roads). For Montana disturbance is measured similar to the Wyoming Disturbance Density Calculation Tool process described in FEIS Appendix.

- AD-2: New anthropogenic disturbances within PHMA or IHMA within a Conservation Area where the disturbance cap is already exceeded from any source or where the proposed development would result in the cap being exceeded would not be allowed in within that Conservation Area until enough habitat has been restored within that Conservation Area to maintain the area under this cap (subject to valid existing rights).
- AD-3: PHMA (Idaho only): Anthropogenic Disturbance Exception Criteria. In order to avoid surface-disturbing activities in PHMA, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of PHMA. When authorizing development in PHMA, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. In addition to the PHMA and IHMA Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the project screening and assessment process:
- a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations;

renewals and amendments of existing authorizations would not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments would be substantially the same as the existing development);

- b. The development with associated mitigation would not result in a net loss of GRSG Key habitat and mitigation would provide a net conservation benefit to the respective PHMA;
- c. The project and associated impacts would not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area (the project would be outside Key habitat in areas not meeting desired habitat conditions or the project would provide a benefit to habitat areas that are functioning in a limited way as habitat);
- d. Cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is co-located within the footprint of existing infrastructure (proposed actions would not increase the 2011 authorized footprint and associated impacts more than 50 percent, depending on industry practice.
- e. Development could be implemented adhering to the required design features (RDF) described in Appendix F;
- f. The project would not exceed the disturbance cap (AD-1).
- g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.

AD-4: The following Anthropogenic Disturbance Development Criteria must be met in the screening and assessment process for proposals in PHMA and IHMA to discourage additional disturbance in PHMAs and IHMAs (as described in LR-1 and LR-2; applies to Idaho only):

- a. Through coordination with the USFWS and State of Idaho (as described in CC-1), it is determined that the project cannot be achieved, technically or economically, outside of this management area; and
- b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co-location within the footprint for existing infrastructure, to the extent practicable; and
- c. The project does not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area; and
- d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and

- e. Development could be implemented adhering to the RDFs described in Appendix F.
  - f. The project would not exceed the disturbance cap (AD-1).
- AD-5: In Montana, the BLM would apply the project/action screen and mitigation process (FEIS Appendix).
- AD-5: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as:
- Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.
  - Electrical Lines – Installation of new ROWs adjacent to current ROWs boundaries, not necessarily placed on the same power poles.
  - Other Rights-of-Way – The installation of new ROWs within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary.
  - Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.
- AD-6: Incorporate RDFs as described in Appendix F in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval (COAs) into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:
- a. A specific RDF is not applicable to the site-specific conditions of the project or activity;
  - b. A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or
  - c. Analysis concludes that following a specific RDF would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.
- AD-7: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix G.
- AD-8: RDFs and seasonal habitat restrictions would not be required for emergency or short-term activities necessary to protect and preserve human life or property.

- AD-9: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix H.
- AD-10: Incorporate appropriate conservation measures for slickspot peppergrass (*Lepidium papilliferum*) as described in the 2014 Conservation Agreement (as updated, amended or reauthorized) into implementation and project design within slickspot peppergrass habitat in the Jarbidge and Four Rivers Field Offices to avoid and minimize impacts to slickspot peppergrass. The 2014 Conservation Agreement is included in FEIS Appendix.

**Table 2-11  
Anthropogenic Disturbances and Areas of Impact**

<b>Datasets as Described in the Monitoring Framework<sup>1</sup></b>
Oil and Gas Wells and Development Facilities
Coal Mines
Wind Towers
Solar Fields
Geothermal Development Facilities
Mining (Active Locatable, Leasable and Saleable Developments)
Roads
Railroads
Powerlines
Communication Towers
Other Vertical Structures
<b>Additional Local Datasets</b>
Coalbed Methane Ponds
Meteorological Towers (e.g., wind energy testing)
Nuclear Energy Facilities
Airport Facilities and Infrastructure
Military Range Facilities and Infrastructure
Hydroelectric Plants
Recreation Areas Facilities and infrastructure

Note:

Taken from Table 6 – GRSG Monitoring Framework.

*Mitigation*

- MIT-1 (Mitigation): BLM would establish an inter-agency State GRSG Conservation Team at the state level (both Idaho and Montana) to help guide conservation of GRSG through compensatory mitigation, within 90 days of the issuance of the Record of Decision.
- MIT-2: The BLM and Forest Service, in coordination with the GRSG Conservation Team would develop a Mitigation Strategy within one year of the issuance of the Record of Decision. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (FEIS Appendix).

- MIT-3: In all GRSG habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation (FEIS Appendix), the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. A net conservation benefit to GRSG would be achieved by implementing restoration conservation actions, applying a no net unmitigated loss standard for authorized uses in all GRSG habitat with PHMA, IHMA and GHMA; and strategically siting compensatory mitigation actions, consistent with the WAFWA Management Zone Regional Mitigation Strategy as part of a mitigation program in order to achieve cumulative benefits (as outlined in FEIS Appendix).
- MIT-4: Mitigate anthropogenic development (FEIS Appendix) impacts to a no net loss of Key habitat standard (FEIS Appendix) through application of appropriate mitigation in accordance with the Mitigation Framework (FEIS Appendix), referred to as no unmitigated loss. No net unmitigated loss means that impacts from implementation level actions would be fully offset to benefit the species. This would be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.
- MIT-5: Mitigate anthropogenic development (FEIS Appendix) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (FEIS Appendix).
- MIT-6: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in FEIS Table.
- Monitoring*
- MON-1 (Monitoring): Once FIAT Assessments are complete annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.
- MON-2: Monitor the effectiveness of projects (e.g., fuel breaks, fuels treatments) until objectives have been met or until it is determined that objectives cannot be met, according to the monitoring schedule identified for project implementation.
- MON-3: Monitor invasive vegetation post vegetation management treatment
- MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.

- MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.
- MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in FEIS Appendix.
- MON-7: Monitor GRSG habitat as described in the monitoring framework plan (FEIS Appendix) in coordination with IDFG and MT FWP.

**Vegetation**

*Objectives*

- VEG-OBJ-1 (Vegetation): Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.
- VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:
  - a. Increasing or enhancing canopy cover and average patch size of sagebrush.
  - b. Increasing the amount, condition and connectivity of seasonal habitats.
  - c. Protecting or improving GRSG migration/movement corridors.
  - d. Reducing conifer encroachment within GRSG seasonal habitats.
  - e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
  - f. Reducing the extent of annual grasslands within and adjacent to PHMA and IHMA.

Decadal treatment objectives by population area are identified in **Table 2-5**.

- VEG-OBJ-3: In all SFAs and PHMAs, the desired condition is to maintain a minimum of 70 percent of lands capable of producing sagebrush with 10 to 30 percent sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).

**Table 2-12**  
**Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives<sup>1</sup>**

Population Area	Mechanical <sup>2</sup>	Prescribed Fire (FM-15) <sup>3</sup>	Grass Restoration (VEG-2) <sup>4</sup>
Bear Lake Plateau	1,000	0	0
East Idaho Uplands	6,000	9,000	1,000

**Table 2-12**  
**Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives<sup>1</sup>**

<b>Population Area</b>	<b>Mechanical<sup>2</sup></b>	<b>Prescribed Fire (FM-15)<sup>3</sup></b>	<b>Grass Restoration (VEG-2)<sup>4</sup></b>
S Central Idaho/N Snake River and Mountain Valleys	18,000	11,000	162,000
Weiser	0	0	13,000
SW Idaho	52,000	10,000	444,000
SW Montana	0	0	0

Note:

<sup>1</sup>These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of ten years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the ten-year simulation using stochastic, not predictive, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.

<sup>2</sup>Removal of conifers that have invaded sagebrush including phase one juniper that is 10 percent or less and reducing sagebrush cover in areas over 30 percent canopy cover

<sup>3</sup>Acres are those that are greater than 30 percent sagebrush canopy cover and/or invaded by 10 percent or greater conifer.

<sup>4</sup>Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

### *Vegetation Management*

VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.

VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to GRSG seasonal habitats.

VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.



- VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of ROWs.
- VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.
- VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of PHMA or IHMA to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.
- VEG-7: During land health assessments, evaluate the relative value of existing nonnative seeding within GRSG habitat as: 1) a component of a grazing system allowing improvement of adjacent native vegetation, 2) development of a forage reserve, 3) incorporation into a fuel break system (Davies et al. 2011) or 4) restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits to GRSG habitat outweigh the other potential uses of the non-native seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation.
- VEG-8: Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDDT and the FIAT report (Chambers et. al., 2014) will help refine the location for specific areas to be treated.

*Invasive Species*

- INV-1 (Invasive Species): Incorporate results of the FIAT Assessments into projects and activities addressing invasive species.
- INV-2: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.

- INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.
- INV-4: Require project proponent (projects described in **Table 2-4** and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project.

### ***Wildland Fire Management***

#### *Objectives*

FUEL-OBJ-1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.

#### *Wildfire Preparedness/Prevention*

- WFP-1 (Wildfire Preparedness): Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.
- WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).
- WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in FEIS Appendix, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.
- WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.
- WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.
- WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.

- WFP-7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the PHMA or IHMA. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.
- WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.
- WFP-9: Implement activities identified within the FIAT Assessments.

*Wildfire Suppression*

- WFS-1: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within FEIS Appendix and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of focal and emphasis habitats/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify focal and emphasis habitats and describe strategies for fuels management, suppression and restoration activities. Focal and Emphasis Habitats identified through the FIAT Assessment to further refine priority areas for treatments to reduce the threats posed by wildfire, invasive annual grass and conifer expansion.
- WFS-2: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within PHMA and IHMA or on those fires that have the potential to impact PHMA and IHMA. Incorporate findings into Unit Initial Attack program
- WFS-3: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.
- WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.
- WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in GHMA when suppression resources are

available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.

- WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.
- WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.

*Fuels Management*

- FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.
- FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.
- FM-3: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into PHMA or WUI.
- FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in FEIS Appendix.
- FM-5: When developing the fuels management strategy as part of the FIAT Assessment described in FEIS Appendix consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat

fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.

- FM-6: Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRS habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.
- FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).
- FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings), rocky areas or other appropriate topography or features or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.
- FM-9: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments.
- FM-10: Protect vegetation restoration and rehabilitation efforts/projects from subsequent fire events.
- FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.
- FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:
- a. Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
  - b. Conform to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale (pasture/watershed).
  - c. Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations

- FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.
- FM-14: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.
- FM-15: If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plan will address:
- why alternative techniques were not selected as a viable options;
  - how GRSG goals and objectives would be met by its use;
  - how the COT Report objectives would be addressed and met;
  - a risk assessment to address how potential threats to GRSG habitat would be minimized.
    - a. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that would protect GRSG habitat in PHMAs (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities).
    - b. Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat would need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.

*Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation*

- ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in FEIS Appendix to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (Forest Service) actions after fire.

- ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.
- ESR-3: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species within burned/ESR areas. All new seedings of grasses and forbs should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ESR objectives.
- ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.
- ESR-5: Following seedling establishment, modify grazing management practices if needed to achieve long-term vegetation and habitat objectives.

***Livestock Grazing***

- RM-1 (Range Management): Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.
- RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.
- RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.
- RM-4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat

objectives including riparian and lentic areas (HM-OBJ-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.

- RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.
- RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:
- 1) Season or timing of use;
  - 2) Numbers of livestock;
  - 3) Distribution of livestock use;
  - 4) Duration and/or level of use;
  - 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011); and
  - 6) Grazing schedules (including rest or deferment).
- RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitat areas. A forage reserve is an area that is set aside for use as needed by various permittees who might be displaced by wildfire, ESR, restoration efforts, etc. rather than having a term permit issued for grazing like a regular allotment.
- RM-8: PHMA, IHMA & GHMA - When an allotment, or portion thereof, becomes vacant or grazing preference is relinquished, consider retirement of the allotment or grazing preference, or portion thereof, or converting the area to a forage reserve (a.k.a. reserve common allotment; forage reserves are areas that are set aside for use)/buffer when doing so would maintain or enhance GRSG habitat as described in subsequent site specific NEPA analysis.
- RM-9: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.
- RM-10: Evaluate the locations where salt/supplements are placed, coordinate salt/supplements placement to reduce impacts to GRSG habitat (e.g., existing disturbed areas).
- RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service -administered lands in the spring. Work with permittees in locating



over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.

- RM-12: Design any new structural range improvements, following appropriate cooperation, consultation and coordination, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements should be placed along existing disturbance corridors or in unsuitable habitat, to the extent practical, and are subject to RDFs (Appendix F). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.
- RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.
- RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following appropriate cooperation, consultation and coordination to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).
- RM-15: In response to weather conditions (i.e. drought) adjust grazing management (i.e., delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing) as appropriate to provide for adequate food and cover for GRSG.
- RM-16: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.
- RM-17: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.

- RM-18: Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.
- RM-19: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

***Wild Horses and Burros***

- WHB-1: Manage herd management areas (HMAs) in GRSG habitat within established AML ranges to achieve and maintain GRSG habitat objectives (**Table 2-3**).
- WHB- 2: Complete rangeland health assessments for HMAs containing GRSG habitat using an interdisciplinary team of specialists (e.g. range, wildlife, and riparian). The priorities for conducting assessments are: 1) HMAs Containing SFA; 2) HMAs containing PHMA; 3) HMAs containing IHMA; 4) HMAs containing GHMA; 5) HMAs containing sagebrush habitat outside of PHMA, IHMA. and GHMA mapped habitat; 6) HMAs without GRSG Habitat.
- WHB-3: Prioritize gathers and population growth suppression techniques in HMAs in GRSG habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Place higher priority on Herd Areas not allocated as HMAs and occupied by wild horses and burros in SFAs followed by PHMA.
- WHB-4: In SFAs and PHMA outside of SFA, assess and adjust AMLs through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current AML is not being exceeded.
- WHB-5: In SFAs and PHMA outside of SFA, monitor the effects of wild horse and burro use in relation to GRSG seasonal habitat objectives on an annual basis to help determine future management actions.
- WHB-6: Develop or amend herd management area plans (HMAPs) to incorporate GRSG habitat objectives and management considerations for all HMAs within GRSG habitat, with emphasis placed on SFAs and other PHMAs.
- WHB-7: Consider removals or exclusion of wild horse and burros during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.
- WHB-8: When conducting NEPA analysis for wild horse and burro management activities, water developments, or other rangeland improvements for wild

horses, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.

- WHB-9: Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g., population growth suppression, inventory techniques, and telemetry) for implementing the wild horse and burro program.

***Lands and Realty***

- LR-1 (Lands and Realty): PHMA: Designate and manage PHMA as ROW avoidance areas, consistent with AD-3 and subject to RDFs, buffers and seasonal timing restrictions (Appendices F, G, and H). IHMA: Designate and manage IHMA as ROW avoidance areas, consistent with AD-4 and subject to RDFs, buffers and seasonal timing restrictions. GHMA (Idaho and Montana): Designate and manage GHMA as open with proposals subject to RDFs, buffers and seasonal timing restrictions.
- LR-2: PHMA: Designate and manage PHMA as exclusion areas for utility scale (20 MW) wind and solar testing and development, nuclear and hydropower energy development. IHMA: Designate and manage IHMA as avoidance areas for wind and solar testing and development, nuclear and hydropower development. GHMA (Idaho): Designate and manage GHMA as open for wind and solar testing and development and nuclear and hydropower development subject to RDFs, buffers and seasonal timing restrictions. GHMA (Montana): Designate and manage GHMA as avoidance for wind and solar testing and development and nuclear and hydropower development.
- LR-3: PHMA: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- LR-4: PHMA: Development of new or expansion of existing landfills would not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- LR-5: Consistent with LR-2, LR-3 and LR-4, Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in PHMA would only be considered when consistent with the Anthropogenic Disturbance Exception Criteria (AD-3); Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in IHMA could be considered consistent with

the IHMA Anthropogenic Disturbance Development Criteria (AD-4). GHMA: New ROW and land use authorizations could be considered.

- LR-6: In PHMA, if a higher voltage transmission line is required adjacent to an existing line (i.e. the project is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade):
- the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized; and
  - the new line must be constructed in the same alignment as the existing line unless an alternate route would benefit GRSG or GRSG habitat.
- LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open in all habitat management areas (subject to the ongoing settlement agreement).
- LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Areas within which it is located and the RDFs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and rehabilitating the habitat.
- LR-9: Land use authorizations that are temporary (less than 3 years) in nature and are not otherwise excluded or restricted would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.
- LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be allowed on a case-by-case bases subject to RDFs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.
- LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).
- LR-12: As opportunities and priorities indicate work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix F.
- LR-13: PHMA and IHMA (Idaho and Montana), and GHMA (Montana only) are designated as avoidance areas for high voltage transmission line and large pipeline ROWs, except for the transmission projects specifically identified

below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in AD-3 and AD-4 of this document. The BLM is currently processing an application for (Gateway West and Boardman to Hemingway Transmission Projects) and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the projects' NEPA review process.

- LR-14: Lands classified as PHMA, IHMA, and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the GRSG. Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:
- a. Lands within PHMA, IHMA and GHMA would only be available for disposal through exchange (FEIS Appendix).
  - b. Acquire habitat within PHMA and IHMA, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if a land exchange would allow for additional or more contiguous federal ownership patterns.
  - c. Lands within PHMA, IHMA and GHMA would be retained unless exchange of those lands would increase the extent or provide for connectivity of PHMA or IHMA.
  - d. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of PHMA. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within PHMA currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the PHMA and IHMA (i.e., areas with fragmented or less in-tact sagebrush).
  - e. Identify lands for acquisition that increase the extent of or provide for connectivity of PHMA.

***Minerals****Fluid Minerals (Oil, Gas, and Geothermal)*Objectives

- FLM-OBJ-1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA, IHMA, and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA, IHMA, and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR 3162.3-1(h).
- FLM-OBJ-2: Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD or Geothermal Drilling Permit (GDP) for the lease to avoid and minimize impacts to GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.

Management

- FLM-1 (Fluid Minerals): Idaho and Montana: Areas within SFAs would be open to fluid mineral leasing and development and geophysical exploration subject to NSO without waiver, exception, or modification. Areas within PHMA and IHMA would be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (FLM-3). GHMA would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.
- FLM-2: In Idaho, parcels nominated for lease in PHMA or IHMA would be evaluated prior to lease offering to determine if development is feasible. In GHMA, parcels that could not be developed when these buffers and restrictions are applied would not be offered for lease.
- FLM-3: PHMA: No waivers or modifications to a fluid mineral lease NSO stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease NSO stipulation only where the proposed action:
- i. Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,

- ii. Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.

Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP amendment. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts.

Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.

Idaho IHMA: A lease waiver, exception or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-GRSG habitat, the area is not used by GRSG, or it would not have direct, indirect or cumulative effects to GRSG or its habitat. The determination would be made by a team of interagency GRSG experts, including an expert from the state wildlife agency, USFWS and the BLM. All exceptions must be approved by the State Director. In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

Waivers, Exceptions and Modifications (WEMs) (Source IM-2008-032):

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers, by regulation, require a 30-day public review if the authorized officer has determined, prior to lease issuance, that a stipulation involves an issue of major concern to the public (43 CFR 3101.4) and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the lease to which the restrictive criteria are applied.

- FLM-4: Incorporate required design features and best management practices appropriate to the management area as COAs when post leasing activity is proposed into any post-lease authorizations.
- FLM-5: In Montana, prior to leasing conduct a Master Leasing Plan process when all four of the following criteria are met:
- A substantial portion of the area to be analyzed in the MLP is not currently leased.
  - There is a majority Federal mineral interest.
  - The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.
  - Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are:
    - multiple-use or natural/cultural resource conflicts;
    - impacts to air quality;
    - impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness area, as determined after consultation or coordination with the NPS, the USFWS, or the Forest Service; or
    - impacts on other specially designated areas. – analyzing likely development scenarios and varying mitigation levels.
- FLM-5: In Idaho, complete a Master Development Plan, consistent with plan development guide on leases where a producing field is proposed to be developed.
- FLM-6: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.
- FLM-7: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations or habitat.



*Locatable Minerals*

- LOC-1 (Locatable Minerals): Lands would remain open to locatable mineral entry in all management areas.
- LOC-2: Apply reasonable and appropriate RDFs and BMPs as Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or Forest Service approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).
- LOC-3: Recommend SFAs for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.

*Mineral Materials (Saleable Minerals)*

- SAL-1 (Saleable Minerals): PHMA: All PHMAs will be closed to mineral materials development. IHMA and GHMA: All IHMAs and GHMAs will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria (AD-4), and subject to RDFs, buffers and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. GHMA: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites open to new sales subject to seasonal timing restrictions.
- SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.
- SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).
- SAL-4: Montana: PHMAs are closed to new mineral material sales. However, these areas remain “open” to free use permits and the expansion of existing active pits, only if the following criteria are met:

- the activity is within the BSU and project area disturbance cap;
- the activity is subject to the provisions set forth in the mitigation framework [FEIS Appendix];
- all applicable required design features are applied; and
- the activity is permissible under the Montana screening criteria

*Nonenergy Leasable Minerals*

- NEL-1 (Nonenergy Leasables): PHMAs are closed to leasing. IHMA and GHMA: Areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA areas outside KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open

to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. GHMA: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily) and standard stipulations.

- NEL-2: Require seasonal and daily timing restrictions in undeveloped nonenergy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as COAs.
- NEL-3: Include RDFs as COAs to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.

*Mineral Split Estate*

- MSE-1 (Mineral Split Estate): BLM Owns Mineral Estate – non-federal surface owner: Where the federal government owns the mineral estate in PHMAs, IHMAs, and GHMAs, and the surface is in non-federal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.
- MSE-2: BLM owns surface – non-federal mineral estate owner: Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA, IHMA, and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.

***Comprehensive Trails and Travel Management***

- TM-1 (Travel Management): Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.

An off-highway vehicle is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) Any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency

purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) Vehicles in official use where official use is use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0 5).

TM-2: In PHMA, IHMA, and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).

Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.

TM-3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (FEIS Appendix).

TM-4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize disturbance of GRSG and/or to have a neutral or positive effect on GRSG habitat and populations. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, timing restrictions, seasonal closures, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within PHMA would be placed on having a neutral or positive effect on GRSG habitat. Individual route designations would occur during subsequent travel management planning efforts.

TM-5: Conduct road construction, upgrades, and maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

***Recreation and Visitor Services***

REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.

REC-2: In PHMA and IHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development would have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.

RDFs are means, measures, or practices intended to reduce or avoid adverse environmental impacts. This LUPA/EIS proposes a suite of design features that would establish the minimum specifications for water developments, certain mineral development, and fire and fuels management and would mitigate adverse impacts. These design features would be required to provide a greater level of regulatory certainty than through implementing BMPs.

In general, the design features are accepted practices that are known to be effective when implemented properly at the project level. However, their applicability and overall effectiveness cannot be fully assessed except at the project-specific level when the project location and design are known. Because of site-specific circumstances, some features may not apply to some projects (e.g., when a resource is not present on a given site) or may require slight variations from what is described in the LUPA/EIS (e.g., a larger or smaller protective area). All variations in design features would require appropriate analysis and disclosure as part of future project authorizations. Additional mitigation measures may be identified and required during individual project development and environmental review. The proposed RDFs are presented in **Appendix F**.

## APPENDIX E: Forest Service Proposed Plan Amendment

### Forest Service Plan Components

**Desired conditions** - A description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates. (36 CFR 219.7(e)(1)(i)) FSH 1909.12, Chapter 20)

**Guideline** – A constraint on project and activity decisionmaking that allows for departure from its terms, so long as the purpose of the guideline is met. (§ 219.15(d)(3)). Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR 219.7(e)(1)(iv); FSH 1909.12, Chapter 20)

**Objective** - A concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets. (36 CFR 219.9(e)(1)(ii)) FSH 1909.12, Chapter 20)

**Standard** - A mandatory constraint on project and activity decisionmaking, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR 219.7(e)(1) (iii)) FSH 1909.12, Chapter 20)

### General Greater Sage-grouse

**GRSG-GEN-DC-001-Desired Condition** – The landscape for greater sage-grouse encompasses large contiguous areas, approximately 6 to 62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush-community compositions exist, with variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure, to meet seasonal requirements for food, cover, and nesting for greater sage-grouse.

**GRSG-GEN-DC-002-Desired Condition** – Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas and sagebrush focal areas<sup>18</sup>. Disturbances in general habitat management areas are limited, and there is little to no disturbances in priority and important habitat management areas and sagebrush focal areas except for valid existing rights and existing authorize uses.

**GRSG-GEN-DC-003-Desired Condition** – In all seasonal habitats, 70% of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 10% conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides

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<sup>18</sup> Suitable greater sage-grouse habitat within polygons identified as priority or general habitat management areas. Areas of non-habitat within a polygon are not included as part of any priority or general habitat management areas. Sagebrush focal areas may include areas of non-habitat.

overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. Specific desired conditions for greater sage-grouse based on seasonal habitat requirements are in table 1.

**Table 1. Seasonal Habitat Desired Conditions for Greater Sage-grouse.**

ATTRIBUTE	INDICATORS	DESIRED CONDITION
<b>BREEDING AND NESTING<sup>1,2,3</sup> (Seasonal Use Period March 1-June 15) Apply 6.2 miles from active leks.<sup>4</sup></b>		
Lek Security	Proximity of trees <sup>5</sup>	Trees or other tall structures are none to uncommon within 1.86 miles of leks <sup>6,7</sup>
	Proximity of sagebrush to leks <sup>6</sup>	Adjacent protective sagebrush cover within 328 feet of lek <sup>6</sup>
Cover	Seasonal habitat extent <sup>7</sup>	>80% of the breeding and nesting habitat
	Sagebrush canopy cover <sup>6,7,8</sup>	15 to 25%
	Sagebrush height <sup>7</sup> Arid sites <sup>6,7,9</sup> Mesic sites <sup>6,7,10</sup>	12 to 32 inches 16 to 32 inches
	Predominant sagebrush shape <sup>6</sup>	>50% in spreading <sup>11</sup>
	Perennial grass canopy cover <sup>6,7</sup> Arid sites <sup>7,9</sup> Mesic sites <sup>7,10</sup>	≥10% ≥15%
	Perennial grass height <sup>6,7,8</sup>	Provide overhead and lateral concealment from predators <sup>7</sup>
	Perennial forb canopy cover <sup>6,7,8</sup> Arid sites <sup>9</sup> Mesic sites <sup>10</sup>	≥5% <sup>6,7</sup> ≥10% <sup>6,7</sup>
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>		
Cover	Seasonal habitat extent <sup>7</sup>	>40% of the brood-rearing/summer habitat
	Sagebrush canopy cover <sup>6,7,8</sup>	10 to 25%
	Sagebrush height <sup>7,8</sup>	16 to 32 inches
	Perennial grass canopy cover and forbs <sup>7,8</sup>	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition <sup>12</sup>
	Upland and riparian perennial forb availability <sup>6,7</sup>	Preferred forbs are common with several preferred species present <sup>13</sup>
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>		
Cover and Food	Seasonal habitat extent <sup>6,7,8</sup>	>80% of the winter habitat
	Sagebrush canopy cover above snow <sup>6,7,8</sup>	>10%
	Sagebrush height above snow <sup>6,7,8</sup>	>10 inches <sup>14</sup>
<sup>1</sup> Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the amount of days cannot be shortened or lengthened by the local unit. <sup>2</sup> Doherty, K. 2008. <i>Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts</i> . University of Montana. Missoula, MT. <sup>3</sup> Holloran and Anderson. 2005. <i>Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats</i> . Condor 107:742-752. <sup>4</sup> Buffer distance may be changed only if 3 out of 5 years of telemetry studies indicate the 6.2 miles is not appropriate. <sup>5</sup> Baruch-Mordo, S. J.S. Evans, J.P Severson, D.E. Naugle, J. D. Maestas, J.M. Kiesecker, M.J. Falkowski. C.A. Hagen, and K.P. Reese. . 2013. <i>Saving sage-grouse from trees: A proactive solution to reducing a key threat to a candidate species</i> . Biological Conservation 167: 233-241. <sup>6</sup> Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl, eds. 2015. <i>Sage-Grouse Habitat Assessment Framework: A Multiscale Assessment Tool</i> . Technical Reference 6710-1. Bureau of Land Management and Western Association of Fish and Wildlife Agencies, Denver, Colorado. <sup>7</sup> Connelly, J. M. A. Schroweder, A.R. Sands, and C.E. Braun.2000. <i>Guidelines to manage sage-grouse populations and their habitats</i> . Wildlife Society Bulletin 28 (4): 967-985. <sup>8</sup> Connelly, J. K. Reese, and M. Schroder. 2003. <i>Monitoring of Greater sage-grouse habitats and populations</i> . Station Bulletin 80, Contribution 979. University of Idaho, College of Natural Resources Experiment Station. Moscow, ID. <sup>9</sup> 10–12 inch precipitation zone; <i>Artemisia tridentata wyomingensis</i> is a common big sagebrush sub-species for this type site (HAF 2014). <sup>10</sup> ≥12 inch precipitation zone; <i>Artemisia tridentata vaseyana</i> is a common big sagebrush sub-species for this type site (HAF 2014). <sup>11</sup> Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (HAF 2014).		

ATTRIBUTE	INDICATORS	DESIRED CONDITION
<p><sup>12</sup> Existing land management plan desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements.</p> <p><sup>13</sup> Preferred forbs are listed in HAF Table III-2 (HAF 2014). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred in Table III-2.</p> <p><sup>14</sup> The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy, sagebrush stands.</p>		

**GRSG-GEN-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project analysis area, regardless of ownership, and the new use will not cause exceedance of the 3% cap (FEIS Appendix – Disturbance Cap Guidance).

**GRSG-GEN-ST-002-Standard** - In priority, sagebrush focal, and important management areas, only allow new authorized land uses if the residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, which will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation, as addressed in the Mitigation Framework (FEIS Appendix).

**GRSG-GEN-GL-001-Guideline** - During lekking (March 1 to April 30) surface disturbing and disruptive activities, including noise at 10dB above ambient (not to exceed 20-24 dB) to lekking birds should be restricted from 6 pm to 9 am at a distance of 3.1 miles from the perimeter of an occupied lek.

**GRSG-GEN-GL-002-Guideline** – During breeding and nesting (March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be restricted.

**GRSG-GEN-GL-003-Guideline** - When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired habitat conditions displayed in table 1.

**GRSG- GEN-GL-004-Guideline** – Development of tall structures within 2.0 miles from the perimeter of occupied leks, as determined by local conditions (such as vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities avian predators or by decreasing the use of an area, should be restricted in nesting habitat.

**Adaptive Management**

**GRSG-AM-ST-001-Standard** – If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger response will be an entire restrictive alternative, or one or more appropriate components of a more restrictive alternative, such as the immediate cessation of authorizing land use authorizations. An interagency team will conduct an assessment to determine the causal factor(s) and recommend corrective strategies (Appendix Z - Adaptive Management Guidance and Sideboards).

**GRSG-AM-ST-002-Standard** – If a soft trigger is identified, apply more conservative or restrictive implementation measures (e.g., extending seasonal restrictions for seasonal surface disturbing activities, modifying seasons of use for livestock grazing, and applying additional restrictions on discretionary activities) for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions (FEIS Appendix- Adaptive Management Guidance and Sideboards).

## Lands and Realty

### Special Use Authorizations (non recreation)

**GRSG-LR-SUA-O-001-Objective** - In priority and important habitat management areas and sagebrush focal areas, retrofit existing tall structures (e.g., power poles, cellular towers) with perch deterrents or other anti-perching devices within 2 years of signing the Record of Decision.

**GRSG-LR-SUA-ST-001-Standard** – In priority habitat management areas and sagebrush focal areas, restrict issuance of new lands special use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, hydropower, distribution lines, and cellular towers. Exceptions must be limited and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to greater sage-grouse will be avoided by the exception.

**GRSG-LR-SUA-ST-002-Standard** – In general habitat management areas, new lands special use authorizations may be authorized for infrastructure, such as high-voltage transmission lines and major pipelines, if they can be located within existing designated corridors and the authorization includes stipulations to protect greater sage-grouse and their habitats.

**GRSG-LR-SUA-ST-003-Standard** – In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (greater than 5 years) negative impact on greater sage-grouse or their habitats.

**GRSG-LR-SUA-ST-004-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers).

**GRSG-LR-SUA-ST-005-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors unless an alternate route would benefit greater sage-grouse or their habitats.

**GRSG-LR-SUA-ST-006-Standard** - In priority, important, and general habitat management areas and sagebrush focal areas, when a lands special use authorization is revoked or terminated and no future use is contemplated the authorization holder must remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).



**GRSG-LR-SUA-ST-007-Standard** - In priority, important, and general habitat management areas and sagebrush focal areas, if the potential long-term (greater than 5 years) impacts of mitigation (e.g., relocation or burying) to greater sage-grouse or their habitats are greater than the potential impacts from new lands special use authorizations, do not pursue the mitigation. If mitigation is not feasible or would result in short-term (less than 5 years) or long-term impacts, incorporate additional terms and conditions in the special use authorization for protection of greater sage-grouse or their habitats

**GRSG-LR-SUA-ST-008-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to greater sage-grouse or their habitats. When co-location of new infrastructure is not accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. Consider new communication tower sites where necessary for public safety.

**GRSG-LR-SUA-GL-001-Guideline** – In priority and sagebrush focal management areas, outside of existing designated corridors, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to greater sage-grouse and its habitat are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines.

### Land Ownership Adjustments

**GRSG-LR-LOA-ST-001-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, prohibit land ownership adjustments unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.

**GRSG-LR-LOA-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas with minority federal ownership, consider land ownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.

### Land Withdrawal

**GRSG-LR-LW-GL-001-Guideline** – In priority and important habitat management areas and sagebrush focal areas, utilize land withdrawals as a tool, where appropriate and subject to valid existing rights, to prevent activities that will be detrimental to greater sage-grouse or their habitats.

### Wind and Solar

**GRSG-WS-ST-001-Standard** – In priority and sagebrush focal management areas, prohibit new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).

**GRSG-WS-GL-001-Guideline** – In important habitat management areas, new wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to

existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect greater sage-grouse and their habitats.

### Greater Sage-grouse Habitat

**GRSG-GRSGH-O-001-Objective** – Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species in the number of acres shown in table 2.

**Table 2. Treatment Acres per Decade.<sup>1</sup>**

ACRES			
FOREST	MECHANICAL <sup>2</sup>	PRESCRIBED FIRE <sup>3</sup>	GRASS RESTORATION <sup>4</sup>
Boise	1000	2000	0
Caribou-Targhee-Curlew	3000	2000	3000
Salmon-Challis	5000	1000	0
Sawtooth	7000	1000	7000
Beaverhead-Deerlodge	0	0	0

<sup>1</sup>These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of ten years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the ten-year simulation using stochastic, not predictive, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.

<sup>2</sup>Removal of conifers that have invaded sagebrush including phase one juniper that is 10% or less and reducing sagebrush cover in areas over 30% canopy cover

<sup>3</sup>Acres are those that are greater than 30% sagebrush canopy cover and/or invaded by 10% or greater conifer.

<sup>4</sup>Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

**GRSG-GRSGH-ST-001-Standard** – Design habitat restoration projects to move towards desired conditions (table 1) and incorporate the concepts outlined in FEIS Appendix - *Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach.*

**GRSG-GRSGH-GL-001-Guideline** – Sagebrush removal in greater sage-grouse breeding and nesting and wintering habitats should be restricted unless necessary to support attainment of desired habitat conditions (table 1).

**GRSG-GRSGH-GL-002-Guideline** – When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (old growth relative to the site or more than 100 years old).

**GRSG-GRSGH-GL-003-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, actions and authorizations should be designed to limit the spread and effect of non-native plant species.

**GRSG-GRSGH-GL-004-Guideline** - To facilitate safe and effective fire management actions, in priority, important, and general habitat management areas and sagebrush focal areas, fuels treatments should be designed to reduce the spread and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control).

**GRSG-GRSGH-GL-005-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to restore, enhance, or maintain desired habitat conditions (table 1).

**GRSG-GRSGH-GL-006-Guideline** – In priority and important habitat management areas and sagebrush focal areas, vegetation treatment projects should only be conducted if they restore, enhance, or maintain desired habitat conditions (table 1).

**Livestock Grazing**

**GRSG-LG-DC-001-Desired Condition** – In priority and important habitat management areas and sagebrush focal areas, livestock grazing is managed to ensure adequate nesting cover and does not conflict with the attainment of other vegetative attributes (table 1).

**GRSG-LG-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, prohibit construction of water developments unless beneficial to greater sage-grouse habitat.

**GRSG-LG-GL-001-Guideline** - Grazing guidelines should be applied in each of the seasonal habitats in table 3. If values in table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site capability analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in table 1 consistent with the ecological site capability. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.

**Table 3. Grazing Guidelines for Greater Sage-grouse Seasonal Habitat.**

Seasonal Habitat	Grazing Guidelines
Breeding and nesting <sup>1</sup> within 6.2 miles of occupied leks	Perennial grass height: <sup>2</sup> When grazing occurs during breeding and nesting season (March 1 to June 15) manage for upland perennial grass height of 7 inches <sup>3,4,5</sup> When grazing occurs post breeding and nesting season (June 16 to October 30) manage for 4 inches <sup>4,5,6</sup> of perennial grass height.
Brood rearing and summer <sup>1</sup>	Retain an average stubble height of 4 inches for herbaceous riparian/mesic meadow vegetation <sup>7,8</sup>
Winter <sup>1</sup>	<35% use of sagebrush

<sup>1</sup>For descriptions of Seasonal Habitat and Seasonal Periods of greater sage-grouse see table 1.

<sup>2</sup>Grass heights only apply in breeding and nesting habitat with ≥10% sagebrush cover to support nesting.

<sup>3</sup>Holloran et al. 2005. *Greater sage-grouse nesting habitat selection and success in Wyoming*.

<sup>4</sup>Average droop height, assuming current vegetation composition has the capability to achieve these heights. Heights will be measured at the end of the nesting period (Connelly, 2000).

<sup>5</sup>Hagen C., J.W. Connelly, and M.A. Schroeder. 2007. *A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats*. *Wildlife Biology* 13(1): 42-50.

<sup>6</sup>Stubble height to be measured at the end of the growing season.

<sup>7</sup>Crawford et al. 2004. Ecology and Management of sage-grouse and sage-grouse habitat. “In riparian brood-rearing habitat, sage-grouse prefer the lower vegetation (5-15 cm (2-6 in) vs. 30-50 cm (12-20 in); Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing (Neel 1980, Evans 1986). “Moderate use equates to a 10-cm residual stubble height for most grasses and sedges.”

<sup>8</sup>Stubble height to be measured in the meadow areas used by greater sage-grouse for brood-rearing (not on the hydric greenline).

**GRSG-LG-GL-002-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, consider closure of grazing allotments, pastures, or portions of pastures, or

managing the allotment as a forage reserve as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired habitat conditions (table 1).

**GRSG-LG-GL-003-Guideline** – Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (March 1 to April 30) should be restricted.

**GRSG-LG-GL-004-Guideline** – During breeding and nesting season (March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be restricted.

**GRSG-LG-GL-005-Guideline** – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).

**GRSG-LG-GL-006-Guideline** – New permanent livestock facilities (e.g., windmills, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.

## Fire Management

**GRSG-FM-ST-001-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones unless necessary to facilitate site preparation for restoration of greater sage-grouse habitat consistent with desired conditions in table 1.

**GRSG-FM-ST-002-Standard** – In priority, sagebrush focal, and general management areas, if it is necessary to use prescribed fire to facilitate site preparation for restoration of greater sage-grouse habitat consistent with desired conditions in table 1, the associated NEPA analysis must identify how greater sage-grouse desired conditions would be met, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.

**GRSG-FM-GL-001-Guideline** – In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire.

**GRSG-FM-GL-002-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistant non-native to meet resource objectives.

**GRSG-FM-GL-003-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, treatments should be designed to restore, enhance, or maintain greater sage-grouse habitat.

**GRSG-FM-GL-004-Guideline** – Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority, sagebrush focal, and general habitat management areas should be restricted.

**GRSG-FM-GL-005-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted whenever safe and practical to do so, as determined by fireline leadership, incident commanders, etc.

**GRSG-FM-GL-006-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, burnout operation areas should be avoided by constructing direct fire lines, whenever safe and practical to do so, to improve suppression effectiveness and minimize loss of existing sagebrush habitat as determined by fireline leadership, incident commanders, etc.

**GRSG-FM-GL-007-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

**GRSG-FM-GL-008-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.

**GRSG-FM-GL-009-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, all fire associated vehicles and equipment should be power-washed before entering and exiting the area to minimize the introduction of undesirable invasive plant species.

**GRSG-FM-GL-010-Guideline** - Unit-specific greater sage-grouse fire management toolboxes containing maps, lists, contact information for qualified resource advisors, local guidance, and relevant information should be developed.

**GRSG-FM-GL-011-Guideline** – Localized maps of priority, important, and general habitat management areas and sagebrush focal areas should be provided to dispatch offices and extended attack incident commanders to use when prioritizing wildfire suppression resources and designing suppression tactics.

**GRSG-FM-GL-012-Guideline** - In or near priority, important, and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.

**GRSG-FM-GL-013-Guideline** – On critical fire weather days, available fire suppression resources should be pre-positioned to optimize a quick and efficient response into priority, important, and general habitat management areas and sagebrush focal areas.

**GRSG-FM-GL-014-Guideline** - During periods of multiple fires, line officers should be involved in setting priorities to help protect priority, important, and general habitat management areas and sagebrush focal areas.

**GRSG-FM-GL-015-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage.

**GRSG-FM-GL-016-Guideline** – In priority, important and general habitat management areas, to minimize sagebrush loss, mop-up should be conducted where the burned areas adjoin unburned islands, doglegs, or other habitat features, as safety and available resources allows.

### Wild Horse and Burro

**GRSG-HB-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, wild horse and burro populations should be managed within established appropriate management levels to restore, enhance, or maintain greater sage-grouse desired habitat conditions (table 1).

**GRSG-HB-GL-002-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, appropriate management levels should be adjusted if greater sage-grouse management standards are not met due to degradation that can be at least partially attributed to wild horse or burro populations.

### Recreation

**GRSG-R-DC-001-Desired Condition** – In priority, important, and general habitat management areas and sagebrush focal areas, existing and new recreation special use authorizations and expansion of special use authorizations restrict effects to greater sage-grouse and their habitats.

**GRSG-R-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (greater than 5 years) negative impacts on greater sage-grouse or their habitats.

**GRSG-R-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.

**GRSG-R-GL-002-Guideline** – In priority, sagebrush focal, and important habitat management area, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to greater sage-grouse and/or their habitats or the development is required for visitor safety.

### Roads/Transportation

**GRSG-RT-DC-001-Desired Condition** - In priority, important, and general habitat management areas and sagebrush focal areas, within the travel management system, greater sage-grouse experience minimal

disturbance during breeding and nesting (March 1 to June 15) and wintering periods (November 1 to February 28).

**GRSG-RT-ST-001-Standard** – In priority, important, and general habitat management areas and sagebrush focal areas, prohibit new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts

**GRSG-RT-ST-002-Standard** – Prohibit road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to April 30) from 6 pm to 9 am.

**GRSG-RT-ST-003-Standard** – In priority and important habitat management areas and sagebrush focal areas, prohibit public access on temporary energy development roads, unless consistent with all other terms and conditions included in the land use management plan.

**GRSG-RT-GL-001-Guideline** – In priority and important habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with greater sage-grouse.

**GRSG-RT-GL-002-Guideline** – In priority and important habitat management areas and sagebrush focal areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.

**GRSG-RT-GL-003-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (table 1).

**GRSG-RT-GL-004-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road use permits when dust has the potential to impact greater sage-grouse.

**GRSG-RT-GL-005-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle or human-caused wildfires and the spread of invasive plants.

## Minerals

### Fluid Minerals – Unleased

**GRSG-M-FMUL-ST-001-Standard** - In priority and important habitat management areas and sagebrush focal areas, any new oil and gas leases must include a no surface occupancy stipulation. There will be no waivers, exceptions, or modifications. An exception could be granted by the authorized officer with

unanimous concurrence from a team of agency greater sage-grouse experts from the Fish and Wildlife Service, Forest Service, and State wildlife agency if:

- There would be no direct, indirect, or cumulative effects to greater sage-grouse or their habitats or
- Granting the exception provides an alternative to a similar action occurring on a nearby parcel and
- The exception provides a clear net conservation gain to greater sage-grouse.

**GRSG-M-FMUL-ST-002-Standard** – In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect greater sage-grouse and their habitat.

**GRSG-M-FMUL-ST-003-Standard** – In sagebrush focal habitat management areas, there will be no surface occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.

**GRSG-M-FMUL-ST-004-Standard** – In priority, sagebrush focal, and general management areas, when analyzing leasing of fluid mineral resources, prioritize development in non-habitat areas first and then in the least suitable habitat for greater sage-grouse, subject to valid existing rights, law, and regulations.

### Fluid Minerals – Leased

**GRSG-M-FML-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.

**GRSG-M-FML-ST-002-Standard** – In priority and important habitat management areas and sagebrush focal areas, when facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in table 1.

**GRSG-M-FML-ST-003-Standard** – In general habitat management areas, authorize new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect greater sage-grouse and their habitats, consistent with the terms and conditions of the permit.

**GRSG-M-FML-ST-004-Standard** – Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise.

**GRSG-M-FML-ST-005-Standard** – In priority, sagebrush focal, and general management areas, when authorizing development of fluid mineral resources, prioritize development in non-habitat areas first and then in the least suitable habitat for greater sage-grouse, subject to valid existing rights, law, and regulations



**GRSG-M-FML-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.

**GRSG-M-FML-GL-002-Guideline** – On Federal leases in priority and important habitat management areas and sagebrush focal areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.

**GRSG-M-FML-GL-003-Guideline** - In priority, sagebrush focal, and general management areas, where the federal government owns the surface and the mineral estate is in non-federal ownership, coordinate with the mineral estate owner/lessee to apply appropriate stipulations, conditions of approval, conservation measures and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.

### Fluid Minerals – Operations

**GRSG-M-FMO-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, prohibit employee camps.

**GRSG-M-FMO-ST-002-Standard** – In priority and important habitat management areas and sagebrush focal areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.

**GRSG-M-FMO-GL-001-Guideline** – In priority and important habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.

**GRSG-M-FMO-GL-002-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be reduced and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.

**GRSG-M-FMO-GL-003-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include:

- Increase the depth of ponds to accommodate a greater volume of water than is discharged.
- Build steep shorelines (greater than 2 feet) to reduce shallow water and aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.
- Maintain the water level below that of rooted aquatic and upland vegetation. Restrict flooding terrestrial vegetation in flat terrain or low-lying areas.
- Construct dams or impoundments that restrict down-slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.

- Line the channel where discharge water flows into the pond with crushed rock or use a horizontal pipe to discharge inflow directly into existing open water.
- Line the overflow spillway with crushed rock and construct the spillway with steep sides.
- Fence pond sites to restrict access by livestock and other wild ungulates.
- Remove or re-inject produced water.
- Treat waters with larvicides to reduce mosquito production where water occurs on the surface.
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- **GRSG-M-FMO-GL-004-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

### Coal Mines - Unleased

**GRSG-M-CMUL-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, prohibit surface disturbances (e.g., appurtenant facilities) for new underground coalmines.

### Coal Mines – Leased

**GRSG-M-CML-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, do not authorize new appurtenant facilities for existing underground mines unless no technically feasible alternative exists. If new appurtenant facilities associated with existing mine leases cannot be located outside of priority and important habitat management areas and sagebrush focal areas, co-locate them with any existing disturbed areas, if possible. If co-location is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by MSHA mine-plan approval process, and locate the facilities in an area least harmful to greater sage-grouse habitats based on vegetation, topography, or other habitat features.

**GRSG-M-CML-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to greater sage-grouse and their habitats to conserve, enhance, and restore habitat for long-term viability.

### Locatable Minerals

**GRSG-M-LM-ST-001-Standard** – In priority and important habitat management areas and sagebrush focal areas, approve Plans of Operation with mitigation to protect greater sage-grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

**GRSG-M-LM-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under the General Mining Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

**GRSG-M-LM-GL-002-Guideline** - In priority, important, and general habitat management areas and sagebrush focal areas, abandoned mine sites should be closed or mitigated, subject to valid or existing rights, to reduce predation of greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.

### **Non-energy Leasable Minerals**

**GRSG-M-NEL-GL-001-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas, at the time of issuance of prospecting permits, exploration licenses and leases, or readjustment of leases, the Forest Service should provide recommendations to the Bureau of Land Management for the protection of greater sage-grouse and their habitats.

**GRSG-M-NEL-GL-002-Guideline** - In priority, sagebrush focal, and general habitat management areas, the Forest Service should recommend to the Bureau of Land Management that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to greater sage-grouse and their habitat

### **Mineral Materials**

**GRSG-M-MM-ST-001-Standard** – In priority and sagebrush focal management areas, prohibit new mineral material disposal or development.

**GRSG-M-MM-ST-002-Standard** – In priority and important habitat management areas and sagebrush focal areas, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to April 30 between 6 pm and 9 am within 2 miles from the perimeter of occupied leks, if doing so is within the Biologically Significant Unit and does not exceed the disturbance cap.

**GRSG-M-MM-ST-003-Standard** - In priority, important, and general habitat management areas and sagebrush focal areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to restore or maintain desired habitat conditions (table 1).

## Glossary of Terms as Used in this Plan

**Active lek** - Any lek that has been attended by male greater sage-grouse during the most recent strutting season.

**Adjacent** – Installation of new linear improvements parallel, near, or next to existing linear improvements.

**Administrative access** - Access for resource management and administrative purposes such as fire suppression, cadastral surveys, permit compliance, law enforcement, and military in the performance of their official duty, or other access needed to manage National Forest System lands or uses.

**Allotment management plan** - A written program of livestock grazing management, including supportive measures, if required, designed to attain specific, multiple-use management goals in a grazing allotment. The Plan is prepared in consultation with the permittee(s), lessee(s), and other affected interests. Livestock grazing is considered in relation to other uses of the range and to renewable resources, such as watershed, vegetation, and wildlife. The Plan establishes seasons of use, the number of livestock to be permitted, the range improvements needed, and the grazing system.

**Ambient (noise level)** - Sometimes called background noise level, reference sound level, or room noise level is the background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

**Anthropogenic disturbances** – Human-created features including but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells and associated facilities, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, grazing-related facilities and structures, and mines.

**Appurtenant (minerals)** - A piece of equipment (e.g., pump jack, separator, storage tank, compressor station, metering equipment) necessary for production.

**Authorized uses** - An activity (i.e., resource use) occurring on the public lands that is either explicitly or implicitly recognized and legalized by law or regulation. The term may refer to activities occurring on the public lands for which the Forest Service has issued a formal authorization document (e.g., livestock grazing permit, special use authorization, approved plan of operation, etc.). Formal authorized uses can involve both commercial and noncommercial activity, facility placement, or event. These authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved land use plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting, etc.) require no formal Forest Service authorization.

**Biologically significant unit** - A geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitats that is used as the basis for comparative calculations to support evaluation of changes to habitat. A biologically significant unit or subset of the unit is used in the calculation of the anthropogenic disturbance threshold and in the adaptive management habitat trigger.

The biologically significant unit is defined as:

- Idaho: All of the modeled nesting and delineated winter habitat based on 2012 data, within priority and/or important habitat management areas within a Conservation Area.
- Montana: All of the priority and sagebrush focal management areas.

**Co-locate** - Installation of new linear improvements in or on existing linear improvements.

**Communication tower site** - Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, passive reflector).

**Compensatory mitigation** – Compensating for the residual impact of a certain action or parts of an action by replacing or providing substitute resources or environments(s).

**Compensatory mitigation projects** – The restoration, creation, enhancement, and/or preservation of impacted resources, such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements)

**Conservation area** - Areas determined to be necessary to monitor population objectives to evaluate the disturbance density and adaptive regulatory triggers and engage adaptive management responses. Conservation Areas may contain priority, important, and general habitat management areas and sagebrush focal areas. Specifically, these areas are Mountain Valleys, Desert, West Owyhee, and Southern and Southwestern Montana.

**Disruptive activities** - Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to greater sage-grouse populations occurring at a specific location and/or time. Actions that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected, or an individual's physiological ability to cope with environmental stress is compromised.

**Distribution line** - An electrical utility line with a capacity of less than 100kV or a natural gas, hydrogen, or water pipeline less than 24" in diameter.

**Diversity (species)** – The number, distribution, and geographic ranges of plant and animal species including focal species and species-at-risk.

**Durable (protective and ecological)** - The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

**Enhance** - The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the habitat (e.g., road commissioning) to meet greater sage-grouse objectives.

**Exception (minerals)** - A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply. The authorized officer

(any employee of the Forest Service to whom has been delegated the authority to perform the duties described in the applicable Forest Service manual or handbook) may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of greater sage-grouse.

**Feasible** – see technically/economically feasible.

**Fluid minerals** - Oil, gas, coal bed natural gas, and geothermal resources.

**General habitat management areas** - Areas identified by the Forest Service, in coordination with respective state wildlife agencies, as those areas outside of priority and sagebrush focal management areas and occupied by greater sage-grouse seasonally or year-round.

**Grazing system** - Scheduled grazing use and non-use of an allotment to reach identified goals or objectives by improving the quality and quantity of vegetation. Include, but are not limited to, developing pastures, utilization levels, grazing rotations, timing and duration of use periods, and necessary range improvements.

**Habitat** - An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle.

**Hard triggers** - Thresholds indicating that immediate action is necessary to stop a severe deviation from sage grouse conservation objectives set forth in the land and resources management plan.

**High-voltage transmission line** – An electrical power line that is 100 kilovolts or larger.

**Holder** – An individual or entity that holds a valid special use authorization.

**Impact** - The effect, influence, alteration, or imprint caused by an action.

**Important habitat management areas** - High value habitat and populations that provide a management buffer for the priority and sagebrush focal management areas and connect patches of priority and sagebrush focal management areas. The areas encompass areas of generally moderate to high conservation value habitat and/or populations and, in some conservation areas, include areas beyond those identified by USFWS as necessary to maintain redundant, representative, and resilient populations. The areas are typically adjacent to priority and sagebrush focal management areas but generally reflect somewhat lower greater sage-grouse population status and/or reduced habitat value due to disturbance, habitat fragmentation, or other factors. No important habitat management areas are designated within the southwestern Montana conservation area.

**Indicators** - Factors that describe resource condition and change and can help the BLM and the Forest Service determine trends over time.

**Isolated parcel** - An individual parcel of land that may share a corner, but does not have a common border with another parcel.

**Invasive species (invasives plant species, invasives)** - An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The species must cause, or be likely to cause, harm, and be exotic to the ecosystem it has infested before considered invasive.

**Landscape** – A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view.

**Lease** – A type of special use authorization (usually granted for uses other than linear rights-of-way) that is used when substantial capital investment is required and when conveyance of a conditional and transferable interest in National Forest System lands is necessary or desirable to serve or facilitate authorized long-term uses, and that may be revocable and compensable according to its terms.

**Leasable minerals** - Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal, and some non-energy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

**Lessee** - A person or entity authorized to use and occupy National Forest System land under a specific instrument identified as a lease. Forest special use leases are limited to authorize certain wireless communication uses. Leases are also used for certain mineral leasable activities.

**Lek** - A courtship display area attended by male greater sage-grouse in or adjacent to sagebrush dominated habitat. For management purposes, leks with less than five males observed strutting should be confirmed active for 2 years to meet the definition of a lek (Connelly et al 2000, Connelly et al. 2003, 2004).

**Locatable minerals** - Mineral disposable under the General Mining Act of 1872, as amended, that was not excepted in later legislation. They include hardrock, placer, industrial minerals, and uncommon varieties of rock found on public domain lands.

**Major pipeline** – A pipeline that is 24 inches or more in outside-pipe diameter (Mineral Leasing Act of 1920 30 U.S.C. § 181; 36 CFR 251.54(f)(1)).

**Mineral** - Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under Federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

**Mineral materials** - Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

**Minimization mitigation** - Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

**Mitigation** - Includes specific means, measures, or practices that could reduce, avoid, or eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action, minimizing the impact by limiting the degree of magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitation, or restoring the affected environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and compensating for the impact by replacing or providing substitute resources or environments.

**Modification (oil and gas)** - A fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

**Native plant species** - Species that were found here before European settlement, and consequently are in balance with these ecosystems because they have well developed parasites, predators, and pollinators.

**No surface occupancy (NSO)** - Use or occupancy of the land surface for fluid mineral exploration or development prohibited to protect identified resource values. The NSO stipulation includes stipulations that may be worded as “No Surface Use/Occupancy,” “No Surface Disturbance,” “Conditional NSO,” or “Surface Disturbance or Surface Occupancy Restriction (by location).”

**Occupied Lek** - A lek that has been active during at least one strutting season within the prior 10 years.

**Opportunity (allotment closure)** - A suitable or favorable time to abolish or close an allotment because of nonuse violations, term permit waivers where the permit is waived back to the government, resource protection, or permit actions resulting in cancellation of the permit.

**Permit** — A special use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System land or facilities for specified purposes, and which is both revocable and terminable.

**Persistent woodlands** – Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

**Plan of Operation** - A Plan of Operation is required for all mining activity conducted under the General Mining Act of 1872, as amended, if the proposed operations will likely cause significant disturbance of surface resources. The Plan of Operation describes the type of operations proposed and how they would



be conducted, the type and standard of existing and proposed roads or access routes, the means of transportation to be used, the period during which the proposed activity will take place, and measures to be taken to meet the requirements for environmental protection (36 CR 228.4).

**Prescribed fire** - Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist and NEPA requirements, where applicable, must be met before ignition.

**Priority management areas** - Areas identified by the Forest Service, in coordination with respective state wildlife agencies, as having the highest conservation value to maintaining sustainable greater sage-grouse populations. These areas include breeding, late brood-rearing and winter concentration areas.

**Prohibit** – To forbid (something) by law, rule, or other authority; no authorizations will be issued.

**Reclamation plans** – Plans that guide the suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

**Residual impacts** - Impacts from an implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Restoration** - Implementation of a set of actions that promotes plant community diversity and structure that allows plant communities to be more resilient to disturbance and invasive species over the long term. The long-term goal is to create functional, high quality habitat that is occupied by greater sage-grouse. Short-term goal may be to restore the landform, soils and hydrology and increase the percentage of preferred vegetation, seeding of desired species, or treatment of undesired species.

**Restrict** – To put a limit on; keep under control; to limit someone’s actions or movement, or to limit the amount, size, etc., of something.

**Right-of-way** - Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under or through such land.

**Road or trail** - A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

**Sagebrush focal areas** – A subset of priority greater sage-grouse habitat, as identified by the U.S. Fish and Wildlife Service, which are considered most vital to the species persistence and therefore, have the strongest levels of protection.

**Soft triggers** - An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

**Special use authorization** - A written permit, term permit, lease, or easement that authorizes use or occupancy of National Forest System lands and specifies the terms and conditions under which the use or occupancy may occur.

**Stipulation (general)** - A term or condition in an agreement, contract, or written authorization.

**Stipulation (oil and gas)** - A provision that modifies standard oil and gas lease terms and conditions in order to protect other resource values or land uses and is attached to and made a part of the lease.

**Soft trigger** - An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

**Surface disturbing and disruptive activities** - Actions that alter the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Examples of surface disturbing activities may include operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; maintenance activities, and several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be either restricted or prohibited.

**Surface use** - Activities that may be present on the surface or near-surface (e.g., pipelines) of public lands. When administered as a use restriction (e.g., no surface occupancy), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study enclosure, etc.), and/or administrative sites (e.g., government ware-yard, etc.) where only authorized, agency personnel are admitted.

**Tall structures** - A wide array of infrastructures (e.g., poles that support lights, telephone and electrical distribution, communication towers, meteorological towers, high-tension transmission towers, and wind turbines) that have the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

**Technically/economically feasible** - Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the Forest Service's sole responsibility to determine what actions are technically and economically feasible. The Forest Service will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit.

**Temporary special use permit** – A type of permit that terminates within 1 year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits. Temporary special use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

**Term permit** – An authorization to occupy and use National Forest System land, other than rights-of-way for a specified period that is both revocable and compensable according to its terms.

**Timely** - The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun.

**Transmission line** - An electrical utility line with a capacity greater than or equal to 100kV or a natural gas, hydrogen, or water pipeline greater than or equal to 24" in diameter.

**Travel management system** – Planned and authorized roads, trails, and areas for motor vehicle use on National Forest System lands that are managed in a controlled, sustained manner.

**Utility-scale and/or commercial energy development** – A project that is capable of producing 20 or more megawatts of electricity for distribution to customers through the electricity-transmission-grid system.

**Valid existing rights** - Documented, legal rights, or interests in the land, which allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted or otherwise authorized under various statutes of law.

**Vegetation treatments** - Management practices that are designed to maintain current vegetation structure or change the vegetation structure to a different stage of development. Vegetation treatment methods may include managed fire, prescribed fire, chemical, mechanical, and seeding.

**Viability** - For purposes of the National Forest Management Act and its enabling regulations, viability is the availability of habitat that allows a species to persist on landscapes for long-periods (multi-generational) of time. It assumes that populations are abundant (sufficient numbers) and well-distributed (sufficient redundancy of populations) to provide for long-term population persistence on a landscape.

**Waiver (oil and gas)** - Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

**West Nile virus** - A virus that is found in temperate and tropical regions of the world and most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds, including greater sage-grouse.

**Wildfire suppression** - An appropriate management response to wildfire, or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

## Appendix F – Required Design Features

The following required design features (RDFs) are included for consideration and use based upon review of current science and effects analysis (circa 2014) (Table A-1). These may be reviewed during project evaluation and updated through plan maintenance as new information and updated scientific findings become available.

The table is organized by program area grouping the RDFs most relevant to that program. All relevant RDFs, regardless of which program they are grouped under, should be considered during project evaluation and applicable RDFs should be applied during implementation, with the exception that they would be implemented as best management practices for locatable minerals activities, to the extent allowable by law. The table identifies the specific measure (numbered) and its appropriate application – as an RDF – required all the time everywhere; or as an RDF required when the applicable resources are present. In some cases the RDFs may not all be appropriate based on local conditions and would be assessed in the appropriate site specific NEPA analysis, these all should be considered and where determined to be beneficial to achieving GRS habitat objectives included as part of the site specific project. In other cases additional project design criteria or best management practices could be incorporated into project implementation to address site specific concerns not fully addressed by the RDFs described here.

Table A-1. Required Design Features

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
<b>General</b>		
Solicit and consider expertise and ideas from local landowners, working groups, and other federal, state, county, and private organizations during development of projects.		X
<b>Wildfire Suppression</b>		
Compile district-level information into state-wide sage-grouse tool boxes. Tool boxes will contain maps, listing of resource advisors, contact information, local guidance, and other relevant information for each district, which will be aggregated into a state-wide document.	X	
Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics. The Fire Planning and Fuels Management Division (FA-600) hosts a webpage containing up-to-date maps, instruction memoranda, conservation measures, BMPs, and spatial data specific to fire operations and fuels management/sage-grouse interactions. These resources can be accessed at: <a href="http://web.blm.gov/internal/fire/fpfm/sg/index.html">http://web.blm.gov/internal/fire/fpfm/sg/index.html</a> . Additional BLM sage-grouse information can be found at: <a href="http://www.blm.gov/wo/st/en/prog/more/fish_wildlife_and/sage-">http://www.blm.gov/wo/st/en/prog/more/fish_wildlife_and/sage-</a>	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
<a href="#">grouse-conservation.html</a> .		
Assign a resource advisor with sage-grouse expertise, or who has access to sage-grouse expertise, to all extended attack fires in or near sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals. Involve state wildlife agency expertise in fire operations through: instructing resource advisors during preseason trainings; qualification as resource advisors; coordination with resource advisors during fire incidents; contributing to incident planning with information such as habitat features or other key data useful in fire decision making	X	
At the onset of an emerging wildland fire the Agency Administrators and Fire Management Officers will an engage a local Resource Advisor to assess sage-grouse habitat that may be affected by the fire or suppression activities.	X	
If complexity of the wildland fire warrants the activation of an Incident Management Team, locally refined information regarding important sage-grouse habitat will be relayed during in brief and continually throughout the incident.		X
On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.		X
As appropriate, utilize existing fuel breaks, such as roads or discrete changes in fuel type, as control lines in order to minimize fire spread.		X
During periods of multiple fires, ensure line officers are involved in setting priorities.	X	
To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, heli-bases, etc.) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.	X	
Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and all-terrain vehicles (ATV) prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.	X	
Minimize cross-country vehicle travel during fire operations in sage-grouse habitat.	X	
Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.	X	
Utilize retardant, mechanized equipment, and other available	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
resources to minimize burned acreage during initial attack.		
As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.		X
Adequately document fire operation activities in sage-grouse habitat for potential follow-up coordination activities.	X	
<b>Fuels Management</b> Unless otherwise specified as part of the land use plan consider the full array of fuels management treatment types (prescribed fire, mechanical, chemical and biological) when implementing the following RDFs.		
Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.	X	
Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.	X	
Use burning prescriptions which minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of annual grass invasion).	X	
Ensure proposed sagebrush treatments are planned with full interdisciplinary input pursuant to NEPA and coordination with state fish and wildlife agencies, and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.	X	
Where appropriate, ensure that treatments are configured in a manner that promotes use by sage-grouse.	X	
Where applicable, incorporate roads and natural fuel breaks into fuel break design.		X
Power-wash all vehicles and equipment involved in fuels management activities, prior to entering the area, to minimize the introduction of undesirable and/or invasive plant species.	X	
Design vegetation treatments in areas of high fire frequency which facilitate firefighter safety, reduce the potential acres burned, and reduce the fire risk to sage-grouse habitat. Additionally, develop maps for sage-grouse habitat which spatially display existing fuels treatments that can be used to assist suppression activities.	X	
Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands, first to sites which are adjacent to or surrounded by Priority Habitat Management Areas or that reestablish continuity between Priority Habitat Management Areas. Annual grasslands are a second priority for restoration when the sites are not adjacent to Priority Habitat Management Areas, but within Important Habitat Management Areas. The third priority for annual grassland habitat restoration projects are sites within General	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
Habitat Management Areas. The intent is to focus restoration outward from existing, intact habitat.		
As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs or one of that referenced in land use planning documentation.	X	
Emphasize the use of native plant species, especially those from a warmer area of the species' current range, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.	X	
Remove standing and encroaching trees within at least 110 yards of occupied sage-grouse leks and other habitats (e.g., nesting, wintering and brood rearing) to reduce the availability of perch sites for avian predators, as resources permit.		X
Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.		X
Reduce the risk of vehicle- or human-caused wildfires and the spread of invasive species by installing fuel breaks and/or planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.		X
Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, etc.) to aid in controlling wildfire, should wildfire occur near PHMA or priority restoration areas (such as where investments in restoration have already been made).	X	
Design treatments to provide a break in fuel continuity in large, at-risk, expanses of continuous sagebrush. Use local knowledge of fire occurrence, spread patterns, and habitat values at risk to determine the proper placement and size of the fuel break.	X	
Use existing agreements with local, county, and state road departments to improve and maintain existing fuel breaks during routine road maintenance. Examples include: blading, mowing, disking, grading, and spraying roadside vegetation.		X
Form partnerships with linear right-of-way holders to maintain fuel breaks, which reduce fuel continuity and serve to protect at-risk landscapes.		X
Use existing NEPA documentation and authorities, where possible, when conducting road right-of-way maintenance. In many instances, existing authorizations for roads or linear rights-of-way contain provisions for maintenance activities that could be implemented and incorporated into a vegetation and habitat protection strategy without requiring additional NEPA analysis. Document this with a Determination of NEPA Adequacy (DNA).		X
Enter into agreements with road departments which may help fund the construction and maintenance of fuel breaks adjacent to roads, as funding permits.		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
Spatially depict the locations of existing and planned fuel breaks in a landscape fuel break map and label each vegetation polygon for reference. Offices will make these maps available to suppression resources for use in fire operations.	X	
Vegetation Treatment		
Utilize available plant species based on their adaptation to the site when developing seed mixes. (Lambert 2005; VegSpec).	X	



Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
Utilizing the warmer component of a species' current range when selecting native species for restoration when available (Kramer and Havens 2009).		X
Reduce annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc. (Pyke 2011).		X
Reduce density and competition of introduced perennial grasses using appropriate techniques to accomplish this reduction (Pellant and Lysne 2005).		X
Utilize techniques to introduce desired species to the site such as drill seeding, broadcast seeding followed by a seed coverage technique, such as harrowing, churning or livestock trampling, and transplanting container or bare-root seedlings.		X
Assess existing on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider techniques to increase on-site seed production to facilitate an increase in density of desired species.		X
Use site preparation techniques that retain existing desirable vegetation.	X	
Use "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources.		X
Utilize post-treatment control of annual grass and other invasive species.	X	
Utilize new tools and use of new science and research as it becomes available.	X	
<p>Give higher priority to vegetation rehabilitation or manipulation projects that include:</p> <p>Sites where environmental variables contribute to improved chances for project success (Meinke et al. 2009).</p> <p>Areas where seasonal habitat is limiting GRSG distribution and/or abundance (wintering areas, wet meadows and riparian areas, nesting areas, leks, etc.).</p> <p>Re-establish sagebrush cover in otherwise suitable GRSG with consideration to local needs and conditions using the general priorities in the following order:</p> <ul style="list-style-type: none"> <li>Recently burned native areas</li> <li>Native grassland with suitable forb component</li> <li>Nonnative grassland with suitable forb component</li> <li>Recently converted annual grass areas</li> <li>Native grassland</li> <li>Nonnative grassland</li> </ul> <p>Where desirable perennial bunchgrasses and/or forbs are deficient in existing sagebrush stands, use appropriate mechanical, aerial or other techniques to re-establish them. Examples include but are not limited to, use of a Lawson aerator with seeding, harrow or chain with</p>	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
seeding, drill seeding, hand planting plugs, aerial seeding or other appropriate technique. Cooperative efforts that may improve GRSG habitat quality over multiple ownerships. Projects that may provide connectivity between suitable habitats or expand existing good quality habitats. Projects that address conifer encroachment into important GRSG habitats. In general the priority for treatment is 1) Phase 1 (≤10% conifer cover), 2) Phase 2 (10-30%), and 3) Phase 3 (>30%). • Replacing stands of annual grasses within otherwise good quality habitats with desirable perennial species. Other factors that contribute to the importance of the restoration project in maintaining or improving GRSG habitat.		
When conducting vegetation treatments in areas inhabited or potentially inhabited by slickspot peppergrass ( <i>Lepidium papilliferum</i> ) follow the conservation measures in the applicable conservation agreement (revised August 2014).		X
Lands and Realty		
Where technically and financially feasible, bury distribution powerlines and communication lines within existing disturbance.		X
Above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.	X	
Place infrastructure in already disturbed locations where the habitat has not been fully restored.		X
Cluster disturbances, operations (fracturing stimulation, liquids gathering, etc.) and facilities as close as possible.		X
Co-locate linear facilities within one mile of existing linear facilities.		X
Micro-site linear facilities to reduce impacts to sage-grouse habitats.	X	
Locate staging areas outside the Priority Habitat Management Areas to the extent possible.	X	
Consider collocating powerlines, flowlines and pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW.		X
Restrict the construction of tall facilities and fences to the minimum number and amount needed.	X	
Use free standing structures where possible, to limit the use of guy wires. Where guy wires are necessary and appropriate bird collision diverters would be used, if doing so would not cause a human safety risk.	X	
Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.		X
Construction and development activities should conform to seasonal restrictions.	X	
Fluid Mineral Leasing		

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
Use directional drilling and/or multi well-pads to reduce surface disturbance.	X	
Apply a phased development approach with concurrent reclamation.	X	
Place liquid gathering facilities outside of PHMAs. Have no tanks at well locations within PHMAs to minimize truck traffic and perching and nesting sites for ravens and raptors.	X	
Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).		X
Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.	X	
Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to GRSG.	X	
Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.		X
Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007, Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)		X
Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).		X
<p>Remove or re-inject produced water to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat:</p> <p>Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions.</p> <p>Avoid flooding terrestrial vegetation in flat terrain or low lying areas.</p> <p>Construct dams or impoundments that restrict down slope seepage or overflow.</p> <p>Line the channel where discharge water flows into the pond with crushed rock.</p> <p>Construct spillway with steep sides and line it with crushed rock.</p> <p>Treat waters with larvicides to reduce mosquito production where water occurs on the surface</p>		X
In PHMA, limit noise from discretionary activities to not less than 10 decibels above ambient sound levels (typically 20-24 dBA) at occupied leks from 2 hours before to 2 hours after sunrise and sunset during breeding season.	X	
Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.		X
The BLM/Forest Service would work with proponents to limit	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
project related noise where it would be expected to reduce functionality of habitats in Priority and Important Habitat Management Areas.		
The BLM/Forest Service would evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate.	X	
Limit noise sources that would be expected to negatively impact populations in Priority and Important Habitat Management Areas and continue to support the establishment of ambient baseline noise levels for occupied leks in Priority Habitat Management Areas.	X	
As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate limitations would be implemented where necessary to minimize potential for noise impacts on sage-grouse core population behavioral cycles.	X	
As new research is completed, new specific limitations would be coordinated with the IDFG and MT FWP and partners.	X	
Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).		X
Require sage-grouse-safe fences.		X
Locate new compressor stations outside Priority Habitat Management Areas and design them to reduce noise that may be directed towards Priority Habitat Management Areas.	X	
Clean up refuse (Bui et al. 2011).	X	
Locate man camps outside of priority sage-grouse habitats.	X	
Consider using oak (or other material) mats for drilling activities to reduce vegetation disturbance and for roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.		X
Use only closed-loop systems for drilling operations and no reserve pits.	X	
Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.	X	
<b>Roads</b>		
Utilize existing roads, or realignments of existing routes to the extent possible.	X	
Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.	X	
Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.	X	
Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
speeds.		
Coordinate road construction and use among ROW or SUA holders.	X	
Construct road crossings at right angles to ephemeral drainages and stream crossings.		X
Use dust abatement on roads and pads.	X	
Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation.		X
<b>Roads Specific to Priority and Important Habitat Management Areas</b>		
Locate roads to avoid priority areas and habitats as described in the Wildfire and Invasive Species Assessments.	X	
Establish trip restrictions (Lyon and Anderson 2003) or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).	X	
Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)	X	
<b>Reclamation Activities</b>		
Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011).	X	
Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.		X
Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling and revegetating cut-and-fill slopes.	X	
Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.	X	
Irrigate interim reclamation if necessary for establishing seedlings more quickly.		X
Utilize mulching techniques to expedite reclamation and to protect soils.		X
<b>Grazing Required Design Features</b>		
Avoid building new wire fences within 2 km of occupied leks (Stevens 2011). If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates.	X	
Place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, out of line of sight or at least one kilometer (preferably 3 km) from occupied leks, where such structures would increase the risk of avian predation.	X	
Utilize temporary fencing (e.g., ESR, drop down fencing) where feasible and appropriate to meet management objectives.		X
Fence wetlands (e.g., springs, seeps, wet meadows and/or riparian areas) where appropriate, to maintain or foster progress toward Proper Functioning Condition and to facilitate management of sage-		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
grouse habitat objectives. Where constructing fences or enclosures to improve riparian and/or upland management, incorporate fence marking or other BMPs/RDFs as appropriate.		
During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), livestock trailing will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse. Over-nighting, watering and sheep bedding locations on public lands must be at least 1 km from occupied leks during the lekking season to reduce disturbance from sheep, human activity and guard animals.	X	
Work with permittees in locating sheep over-nighting, watering and sheep bedding locations to minimize impacts to sage-grouse seasonal habitats.	X	
When trailing livestock during the lekking or nesting season, use roads or existing trails, to the extent possible to reduce disturbance to roosting, lekking or nesting sage-grouse.		X
Design new spring developments in GRSG habitat to maintain or enhance the free flowing characteristics of springs and wet meadows. Modify developed springs, seeps and associated pipelines to maintain the continuity of the predevelopment riparian area within priority GRSG habitat where necessary.		X
Install ramps in new and existing livestock troughs and open water storage tanks to facilitate the use of and escape from troughs by GRSG and other wildlife.		X
<b>West Nile Virus Required Design Features</b>		
Construct water return features and maintain functioning float valves to prohibit water from being spilled on the ground surrounding the trough and/or tank and return water to the original water source, to the extent practicable.	X	
Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.	X	
Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide livestock water.	X	
For most spring developments or wells, mosquito breeding habitat usually is not an issue. Flowing cold (less than 50° Fahrenheit) water and steep sides of the stock tanks are not conducive for egg laying or larvae production. If flows are low, the water is warm, or moss production is an issue in the tank, mosquito breeding habitat could exist in the tank.	X	
Maintenance of healthy wetlands at spring sources helps control mosquitoes and their larvae by providing habitat for natural predators such as birds, dragonflies and amphibians. Protecting the		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
wetland at the spring source with a fence is an option to consider.		
Clean and drain stock tanks before the season starts. If never cleaned or drained, many tanks will fill with silt or debris causing warmer water and heavy vegetation growth conducive to mosquito reproduction.		X
Draining tanks after the period of use is completed, particularly in warmer weather, also reduces potential habitat by eliminating stagnant standing water.		X
Maintain a properly functioning overflow to prevent water from flowing onto the pad and surrounding area, to eliminate or minimize pooling of water that is attractive to breeding mosquitoes.	X	
Clean or deepen overflow ponds to maintain colder temperatures to reduce mosquito habitat.		X
Install and maintain float valves on stock tank fill pipes to minimize overflow	X	
Harden stock tank pads to reduce tracks that can potentially hold water where mosquitoes may breed.	X	
Build ponds with steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments to deter colonizing by mosquitos (Knight et al. 2003, cited in NTT report page 61).	X	
Consider removing and controlling trees and shrubs to reduce shade and wind barriers on pit and reservoir shorelines if not needed for wildlife, fish, or recreational values.		X
Impoundments that remain accessible to livestock and wildlife can cause tracking and nutrient enrichment from manure which can create favorable mosquito breeding habitat. Where this is a concern, it may be desirable to fence the reservoir and pipe the water to a tank.		X
Construct dams or impoundments that minimize down-slope seepage or overflow. Seepage and overflow results in down-grade accumulation of vegetated shallow water areas that support breeding mosquitoes.		X
On ponds and reservoirs with enough depth and volume, introduce native fish species, which feed on mosquito larvae.		X
Line the overflow of a dam’s spillway with crushed rock and constructing the spillway with steep sides to preclude the accumulation of shallow water and vegetation to reduce mosquito habitat.		X
Where an existing reservoir has filled with silt, consider cleaning to reduce shallow water habitat conducive to mosquito reproduction.		X
During confirmed West Nile virus outbreaks in sage-grouse habitat, consider larvicide applications.		X
<b>Travel Management Required Design Features</b>		

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/values are present
Designate or design routes to direct use away from priority areas identified in Wildfire and Invasive Species Assessments and still provide for high-quality and sustainable travel routes and administrative access, legislatively mandated requirements, and commercial needs	X	
Recreation Required Design Features		
Direct use away from GRSG priority areas as described in the Wildfire and Invasive Species Assessments.	X	
Eliminate or minimize external food sources for corvids.		X



## **Appendix G – Seasonal Timing Restriction**

During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), project activities will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse.

### Appendix H - Application of Buffers

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Incidental disturbance to individual GRSG within all habitat types during all seasons			
	Public or administrative activities that include incidental foot, aerial, horseback, or other similar travel.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Livestock grazing activities (except where specifically noted below).	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Public vehicle travel not otherwise restricted in Travel Management Plans; or administrative vehicle travel on existing routes for maintenance of existing infrastructure, facilities, or vegetation projects; or non-organized/non-permitted activities.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
Loss (i.e. death) of nests/eggs, chicks and/or adults that may occur within the nesting <sup>4</sup> habitat during the nesting season			
	Anthropogenic activities such as the use of heavy equipment <sup>2</sup> or targeted grazing in nesting habitat <sup>3</sup> for: 1) implementation of fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical	BMP Priority, Important, General: Avoid these activities within nesting habitat during the nesting <sup>3</sup> season.	Application of the seasonal nesting habitat restriction would avoid and minimize the loss of nests/chicks/hens. This is a BMP since the impact is loss of individual grouse and is small scale and not population-scale. Disallowing infrastructure maintenance or

Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	exploration activities; 4) organized motorized recreational events		construction in nesting habitat outright may not be realistic as an RDF. Impacts may be able to be offset via appropriate mitigation.
	Bedding Sheep & Associated Camps	BMP: Priority, Important, General: During the nesting season, locate bedding areas and camps outside of sagebrush areas <sup>3</sup> .	Application of the seasonal nesting habitat restriction would avoid/minimize the loss of nests/chicks by focusing bedding and camps in areas not meeting nest habitat characteristics for sagebrush cover (i.e., use areas less than 15% canopy cover).
	Fences	Existing Fences:  RDF: Priority and Important; BMP for General- Where consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management, move, modify (e.g. lay down fences) or mark existing fences to reduce collision risk within areas that have a high probability of fence strikes (per Stevens et al. 2012 model or latest science).	Application of these measures would avoid/minimize the loss of birds to fence strikes.
		New Fences:  RDF: Priority and Important; BMP for General- Do not construct new fences within areas of high collision risk unless marked or modified, consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management .	

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Permanent functional or physical loss of a lek or declining attendance at lek <sup>4</sup>			
	Unleased fluid minerals	<p>Stipulation: Preiority, Important, General: Do not allow wells, pads, facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek.</p> <p>Stipulation: Priority, Important, General: Limit average well pad density to no more than 1 per 640 acres within nesting<sup>3</sup> and winter<sup>3</sup> habitat.</p>	<p>This impact may have a population level effect and trip a population trigger therefore we recommended this be an RDF. Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km from grouse leks. The 1/640 density per based on consideration of 1) Harju et al. (2010) who found pad density of 1.54 pad/sq km (1 pad/247 ac ) had 13-74% lower attendance at leks and 2) Doherty (2008 page iii and 79) who noted potential impacts from oil and gas development were indiscernible at ~1 well/640 acres. IDswMT biology team recommended a more conservative approach to minimize risk of tripping a population trigger, hence the 1/640.</p>
	Commercial solar development	<p>RDF: Priority-No commercial solar development.</p> <p>RDF: Important- Do not allow new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek<sup>4</sup>.</p> <p>BMP-General: Avoid new facilities or associated above ground</p>	<p>No specific literature available relative to solar development. Recommended buffer is based on recent literature (Harju et al 2010) that 0.6 or 0.25 mile buffers are not. The 2 mile buffer is consistent with Connelly et al. 2000 regarding energy facilities (page 978).</p>

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	
	Roads	BMP: Priority, Important, General: Do not construct new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of leks <sup>4</sup> .	Patricelli et al. 2012 (Recommendations for interim protections in WY) recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. We apply it here as a lek-centric BMP because we may need to construct a road near a lek (perhaps for fire operations/access or to allow access to private lands or per ROW need). If we buffer roads in the Priority or Important Areas via a large lek buffer, it may lead to disturbance of a much larger area of nesting habitat in the course of avoiding the lek and buffers. The BMP would at least allow for siting to avoid the lek, and reducing road noise near the lek, without compromising broader landscapes.
	Commercial/ industrial Pipelines (oil, gas, slurry, and similar)	BMP: Priority, Important, General. Minimize removal of sagebrush within 0.6 miles of leks <sup>4</sup> .	Application of this measure is designed to minimize loss of sagebrush in the vicinity of the lek. The main concern was with loss of sagebrush in vicinity of lek, that is used by GRSG for cover. The 0.6 mile buffer is based on rationale in the Colorado GRSG Conservation Plan as below:  BACKGROUND INFORMATION: From Colorado GRSG Conservation Plan Appendix B: [Lek Habitat

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>(March through mid-May) - The basis and rationale for the first radius, 0.6 miles from a lek (Fig. B-1), is developed by summarizing data from 5 separate studies of daytime movements of adult male sage-grouse during the breeding season (Carr 1967, Wallestad and Schladweiler 1974, Rothenmaier 1979, Emmons 1980, Schoenberg 1982), because daytime movements of adult male GRSG during the breeding season do not vary greatly. Wallestad and Schladweiler (1974) found daily movements of adult males ranged between 0.2 and 0.8 miles from leks, with a maximum cruising radius of 0.9 - 1.2 miles. Ellis et al. (1987) reported that dispersal flights of male GRSG (to day-use areas) ranged from 0.3 – 0.5 miles, with the longest flights ranging from 1.2 – 1.3 miles. Carr (1967) recorded a cruising radius for male GRSG that ranged from 0.9- 1.1 miles. Rothenmaier (1979) found that 60-80% of male GRSG locations were within 0.6 - 0.7 miles of a lek. Emmons (1980) reported that male dispersal distances to day-use areas of 0.1 miles were common and that 67% of all use areas were greater than 0.3 miles from the lek. In addition, Schoenberg (1982) found that male daily movements averaged 0.6 miles, but ranged from 0.02 - 1.5 miles.</p>

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>Male GRSG activity patterns during the breeding season include strutting during the early morning hours, feeding and loafing during the day, and roosting on the lek during the night. Grouse attending the lek do not always roost on the exact location where the strutting occurs the next morning. Occasionally (this is lek-dependent), grouse roost in adjacent sagebrush cover.</p> <p>Ultimately, male GRSG require an open area for strutting, and sagebrush immediately adjacent for feeding and loafing. Sagebrush adjacent to the lek is also used as escape cover from predators or other types of disturbance. Female GRSG that attend the lek also use the area in this zone in the same fashion as do males (Patterson 1952, Barnett and Crawford 1994, Coggins 1998).]</p> <p>Study locations noted above: Carr-Colorado; Wallestad and Schladweiller- Montana; Emmons-Colorado; Schoenberg- Colorado; Rothenmaier –unable to locate Univ. WY Thesis but study area not defined.</p>
	Miscellaneous anthropogenic structures/ activities (e.g., corrals, water windmills, apiaries, signs, informational kiosks, etc.)	BMP Priority, Important, General: Avoid human activities or placement of new structures as noted within 2 miles (3.2 km) mi of a lek <sup>4</sup> or ensure	This is a catch all to reduce impact of miscellaneous structures where possible (some are tall <sup>5</sup> , such as water windmill, some are small, but have

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		they are out of the viewshed of the lek.	human activity- such as kiosks) or activities not otherwise addressed in this table. Based on biology team discussion and input, and Connelly et al. 2000 Guidelines that state, “avoid building powerlines and other tall structures that provide perch sites for raptors within 3 km of seasonal habitats” (page 977). Avoiding “seasonal habitats” entirely by 3 km would preclude any of these activities at all in Priority, Important or General, but siting 2 miles + from leks as a BMP would nonetheless help protect leks from disturbance. Adding the “viewshed” caveat can help with siting in cases where topography or such screens view of the activity or structure.
	Campgrounds and other developed recreation facilities (trailheads etc.)	BMP: Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	Biology team discussion. No literature specific to this issue. Aldrich (2012) mentions GRSG avoidance threshold 2.5 km from any single development at patch scale.
	OHV Play or Open Areas	RDF-Priority and Important; BMP for General. No new Open or Play areas.	Rationale is to reduce risk for further noise, habitat loss, fire risk in the Priority, Important and General Areas.
	Solid Minerals		These measures for solid minerals are intended to reduces noise and human disturbance to lekking birds. Siting/ avoidance buffers not realistic due to



Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			the nature of mineral deposits.
		Locatables-BMP Priority, Important, General: Access roads and associated infrastructure not on the mining claim-Avoid disturbance to leks <sup>4</sup> during the lekking season.	Regulations 43 CFR 3809.420 performance standards, speak to T/E, and habitat. As a BMP, it provides an opportunity to work with the developer where we can, such as routing access roads etc., siting of facilities/infrastructure etc., that are off the claim, that we have some discretion with.
		Salables- RDF: Priority: Do not construct new salable development within 0.8 mile (1.3 km) of leks <sup>4</sup> .	Salables- No literature specific to salables but buffer distance is based on the noise literature for roads. See Patricelli et al. 2012 (WY recommendations for interim noise protections) that recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. Chose RDF for Priority and BMP in Important and General habitat since new Salable pits (e.g., gravel) may be necessary to support road maintenance or improvement for access by fire operations or for other locally important factors.
		Leasables-non-energy (e.g., phosphate)-	Leasables: None presently known in Priority based on current mapping, but

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		<p>RDF-Priority and Important: New phosphate leasing is administratively unavailable.</p> <p>BMP-Priority, Important, General-On existing leases avoid disturbance to leks<sup>4</sup> during the lekking season</p>	<p>Priority RDF included in case of a trigger trip and re-delineation of IDswMT subregional management areas.</p> <p>In “Important” there is only one such area with existing lease and Known Phosphate Lease Areas (KPLAs), just west of Bear. It is Federal mineral/private surface. No interest in surface mining but there is interest by a company in underground development. Company is proposing facilities on surface, but working with IDFG locally. Lek within .3 mile.</p> <p>BMP for lek disturbance for all Management Areas in case of trigger trip and IDswMT Management Area re-delineation and since there are some KPLAs in the General Management Area. Working with proponent to reduce lek disturbance is realistic and may take on different forms, such as road access, placement of facilities, etc.. However, “exclusion” buffers are not realistic given the nature of the location of solid mineral deposits (i.e., cannot site elsewhere). For these, incorporation of appropriate mitigation, in addition to the lek BMP may need to be a primary focus.</p>
	Wind development (commercial)	RDF. Priority-No commercial wind development .	Wind: Labeau et al. (2014) stated that erecting wind turbines at least 5 km

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		BMP: Important and General: Avoid wind development in nesting and/or winter habitat.	from nesting and brood rearing habitat should reduce negative impacts, at least in the short term. However putting a 5 km (3 mile) buffer around leks in Important habitat, would create a defacto closure for the most part, inconsistent with the intent of the Important designation. Hence BMP to avoid placement in nesting or winter habitat.
	Communication Towers	RDF: Priority -Do not allow communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> unless needed to address public safety needs.  BMP- Important and General--Avoid communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> unless needed to address public safety needs.	Johnson et al. (2011 pg. 427) noted "Analogously, across all management areas there was a steady downward pattern of trends of lek counts as the number of towers increased, either within 5 km (Fig. 21) or within 18 km (Fig. 22)."
	Transmission Lines	RDF: Priority, Important, General: Do not allow transmission line construction within 600 m of a lek.  BMP Priority, Important, General: Avoid transmission line construction within 2 miles (3.2 km) of a lek.	A 600 m GRSG avoidance zone reported per Gillan et al. (2013). No other spatial buffer supported by literature. While 600 m is a citable buffer, a 2 mile zone as BMP for Transmission is recommended as well. Based on Connelly et al. 2000 Guidelines to avoid tall structures in important seasonal habitats.
	Distribution Lines	BMP: Priority, Important and General-Avoid distribution line construction within 600 m of a lek or bury where possible	600 m, based on Gillan et al. BMP as this may not always be feasible.

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Temporary functional loss of a lek <sup>4</sup> . SEASONAL RESTRICTION			
	BLM and Forest Service permitted anthropogenic activities that result in noise or visual disturbance that may lead to sustained avoidance of the lek during a particular lekking season.	RDF: Priority and Important- No repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season <sup>3</sup> .  BMP-General: Avoid repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season <sup>3</sup> .	Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km (~ 1 mile) from grouse leks. IDswMT biology team recommended a more conservative approach to managing disturbance to minimize risk of disturbance.
	Sheep Bedding & Sheep Camps	BMP Priority, Important, General: Avoid bedding sheep and placing camps within 0.6 mi of a lek during the lekking season.	No literature. BMP based on biology team consensus.
	Organized Recreational Events	RDF Priority and Important-Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.  BMP General- Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.	Biology team consensus. No specific literature relative to buffers for recreational events but can manage this through avoiding the appropriate season. This threat (organized recreational events) is a short term, typically one-day event, with temporary disruption from noise the main issue.
Permanent functional or physical loss of nesting or winter habitat.			

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	Anthropogenic development or activities that result in loss of habitat or constant or repeated noise levels or objects on the landscape that result in permanent avoidance of the habitat.	Ensure > 80% of the landscape is functionally and physically meeting GRSG habitat objectives appropriate to the seasonal habitat <sup>3</sup> .	Impacts resulting from loss of habitat vary depending on the extent of the habitat lost. Minimal loss of habitat (e.g. removal of small amounts of sagebrush cover) would not likely result in any measurable impacts to GRSG individuals or the associated populations.  More extensive loss of habitat may result in increased probability of population level impacts, and trigger trips, through the increased probability that leks will no longer persist.
	Roads	BMP: Priority, Important, General: Avoid construction of new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of nesting habitat.	See citations used for permanent loss of leks, above.
	Unleased Fluid Minerals	Stipulation: Priority, Important, General: Limit average well pad density to no more than 1/640 acres within nesting <sup>3</sup> and winter <sup>3</sup> habitat.	See citations used for permanent loss of leks, above.
	Commercial Solar	RDF: Priority-No commercial solar development.  RDF: Important: Do not allow facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .  BMP-Important: Avoid placing new	See citations used for permanent loss of leks, above.

Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	
	Campgrounds	BMP-Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	See citations used for permanent loss of leks, above.
	OHV Play and Open areas	RDF-Priority and Important. No new Open or Play areas. BMP-General: Avoid new Open or Play areas	See citations used for permanent loss of leks, above.
	Wind Development (commercial)	RDF Priority - No commercial wind development .  BMP: Important: Avoid wind development in nesting habitat	See citations used for permanent loss of leks, above.
Temporary functional loss of winter habitat			
	Anthropogenic activities that result in noise or visual disturbance that may lead to avoidance of a particular wintering area during a particular wintering season.	RDF: Priority, Important- No repeated or sustained disturbance from construction activities in winter habitat during the wintering season.  BMP General: Avoid repeated or sustained disturbance from construction activities in winter habitat during the wintering season.	No known buffer. Biology team recommendation.

# Chapter 5

## Cumulative Impacts



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Administrative Draft  
Cooperating Agency Review



1 **Changes to Chapter 5 between Draft LUPA/EIS and Proposed LUPA/Final EIS**

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- The cumulative impact analysis was moved from Chapter 4, Section 4.16 to Chapter 5. All subsequent chapters have been renumbered accordingly.
  - The GRSG cumulative impact analysis in the DEIS was supplemented and additional information was included regarding quantitative impacts on the WAFWA Management Zone level.
  - All sections were updated to include analysis of the Proposed Plan.
  - Table 5-1 was revised to reflect an updated list of past, present, and reasonably foreseeable future actions.
  - General corrections (e.g., typographical errors), clarifications, and acreage recalculations were included.

Administrative Draft  
Cooperating Agency Review

1           **Chapter 5.    Cumulative Impacts**

2           This section presents the likely cumulative impacts on the human and natural environment  
3           that could occur from implementing the alternatives presented in **Chapter 2**. This section is  
4           organized by topic, similar to **Chapter 3**.

5           A cumulative impact is the impact on the environment which results from the incremental  
6           impact of the action when added to other past, present, and reasonably foreseeable future  
7           actions regardless of what agency (federal or non-federal) or person undertakes such other  
8           actions. Cumulative impacts can result from individually minor but collectively significant  
9           actions taking place over a period of time. Cumulative impacts on the environment result  
10          from implementing any one of the Idaho and Southwestern Montana Greater Sage-Grouse  
11          LUPA/EIS alternatives, in combination with other federal, state, or private actions, either  
12          within or next to the planning area.

13          A cumulative impact analysis is required by CEQ regulations because environmental  
14          conditions result from many different factors that act together. The total effect of any single  
15          action cannot be determined by considering it in isolation; it must be determined by  
16          considering the likely result of that action in conjunction with many others. Evaluation of  
17          potential impacts considers incremental impacts that could occur from the proposed project,  
18          as well as impacts from past, present, and reasonably foreseeable future actions.  
19          Management actions could be influenced by activities and conditions on adjacent public and  
20          private lands beyond the planning area boundary; therefore, assessment data and information  
21          could span multiple scales, landownerships, and jurisdictions. These assessments involve  
22          determinations that often are complex and, to some degree, subjective.

23          **5.1    Greater Sage-Grouse Cumulative Effects Analysis: Idaho and Southwestern**  
24          **Montana**

25          This cumulative effects analysis (CEA) discloses the long-term effects on Greater Sage-  
26          Grouse (GRSG) from implementing each LUPA/EIS alternative, in conjunction with other  
27          past, present, and reasonably foreseeable future actions. In accordance with Council on  
28          Environmental Quality guidance, cumulative effects need to be analyzed in terms of the  
29          specific resource and ecosystem being affected (Council on Environmental Quality 1997). As  
30          discussed in **Chapter 1**, the purpose for the proposed federal action is to identify and  
31          incorporate appropriate conservation measures to conserve, enhance, and restore GRSG  
32          habitat by reducing, eliminating, or minimizing threats to GRSG habitat. The Western  
33          Association of Fish and Wildlife Agencies (WAFWA) delineated seven sage-grouse  
34          management zones based on populations within floristic provinces (Stiver et al. 2006).  
35          Therefore, the cumulative effects analysis study area for GRSG extends beyond the Idaho  
36          and Southwestern Montana Sub-region boundary and incorporates Western Association of  
37          Fish and Wildlife Agencies (WAFWA) Management Zones (MZs) IV, and II/VII.

38          MZ II and VII are combined for the purpose of characterizing GRSG habitat conditions  
39          and impacts, as was done in the Summary of Science, Activities, Programs, and Policies That  
40          Influence the Range-Wide Conservation of Greater Sage-Grouse (Manier et al. 2013).

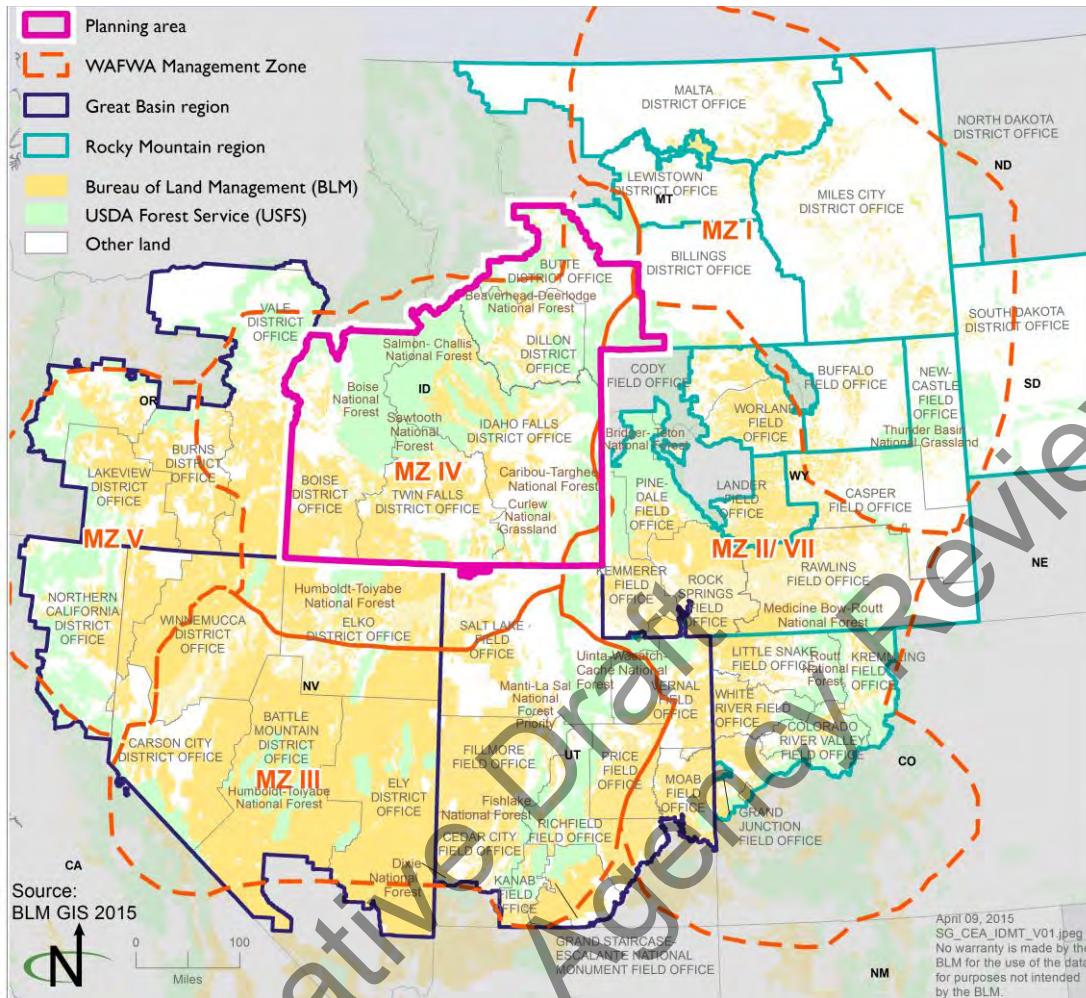
1 However, the Idaho and southwestern Montana sub-region contains a portion of MZ II and  
2 does not overlap with MZ VII. The analysis of BLM and Forest Service actions in MZs IV  
3 and II/VII is primarily based on MZ-wide datasets developed by the BLM National  
4 Operations Center (NOC).

5 As indicated in the DEIS, the CEA for the FEIS includes quantitative analysis where  
6 possible. Where quantitative data are not available, analysis is qualitative. This analysis  
7 includes past, present and reasonably foreseeable future actions for all land ownerships in  
8 the MZs, and evaluates the impacts of the Idaho and Southwestern Montana LUPA, by  
9 alternative, when added to those.

10 The analysis of nonfederal actions is more qualitative and includes a review and analysis of  
11 the following:

- 12 • State plans
- 13 • Coordination with states and agencies during consistency reviews
- 14 • Additional data from non-BLM-administered lands.

15 The following diagram shows the boundaries of the WAFWA Management Zones and the  
16 BLM and Forest Service planning areas. The Idaho and southwestern Montana sub-region  
17 contains a large proportion of MZ IV, with 11,827,900 acres of PHMA out of 22,105,600  
18 total acres in MZ IV (54 percent); and 5,635,700 acres of GHMA out of 10,128,500 total  
19 acres in MZ IV (56 percent). In contrast, the Idaho and southwestern Montana sub-region  
20 has a relatively small influence in the context of MZ II/VII, because it contains relatively  
21 few priority habitat management areas (PHMA) or general habitat management areas  
22 (GHMA): 147,100 acres of PHMA out of 14,105,000 total acres in MZs II/VII (1 percent);  
23 and 23,600 acres of GHMA out of 17,771,500 total acres in MZs II/VII (less than 1  
24 percent). As a result, actions in the Idaho and southwestern Montana LUPA/EIS may have  
25 less impact on GRSG than those in larger planning areas in MZs II/VII.



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**Section 5.1.1**, Methods, provides a description of the methodology used for this cumulative effects analysis. **Section 5.1.2** lists assumptions used in the analysis. **Section 5.1.3** describes existing conditions in WAFWA MZ IV and in the Idaho and southwestern Montana sub-region. **Section 5.1.4**, provides a broad-scale description regional efforts to manage GRSG in MZ IV. **Section 5.1.5** discusses the relevant cumulative actions in MZ IV that will be analyzed in this CEA. **Section 5.1.6** analyzes threats to GRSG in MZ IV and discusses the potential cumulative effects resulting from each threat for each alternative. Section 5.1.7 describes existing conditions in WAFWA MZs II/VII. **Section 5.1.8** provides a broad-scale description regional efforts to manage GRSG in MZs II/VII. **Section 5.1.9** discusses the relevant cumulative actions in MZs II/VII that will be analyzed in this CEA. **Section 5.1.10** analyzes threats to GRSG in MZs II/VII and discusses the potential cumulative effects resulting from each threat for each alternative. **Section 5.1.11**, Conclusions, determines the cumulative effects on GRSG as a result of implementing each alternative in combination with other private, local, regional, state, and federal past, present, and reasonably foreseeable future actions in MZs IV and II/VII.

1           **5.1.1 Methods**

2           The CEA uses the following methods:

- 3           • Data from the USGS publication Summary of Science, Activities, Programs, and  
4           Policies That Influence the Range-Wide Conservation of Greater Sage-Grouse  
5           (Manier et al. 2013) establishes the reference condition against which the  
6           alternatives and other past, present, and reasonably foreseeable future actions are  
7           compared. Data from this publication are presented in terms of priority habitat  
8           and general habitat. Where Manier et al. (2013) data are used in this CEA,  
9           “priority habitat” refers to PPH and “general habitat” refers to PGH".
- 10          • The USFWS’s 12-Month Findings for Petitions to List the Greater Sage-Grouse  
11          (Centrocercus urophasianus) as Threatened or Endangered” (USFWS 2010) and  
12          the USFWS publication Conservation Objectives: Final Report (i.e., the COT  
13          report; USFWS 2013) were reviewed to identify the primary threats facing GRSG  
14          in each WAFWA MZ. Table 2 of the COT report lists threats to GRSG that are  
15          present and widespread in each population in the MZ.
- 16          • For MZ IV the list of present and widespread threats that are directly or  
17          indirectly affected by BLM and Forest Service actions are fire, spread of weeds,  
18          conifers, infrastructure, grazing/free-roaming equids, conversion to agriculture,  
19          energy development/mining, and recreation (USFWS 2013, pp. 22-24). For MZ  
20          II/VII, these threats include: energy development/mining, infrastructure,  
21          grazing, conversion to agriculture, fire, spread of weeds, recreation, and conifers  
22          (USFWS 2013, pp. 17-19, 27-28). Two other threats listed in the COT report,  
23          sagebrush eradication and isolation/small population size, affect GRSG  
24          populations in MZs IV and II/VII. While they are not addressed separately in  
25          this analysis, they are discussed as elements of other threats.
- 26          • Predation was not included as a threat in the final COT report and was not  
27          identified by USFWS as a significant threat to GRSG populations (USFWS  
28          2010). Predation is a natural occurrence that may be enhanced by human habitat  
29          modifications such as construction of infrastructure that may increase  
30          opportunities for nesting and perching or increase exposure of GRSG nests. In  
31          such altered habitats, predators may exert an undue influence on GRSG  
32          populations. Predation is discussed in this CEA in the context of these other  
33          threats.
- 34          • Sagebrush eradication and isolation/small population size are discussed as a  
35          component of other threats and in the conclusions. This is because sagebrush  
36          eradication is a component of many threats and is not addressed by any one  
37          management program. Isolation/small population size is not analyzed separately  
38          because no management actions directly address this threat. Not all the threats  
39          discussed in this section represent major threats to GRSG in each planning area  
40          in the MZs, but each poses a present and widespread threat to at least one  
41          population.

- 1 • Each threat is analyzed (quantitatively when possible), and a brief conclusion for  
2 each threat is provided.
  - 3 ○ The BLM NOC compiled MZ-wide datasets for quantifiable actions in all  
4 LUPA/EISs in MZs IV and II/VII. These datasets provide a means by  
5 which to quantify cumulative impacts from direct impacts of the threats  
6 identified in the COT report.
  - 7 ○ Data and information were gathered from other federal, state, and local  
8 agencies and tribal governments, where available, and were used to inform  
9 the analysis of cumulative impacts on GRSG from each of the threats in  
10 MZs IV and II/VII. Because of the lack of consistent non-BLM and non-  
11 Forest Service data across the MZ, this portion of the analysis is qualitative.
- 12 • A conclusion is provided for each alternative in **Section 5.1.11**. Each alternative  
13 considers the cumulative impacts on GRSG from each of the threats. It also  
14 considers whether those threats can be ameliorated by implementing that  
15 particular alternative in conjunction with non-BLM and non-Forest Service  
16 actions in MZs IV and II/VII.
- 17 • The list of relevant cumulative actions in **Sections 5.1.5** and **5.1.9** was derived  
18 from each LUPA in MZs IV and II/VII to provide an overview of the ongoing  
19 and proposed land uses there.
- 20 • Baseline data that are consistent across planning areas and that analyze  
21 cumulative effects for each alternative, including the no action alternative and  
22 Proposed Plan, are used in this analysis.
- 23 • The Idaho and southwestern Montana sub-region is located within two MZs. In  
24 this instance, the CEA analyzes threats and impacts for each MZ separately.
- 25 • Although Alternative A does not designate PHMA or GHMA, spatial GIS data  
26 was clipped to these boundaries to allow for a consistent comparison across all  
27 alternatives.
- 28 • This analysis uses the most recent information available. It assumes that the  
29 Proposed Plan will be implemented in the other BLM and Forest Service sub-  
30 regions in MZs IV and II/VII.

### 31 **5.1.2 Assumptions**

32 This cumulative analysis uses the same assumptions and indicators as those established for  
33 the analysis of direct and indirect effects on GRSG in **Section 4.4.9**. In addition, the  
34 following assumptions have been made:

- 35 • The timeframe for this analysis is 20 years.
- 36 • The CEA area extends beyond the sub-region boundary and encompasses all of  
37 WAFWA MZ IV and II/VII; the quantitative impact analysis focuses on impacts  
38 across the MZs. The MZ is the appropriate geographic scope for this analysis

1 because it encompasses areas with similar floristic conditions containing  
2 important GRSG habitat.

- 3 • The magnitude of each threat would vary geographically and may have more or  
4 less impact on GRSG in some parts of the MZs, depending on such factors as  
5 climate, land use patterns, and topography.
- 6 • A management action or alternative would contribute a net conservation gain to  
7 GRSG if there is an actual benefit or gain above baseline conditions. Baseline  
8 conditions are defined as the pre-existing condition of a defined area and/or  
9 resource that can be quantified by an appropriate metric(s). During  
10 environmental reviews, the baseline is considered the affected environment that  
11 exists at the time of the review's initiation, and is used to compare predictions of  
12 the effects of the proposed action or a reasonable range of alternatives.
- 13 • The CEA quantitatively analyzes GRSG habitat. Impacts on habitat are likely to  
14 correspond to impacts on populations within the MZs, since reductions or  
15 alterations in habitat could affect reproductive success through reductions in  
16 available forage or nest sites. Human activity could cause disturbance to the  
17 birds, preventing them from mating or successfully rearing offspring. Human  
18 activities also could increase opportunities for predation, disease, or other  
19 stressors (Connelly et al. 2004; USFWS 2010; Manier et al. 2013).
- 20 • The governor of Idaho is expected to issue an executive order providing  
21 direction for GRSG conservation in Idaho on state lands. This executive order is  
22 expected to be largely consistent with BLM and Forest Service direction, though  
23 exact details are not known at the time this FEIS is published.
- 24 • Acres presented for GHMA also include acres within Idaho Important Habitat  
25 Management Areas (IHMA).

### 26 **5.1.3 Existing Conditions in WAFWA MZ IV and the Idaho and Southwestern** 27 **Montana Sub-region**

28 This section summarizes existing conditions and past and present actions for the Idaho and  
29 southwestern Montana sub-region (provided in more detail in **Chapter 3**) and for MZ IV as  
30 a whole. Reasonably foreseeable future actions are discussed in **Section 5.1.5**.

#### 31 ***GRSG Habitats and Populations***

32 MZ IV consists of nine GRSG populations: Baker, East-Central, Southwest Montana,  
33 Snake-Salmon-Beaverhead, Belt Mountains, Weiser, Northern Great Basin, Box Elder, and  
34 Sawtooth (Garton et al. 2011). The sub-region includes seven of these populations: East-  
35 Central, Southwest Montana, Snake-Salmon-Beaverhead, Weiser, Northern Great Basin, Box  
36 Elder, and Sawtooth. This MZ represents one of the largest areas of connected GRSG  
37 habitat, as demonstrated by Knick et al. (2011), and supports the largest population of  
38 GRSG outside of the Wyoming Basin (Garton et al. 2011). MZ IV includes GRSG  
39 populations in Oregon, Idaho, Nevada, Utah and Montana.

In MZ IV, BLM-administered and other federal lands account for approximately 22,522,300 million acres of GRSG habitat (approximately 68 percent of habitat), with state and private lands accounting for over 10 million acres of GRSG habitat (approximately 31 percent of habitat) (Manier et al. 2013, p. 118). The BLM also has some management authority over split estate lands, with privately held surface and federal subsurface mineral rights. Approximately 21 percent of PHMA and 44 percent of GHMA within MZ IV are located on BLM-administered and National Forest System lands in the Idaho and southwest Montana sub-region.

**Table 5-1** provides a breakdown of landownership and acres of GRSG habitat in MZ IV. As the table shows, approximately 52 percent of priority habitat and 19 percent of general habitat is on BLM-administered lands. Approximately 7 percent of priority habitat and 5 percent of general habitat is on National Forest System lands.

**Table 5-1**  
**Management Jurisdiction in MZ IV by Acres of Priority and General Habitats**

	Total Surface Area (Acres)	Priority (Acres)	General (Acres)	Non-habitat (Acres)
<b>MZ IV</b>	78,259,200 (100%)	21,930,600 (28%)	10,958,500 (14%)	45,370,100 (58%)
BLM	26,220,300 (34%)	13,710,700 (52%)	4,928,200 (19%)	7,581,400 (29%)
Forest Service	22,291,600 (28%)	1,613,800 (7%)	1,113,500 (5%)	9,564,300 (43%)
Tribal and other federal	2,431,000 (3%)	633,600 (26%)	522,500 (21%)	1,274,900 (52%)
Private	23,150,400 (30%)	4,890,200 (21%)	3,516,700 (15%)	14,743,500 (64%)
State	3,681,000 (5%)	1,019,400 (28%)	846,200 (23%)	1,815,400 (49%)
Other	484,800 (<1%)	62,900 (13%)	31,400 (6%)	390,500 (81%)

Source: Manier et al. 2013, p. 118

***Sub-region Habitat Conditions***

Sub-regional habitat conditions and trends are presented by population area in **Table 3-4** in this EIS.

***Idaho and Southwestern Montana LUPA/EIS Alternatives***

The Idaho and Southwestern Montana LUPA and EIS evaluates the following seven alternatives:

- Alternative A, current management (the no action alternative)



- 1 • Alternative B, which was developed using GRSG conservation measures in A  
2 Report on National Greater Sage-Grouse Conservation Measures (Sage-Grouse  
3 National Technical Team 2011)
- 4 • Alternative C, which was developed based on recommendations from individuals  
5 and conservation groups for protecting and conserving GRSG and habitat  
6 rangewide
- 7 • Alternative D, which incorporates conservation measures to conserve, enhance,  
8 and restore GRSG habitat on BLM-administered and National Forest System  
9 lands, while balancing resources and resource use among competing human  
10 interests, land uses, and the conservation of natural and cultural resource values,  
11 and sustaining and enhancing ecological integrity across the landscape, including  
12 plant, wildlife, and fish habitat.
- 13 • Alternative E, which was developed from recommendations by the State of  
14 Idaho's GRSG Task Force
- 15 • Alternative F, which was derived from individual and conservation group  
16 comments. This alternative contains a mixture of management actions from A  
17 Report on National Greater Sage-Grouse Conservation Measures as well as  
18 additional restrictions on resource uses and increased resource protection; and
- 19 • Proposed Plan, which was developed through a coordinated partnership of BLM,  
20 Forest Service, the States of Idaho and Montana and the USFWS and is  
21 consistent with the objectives described in the COT report

22 MZ IV contains 4,198,900 acres of the Southern Idaho/Northern Nevada Sagebrush Focal  
23 Area (SFAs), and MZs II/VII contain 563,300 acres of the Bear River Watershed Area SFA.  
24 SFAs are a subset of PHMA and represent recognized "strongholds" for the species that  
25 have been noted and referenced by the conservation community as having the highest  
26 densities of the species and other criteria important for the persistence of the species. Those  
27 portions of SFAs on BLM-administered and National Forest System lands would be  
28 petitioned for withdrawal from mineral entry; subject to an NSO stipulation with no  
29 exceptions, modifications, or waivers (MZ IV only); and would be prioritized for  
30 management and conservation actions, including but not limited to, review of livestock  
31 grazing permits/leases. Management of SFAs would enhance protection of GRSG in these  
32 areas, providing a net conservation gain to the species in light of other past, present, and  
33 reasonably foreseeable future actions considered in this CEA.

#### 34 ***Population Trends in Management Zone IV***

35 Historic conversion of habitat to agriculture as well as fire, urbanization, and spread of  
36 weeds have resulted in a residual sagebrush landscape that is less productive and more  
37 fragmented than those prior to European colonization. As a result, more GRSG populations  
38 in the region are relatively small and/or separated from adjacent populations. Notable  
39 exceptions are the Snake-Salmon-Beaverhead and Northern Great Basin populations  
40 (Manier et al. 2013, p. 132). Garton et al. (2011) predicted a 10.5 percent chance this MZ will

1 fall below 200 males by 2037, and a 39.7 percent chance it would fall below 200 males by  
2 2107 (USFWS 2013, p. 75).

3 While population estimates and trends for the sub-region are not available, GRSG  
4 populations are described in **Section 3.2** of the EIS. The Snake-Salmon-Beaverhead and  
5 Northern Great Basin populations encompass the largest number of occupied leks in the  
6 sub-region. The Northern Great Basin population is especially important to long-term  
7 conservation of GRSG in MZ IV. This is because it comprises a substantial portion of the  
8 Great Basin core population (Connelly et al. 2004); shared with Nevada, Utah, and Oregon,  
9 this is one of the two remaining major population strongholds in the range of the species.  
10 Between 2007 and 2013, this population showed a 34 percent decline in the estimated  
11 minimum male population attending leks in the population (Garton et al. 2015, p. 35). The  
12 Snake-Salmon-Beaverhead population provides additional and substantial population  
13 contributions within Idaho. It also provides known connectivity with the Southwest  
14 Montana population area.

15 In Montana, the GRSG population changes cyclically. The GRSG population declined  
16 sharply from 1991 to 1996, before increasing through 2000 (Montana Sage Grouse Work  
17 Group 2005). The population is thought to be down 33 percent from historic levels.  
18 Between 2004 and 2013, the average number of displaying males per lek in a given year in  
19 Montana ranged from 7 to 19 (Greater Sage-Grouse Habitat Conservation Strategy 2014).

#### 20 **5.1.4 Regional Efforts to Manage Threats to GRSG in MZ IV**

21 There are several regional efforts to manage threats to GRSG in MZ IV. Because state and  
22 private lands account for approximately 10 million acres (approximately 31 percent) of  
23 GRSG habitat in MZ IV (Manier et al. 2013, p. 118) these efforts play an important role in  
24 alleviating threats to GRSG.

##### 25 ***Idaho Statewide Efforts***

26 Similar to efforts in nearby states, the governor of Idaho is expected to issue an executive  
27 order providing direction for GRSG conservation in Idaho on state lands. This executive  
28 order is expected to be largely consistent with BLM and Forest Service direction, though  
29 exact details are not known at the time this FEIS is published.

30 Idaho Department of Lands prepared the Proposed Greater Sage-Grouse Conservation Plan  
31 (IDL 2015). Released in February 2015, and complementing Idaho Governor Otter's  
32 proposed plan (Alternative E of the Draft Idaho and Southwest Montana LUPA/EIS), the  
33 draft plan focuses on three primary threats to GRSG in Idaho: wildfire, infrastructure, and  
34 invasive species. The plan outlines enforceable stipulations in leases, permits, and easements  
35 on IDL lands. Conservation measures in the plan will be used as BMPs for activities  
36 supporting fire prevention, suppression, and rehabilitation, regulating oil and gas  
37 development, some mining activities, and abandoned mine reclamation. While the plan is  
38 comprised of voluntary management guidelines, the guidelines may be utilized by state  
39 regulatory agencies for projects requiring agency review or approval.



1 The Idaho Sage-grouse Advisory Committee prepared their Conservation Plan for the  
2 Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee 2006) to provide  
3 guidance, tools, and resources to GRSG Local Working Groups, and to facilitate and  
4 provide statewide consistency between Local Working Group plans. The plan identifies 19  
5 threats to GRSG and GRSG habitat and presents conservation measures to address each of  
6 those threats. Rural Fire Protection Districts have been established within the state to help  
7 suppress fires in GRSG habitat.

### 8 ***Utah State Efforts***

9 On February 25, 2015, Utah Governor Gary Herbert signed Utah Executive Order  
10 EO/2015/002. The EO directs state agencies whose actions may affect GRSG to  
11 implement Utah Division of Wildlife Resources' Conservation Plan for Greater Sage Grouse  
12 in Utah (Utah Greater Sage-Grouse Working Group 2013). The conservation plan identifies  
13 11 population areas in Utah that are the focus of GRSG conservation efforts, and helps  
14 coordinate the efforts of ten local working groups in the state and UDWR. The goal of the  
15 state plan is to protect, maintain, improve and enhance GRSG populations and habitats on  
16 public and private lands within the established management areas. It includes conservation  
17 strategies and measurable objectives regarding populations and habitat, and through the EO,  
18 provides a regulatory mechanism to preserve GRSG through specific restrictions on public  
19 or private land use.

### 20 ***Montana Statewide Efforts***

21 The Montana Department of Fish, Wildlife and Parks (MFWP) is tasked with implementing  
22 the range-wide WAFWA Sage-Grouse Strategy (Stiver et al. 2006) in Montana. The  
23 WAFWA Sage-Grouse Strategy monitors, researches, provides outreach, and funds  
24 conservation projects for GRSG. A basic premise of the WAFWA Sage-Grouse Strategy is  
25 that additional conservation capacity must be developed at all local, state, federal, and range-  
26 wide levels for both the short term (3 to 5 years) and for the long term (10 years or more) to  
27 ensure GRSG conservation.

28 In addition, the MFWP's Montana Management Plan and Conservation Strategy for Sage-  
29 Grouse was initiated in 2005 to protect, maintain, and restore GRSG habitat. The plan ranks  
30 threats to the species across the state and provides an overall strategy for public and private  
31 cooperation in conservation actions. In 2013, the governor established the Greater Sage-  
32 Grouse Habitat Conservation Advisory Council to provide recommendations on policies  
33 and actions for GRSG conservation. The council provided these recommendations in  
34 January 2014. The governor subsequently issued an executive order on September 9, 2014  
35 (State of Montana 2014), based on the council recommendations that provided the direction  
36 for GRSG conservation in Montana.

37 Montana Executive Order. The Montana governor issued an executive order on September  
38 9, 2014 (State of Montana 2014), based on the council recommendations that provided the  
39 direction for GRSG conservation in Montana. Stipulations for development in the executive  
40 order and Montana Management Plan and Conservation Strategy for Sage-Grouse include  
41 but are not limited to:

- 1 • A 0.6-mile NSO buffer around the perimeter of active leks for new activities
- 2 • Locating new overhead power lines and communication towers a minimum of
- 3 0.6-mile from the perimeter of active leks
- 4 • A minimum 2.0-mile buffer from active lek perimeters for main roads and a
- 5 minimum 0.6-mile buffer for facility site access roads
- 6 • A 5 percent limit on anthropogenic surface disturbance within the Density and
- 7 Disturbance Calculation Tool examination area (based upon suitable habitat)
- 8 • As authorized by permitting agency or agencies, activities (production,
- 9 maintenance and emergency activity exempted), will typically be prohibited from
- 10 March 15 through July 15 outside of the NSO perimeter of an active lek and
- 11 within 2 miles of that perimeter in Core Population Areas where breeding,
- 12 nesting, and early brood-rearing habitat is present

13 The approach of the Montana executive order/Montana Management Plan and  
14 Conservation Strategy for GRSG is similar to the Wyoming executive order. Montana's plan  
15 will apply a disturbance cap in core habitat and will limit well density and apply timing  
16 limitations. The 0.6-mile buffer would protect males in the vicinity of leks during the  
17 breeding season; the density limits and disturbance cap would protect GRSG during nesting,  
18 brood-rearing, and winter concentration activities. The timing restrictions would reduce the  
19 potential for displacement or disruption during the breeding season.

### 20 ***Oregon Statewide Efforts***

21 The Oregon Department of Fish and Wildlife (ODFW) has developed a strategy to promote  
22 conservation of GRSG and intact, functioning, GRSG habitats in Oregon. The Greater  
23 Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and  
24 Enhance Populations and Habitat (Oregon State Plan, Hagen 2011) describes the ODFW's  
25 proposed management of GRSG. It also provides guidance to public land management  
26 agencies and land managers for GRSG conservation. GRSG conservation guidelines in the  
27 State Plan are designed to maintain (at a minimum) or enhance the quality (the optimum) of  
28 current habitats. They will also assist resource managers in achieving the population and  
29 habitat objectives of the State Plan.

30 The Oregon State Plan provides biological recommendations for long-term conservation of  
31 GRSG in Oregon based on the best available science; however implementing  
32 recommendations is the responsibility of the respective land manager. Thus, the intent of the  
33 Oregon State Plan is plan is to inform decision-maker regarding the biological consequences  
34 of various actions on GRSG, but not to dictate land management decisions. Similarly, GRSG  
35 conservation proposed in the plan is voluntary on private lands (Hagen 2011, p. viii).

36 The Oregon State Plan establishes "Core Areas" to help delineate landscape planning units  
37 by distinguishing areas of high biological value to GRSG. These areas are based on the  
38 locations of breeding areas, wintering areas, and connectivity corridors and are intended to  
39 help balance GRSG habitat requirements with development outside of Core Areas, which  
40 would be subject to stipulations and regulations (Hagen 2011, p. 80). ODFW developed



1 Core Areas necessary to conserve 90 percent of Oregon's GRSG population with emphasis  
2 on highest density and important use areas which provide for breeding, wintering and  
3 connectivity corridors. BLM used the same boundaries of ODFW Core Areas to delineate  
4 PHMA.

5 While the plan is comprised of voluntary management guidelines, the guidelines may be  
6 utilized by state regulatory agencies including the Energy Facility Siting Council as conditions  
7 of approval on a case-by-case basis for certain energy projects. For example, the council has  
8 jurisdiction on wind energy projects greater than 105 MW (Dave Budeau, phone  
9 conversation with author, March 26, 2015).

10 Further, The Oregon Governor's natural resources department is currently in the process of  
11 developing regulations for GRSG conservation. The forthcoming Sage Grouse Conservation  
12 Action Plan will supplement the state plan and provide land use regulations and mitigations  
13 for Oregon core habitat areas (Dave Budeau, phone conversation with author, March 26,  
14 2015).

15 Oregon Candidate Conservation Agreements (CCA) and Candidate Conservation  
16 Agreements with Assurances (CCAA). CCAs are voluntary agreements between the USFWS  
17 and one or more parties (including federal agencies) to address the conservation needs of  
18 on-listed species at risk of being listed under the ESA. CCAAs are similar, though these  
19 voluntary agreements are made between the USFWS and non-federal landowners. One CCA  
20 and several CCAAs are currently in place or will soon be implemented that will cover the  
21 entire GRSG range in the state of Oregon. Under these agreements and the associated  
22 Enhancement of Survival permit issued under the ESA, landowners would voluntarily  
23 undertake management activities on their properties to enhance, restore, or maintain habitat  
24 benefiting GRSG, in exchange for assurances that they would not be subject to increased  
25 land use restrictions should GRSG become listed under the ESA in the future. The  
26 agreements have a term of 30 years, and can be renewed upon expiration. As of April 2015,  
27 over 2.7 million acres of GRSG habitat in Oregon are either enrolled or pending enrollment  
28 under such agreements; the amount of GRSG habitat enrolled is expected to rise as the  
29 GRSG listing decision nears. (Jeff Everett, Email to author, April 16, 2015).

30 GRSG Programmatic Candidate Conservation Agreement for Rangeland Management  
31 Practices on BLM Lands in Oregon. In cooperation with the BLM and USFWS, the Oregon  
32 Cattlemen's Association developed a Programmatic Candidate Conservation Agreement  
33 (Programmatic CCA) to reduce or eliminate negative impacts of rangeland management  
34 practices to GRSG and to maintain and support livestock grazing practices that are  
35 beneficial or neutral to GRSG on enrolled allotments administered by the BLM in Oregon.  
36 The Programmatic CCA covers approximately 10.2 million acres of GRSG habitat on BLM  
37 grazing allotments in southeast Oregon; however, not all these lands may eventually be  
38 enrolled in the programmatic CCA (USFWS 2013b). As of April 2015, BLM has received 65  
39 written requests for enrollment covering 121 allotments on more than 1.9 million acres (Jeff  
40 Everett, Email to author, April 16, 2015).

1 Harney County Programmatic CCAA. After implementation of the Programmatic CCA  
2 described above, Oregon's Harney County Soil and Water Conservation District developed a  
3 programmatic CCAA for private lands in the county (USFWS 2013c). The covered area  
4 encompasses all GRSG habitat on non-federal lands in Harney County, Oregon and on  
5 some lands immediately adjacent to but outside of Harney County, including 346,965 acres  
6 of PPH and 825,395 acres of PGH. BLM-administered grazing allotments within Harney  
7 County are still eligible for inclusion under the Programmatic CCA. Because many grazers in  
8 Oregon utilize both private lands and BLM-administered allotments, the CCAA was  
9 structured after the Programmatic CCA in part to facilitate implementation of the  
10 agreements and encourage enrollment by such grazers (Jeff Everett, phone conversation  
11 with author, April 16, 2015). As of April 2015, 54 landowners have entered lands into the  
12 CCAA totaling approximately 320,000 acres of GRSG habitat (Jeff Everett, Email to author,  
13 April 16, 2015).

14 Oregon Multi-County Soil and Water Conservation District CCAA. Following development  
15 of the Harney County Programmatic CCAA, USFWS and the Soil and Water Conservation  
16 Districts from Baker, Crook, Deschutes, Grant, Lake, Malheur, and southern Union counties  
17 developed a CCAA for over 2.3 million acres of private rangelands within these counties,  
18 which represents the range of GRSG in Oregon. Again, BLM-administered grazing  
19 allotments within the counties are still eligible for inclusion under the Programmatic CCA,  
20 and again, the CCAA was structured after the Harney County CCAA in part to facilitate  
21 implementation of the agreements and encourage enrollment by grazers who utilize both  
22 private and BLM-administered allotments. As of April 2015, 55 landowners have entered  
23 lands into the CCAA totaling approximately 466,050 acres of GRSG habitat (Jeff Everett,  
24 Email to author, April 16, 2015).

25 The Oregon Department of State Lands (DSL) CCAA. DSL is working with the USFWS to  
26 develop a CCAA for State Common School Fund Rangelands in Oregon. These lands  
27 represent the final "gaps" in land ownership throughout GRSG range in Oregon not already  
28 covered by the CCA/CCAAs described above. The CCAA covers over 633,000 acres of  
29 DSL lands, including approximately 380,700 acres of low-density habitat, and 153,100 acres  
30 of core area habitat (80 FR 9475). The required Environmental Assessment under NEPA is  
31 currently available for public comment and will be finalized in May 2015 (Jeff Everett, phone  
32 conversation with author, April 16, 2015).

### 33 ***Nevada/California State Efforts***

34 Nevada State Plan. The state of Nevada submitted a state alternative for inclusion in the  
35 Nevada and Northeast California Sub-Regional Greater Sage-Grouse Draft Land Use Plan  
36 Amendment and Environmental Impact Statement (EIS). The Nevada Greater Sage-Grouse  
37 Conservation Plan (Sagebrush Ecosystem Technical Team 2014) includes regulatory  
38 mechanisms to avoid, minimize (with the use of design features) and/or mitigate impacts  
39 through the Conservation Credit System (described in additional detail below) to protect and  
40 restore GRSG habitat. The plan defines Sage Grouse Management Areas (SGMA), and aims  
41 to reach a conservation goal of a Net Conservation Gain of GRSG habitat due to new



1 anthropogenic disturbances. The state plan identifies GRSG core, priority, and general  
2 habitat within the SGMA.

3 Under the plan, project proponents must seek to avoid GRSG habitat disturbance. If a  
4 project proponent wishes to demonstrate that avoidance cannot be reasonably  
5 accomplished, exemptions will be granted to this restriction as part of the SETT  
6 Consultation. The project proponent must demonstrate that specific criteria are met; criteria  
7 are summarized in Table 3-1 of the plan. Criteria are more stringent in Core Management  
8 Areas, and become less so as habitat quality decreases. If a project cannot avoid adverse  
9 effects (direct or indirect) to GRSG habitat, the project proponent will be required to  
10 implement design features that minimize the project's adverse effects to GRSG habitat to  
11 the extent practicable. Mitigation will be required for all anthropogenic disturbances to  
12 GRSG habitat, including those that have minimized disturbances through the process above.  
13 Mitigation requirements will be determined by the Conservation Credit System, a market-  
14 based mechanism that quantifies conservation outcomes (credits) and impacts from new  
15 anthropogenic disturbances (debits), defines standards for market transactions, and tracks  
16 conservation action implementation progress in the state.

17 GRSG habitat is determined based on the Nevada Habitat Suitability Map (described below)  
18 for GRSG habitat prepared by the state and USGS. The habitat map incorporates GRSG  
19 telemetry data along with environmental data at multiple scales, such as land cover,  
20 vegetation communities, physiographic indices and anthropogenic attributes. The habitat  
21 suitability model will be used to inform management decisions on protecting the most  
22 critical habitat and to provide strategic decision tools to identify where conservation  
23 activities will have the greatest beneficial impact on the habitat.

24 The Nevada state plan only applies to the state; it does not apply to portions of the Nevada  
25 and Northeastern California Sub-region within California.

26 Nevada State Regulations/Programs. Nevada has several state regulations and programs  
27 pertaining to GRSG. Assembly Bill 461 formally created and gave regulatory authorization  
28 for the Sagebrush Ecosystem Program. Governor Sandoval signed the bill into law in July,  
29 2013. Nevada also has a pesticide registration fee; portions of the revenue from the fee will  
30 provide funding to the state noxious weed program and GRSG habitat conservation (WGA  
31 2014). The state also has a Nevada Cheatgrass Action Team (WGA 2014), a voluntary multi-  
32 disciplinary group of individuals to assist the SETT with planning and managing projects to  
33 address cheatgrass and other invasive or noxious weeds that impact GRSG habitat.

#### 34 ***Natural Resource Conservation Service Sage Grouse Initiative***

35 The Natural Resource Conservation Service's (NRCS) Sage Grouse Initiative (SGI) is  
36 working with private landowners in 11 western states to improve habitat for GRSG (Manier  
37 et al. 2013, p. 117). With approximately 31 percent of all sagebrush habitats across the range  
38 in private ownership (Stiver 2011, p. 39), and over 25 percent in MZ IV and nearly 38  
39 percent in MZ II/VII (Manier et al. 2013, p. 118), a unique opportunity exists for the NRCS  
40 to benefit GRSG and ensure the persistence of large and intact rangelands by implementing  
41 the SGI (USFWS 2010, p.5).

1 Participation in the SGI program is voluntary, but willing participants enter into binding  
2 contracts or easements to ensure that conservation practices that enhance GRSG habitat are  
3 implemented. Participating landowners are bound by a contract (usually 3 to 5 years) to  
4 implement, in consultation with NRCS staff, conservation practices if they wish to receive  
5 the financial incentives offered by the SGI. These financial incentives generally take the form  
6 of payments to offset costs of implementing conservation practices and easements or rental  
7 payments for long-term conservation.

8 While potentially effective at conserving GRSG populations and habitat on private lands,  
9 incentive-based conservation programs that fund the SGI generally require reauthorization  
10 from Congress under subsequent farm bills. These funding streams are potentially variable as  
11 they are subject to the political process.

12 As of 2014, the most recent year for which data are available, SGI has secured conservation  
13 easements on 98,167 acres within MZ IV (NRCS 2015). On these and additional private  
14 lands, SGI has completed other GRSG conservation actions within MZ IV, including  
15 implementation of grazing systems, conifer removal, vegetation seeding, and fence marking.  
16 These conservation actions are targeted at the critical threats in each MZ, consistent with  
17 those outlined in the COT report. SGI clusters implementation to achieve landscape  
18 benefits.

#### 19 ***Other Regional Efforts***

20 As part of the Greater Sage-Grouse Rangewide Planning Effort, other BLM and Forest  
21 Service sub-regions, as explained in Chapter 1, are undergoing LUPA/EIS processes similar  
22 to this one for the Idaho and Southwestern Montana Sub-Region. The Final EIS associated  
23 with each of these efforts has identified a Proposed Plan that meets the purpose and need of  
24 conserving, enhancing, and/or restoring GRSG habitat by reducing, eliminating, or  
25 minimizing threats. The management actions from the various Proposed Plans will  
26 cumulatively decrease the threat of GRSG habitat loss and will limit fragmentation  
27 throughout the range. Key actions present in many of the Proposed Plans include an  
28 adaptive management strategy, anthropogenic disturbance cap, and lek buffers. The  
29 cumulative effect of these actions, when added to the direct and indirect effects identified  
30 above, will be a reduction in the historic rate of fragmentation and loss of GRSG habitat.

31 Tribes, counties, and local working groups are playing a critical role in promoting GRSG  
32 conservation at the local level. Individual conservation plans have been prepared by most  
33 local working groups to develop and implement strategies to improve or maintain GRSG  
34 habitat and reduce or mitigate threats on the local level. The proposed conservation actions  
35 and recommendations in these plans are voluntary actions for private landowners.

36 Local working group projects have included monitoring, research, and mapping habitat  
37 areas, as well as public outreach efforts, such as landowner education and collaboration with  
38 federal, state, and other local entities.

39 A programmatic EIS by the Western Area Power Administration (WAPA) and the USFWS  
40 for the entire upper Great Plains will focus future wind energy developments in specific





1 corridors outside of GRSG core habitat (WAPA 2013). In accordance with Section 7 of the  
2 ESA, preparation of the programmatic EIS has involved consultation between cooperating  
3 entities and the USFWS and preparation of a programmatic Biological Assessment to ensure  
4 that the action will not jeopardize the continued existence of any federally-listed species,  
5 including the federal candidate GRSG. At the time of this LUPA specific conservation  
6 measures for protecting GRSG and its habitat under the programmatic EIS are not  
7 developed.

8 Some local working group conservation plans recommend restricting resource uses as well.  
9 For example, the Big Desert Sage-Grouse Conservation Plan (Big Desert Sage-grouse Local  
10 Working Group 2010) limiting recreational OHV use to existing designated roads and trails.  
11 Local working group GRSG conservation plans in MZ IV include the following:

- 12 • North Magic Valley Conservation Plan (2011)
- 13 • West Central Conservation Plan (2010)
- 14 • East Idaho Uplands Conservation Plan (2011)
- 15 • Big Desert Conservation Plan (2010)
- 16 • Shoshone Basin Conservation Plan (2008)
- 17 • Jarbidge Conservation Plan (2007)
- 18 • Curlew Valley Conservation Plan (2004)
- 19 • Owyhee County Conservation Plan (2013)
- 20 • Upper Snake Conservation Plan (2009)
- 21 • Challis Conservation Plan (2010)

#### 22 **5.1.5 Relevant Cumulative Actions**

23 This cumulative effects analysis considers past, present, and reasonably foreseeable future  
24 actions on other federal, state, private or mixed landownership lands in MZ IV (**Section**  
25 **5.1.12**). Where these actions interface with GRSG habitat, they would cumulatively add to  
26 the impacts of BLM- and Forest Service-authorized activities.

27 The following list includes past, present, and future actions in MZ IV that could  
28 cumulatively affect GRSG (more detail is included in the table in Appendix A):

- 29 • Gateway West 230/500 Transmission Line Project, Wyoming and Idaho
- 30 • Boardman to Hemingway Transmission Line Project, Oregon and Idaho
- 31 • Fuels and vegetation treatments throughout the MZ
- 32 • Grazing permit renewals and allotment management plan updates throughout  
33 the MZ

- 1 • China Mountain Wind Project, Nevada and Idaho
- 2 • Small mining projects throughout the MZ

3 Several Native American tribal members have expressed concern about military overflights  
4 causing mortality of GRSG chicks as they incubate within their eggs. Further investigation  
5 into these impacts is needed, as effects seem to be anecdotal.

#### 6 **5.1.6 Threats to GRSG in Management Zone IV**

7 In its COT report, the USFWS identifies fire, spread of weeds, conifer encroachment,  
8 infrastructure, grazing/free-roaming equids, conversion to agriculture, energy development,  
9 and recreation as the present and widespread threats facing GRSG populations in MZ IV  
10 (USFWS 2013, pp. 22-24). These threats impact GRSG mainly by fragmenting and  
11 degrading their habitat. The loss of sagebrush steppe across the West approaches or exceeds  
12 50 percent in some areas. It is a primary factor in long-term declines in GRSG abundance  
13 across its historical range (USFWS 2010).

14 Habitat fragmentation reduces connectivity of populations and increases the likelihood of  
15 extirpation from random events, such as drought or outbreak of West Nile virus.  
16 Furthermore, climate change is predicted to affect the distribution of species through  
17 changes in annual average precipitation, greater early season plant growth, and increased  
18 frequency and severity of wildfires (BLM 2013a). Sensitive species such as GRSG, which are  
19 already stressed by declining habitat, increased development, and other factors, could  
20 experience additional pressures as a result of climate change.

21 Each COT report threat considered present and widespread in at least one population in MZ  
22 IV is discussed below. The quantitative impact analysis focuses on impacts in the MZ (sub-  
23 region percentages are provided for context).

#### 24 ***Wildfire***

25 Nature and Type of Effects. Sagebrush killed by wildfire often requires many years to  
26 recover, especially after large fires. Contiguous old-growth sagebrush sites are at high fire  
27 risk, as are large blocks of contiguous dead sagebrush and sagebrush sites with a substantial  
28 cheatgrass understory. Before recovering, these sites are of limited use to GRSG, except  
29 along the edges and in unburned islands.

30 Because of its widespread impact on habitat, fire has been identified as a primary factor  
31 associated with GRSG population declines. Depending on the species of sagebrush and the  
32 size of a burn, a return to a full pre-burn community cover can take from 25 to 120 years  
33 (Baker 2011). In addition, fires can reduce invertebrate food sources and may facilitate the  
34 spread of invasive weeds.

35 While most sagebrush subspecies are killed by fire and slow to reestablish, cheatgrass  
36 recovers within one to two years of a fire from seed in the soil. This annual recovery leads to  
37 a reoccurring fire cycle that prevents sagebrush reestablishment (USFWS 2010, p. 13932).



1 BLM management to prevent or control wildfires can also affect GRSG and habitat.  
2 Increased human activity and noise associated with fire suppression, fuels treatments, and  
3 prescribed fire in areas occupied by GRSG could affect nesting, breeding, and foraging  
4 behavior. Important habitats could be altered because of the use of heavy equipment, hand  
5 tools, and noise.

6 In addition, suppression may initially result in higher rates of conifer encroachment in some  
7 areas. In the initial stages of encroachment, fuel loadings remain consistent with the  
8 sagebrush understory. As conifer encroachment advances, fire return intervals are altered by  
9 decreasing understory abundance. The depleted understory causes the stands to become  
10 resistant to low intensity wildfires; over years, the accumulating conifer loads contribute to  
11 larger-scale wildfires and confound control efforts due to extreme fire behavior.

12 Conditions in the Sub-region and in MZ IV. Wildfire has been a primary threat to GRSG  
13 habitats and populations occurring across MZ IV, with 81 percent of priority habitat and  
14 general habitat having high risk for fire, including the Snake-Salmon-Beaverhead and  
15 Northern Great Basin population areas (Manier et al. 2013, p. 133). Since 2000, more than  
16 4.9 million acres (14 percent of priority habitat and 17 percent of general habitat) of GRSG  
17 habitats have burned in this MZ, with an average of more than 239,000 acres of priority  
18 habitats burned annually; more than 1 million acres burned in some years (Manier et al. 2013,  
19 p. 133). The Murphy Fire in Idaho and Nevada affected over 650,000 acres of habitat in this  
20 MZ in 2007 (USFWS 2013, p. 78). In 2012, the Miller Homestead and Long Draw fires in  
21 southeastern Oregon burned 160,800 and 558,200 acres, respectively, mostly on BLM-  
22 administered lands with significant losses of GRSG habitat (BLM 2013c). An additional  
23 factor in the analysis of cumulative effects of fire on GRSG is the trend of increasing fire  
24 size and frequency and severity, due to factors including exotic annual grasses, and climate  
25 change.

26 Impact Analysis. Management actions in the Idaho and southwestern Montana sub-region  
27 that emphasize wildfire suppression in GRSG habitat would benefit the species by limiting  
28 habitat loss in the event of wildfire. Under current management (Alternative A), prescribed  
29 burning may be used to achieve habitat objectives. Alternatives B through F and the  
30 Proposed Plan provide for similar protection and maintenance of sagebrush habitat in  
31 implementing prescribed burning. The action alternatives all provide sagebrush protection in  
32 fuels treatment programs and would provide superior protection for sagebrush in prescribed  
33 burning, fuels treatment and fire suppression. The inter-agency Greater Sage- Grouse  
34 Wildfire, Invasive Annual Grasses & Conifer Expansion Assessment (Fire and Invasive  
35 Assessment Tool (FIAT)) under the Proposed Plan prioritizes landscapes for wildfire  
36 prevention and suppression, fuels management, and habitat restoration and rehabilitation  
37 within key GRSG habitats based on resistance and resilience concepts in Chambers et al.  
38 (2014). These actions are in accordance with the COT report objective to retain and restore  
39 healthy native sagebrush plant communities within the range of GRSG.

40 The use of chaff and flares by the military may increase wildfire risk, but this risk is generally  
41 mitigated by release altitudes about 2,000 feet above ground level and only above 5,000 feet

1 above ground level during fire risk categories 4 and 5 (Mountain Home Air Force Base  
2 2012).

3 Recognition of the importance of sagebrush habitat during interagency wildfire response  
4 would benefit GRSG in the event of an unplanned fire. The State of Idaho, State of Nevada  
5 and State of Utah GRSG conservation plans discussed in **Section 5.1.4** would benefit  
6 GRSG habitat in the MZ. The Montana Executive Order emphasizes fire suppression in  
7 Core Population Areas, while recognizing other suppression priorities may take precedent.  
8 These programs would benefit GRSG during wildfire planning and response, particularly on  
9 lands not administered by the BLM or Forest Service.

10 On the local level, the Owyhee County Sage-Grouse Conservation Plan (2013) recommends  
11 reseeding burned areas with sagebrush and implementing sagebrush restoration projects in  
12 historical GRSG habitat where historical fires have removed sagebrush cover. However, the  
13 conservation plan does not identify a funding source for this action.

14 The Interagency Standards for Fire and Fire Aviation Operations “Red Book” includes a  
15 BMP for GRSG habitat conservation for wildlife and fuels management (BLM 2013b). This  
16 document is a supplemental policy or guidance for the BLM, the Forest Service, and the  
17 USFWS. This BMP would benefit the GRSG during interagency wildland fire operations by  
18 using spatial habitat data and predictive services to prioritize and preposition firefighting  
19 resources in critical habitat areas. In January 2015, Secretarial Order 3336 “Rangeland Fire  
20 Prevention, Management and Restoration” was signed by the Secretary of the Interior. The  
21 order sets forth enhanced policies and strategies for preventing and suppressing rangeland  
22 wildfire and for restoring sagebrush landscapes impacted by wildfire across the West. The  
23 order will improve coordination with local, state, tribal, and regional efforts to address  
24 rangeland wildfire at a landscape level.

25 Reasonably foreseeable wildland fire management efforts are projected to increase (**Section**  
26 **5.1.12**), especially through increased coordination of federal, state, and local fire prevention  
27 actions and the implementation of other BLM and Forest Service LUPAs in MZ IV. When  
28 the impacts of the Idaho and southwestern Montana LUPA are added to these actions, this  
29 would result in a net conservation gain to GRSG habitats and populations in MZ IV.

### 30 ***Spread of Invasive Plants***

31 Nature and Type of Effects. As discussed in **Section 3.3**, invasive weeds alter plant  
32 community structure and composition, productivity, nutrient cycling, and hydrology.  
33 Invasive weeds also may cause declines in native plant populations, including sagebrush  
34 habitat, through such factors as competitive exclusion and niche displacement. Invasive  
35 plants reduce and may eliminate vegetation that GRSG use for food and cover. Invasive  
36 weeds fragment existing GRSG habitat and reduce habitat quality by competitively excluding  
37 vegetation essential to GRSG. Invasive weeds can also create long-term changes in  
38 ecosystem processes, such as fire cycles and other disturbance regimes that persist even after  
39 an invasive plant is removed (Connelly et al. 2004).



1 Roads and recreation can promote the spread of invasive weeds through vehicular traffic.  
2 Weed infestations can further exacerbate the fragmentation effects of roadways. Irrigation  
3 water has also supported the conversion of native plant communities to hayfields, pasture,  
4 and cropland, thus fragmenting sagebrush habitats. Excessive grazing in these habitats can  
5 lead to the demise of the most common perennial grasses in this system and an abundance  
6 of invasive species, such as cheatgrass or Japanese brome (Reisner et al. 2013).

7 Conditions in the Sub-region and in MZ IV. By way of seeds carried by wind, humans,  
8 machinery, and animals, invasive and noxious weeds have invaded and will continue to  
9 invade many locations in MZ IV, including the sub-region. Some species, including annual  
10 bromes and Canada thistle, have become so ubiquitous throughout the sub-region that it is  
11 considered economically unfeasible to attempt to control certain areas, such as those that  
12 have crossed a threshold that precludes their returning to traditional plant community  
13 composition through normal plant succession. Such species are considered part of the  
14 vegetative landscape despite their adverse impacts on other vegetation. Canada thistle,  
15 although common throughout the sub-region, is not treated on a plant-by-plant basis; rather,  
16 it is treated when plant populations reach densities high enough to make it the majority  
17 species. Examples are when it is growing in the bottom of dry reservoirs, on recreation sites,  
18 and along established roads and undeveloped vehicle trails.

19 The BLM and Forest Service currently manage weed infestations through integrated weed  
20 management: biological, chemical, mechanical, manual, and educational methods. The BLM  
21 is guided by the 1991 and 2007 RODs for Vegetation Treatment on BLM Lands in Thirteen  
22 Western States (BLM 1991) and by the 2007 Programmatic Environmental Report (BLM  
23 2007). Weeds are managed in cooperation with county governments and represents a  
24 landscape-level approach across management jurisdictions.

25 Impact Analysis. Increased activity, such as surface disturbance, motorized transportation,  
26 and animal and human activity, would increase the chance for the establishment and spread  
27 of invasive plants.

28 Management under Alternative A would allow for the most acres of surface disturbance;  
29 therefore, the potential for invasive weed spread and establishment would be greatest under  
30 this alternative, and effects to GRSG (e.g. reduction in quality of habitat) would be more  
31 pronounced. All of the action alternatives would reduce surface disturbance and would  
32 include weed-prevention measures to some degree. Of all alternatives, the Proposed Plan  
33 would likely have the lowest potential for invasive weed spread and establishment, given the  
34 three percent anthropogenic disturbance threshold which would limit surface disturbance;  
35 extensive mitigation and monitoring plans; wildfire and invasive species assessments and  
36 subsequent prioritization; application of RDFs and BMPs; and requirement for no net loss  
37 of key GRSG habitat. The COT report objective for invasive species is to maintain and  
38 restore healthy native sagebrush plant communities.

39 Invasive species on BLM-administered and National Forest System lands would be  
40 controlled under all alternatives. This would provide a net conservation gain to GRSG by  
41 restoring degraded sagebrush habitat.

1 Relevant cumulative actions that result in surface-disturbing activities, such as ROWs and  
2 energy and mining projects, would increase the potential for the spread of invasive weeds on  
3 both federal and non-federal lands. Projects subject to the general stipulations outlined in the  
4 Montana Executive Order are required to control noxious and invasive weed species and to  
5 use native seed mixes during reclamation processes. Similarly, Utah's state plan directs land  
6 managers to aggressively respond to new infestations of invasive plants, and prioritize  
7 containment of infestations within sagebrush habitats. The Nevada state plan includes  
8 stipulations for including control of invasive plant species and use of native seed mixes  
9 during reclamation. The Nevada and Utah state plans also address invasive species in fire  
10 management. The Idaho state plan includes conservation measures to prevent invasive  
11 species spread. These stipulations would benefit GRSG habitat by limiting the spread or  
12 establishment of invasive species, particularly on lands that lack BLM and Forest Service  
13 protective regulatory mechanisms. Further, the Greater Sage-Grouse Habitat Conservation  
14 Strategy for NRCS in Idaho has identified GRSG conservation measures related to invasive  
15 weeds, such as reducing the risk and rate of fire spread, restoration and rehabilitation, and  
16 weed control. A number of projects are ongoing or in the planning phase to treat nonnative,  
17 invasive species (Appendix A). These impacts would be the same under all alternatives.

18 Reasonably foreseeable weed management efforts are projected to increase (**Section 5.1.12**),  
19 including other state and county noxious weed regulations and the implementation of other  
20 BLM and Forest Service LUPAs in MZ IV. When the impacts of the Idaho and  
21 southwestern Montana LUPA are added to these actions, this would result in a net  
22 conservation gain to GRSG habitats and populations in MZ IV. The Proposed Plan may  
23 result in the greatest net conservation gain due to its three percent anthropogenic  
24 disturbance cap that should reduce potential for the spread of weeds during the 20-year  
25 analysis period.

### 26 ***Conifer Encroachment***

27 Nature and Type of Effects. Conifer woodlands, especially juniper (*Juniperus* spp.) and in  
28 some regions pinyon pine (*Pinus edulis*), may expand into sagebrush habitat and reduce  
29 availability of habitat for GRSG. Conifer expansion may be encouraged by human activities,  
30 including fire suppression and grazing (Miller et al. 2011). If woodland development is  
31 sufficient to restrict shrub and herbaceous understory growth, habitat quality for GRSG will  
32 be reduced (Connelly et al. 2004). Mature trees offer perch sites for raptors; thus, woodland  
33 expansion may also increase the threat of predation, as with powerlines (Manier et al. 2013,  
34 p. 91). Locations within approximately 1,000 yards of current pinyon-juniper woodlands are  
35 at highest risk of expansion (Bradley 2010). Studies have shown that GRSG incur  
36 population-level impacts at very low levels of conifer encroachment (Baruch-Mordo et al.  
37 2013). In MZ IV, conifer encroachment reduces habitat quality in important seasonal ranges  
38 when woodland development is sufficient to restrict shrub and herbaceous production  
39 (Connelly and others, 2004 in Manier et al. 2013, p. 91).

40 Conditions in the Sub-region and in MZ IV. Approximately 55 percent of conifer  
41 encroachment risk in priority habitat (and 34 percent in general habitat) occur on BLM-  
42 administered lands within MZ IV (Manier et al. 2013, p. 93). In comparison, 25 percent of



1 conifer encroachment risk in priority habitat (and 32 percent in general habitat) occur on  
2 private lands and 15 percent in priority habitat occurs on National Forest System lands (25  
3 percent in general habitat). Therefore, BLM actions are likely to have a greater potential to  
4 ameliorate the effects of conifer encroachment on GRSG, particularly in priority habitat,  
5 than any other single land management entity.

6 Impact Analysis. The COT objective is to remove pinyon-juniper from areas of sagebrush  
7 that are most likely to support GRSG (post-removal) at a rate that is at least equal to the rate  
8 of pinyon-juniper incursion (USFWS 2013, p. 47). Management under Alternatives D, E, and  
9 the Proposed Plan would target conifers in GRSG habitat for removal. Treatment acres  
10 under the Proposed Plan are presented in **Table 2-5**. The Proposed Plan would also  
11 incorporate GRSG habitat objectives to guide treatments. Alternatives A, B, C, and F are  
12 largely silent on conifer removal and thus would not serve to reduce this threat on BLM-  
13 administered and National Forest System lands in the sub-region, though the cumulative  
14 impact of other past, present, and reasonably foreseeable future actions in the sub-region  
15 and larger MZ would help reduce the threat across the MZ.

16 Relevant cumulative actions on federal, private, and state lands within the MZ include  
17 several large conifer removal projects (Appendix A). Further, the NRCS carries out  
18 conservation measures to remove encroaching conifers near leks and lek seasonal habitats  
19 while minimizing disturbance to GRSG (NRCS 2012, p. 13). SGI has helped reduce the  
20 threat of early succession conifer encroachment through mechanical removal on 206,099  
21 acres of private lands within MZ IV. The majority of these efforts were located inside PACs  
22 (NRCS 2015), helping to preserve historic fire return intervals and important GRSG habitat.  
23 The Utah and Idaho state plans direct land management agencies to remove encroaching  
24 conifers and conduct restoration of sagebrush habitats to expand GRSG habitat where  
25 possible.

26 Reasonably foreseeable conifer encroachment management efforts are projected to increase  
27 (**Section 5.1.12**), including efforts on private land and implementation of other BLM and  
28 Forest Service LUPAs in MZ IV. When the impacts of the Idaho and southwestern  
29 Montana LUPA are added to these actions, this would result in a net conservation gain to  
30 GRSG habitats and populations in MZ IV. The Proposed Plan would have the greatest  
31 reduction in the threat from conifer encroachment and provide a net conservation gain to  
32 GRSG. Alternatives D and E would also reduce the threat, though to a lesser degree than  
33 the Proposed Plan because they do not specify acres for treatment or habitat objectives.

#### 34 **Infrastructure**

##### 35 *Rights-of-Way*

36 Nature and Type of Effects. As discussed in **Section 4.2**, power lines can directly affect  
37 GRSG by posing a collision and electrocution hazard. They also can indirectly decrease lek  
38 attendance and recruitment by providing perches and nesting habitat for potential avian  
39 predators, such as golden eagles and ravens (Connelly et al. 2004). In addition, power lines  
40 and pipelines often extend for many miles. The ground disturbance associated with  
41 construction, as well as vehicle and human presence on maintenance roads, may introduce or  
42 spread invasive weeds over large areas, degrading habitat. Impacts from roads may include

1 direct habitat loss from road construction and direct mortality from collisions with vehicles.  
2 Roads may also present barriers to migration corridors or seasonal habitats, facilitate  
3 predator movements, spread invasive plants, and increase human disturbance from noise and  
4 traffic (Forman and Alexander 1998).

5 Conditions in the Sub-region and in MZ IV. Infrastructure, such as ROWs and associated  
6 facilities and urbanization, is widespread throughout MZ IV. In some locations,  
7 infrastructure development has affected GRSG habitat. Development of roads, fences, and  
8 utility corridors has also contributed to habitat loss and fragmentation in portions of MZ IV.  
9 The best available estimates suggest about 25 percent of the MZ IV is within approximately  
10 4 miles of urban development (Knick et al. 2011, p. 214). Impacts of infrastructure  
11 development in MZ IV are primarily related to highways, roads, power lines, and  
12 communication towers, with 90 percent of MZ I within 4 miles of a road, 30 percent within  
13 4 miles of a power line, and 5 percent within 4 miles of a communication tower (Knick et al.  
14 2011, pp. 215-216).

15 Although not representative of all infrastructure ROWs, transmission lines greater than 115  
16 kilovolts indirectly influence 37 percent of priority habitat and 38 percent of general habitat  
17 across MZ IV. Indirect effects are assumed to occur to a radius of 4 miles (Manier et al.  
18 2013, p. 41). Approximately 62 percent of transmission lines in priority habitat and 43  
19 percent in general habitat are on BLM-administered lands across GRSG habitats in MZ IV  
20 (Manier et al. 2013, p. 41). In contrast, National Forest System lands contain 5 percent of  
21 transmission lines in priority habitat and 7 percent in general habitat. Therefore, BLM  
22 actions are likely to have a greater potential to affect transmission line ROWs in GRSG  
23 habitat than any other land management entity. Designating ROW exclusion and avoidance  
24 areas in PHMA and GHMA on BLM-administered and National Forest System lands could  
25 reduce the threat on these lands. However, in areas with scattered federal landownership,  
26 infrastructure may be routed around federal lands, often increasing its length and impact.  
27 ROW avoidance and exclusion areas on BLM-administered and National Forest System  
28 lands could increase this tendency.

29 Impact Analysis. **Table 5-2** lists the areas of ROW avoidance and exclusion in GRSG  
30 habitat by alternative. **Table 5-3** lists acres of PHMA and GHMA in existing or future utility  
31 corridors.

Table 5-2

Acres of Rights-of-Way Designations in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	<i>Percent Within Sub-Region</i>	MZ IV	<i>Percent Within Sub-Region</i>
	Open to Rights-of-Way			
Alternative A	6,511,000	99%	2,066,000	95%
Alternative B	113,000	40%	1,981,000	95%





Table 5-2

Acres of Rights-of-Way Designations in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Alternative C	153,000	56%	104,000	0%
Alternative D	116,000	41%	147,000	29%
Alternative E	68,000	0%	2,509,000	96%
Alternative F	113,000	40%	2,425,000	96%
Proposed Plan	97,000	30%	1,731,000	94%
Right-of-Way Exclusion				
Alternative A	922,000	74%	373,000	92%
Alternative B	8,411,000	97%	322,000	91%
Alternative C	11,264,000	98%	29,000	0%
Alternative D	238,000	0%	30,000	3%
Alternative E	907,000	74%	339,000	91%
Alternative F	8,411,000	97%	361,000	92%
Proposed Plan	787,000	70%	493,000	94%
Right-of-Way Avoidance				
Alternative A	7,600,000	14%	3,626,000	22%
Alternative B	6,510,000	0%	3,537,000	20%
Alternative C	6,510,000	0%	2,813,000	0%
Alternative D	14,682,000	56%	5,893,000	52%
Alternative E	13,478,000	52%	3,615,000	22%
Alternative F	6,510,000	0%	3,554,000	21%
Proposed Plan	11,092,000	41%	6,642,000	58%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within rights-of-way designations in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

Table 5-3

Acres of Existing and Proposed Utility Corridors in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
	Proposed Utility Corridor			
Alternative A	134,000	31%	104,000	40%
Alternative B	134,000	30%	103,000	39%
Alternative C	174,000	49%	63,000	0%
Alternative D	134,000	31%	104,000	40%
Alternative E	134,000	31%	103,000	40%
Alternative F	134,000	34%	109,000	42%
Proposed Plan	118,000	25%	123,000	49%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within existing and proposed utility corridors in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

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Alternative A (current management) has the most acres open to ROWs in PHMA. Across MZ IV, Alternative B, C, D, and F reduce the number of open acres in PHMA, with even larger reductions under Alternative E and the Proposed Plan. For GHMA, most of the action alternatives have comparable open acreage except for Alternative D, which has over a two-fold reduction. However, impacts would likely also be reduced under the Proposed Plan, which would use anthropogenic disturbance criteria to screen projects in GHMA. Alternatives B, C, and F would increase ROW exclusion areas in PHMA in MZ IV, whereas Alternatives A, E, and the Proposed Plan would have fewer acres managed as ROW exclusion in PHMA. Alternative D would have the fewest acres managed as ROW exclusion in both PHMA and GHMA. The other action alternatives would have a similar acreage managed as ROW exclusion compared to Alternative A.

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In PHMA, Alternatives B, C, and F would not contribute acres of ROW avoidance within MZ IV, as PHMA would be managed as ROW exclusion under these alternatives. In contrast, Alternatives D, E, and the Proposed Plan manage PHMA as ROW avoidance, thereby increasing the acreage compared to Alternative A. The Proposed Plan offers additional protections due to the anthropogenic disturbance criteria, buffers, 3 percent disturbance cap, and mitigation requirements. Acres of utility corridors would be largely similar across all alternatives in both PHMA and GHMA.

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Because of the additional protections under the Proposed Plan, this alternative provides the greatest net conservation gain to GRSG in the Idaho and southwestern Montana sub-region



1 and is most likely to meet the COT report objective, which is to avoid development of  
2 infrastructure in GRSG priority areas for conservation.

3 The numbers of ROW authorizations are anticipated to grow in the sub-region. Increasing  
4 populations, continued energy development, and new communication sites drive the need  
5 for new ROWs on both federal and non-federal lands. For instance, the Boardman to  
6 Hemingway and Gateway West projects would influence GRSG habitat in MZ IV. While  
7 these projects would be exempted from the conservation measures in this plan, conservation  
8 measures for GRSG will be incorporated via the site-specific NEPA process for these  
9 projects. Actual impacts and contribution to cumulative effects from these projects are  
10 unknown at this time. Impacts on GRSG habitat on state or private land could be greater  
11 due to less restrictive management on those lands.

12 New ROW authorizations that require state agency review or approval would be subject to  
13 the permitting process and stipulations for development in GRSG Core Areas (Montana and  
14 Nevada)/GRSG Management Areas (Utah) under the Montana Executive Order and the  
15 Nevada and Utah state conservation plans for GRSG. These stipulations would benefit the  
16 GRSG in these areas by encouraging ROW development outside of habitat, restricting  
17 surface occupancy within 0.6 mile of occupied leks, prohibiting power lines greater than 115  
18 kV outside of designated corridors, and locating new roads used to transport products or  
19 waste over 1.9 miles from occupied leks. The Idaho state plan also includes conservation  
20 measures to reduce the impacts from ROW development.

21 The effect of the alternatives and other conservation actions in the MZ (most notably the  
22 Montana executive order) could be synergistic. By implementing restrictions on  
23 infrastructure in PHMA and on state and private lands together, the cumulative beneficial  
24 effect on GRSG would be greater than the sum of their individual effects because  
25 protections would be applied more consistently across the landscape. This is especially  
26 important in areas of mixed land ownership patterns where complementary protections can  
27 benefit leks, early brood rearing habitat, or other important areas that do not follow  
28 geopolitical boundaries.

29 Reasonably foreseeable ROW development in MZ IV is expected to increase over the 20-  
30 year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts as  
31 well as other BLM and Forest Service proposed plans in MZ IV would reduce the threat by  
32 restricting the type and location of developments. When restrictions within the Idaho and  
33 southwestern Montana LUPA are added to these conservation actions, the impacts of future  
34 ROW developments would be further reduced. The Proposed Plan would provide the  
35 greatest net conservation gain to GRSG habitats and populations in MZ IV by providing the  
36 flexibility to site ROWs with the least impact on GRSG habitat.

37 *Renewable Energy*

38 Nature and Type of Effects. Impacts on GRSG from renewable energy development, such  
39 as that for wind and solar power, are similar to those from nonrenewable energy  
40 development. Additional concerns associated with wind energy developments are rotor blade

1 noise, structure avoidance, and mortality caused by collisions with turbines (Connelly et al.  
2 2004).

3 Conditions in the Sub-region and in MZ IV. Wind energy development is an increasing  
4 threat in some populations. Over the last six years, the BLM in Idaho has authorized and  
5 then relinquished a ROW for wind development and has two pending applications. Wind  
6 testing sites have been authorized on BLM lands in the sub-region, though no wind  
7 developments have been authorized and constructed.

8 Solar energy potential is low in MZ IV, and the BLM has not received any applications for  
9 utility-scale solar production in the sub-region, nor are there solar resources comparable to  
10 the areas where utility-scale solar production projects are being proposed or built.

11 Although not representative of all renewable energy development, wind turbines indirectly  
12 influence less than 1 percent of priority habitat and general habitat combined across MZ IV.  
13 Private lands account for 82 percent of wind turbines affecting GRSG in priority habitat  
14 (and 62 percent in general habitat) within MZ IV. Therefore, conservation actions on private  
15 land are likely to have a greater potential to ameliorate the effects of wind energy  
16 development than any other single land management entity.

17 Impact Analysis. **Table 5-4** lists areas of wind energy ROW by alternative.

**Table 5-4**

**Acres of Wind Energy Management Designations in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	<i>Percent Within Sub-Region</i>	MZ IV	<i>Percent Within Sub-Region</i>
Open to Wind Rights-of-Way				
Alternative A	6,104,000	100%	1,876,000	100%
Alternative B	0	0%	1,8023,000	100%
Alternative C	85,000	100%	0	0%
Alternative D	47,000	100%	43,000	100%
Alternative E	44,000	100%	2,243,000	100%
Alternative F	0	0%	2,236,000	100%
Proposed Plan	0	0%	1,500,000	100%
Wind Right-of-Way Exclusion				
Alternative A	6,846,000	21%	557,000	95%
Alternative B	13,644,000	60%	493,000	94%
Alternative C	16,452,000	67%	30,000	0%

Table 5-4

Acres of Wind Energy Management Designations in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Alternative D	12,405,000	56%	412,000	93%
Alternative E	6,726,000	19%	621,000	95%
Alternative F	13,644,000	60%	552,000	95%
Proposed Plan	10,587,000	49%	1,261,000	98%
Wind Right-of-Way Avoidance				
Alternative A	2,084,000	33%	3,572,000	20%
Alternative B	1,390,000	0%	3,485,000	18%
Alternative C	1,390,000	0%	2,857,000	0%
Alternative D	2,581,000	46%	5,550,000	49%
Alternative E	7,982,000	82%	3,540,000	19%
Alternative F	1,390,000	0%	3,492,000	18%
Proposed Plan	1,390,000	0%	6,046,000	53%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within wind energy management designations in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1 In the Idaho and southwestern Montana sub-region, the alternatives do not contribute to the  
2 open acres in PHMA in MZ IV, whereas the alternatives contribute most of the open and  
3 ROW exclusion acres in GHMA. Alternatives D and E manage the greatest acreage of  
4 PHMA as ROW avoidance, while Alternatives B, C, D, F, and the Proposed Plan would  
5 have the most acres managed as ROW exclusion for wind energy. The Proposed Plan would  
6 offer additional protections for PHMA, including anthropogenic disturbance criteria, a 3  
7 percent disturbance cap, buffers, and mitigation requirements. Across MZ IV, most other  
8 sub-regions' proposed plans maintain exclusion areas in PHMA for wind energy, with the  
9 exception of Oregon which allows for avoidance in Lake, Harney, and Malheur counties.  
10 The Proposed Plan in Idaho would allow wind energy development in GHMA, subject to a  
11 screening process, whereas Montana would manage GHMA as avoidance for wind.

12 Projects that require state agency review or approval would be subject to the Montana  
13 Executive Order permitting process. This would encourage wind energy development  
14 outside of Core Areas. Similarly, in Nevada, wind energy developments would be located  
15 outside of core, priority and general habitats, or would minimize and/or mitigate for impacts  
16 if avoidance is not feasible. The Utah Executive Order directs state agencies to minimize

1 disturbance within GRSG Management Areas and maintain consistency with conservation  
2 measures in the Utah state plan. In Oregon and Idaho, wind energy projects could  
3 voluntarily site development outside of GRSG habitat, but currently no regulatory  
4 mechanisms are in place to reduce impacts to GRSG habitat from projects requiring state  
5 agency review or approval.

6 Reasonably foreseeable renewable energy development in MZ IV is expected to increase  
7 over the 20-year analysis period (**Section 5.1.12**), though state GRSG conservation efforts as  
8 well as wind energy restrictions in other BLM and Forest Service proposed plans in MZ IV  
9 would reduce the threat by implementing disturbance caps and restricting the location of  
10 developments. When restrictions in the Idaho and southwestern Montana LUPA are added  
11 to these conservation actions, this would result in a net conservation gain to GRSG habitats  
12 and populations in MZ IV.

### 13 ***Grazing/Free-Roaming Equids***

14 Nature and Type of Effects. In general, livestock can influence habitat by modifying plant  
15 biomass, plant height and cover, and plant species composition. As a result, livestock grazing  
16 could cause changes in habitat that alter species abundances and composition in GRSG  
17 insect prey. Changes in plant composition could occur in varying degrees and could change  
18 vegetative structure, affecting cover for nesting birds. Grazing could also alter fire regimes  
19 (Davies et al. 2010).

20 If not managed properly, cattle and sheep grazing can compact soil, enrich soil with  
21 nutrients, trample vegetation and nests, directly disturb GRSG and negatively affect GRSG  
22 recruitment. Cattle and sheep also can reduce invertebrate prey for GRSG or increase their  
23 exposure to predators (Beck and Mitchell 2000, pp. 998-1,000; Knick 2011; Coates 2007, pp.  
24 28-33). Grazing in riparian areas can destabilize streams and riverbanks, cause the loss of  
25 riparian shade, and increase sediment and nutrient loads in the aquatic ecosystem (George et  
26 al. 2011). Stock watering tanks can contribute to stream and aquifer dewatering and may  
27 concentrate livestock movement and congregation in sensitive areas (Vance and Stagliano  
28 2007).

29 However, grazing can reduce the spread of invasive grasses, if applied annually before the  
30 grasses have dried. It also can be used to reduce fuel load (Connelly et al. 2004, p. 7, 28-30).  
31 Light to moderate grazing does not appear to affect perennial grasses, which are important  
32 to nest cover (Strand and Launchbaugh 2013). However, excessive grazing can eliminate  
33 perennial grasses and lead to expansion of invasive species such as cheatgrass or medusahead  
34 (Reisner et al. 2013).

35 Periodic overgrazing can damage range resources over the long term. It often exacerbates  
36 drought effects when stocking levels are not quickly reduced to match the limited forage  
37 production. The degree to which grazing affects habitat depends on several factors, such as  
38 the number of animals grazing in an area, the time of grazing, and the grazing system used.

39 A well-developed understory of grass, forbs, and deciduous shrubs is critical for GRSG and  
40 other wildlife. Impacts on habitat vary with livestock densities and distribution; the more



1 evenly livestock is distributed, the lower their impact on any given area (Gillen et al.  
2 1984). However, cattle show a strong preference for certain areas, leading to high use in  
3 some areas and little to no use in others. Livestock grazing is generally limited by slopes of  
4 greater than 30 percent, dense forests and vegetation, poor or little upland forage, and lack  
5 of water.

6 Since the passage of the 1934 Taylor Grazing Act, range conditions on BLM-administered  
7 lands have improved due to improved grazing management practices and decreased livestock  
8 numbers and annual duration of grazing.

9 In addition, the BLM has applied Standards for Rangeland Health since 1997. On National  
10 Forest Systems lands, livestock grazing is administered in accordance with a number of laws  
11 and regulations, including the Multiple Use and Sustained Yield Act of 1960, Granger-Thye  
12 Act of 1950, and Organic Administration Act of 1897. The purpose of these regulations is to  
13 enhance sustainable livestock grazing and wildlife habitat, while protecting watersheds and  
14 riparian ecosystems.

15 Although livestock grazing is the most widespread land use across the sagebrush biome, it  
16 exerts a more limited influence on soils and vegetation than land uses that remove or  
17 fragment habitat (e.g., mineral extraction or infrastructure development). Thus, reducing  
18 AUMs or acres open to grazing would not necessarily restore high quality GRSG habitat.

19 Reducing grass height caused by livestock grazing in GRSG nesting and brood-rearing areas  
20 has been shown to negatively impact nesting success. This was the case when residual  
21 herbaceous cover was reduced below the approximately 7 inches needed for predator  
22 avoidance (Gregg et al. 1994). Livestock grazing could reduce the suitability of breeding and  
23 brood-rearing habitat, which would impact GRSG populations (USFWS 2010).

24 For BLM-administered and National Forest System lands, Standards for Rangeland Health  
25 require the agencies to maintain or enhance habitats that support or could support  
26 endangered, threatened, or sensitive species. The BLM Washington Office IM 2009-018  
27 requires that land health considerations, such as vegetation cover for GRSG, are  
28 considerations for prioritizing the processing of grazing authorizations.

29 Range improvements could result in livestock overusing important GRSG areas. For  
30 example, developing springs would generally change vegetative composition from a high  
31 diversity of grasses and forbs, important to broods, to one dominated by grasses; conversely,  
32 in areas where livestock use was not well managed, invasive forbs would rise in prevalence.

33 Concentrated livestock use would remove standing vegetation and subsequently reduce  
34 associated insects and forbs, both of which are important to GRSG broods. Allowing spring  
35 developments along ephemeral streams and wetlands and allowing livestock watering tanks  
36 would decrease GRSG habitat. Springs, seeps, and wetland areas are vitally important to  
37 GRSG broods; therefore, allowing spring developments under this alternative could benefit  
38 some resources but not GRSG.

1 Wild horse and burro grazing has similar impacts as livestock grazing in their effect on soils,  
2 vegetation health, species composition, water, and nutrient availability by consuming  
3 vegetation, redistributing nutrients and seeds, trampling soils and vegetation, and disrupting  
4 microbial systems (Connelly 2004).

5 Conditions in the Sub-region and in MZ IV. Livestock grazing is present and widespread on  
6 many land types, such as federal and private, across MZ IV. Rangeland health assessments  
7 have found that over 19 percent of BLM-administered grazing allotments in GRSG habitat  
8 in MZ IV are not meeting wildlife standards with grazing as a causal factor (Manier et al.  
9 2013, p. 97). Additionally, nearly 2 million acres of GRSG habitat within MZ IV is federally  
10 managed wild horse and burro range (Manier et al. 2013, p. 102).

11 Perhaps the most pervasive change associated with grazing management in GRSG habitats  
12 throughout MZ IV is the construction of fencing and water developments (Knick et al.  
13 2011, p. 224). Barbed wire fences contribute to direct mortality through fence collisions  
14 (Stevens et al. 2011); water developments may contribute to the increased occurrence of  
15 West Nile virus (Walker and Naugle 2011).

16 Additional habitat modifications associated with grazing management are mechanical and  
17 chemical treatments to increase grass production, often by removing sagebrush (Knick et al.  
18 2011). Standards for Rangeland Health protect habitat from elements detrimental to GRSG,  
19 but not all rangelands in MZ IV are in compliance with these standards.

20 Wild horses also occur within MZ IV and the sub-region; within MZ IV, 5.7 percent of  
21 priority habitat is negatively influenced by free-roaming equids (Manier et al. 2013, p. 102).  
22 Six designated herd management areas (HMAs) and nine herd areas occur on BLM-  
23 administered lands in the sub-region; no active wild horse and burro territories occur on  
24 National Forest System lands in the sub-region (**Section 3.6**). The BLM establishes an  
25 appropriate management level (AML) for each HMA, which represents the population  
26 objective.

27 Impact Analysis. On all lands in the sub-region, the BLM manages livestock grazing on  
28 12,129,800 acres, encompassing 2,654 grazing allotments, while the Forest Service manages  
29 9,646,900 acres encompassing 319 grazing allotments. **Table 5-5** lists the acres of PHMA  
30 and GHMA available and unavailable for grazing, by alternative.

**Table 5-5**  
**Acres Available and Unavailable to Livestock Grazing in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	<i>Percent Within Sub-Region</i>	MZ IV	<i>Percent Within Sub-Region</i>
	Available to Livestock Grazing			
Alternative A	14,819,000	55%	5,845,000	51%



Table 5-5

Acres Available and Unavailable to Livestock Grazing in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Alternative B	14,819,000	55%	5,651,000	50%
Alternative C	6,696,000	0%	2,853,000	0%
Alternative D	14,819,000	55%	5,845,000	51%
Alternative E	14,224,000	53%	6,288,000	55%
Alternative F	14,819,000	55%	6,151,000	54%
Proposed Plan	11,687,000	43%	8,679,000	67%
Unavailable to Livestock Grazing				
Alternative A	123,000	25%	66,000	52%
Alternative B	123,000	25%	62,000	50%
Alternative C	11,166,000	99%	32,000	0%
Alternative D	123,000	25%	66,000	52%
Alternative E	135,000	32%	51,000	37%
Alternative F	123,000	25%	62,000	50%
Proposed Plan	262,000	65%	124,000	75%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA available and unavailable to livestock grazing in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1 Acres available to livestock grazing in PHMA and GHMA are similar across most  
2 alternatives. Acres unavailable to livestock grazing would be greatest under Alternative C,  
3 which closes all GRSG habitat to grazing, followed by Alternative F, which would reduce  
4 grazing by 25 percent in PHMA. Such reductions and closures would benefit GRSG by  
5 maintaining nesting cover for protection and forage; however, the increased need for fencing  
6 to exclude grazing animals could also harm nesting GRSG by increasing the likelihood of  
7 predation and collision.

8 However, as discussed, moderate grazing is compatible with GRSG habitat; thus, closing  
9 acres to grazing may not itself benefit or harm GRSG. Possibly equally or more beneficial is  
10 restricting range improvements in GRSG habitat, limiting fencing, and effectively  
11 implementing range health standards on grazing allotments in GRSG habitat. Alternatives B  
12 through F and the Proposed Plan include grazing restrictions (to varying degrees) which  
13 would help protect GRSG from potential impacts such as habitat changes due to herbivory

1 and collisions with fencing. In terms of impacts on BLM-administered and National Forest  
2 System lands, Alternative A would have no GRSG-specific protective grazing restrictions,  
3 and would therefore have the greatest impacts on the species. Alternative C would have no  
4 areas available for livestock within with designated habitat, and would therefore have the  
5 fewest impacts on the species. However, as a result of restricting grazing in GRSG habitat  
6 under Alternative C, increased fencing on private lands may occur. This could result in  
7 higher cumulative effects though mortality from fencing collisions. Reduced grazing under  
8 Alternative F would have similar, but fewer impacts, compared to Alternative C.

9 The COT report objectives for livestock grazing are to manage grazing in a manner  
10 consistent with local ecological conditions. This management would maintain or restore  
11 healthy sagebrush shrub and native perennial grass and forb communities and conserve  
12 essential habitat components for GRSG. Restoration to meet these standards and adequate  
13 monitoring would be required. The COT report also states that land managers should avoid  
14 or reduce the impact of range management structures on GRSG habitat.

15 If BLM-administered and National Forest System lands were made unavailable for livestock  
16 grazing, as under Alternative C, this could increase grazing pressure on adjacent private  
17 lands. Loss of federal grazing permits would pose a threat of indirect adverse effects,  
18 including potential conversion of private grazing lands to agriculture, if the loss of federal  
19 grazing privileges made ranching less economically viable.

20 Since 2010, SGI has enhanced rangeland health through rotational grazing systems, re-  
21 vegetating former rangeland with sagebrush and perennial grasses and control of invasive  
22 weeds. On privately-owned lands, SGI has developed a prescribed grazing approach that  
23 balances forage availability with livestock demand. This system allows for adjustments to  
24 timing, frequency, and duration of grazing, ensuring rangelands are managed sustainably to  
25 provide continued ecological function of sagebrush-steppe. A primary focus of the  
26 prescribed grazing approach is maintenance of key plant species, such as deep-rooted  
27 perennial grasses that have been shown to be essential for ecological resistance to invasive  
28 annual grasses (Reisner et al. 2013, pp. 1047-1048). These actions help to alleviate the  
29 adverse impacts associated with improper grazing practices outlined above under Nature and  
30 Type of Effects. Within MZ IV, SGI has implemented 314,930 acres of prescribed grazing  
31 systems. This program is likely the largest and most impactful program on private lands  
32 within MZ IV. Because of its focus on priority areas for conservation, which often overlap  
33 PHMA, the SGI's past, present, and reasonably foreseeable work has had and likely will  
34 continue to have a cumulative beneficial impact on GRSG when considered alongside  
35 protective BLM management actions in PHMA.

36 Reasonably foreseeable livestock grazing management efforts in MZ IV are expected to  
37 increase over the analysis period (**Section 5.1.12**), through increased NRCS conservation  
38 actions under the Sage-Grouse Initiative (e.g., fence marking and conservation easements),  
39 state efforts to maintain ranchland, and the implementation of other BLM and Forest  
40 Service LUPAs in MZ IV. When grazing management within the Idaho and southwestern  
41 Montana LUPA is added to these conservation actions, this would result in a net  
42 conservation gain to GRSG habitats and populations in MZ IV.



1 Under all alternatives the BLM has the ability to adjust appropriate management levels of  
2 wild horses if resource damage occurs; however, only Alternatives B through F and the  
3 Proposed Plan provide management guidelines specific to GRSG habitat (e.g. prioritizing  
4 gathers in GRSG habitat), which would benefit the species more than Alternative A.

5 Reasonably foreseeable wild horse management efforts are projected to increase over the  
6 analysis period (**Section 5.1.12**) with implementation of other BLM and Forest Service  
7 LUPAs in MZ IV. Other past, present, and reasonably foreseeable future actions are unlikely  
8 to affect the threat from wild horses and burros, as these animals are federally-managed.  
9 When wild horse management within the Idaho and southwestern Montana LUPA is added  
10 to these conservation actions, this would result in a net conservation gain to GRSG habitats  
11 and populations in MZ IV. Impacts may be reduced to the greatest extent under the  
12 Proposed Plan, where AMLs would be evaluated with consideration of GRSG habitat  
13 objectives for BLM-administered lands.

#### 14 ***Conversion to Agriculture***

15 Nature and Type of Effects. Converting sagebrush habitat to agricultural use, commonly  
16 referred to as sodbusting, causes direct loss of habitat available for GRSG. Habitat loss also  
17 decreases the connectivity between seasonal habitats, increasing population isolation and  
18 fragmentation. Fragmentation then increases the probability for decline of the population,  
19 reduced genetic diversity, and extirpation from stochastic events (Knick and Hanser 2011).

20 In addition to reducing the land area available to support GRSG, habitat loss and  
21 fragmentation also increase the likelihood of other disturbances, such as human traffic,  
22 wildfire, and invasive plant spread.

23 Converting cropland has eliminated or fragmented sagebrush on private lands in areas with  
24 deep fertile soils or irrigation potential. Sagebrush remaining in these areas has been limited  
25 to the agricultural edge or to relatively unproductive environments.

26 Conditions in the Sub-region and in MZ IV. Regional assessments estimate that while only 1  
27 percent of priority habitat and general habitat in MZ IV are directly influenced by  
28 agricultural development, over 85 percent of these habitats are within approximately 4 miles  
29 of agricultural land (Manier et al. 2013, p. 27).

30 Impact Analysis. The BLM and Forest Service do not convert public lands to agriculture. As  
31 such, the only direct authority these agencies have over conversion to agriculture is by  
32 retaining or disposing of lands in the realty program. Lands retained under BLM and Forest  
33 Service management will not be converted to agriculture and disposing of lands could  
34 increase the likelihood they will be converted to agriculture, depending on their location and  
35 new management authority.

36 As shown below in **Table 5-6**, acres identified for retention are similar in the sub-region and  
37 in MZ IV among the alternatives. Under Alternatives B, C, D, F, and the Proposed Plan, the  
38 BLM and Forest Service would generally retain GRSG habitat, thereby eliminating the  
39 possibility that GRSG habitat would be converted to agriculture use. Alternatives A and E

1 do not specify retention of GRSG habitat, and thus there is the possibility of these lands  
 2 being disposed. Most acres within MZ IV that are identified for disposal under Alternatives  
 3 A and E are within the Idaho and southwestern Montana sub-region. However, land tenure  
 4 adjustments require site-specific NEPA analysis and land sales must meet the disposal  
 5 criteria under applicable law. BLM land tenure adjustments are not anticipated to be a  
 6 significant contributing element to the threat of agriculture conversion.

7

Table 5-6

Acres Identified for Retention and Disposal in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Acres Identified for Retention				
Alternative A	12,348,000	45%	4,930,000	45%
Alternative B	14,997,000	55%	4,760,000	43%
Alternative C	17,878,000	62%	2,707,000	0%
Alternative D	14,995,000	55%	5,803,000	53%
Alternative E	11,784,000	42%	5,352,000	49%
Alternative F	14,997,000	55%	5,209,000	48%
Proposed Plan	11,973,000	43%	8,628,000	69%
Acres Identified for Disposal				
Alternative A	520,000	99%	431,000	59%
Alternative B	4,000	0%	431,000	59%
Alternative C	4,000	0%	178,000	0%
Alternative D	5,000	10%	182,000	2%
Alternative E	436,000	99%	518,000	66%
Alternative F	4,000	0%	447,000	60%
Proposed Plan	4,000	0%	178,000	0%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA identified for retention and disposal in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1 Cumulative impacts vary relatively little across alternatives because BLM and Forest Service  
2 management have little impact on alleviating this threat. Restrictions on grazing on federal  
3 land could increase agriculture pressure on adjacent private lands. If the loss of federal  
4 grazing privileges makes ranching economically unviable, the potential conversion of private  
5 grazing lands to agriculture would increase. However, the Proposed Plan does not  
6 substantially increase acreage unavailable to grazing.

7 The COT report objectives for converting land to agriculture are to avoid further loss of  
8 sagebrush habitat for agricultural activities (both plant and animal production) and to  
9 prioritize restoration. In areas where taking agricultural lands out of production has  
10 benefited GRSG, the programs supporting these actions should be targeted and continued  
11 (USFWS 2013, p. 48). In accordance with this objective, the NRCS's SGI program focuses  
12 on maintaining rangeland that provides habitat for GRSG. This voluntary program provides  
13 private landowners with monetary incentives to protect GRSG habitat, often through  
14 conservation easements. As a result, private land containing GRSG habitat is protected from  
15 conversion to agriculture or other development for the life of the conservation agreement.  
16 The conservation easements and other conservation incentives, such as restoration of water  
17 features and fence marking, can enhance the ability of private ranchlands to support GRSG.  
18 As of 2014, SGI has secured conservation easements on 98,167 acres within MZ IV and  
19 marked or removed 95 miles of fence (NRCS 2015). This has preserved habitat and reduced  
20 the risk of direct mortality on these lands.

21 Over the analysis period, conversion to agriculture is expected to increase (**Section 5.1.12**),  
22 though state and private conservation efforts as well as other BLM and Forest Service  
23 proposed plans in MZ IV would reduce the threat. When land tenure decisions within the  
24 Idaho and southwestern Montana LUPA are added to these conservation actions, this would  
25 result in net conservation gain to GRSG habitats and populations in MZ IV.

### 26 ***Energy Development and Mining***

27 The COT report states that energy development should be designed to ensure that it will not  
28 impinge on stable or increasing GRSG population trends. For mining, the objective is to  
29 maintain stable to increasing GRSG populations and no net loss of GRSG habitats in areas  
30 affected by mining (USFWS 2013, p. 49).

31 There are approximately 1,137,700 acres of GRSG habitat in MZ IV where energy and  
32 mineral development (including geothermal, mineral materials, wind energy, and non-energy  
33 leasable minerals) is presently occurring. There are 6,553,300 acres indirectly influenced by  
34 energy development (including oil and gas, mineral materials, and wind energy; indirect  
35 effects were not quantified for geothermal and nonenergy leasable mineral developments)  
36 (Manier et al. 2013, pp. 52-71). No coal or oil and gas development is presently occurring in  
37 MZ IV.

### 38 ***Oil and Gas***

39 Nature and Type of Effects. As discussed in **Section 4.2**, oil and gas development impacts  
40 GRSG and sagebrush habitats through direct disturbance and habitat loss from well pads,  
41 access construction, seismic surveys, roads, power lines, and pipeline corridors. Indirect

1 disturbances result from noise, gaseous emissions, changes in water availability and quality,  
2 and human presence. These factors could cumulatively or individually lead to habitat  
3 fragmentation in the long term (Connelly et al. 2004; Holloran 2005).

4 Oil and gas development results in direct loss of habitat from well pad and road construction  
5 as well as indirect disturbance impacts from increased noise and vehicle traffic. Oil and gas  
6 development also directly impacts GRSG through the species' avoidance of infrastructure.  
7 This development can also impact GRSG survival or reproductive success. Indirect effects  
8 include habitat quality changes, predator communities, and disease dynamics (Naugle et al.  
9 2011).

10 Conditions in the Sub-region and in MZ IV. There is currently no oil and gas development  
11 within MZ IV (Manier et al. 2013, p. 52) and approximately 346,000 acres (1 percent) of  
12 GRSG habitat are leased but undeveloped (Manier et al. 2013, p. 55). Less than one percent  
13 of GRSG habitat in MZ IV is within 1.8 miles of oil and gas wells (Knick et al. 2011, p. 240).  
14 There are two leases in Bonneville County in the sub-region within MZ IV (**Section 3.12**).

15 Although oil and gas activities have a disproportionately greater effect on private lands,  
16 regulatory mechanisms on both federal surface and split estate lands in MZ IV are  
17 influential. Split estate lands with federal subsurface minerals may provide mitigation for  
18 impacts on GRSG habitat on private surface lands that would not be required on lands with  
19 both privately held surface and subsurface.

20 According to the RFD scenario (**Appendix O**), permanent disturbance associated with oil  
21 and gas development is projected to occur on 156 acres within the Idaho and southwestern  
22 Montana sub-region over the next 10 years, representing less than one percent of GRSG  
23 habitat within either the sub-region or MZ IV. Within MZ IV outside of the sub-region, less  
24 than 200 acres are projected by the Nevada, Oregon, and Utah sub-regional RFD scenarios.  
25 The potential for impacts would be reduced where areas are closed to fluid mineral leasing  
26 and where NSO and CSU/TL stipulations are applied. Given the small acreage and  
27 implementation of RDFs and BMPs (**Appendix B**), the likelihood for impacts on GRSG  
28 habitat on BLM-administered and National Forest System lands is anticipated to be small  
29 and localized under all alternatives.

30 Impact Analysis. **Tables 5-7** and **5-8** provide a quantitative summary of fluid mineral leasing  
31 conditions on BLM-administered and National Forest System lands across MZ IV, followed  
32 by an analysis of the Idaho and southwestern Montana sub-regional alternatives.

Table 5-7

Acres Open\* and Closed to Fluid Mineral Leasing in GRSG Habitat in MZ IV

Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
MZ IV	<i>Percent Within Sub-Region</i>	MZ IV	<i>Percent Within Sub-Region</i>
Open <sup>2</sup> to Fluid Mineral Leasing			

Table 5-7

Acres Open\* and Closed to Fluid Mineral Leasing in GRSG Habitat in MZ 1V

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Alternative A	85,742,000	100%	2,010,000	100%
Alternative B	0	0%	1,962,000	100%
Alternative C	0	0%	0	0%
Alternative D	0	0%	0	0%
Alternative E	0	0%	2,468,000	100%
Alternative F	0	0%	2,465,000	100%
Proposed Plan	0	0%	0	0%
Closed to Fluid Mineral Leasing				
Alternative A	1,737,000	60%	759,000	37%
Alternative B	9,447,000	93%	730,000	35%
Alternative C	12,740,000	94%	478,000	0%
Alternative D	9,210,000	92%	759,000	37%
Alternative E	1,679,000	58%	592,000	40%
Alternative F	762,000	93%	762,000	37%
Proposed Plan	1,507,000	53%	1,308,000	63%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> Open with standard lease terms and conditions. This table displays the acres of PHMA and GHMA open and closed to fluid mineral leasing in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1

Table 5-8

Acres with NSO and CSU/TL Stipulations in GRSG Habitat in MZ 1V

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
NSO Stipulations				
Alternative A	7,332,000	12%	685,000	93%
Alternative B	6,485,000	0%	545,000	92%
Alternative C	6,485,000	0%	45,000	0%
Alternative D	6,597,000	2%	718,000	94%

Table 5-8

Acres with NSO and CSU/TL Stipulations in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Alternative E	13,543,000	52%	660,000	93%
Alternative F	6,485,000	0%	550,000	92%
Proposed Plan	11,354,000	43%	3,828,000	99%
CSU/TL Stipulations				
Alternative A	1,138,000	100%	3,327,000	19%
Alternative B	18,000	100%	3,290,000	18%
Alternative C	18,000	100%	2,710,000	0%
Alternative D	142,000	100%	5,304,000	49%
Alternative E	74,000	100%	3,285,000	18%
Alternative F	18,000	100%	3,290,000	18%
Proposed Plan	0	0%	5,037,000	46%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA with NSO Stipulations and CSU/TL Stipulations in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1

2 As shown in **Tables 5-2** and **5-3**, fluid mineral closures and stipulations within the Idaho  
3 and southwestern Montana sub-region exert a fairly large influence within the broader MZ.  
4 Alternatives B, C, and F would provide the greatest protection to GRSG in the MZ by  
5 closing PHMA to new leases. This would reduce well density and impacts associated with  
6 construction and operation. Acres open and closed in GHMA would be similar across the  
7 alternatives, though the Proposed Plan would have approximately double the acreage closed  
8 in GHMA compared to the other alternatives. Acres managed as NSO would be similar  
9 across alternatives in PHMA and GHMA, with more acres managed as NSO under  
10 Alternative E and the Proposed Plan. The Proposed Plan would provide additional  
11 protections to GRSG from fluid mineral development by requiring anthropogenic  
12 disturbance criteria, a 3 percent disturbance cap, buffers, mitigation requirements, RDFs and  
13 BMPs, and by managing SFAs as NSO with no waivers, exceptions, and modifications.

14 Restoring disturbed habitats would require the reestablishment of native shrubs and forbs,  
15 including big sagebrush, which would benefit GRSG; however, restored habitats may not  
16 support GRSG for long periods following restoration (Arkle et al. 2014). For this reason,  
17 successful restoration may not be successful without a nearby source population.



1 Under the Montana Executive Order, authorizations of oil and gas development that require  
2 state agency review or approval would be subject to the GRSG permitting process. They also  
3 would be subject to stipulations for development in GRSG Core areas. Similarly,  
4 authorizations in Nevada would be subject to measures in the Nevada state plan, including  
5 avoidance, minimization, and mitigation of any unavoidable impacts to GRSG habitat. Oil  
6 and gas lease authorizations in Utah that require state agency review or approval would be  
7 subject to the Utah executive order, which directs the Utah division of Oil, Gas, and Mining  
8 to consult with UDWR on all actions within GRSG Management Areas, and incorporate  
9 conservation measures from the state's GRSG conservation plan. The Idaho state plan  
10 includes mandatory restrictions on surface use and timing on IDL lands and site reclamation  
11 requirements, as well as voluntary conservation measures that could be applied.

12 The effect of the alternatives and other conservation actions in the MZ (most notably the  
13 Nevada state plan and Montana and Utah executive order) could be synergistic. For example,  
14 applying buffers in PHMA and on state and private land would effectively conserve larger  
15 blocks of land than if these actions occurred individually. This would provide a landscape-  
16 scale net conservation benefit, especially in areas where little development has occurred to  
17 date.

18 Reasonably foreseeable oil and gas development in MZ IV is expected to increase over the  
19 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts  
20 as well as other BLM and Forest Service proposed plans in MZ IV would reduce the threat  
21 by restricting the location of developments and requiring mitigation. When restrictions  
22 within the Idaho and southwestern Montana LUPA are added to these conservation actions,  
23 this would result in a net conservation gain to GRSG habitats and populations in MZ IV.

#### 24 *Geothermal*

25 Nature and Type of Effects. Impacts to GRSG from geothermal development are not well  
26 documented since geothermal development has been too recent to identify any immediate or  
27 lag effects (Knick et al. 2011 in Manier et al. 2013, p. 70). However, geothermal development  
28 is similar to fossil-fuel development and direct impacts to habitats would occur from  
29 development of power plants, access roads, pipelines and transmission lines. As a result,  
30 impacts of geothermal developments to GRSG from direct habitat loss, habitat  
31 fragmentation via roads and transmission lines, noise, and increased human presence  
32 (Connelly et al. 2004) may be similar to those discussed for nonrenewable energy  
33 development. Comparable effects on local GRSG populations are also anticipated (Manier et  
34 al. 2013, p. 70). Other concerns related to geothermal energy development include air and  
35 water pollution, disposal of hazardous waste, land subsidence, and release of toxic gases into  
36 the environment (Manier et al. 2013, p. 70).

37 Conditions in the Sub-region and MZ IV. Geothermal energy development potential is  
38 particularly high throughout MZ IV and geothermal leases directly affect 75,900 acres (less  
39 than 1 percent) of GRSG habitats in the MZ (Manier et al. 2013, p. 71). Geothermal leases  
40 in the sub-region cover 60,000 acres (**Section 3.12**).

1 The RFD scenario for the Idaho and southwestern Montana sub-region (**Appendix O**)  
2 predicts up to 410 acres of permanent disturbance associated with geothermal development  
3 over the next 10 years. The potential for impacts would be reduced where areas are closed to  
4 fluid mineral leasing and where NSO and CSU/TL stipulations are applied. Given the small  
5 acreage and implementation of RDFs and BMPs (**Appendix B**), the likelihood for impacts  
6 on GRSG habitat is anticipated to be small and localized under all alternatives.

7 Impact Analysis. The quantitative analysis of effects from geothermal leasing would be the  
8 same as described for oil and gas because allocations and past, present, and reasonably  
9 foreseeable future actions would be the same.

#### 10 *Coal*

11 Coal potential is low throughout MZ IV (Manier et al. 2013, p. 133) and there are no direct  
12 or indirect effects from surface coal leases in the MZ (Manier et al. 2013, p. 74). There is no  
13 coal development in the sub-region and lands are determined to be unsuitable for leasing;  
14 thus this threat will not be described further in this document.

#### 15 *Mineral Materials*

16 Nature and Type of Effects. Development of surface mines (for sand, gravel and other  
17 common mineral materials found in MZ IV) may negatively impact GRSG numbers and  
18 disrupt the habitat and life-cycle of the species, similar to other types of mining activities  
19 (Braun 1998; Manier et al. 2013, pp. 70-71).

20 Conditions in the Sub-region and in MZ IV. There are 652,000 acres of mining and mineral  
21 materials disposal sites (not including minerals mined as energy sources) on BLM-  
22 administered surface land on priority habitat and general habitat in MZ IV. There are  
23 1,049,600 acres across all landownership types, making BLM-administered land the largest  
24 contributor to direct effects from this threat. National Forest System lands contribute to  
25 direct effects on 170,200 acres of priority habitat and general habitat. Indirect effects are  
26 estimated to 1.5 miles out from the direct effects area (Manier et al. 2013, p. 77).

27 The mineral materials currently being developed for commercial purposes in the Idaho and  
28 southwestern Montana sub-region include stone, sand and gravel, limestone, soil, and  
29 pumice.

30 Across MZ IV, PHMA and GHMA are most affected by mining and mineral materials  
31 disposal sites on BLM-administered lands. GRSG may be directly impacted, being in the  
32 path of development; however, indirect impacts on habitat affect a much wider population  
33 of birds. In total, 61 percent of priority habitat and 48 percent of general habitat influenced  
34 by the indirect impact of mining and mineral materials disposal sites are on BLM-  
35 administered land. This does not include minerals mined as energy sources. Mining and  
36 mineral materials disposal sites on private land, by comparison, indirectly affect 26 percent  
37 of priority habitat and 34 percent of general habitat. National Forest System lands indirectly  
38 affect 10 percent of priority habitat and 13 percent of general habitat (Manier et al. 2013, p.  
39 77). As a result, management of mining and material disposal sites on BLM-administered  
40 land would have the greatest impact on GRSG habitat conditions.



1 Impact Analysis. **Table 5-9** provides a quantitative summary of acreages of BLM-  
2 administered and National Forest System lands open and closed to mineral material disposal  
3 across MZ IV.

**Table 5-9**  
**Acres Open and Closed to Mineral Material Disposal in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Open to Mineral Material Disposal				
Alternative A	8,592,000	100%	6,518,000	58%
Alternative B	0	0%	5,820,000	53%
Alternative C	0	0%	2,728,000	0%
Alternative D	5,830,000	100%	5,944,000	54%
Alternative E	7,982,000	100%	6,915,000	61%
Alternative F	0	0%	6,346,000	57%
Proposed Plan	5,000	100%	8,609,000	68%
Closed to Mineral Material Disposal				
Alternative A	7,732,000	7%	677,000	25%
Alternative B	15,922,000	55%	676,000	25%
Alternative C	19,113,000	62%	505,000	0%
Alternative D	10,092,000	29%	806,000	37%
Alternative E	7,798,000	8%	614,000	18%
Alternative F	15,922,000	55%	690,000	27%
Proposed Plan	12,850,000	44%	1,529,000	67%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open and closed to mineral material disposal in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

4  
5 Under Alternatives B, C, F, and the Proposed Plan, all PHMA would be closed to mineral  
6 material disposal, which would constitute much of the closed acreage on BLM-administered  
7 and National Forest System lands in MZ IV. Restrictions on mineral material development  
8 in the sub-region would be applied under Alternative D, and for IHMA and GHMA under  
9 the Proposed Plan. Acres closed in GHMA would be similar across most alternatives,  
10 though Alternative E and the Proposed Plan would have the greatest acres of GHMA

1 closed. The Proposed Plan would provide additional protections to GRSG from mineral  
2 material development by requiring anthropogenic disturbance criteria, a 3 percent  
3 disturbance cap, RDFs and BMPs, buffers, and mitigation. These closures and restrictions  
4 would reduce the effect on GRSG from mineral material development on BLM-  
5 administered and National Forest System lands in MZ IV for most action alternatives,  
6 particularly the Proposed Plan and Alternative C.

7 Under the Montana Executive Order, authorizations of new mineral material disposal sites  
8 that require state agency review or approval would be subject to the GRSG permitting  
9 process. They also would be subject to stipulations for development in GRSG Core Areas.  
10 Similarly, authorizations in Nevada would be subject to measures in the Nevada state plan,  
11 including avoidance, minimization, and mitigation of any unavoidable impacts to GRSG  
12 habitat, and authorizations in GRSG Management Areas in Utah would be subject to  
13 consultation with UDWR and conservation measures. New authorizations that would occur  
14 in the majority of MZ IV within Idaho or Oregon that lack state plans containing regulatory  
15 mechanisms, may incorporate GRSG habitat recommendations from these states' plans  
16 though these would voluntary measures and not binding conditions. These stipulations  
17 would be of particular benefit on privately-owned surface and subsurface lands, where BLM  
18 and Forest Service protective regulatory mechanisms do not apply.

19 Reasonably foreseeable mineral materials development in MZ IV is expected to increase  
20 over the 20-year analysis period (**Section 5.1.12**), though state and private GRSG  
21 conservation efforts as well as other BLM and Forest Service proposed plans in MZ IV  
22 would reduce the threat by restricting the location of developments and requiring mitigation.  
23 When restrictions within the Idaho and southwestern Montana LUPA are added to these  
24 conservation actions, this would result in a net conservation gain to GRSG habitats and  
25 populations in MZ IV.

#### 26 *Locatable Minerals*

27 Nature and Type of Effects. Locatable minerals include gold, silver, uranium, and bentonite.  
28 Activities associated with locatable mineral development, such as stockpiling topsoil and  
29 extracting and transporting material, would cause mortality and nest disruption. These  
30 actions also would reduce the functionality of the surrounding habitat with noise and light  
31 disturbance, resulting in lost and degraded GRSG PHMA and GHMA.

32 As with fluid mineral development, reclamation practices may help to reduce long-term  
33 impacts on GRSG and their habitat. Although disturbed areas have not been restored to  
34 near pre-disturbance conditions in the past, recent efforts have been directed toward  
35 restoring functional habitat. Future reclamation should be focused on restoring habitats  
36 capable of supporting viable GRSG populations. Even with effective restoration, restored  
37 areas may not support GRSG populations at the same level as prior to disturbance.

38 Conditions in the Sub-region and in MZ IV. The primary locatable minerals in commercially  
39 viable quantities in the Idaho and southwestern Montana sub-region are zeolite and  
40 bentonite. Other locatable minerals are known to exist in the sub-region, but they are  
41 currently uneconomical to produce.



1 Impact Analysis. **Table 5-10** provides a quantitative summary of acreages of BLM-  
2 administered and National Forest System lands open and recommended for withdrawal from  
3 mineral entry across MZ IV.

**Table 5-10**  
**Acres Open and Recommended for Withdrawal from Mineral Entry**  
**in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Open to Mineral Entry				
Alternative A	12,308,000	67%	6,390,000	51%
Alternative B	4,006,000	0%	6,140,000	49%
Alternative C	4,006,000	0%	3,108,000	0%
Alternative D	12,308,000	67%	6,390,000	51%
Alternative E	11,706,000	66%	6,780,000	54%
Alternative F	4,006,000	0%	6,625,000	53%
Proposed Plan	6,108,000	34%	9,960,000	69%
Recommended for Withdrawal from Locatable Mineral Entry				
Alternative A	3,038,000	0%	0	0%
Alternative B	11,339,000	73%	0	0%
Alternative C	14,390,000	79%	0	0%
Alternative D	3,038,000	0%	0	0%
Alternative E	3,038,000	0%	0	0%
Alternative F	11,339,000	73%	0	0%
Proposed Plan	5,974,000	49%	9,000	100%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open to mineral entry and recommended for withdrawal from locatable mineral entry in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

4  
5 Alternatives A and E would have similar acres open in PHMA and would not incorporate  
6 special mitigation measures for locatable mineral development in GRSG habitat. Locatable  
7 mineral mining would continue to affect GRSG through habitat loss and degradation. As a

1 result, Alternative E would not provide any net conservation gain to GRSG compared to  
2 Alternative A.

3 Under Alternatives B, C and F, PHMA would be recommended for withdrawal and  
4 applicable BMPs would be mandatory as COAs within PHMA. The most acreage of all the  
5 alternatives would be recommended for withdrawal in PHMA. These alternatives would  
6 restrict future locatable mineral operations on GRSG habitat more than other alternatives;  
7 thus they would provide more protections and conservation gains to GRSG habitat from  
8 locatable mineral development.

9 Under Alternatives D and the Proposed Plan, the BLM and Forest Service would apply  
10 reasonable and appropriate RDFs and BMPs as Conditions of Approval to prevent  
11 unnecessary or undue degradation of GRSG habitat. The Proposed Plan would also  
12 recommend SFAs for withdrawal. Thus, these alternatives would provide a net conservation  
13 gain to GRSG.

14 Under all alternatives, BMPs and RDFs outlined in **Appendix B** would help minimize  
15 impacts on GRSG from locatable mineral development on federal land. Clustering  
16 operations and facilities as close as possible and placing new infrastructure in already  
17 disturbed locations would reduce impacts on sagebrush habitats.

18 Authorizations of new locatable mineral sites that require state agency review or approval  
19 would be subject to either the regulatory mechanisms of the Montana, Nevada, or Utah state  
20 plans. These measures would be of particular benefit on privately-owned surface and on  
21 split-estate lands with BLM-administered federal mineral estate and other surface ownership,  
22 where BLM and Forest Service protective regulatory mechanisms do not apply.

23 Reasonably foreseeable locatable mineral development in MZ IV is expected to increase over  
24 the 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation  
25 efforts as well as other BLM and Forest Service proposed plans in MZ IV would reduce the  
26 threat by applying RDFs as Conditions of Approval. The disturbance caps in the Proposed  
27 Plans would not block locatable mineral entry projects, but any locatable mineral entry  
28 would be considered as disturbance under the cap. When restrictions within the Idaho and  
29 southwestern Montana LUPA are added to these conservation actions, this would result in a  
30 net conservation gain to GRSG habitats and populations in MZ IV.

#### 31 *Nonenergy Leasable Minerals*

32 Nonenergy leasable minerals are materials such as phosphate, sulfates, silicates, and trona  
33 (sodium carbonate). Impacts on GRSG are similar to those from other types of mining.

34 Conditions in the Sub-region and in MZ IV. Existing leases for nonenergy leasable minerals  
35 represent a relatively small threat spatially, as 12,000 acres (less than 1 percent) of GRSG  
36 habitats in MZ IV are directly affected by existing prospecting permits (Manier et al. 2013, p.  
37 71). Phosphate development is prevalent in southeastern Idaho, though acres disturbed are  
38 not known (**Section 3.12**).



1 Impact Analysis. **Table 5-11** provides a quantitative summary of acreages of BLM-  
2 administered and National Forest System lands open and closed to nonenergy leasable  
3 mineral leasing across MZ IV.

**Table 5-11**

**Acres Open and Closed to Nonenergy Leasable Mineral Leasing in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Open to Nonenergy Leasing				
Alternative A	7,886,000	100%	6,006,000	54%
Alternative B	0	0%	3,815,000	28%
Alternative C	0	0%	2,755,000	0%
Alternative D	6,000	100%	6,003,000	54%
Alternative E	7,220,000	100%	6,484,000	58%
Alternative F	0	0%	3,821,000	28%
Proposed Plan	0	0%	8,391,000	67%
Closed to Nonenergy Leasing				
Alternative A	8,036,000	11%	744,000	36%
Alternative B	15,922,000	55%	716,000	33%
Alternative C	19,185,000	63%	478,000	0%
Alternative D	15,916,000	55%	744,000	36%
Alternative E	8,064,000	11%	691,000	31%
Alternative F	15,922,000	55%	746,000	36%
Proposed Plan	12,855,000	44%	1,747,000	73%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open and closed to nonenergy leasing in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

4  
5 Alternatives B, C, D, F and the Proposed Plan would increase the acreage of PHMA closed  
6 to nonenergy leasing compared to current management (Alternative A) and Alternative E.  
7 The alternatives would provide fewer protections in GHMA, though the Proposed Plan  
8 would increase the acres closed to nonenergy leasing. The Proposed Plan would provide  
9 additional protections compared to the other action alternatives by requiring anthropogenic  
10 disturbance criteria, a 3 percent disturbance cap, buffers, RDFs and BMPs, and mitigation.

1 However, under the Montana Executive Order, authorizations of new nonenergy mineral  
2 leases that require state agency review or approval would be subject to the GRSG permitting  
3 process. They also would be subject to stipulations for development in GRSG Core Areas.  
4 Similarly, authorizations in Nevada would be subject to measures in the Nevada state plan,  
5 including avoidance, minimization, and mitigation of any unavoidable impacts to GRSG  
6 habitat, and authorization in GRSG Management Areas in Utah would subject to  
7 consultation with UDWR and conservation measures. New authorizations that would occur  
8 in the majority of MZ IV within Idaho or Oregon that lack state plans containing regulatory  
9 mechanisms, may incorporate GRSG habitat recommendations from these states' plans  
10 though these would voluntary measures and not binding conditions. These stipulations  
11 would be of particular benefit on privately-owned surface and on split-estate lands with  
12 BLM-administered federal mineral estate and other surface ownership, where BLM and  
13 Forest Service protective regulatory mechanisms do not apply.

14 Reasonably foreseeable nonenergy leasable mineral development in MZ IV is expected to  
15 increase over the 20-year analysis period (**Section 5.1.12**). However, state and private GRSG  
16 conservation efforts as well as other BLM and Forest Service proposed plans in MZ IV  
17 would reduce the threat by providing additional protections such as disturbance caps, RDFs,  
18 and mitigation. When restrictions within the Idaho and southwestern Montana LUPA are  
19 added to these conservation actions, this would result in a net conservation gain to GRSG  
20 habitats and populations in MZ IV.

### 21 ***Recreation***

22 Nature and Type of Effects. Recreation, such as camping, bicycling, wildlife viewing,  
23 horseback riding, fishing, and hunting, can be dispersed; concentrated, such OHV use and  
24 developed campsites; and permitted, such as via BLM Special Recreation Permit and Forest  
25 Service Special Use Permit. The BLM also manages Special Recreation Management Areas  
26 (SRMAs) where recreation is a primary resource management consideration.

27 Recreation on federally administered lands that use the extensive network of double-track  
28 and single-track routes have an impact on sagebrush and GRSG. Ecological impacts of roads  
29 and motorized trails are mortality due to collisions; behavior modifications due to noise,  
30 activity, and habitat loss; alteration of physical environment; nutrient leaching; erosion;  
31 invasive plants spread; increased use; and alteration by humans due to accessibility (Knick et  
32 al. 2011, p. 219). Recreation activities can degrade GRSG habitat through direct impacts on  
33 vegetation and soils, introduction or spread of invasive species, and habitat fragmentation.  
34 This occurs in areas of concentrated use, trailheads, staging areas, and routes and trails.

35 Motorized activities, including OHV use, are expected to have a larger footprint on the  
36 landscape. They are anticipated to have the greatest level of impact due to noise levels,  
37 compared to nonmotorized uses, such as hiking or equestrian use. Cross-country motorized  
38 travel, which is permitted in designated areas on BLM-administered lands but not National  
39 Forest lands, would increase the potential for soil compaction, perennial grasses and forbs  
40 loss, and reduce sagebrush canopy cover. Losses in sagebrush canopy could be the result of  
41 repeated, high frequency, cross-country OHV use over long periods. In addition, the





1 chances of wildfire are increased during the summer, when fire dangers are high and  
2 recreation is at its highest.

3 Dispersed uses expand the human footprint. Closing areas to recreation and reclaiming  
4 unused, minimally used, or redundant roads in and around sagebrush habitats during  
5 seasonal use by GRSG may reduce the footprint and presumably impacts on wildlife.  
6 Restricting access to important habitat areas during seasonal use (lekking, nesting, brood-  
7 rearing, and wintering) may decrease the impacts associated with humans. However, access  
8 restriction will not eliminate other impacts, such as invasive plant spread, predator  
9 movements, cover loss, and erosion (Manier et al. 2013, p. 108).

10 Conditions in the Sub-region and in MZ IV. Human populations have increased and  
11 expanded, primarily over the past century and in the western portion of the sagebrush  
12 distribution (Knick et al. 2011, p. 212). With these expanding populations come greater  
13 human impacts (Leu et al. 2008).

14 The COT report objectives for recreation are to maintain healthy native sagebrush  
15 communities, based on local ecological conditions, and to manage direct and indirect human  
16 disturbance (including noise) to avoid interruption of normal GRSG behavior (USFWS  
17 2013, p. 49). Limits on road use under the action alternatives and limits on OHVs would  
18 help meet these objectives.

19 In the Idaho and southwestern Montana sub-region, travel management planning is  
20 underway to determine specific routes available for closure.

21 Impact Analysis. **Table 5-12** shows Acres of Travel Management Designations in GRSG  
22 Habitat in MZ IV.

**Table 5-12**

**Acres of Travel Management Designations in GRSG Habitat in MZ IV**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	<i>Percent Within Sub-Region</i>	MZ IV	<i>Percent Within Sub-Region</i>
		Open		
Alternative A	2,236,000	100%	671,000	100%
Alternative B	1,000	100%	671,000	100%
Alternative C	0	0%	0	0%
Alternative D	1,000	100%	1,000	100%
Alternative E	1,833,000	100%	1,083,000	100%
Alternative F	1,000	100%	255,000	100%
Proposed Plan	0	0%	1,000	100%

Table 5-12

Acres of Travel Management Designations in GRSG Habitat in MZ IV

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ IV	Percent Within Sub-Region	MZ IV	Percent Within Sub-Region
Limited				
Alternative A	11,501,000	45%	5,561,000	41%
Alternative B	13,736,000	54%	5,359,000	38%
Alternative C	16,463,000	62%	3,304,000	0%
Alternative D	13,736,000	54%	6,231,000	47%
Alternative E	11,361,000	45%	5,530,000	40%
Alternative F	13,736,000	54%	5,530,000	47%
Proposed Plan	10,897,000	42%	66,262,000	64%
Closed				
Alternative A	824,000	90%	194,000	89%
Alternative B	824,000	90%	183,000	87%
Alternative C	984,000	91%	23,000	0%
Alternative D	824,000	90%	194,000	89%
Alternative E	785,000	89%	224,000	90%
Alternative F	824,000	90%	196,000	89%
Proposed Plan	640,000	87%	177,000	88%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within travel management designations of open, limited and closed in MZ IV; it also displays the percentage of those acres that are found within the sub-region.

1 As shown in **Table 5-12**, there are slight variations among alternatives in acres closed and  
 2 limited to motorized vehicles in both PHMA and GHMA. However, the action alternatives  
 3 would reduce acres open in PHMA, particularly Alternatives C and the Proposed Plan, under  
 4 which no acres would be open to motorized vehicles. There would be a similar reduction in  
 5 GHMA except under Alternative E where more acres would be open compared to current  
 6 management. As a result of travel management planning, impacts on GRSG from  
 7 recreational motorized vehicle use would be greatest under Alternatives A and E; impacts  
 8 would be reduced most under Alternative C and the Proposed Plan.

9 For recreation, Alternatives B, D, and the Proposed Plan would aim to reduce impacts on  
 10 GRSG with issuance of SRPs and SUPs. Alternative F would take a similar approach, but

1 with the addition of seasonal restrictions within 4 miles of active leks. Alternatives A, C, and  
2 E would not manage recreation to reduce impacts on GRSG.

3 Reasonably foreseeable recreation in MZ IV is expected to increase over the 20-year analysis  
4 period (**Section 5.1.12**). However, state and private GRSG conservation efforts as well as  
5 other BLM and Forest Service proposed plans in MZ IV would reduce the threat by  
6 providing additional protections such as disturbance caps and limitations on National Forest  
7 System lands. When restrictions within the Idaho and southwestern Montana LUPA are  
8 added to these conservation actions, this would result in a net conservation gain to GRSG  
9 habitats and populations in MZ IV.

#### 10 **5.1.7 Existing Conditions in WAFWA MZs II/VII**

11 This section summarizes existing conditions and past and present actions for the Idaho and  
12 southwestern Montana sub-region (provided in more detail in **Chapter 3**) and for MZs  
13 II/VII as a whole. Reasonably foreseeable future actions are discussed in **Section 5.1.9**.

##### 14 ***GRSG Habitat and Populations***

15 MZs II/VII consist of eleven GRSG populations: Eagle-South Routt, Middle Park, Laramie,  
16 Jackson Hole, Wyoming Basin, Rich-Morgan-Summit, Uintah, North Park, Northwest  
17 Colorado, Parachute-Piceance-Roan Basin, and Meeker-White River (Garton et al. 2011).  
18 The sub-region includes the Wyoming Basin population. Leks in the northern portion of  
19 MZs II/VII are the most highly connected in the range (Knick and Hanser 2011);  
20 populations in southern portions of MZ II/VII (the Colorado Plateau) are less robust, with  
21 low lek connectivity and a 96 percent chance of populations declining below 200 males by  
22 2037 (Garton et al. 2011; Knick and Hanser 2011). The Wyoming Basin population showed  
23 a 63 percent decline in estimated minimum male population attending leks in the population  
24 between 2007 and 2013 (Garton et al. 2015, p. 34). MZs II/VII include GRSG populations  
25 in Idaho, Montana, Wyoming, Utah, and Colorado.

26 In MZs II/VII, BLM-administered, National Forest System and other federal lands account  
27 for over 20 million acres of GRSG habitat (approximately 58 percent of habitat), with state  
28 and private lands accounting for approximately 16 million acres of GRSG habitat  
29 (approximately 44 percent of habitat) (Manier et al. 2013, p. 118). This indicates the  
30 importance of conservation and restoration on both private and public lands.

31 **Table 5-13** provides a breakdown of landownership and acres of GRSG habitat in MZs  
32 II/VII. As the table shows, approximately 52 percent of priority habitat and 47 percent of  
33 general habitat is on BLM-administered lands. Less than one percent of priority habitat and  
34 2 percent of general habitat is on National Forest System lands. The remaining 18,028,000  
35 million acres (49 percent) of GRSG habitat in the MZs comprise private, local state, and  
36 other federal and tribal lands. Acres in these and other tables are rounded to the nearest  
37 1,000 acres. Values of less than 1,000 acres are presented as 0 acres.

Table 5-13

Management Jurisdiction in MZs II/VII by Acres of Priority and General Habitats

	Total Surface Area (Acres)	Priority (Acres)	General (Acres)	Non-habitat (Acres)
<b>MZ IV</b>	92,776,100 (100%)	17,476,000 (19%)	19,200,200 (21%)	56,099,900 (60%)
BLM	30,295,000 (33%)	9,021,200 (30%)	9,012,500 (30%)	12,261,300 (40%)
Forest Service	23,558,800 (25%)	162,000 (<1%)	452,500 (2%)	22,944,300 (97%)
Tribal and other federal	7,086,200 (8%)	784,000 (11%)	1,354,600 (19%)	4,947,600 (70%)
Private	27,405,400 (30%)	6,233,900 (23%)	7,394,800 (27%)	13,776,700 (50%)
State	4,053,900 (4%)	1,244,800 (31%)	979,800 (24%)	1,829,300 (45%)
Other	376,700 (<1%)	30,100 (8%)	6,000 (2%)	340,600 (90%)

Source: Manier et al. 2013, p. 118

A very small percentage—approximately one tenth of one percent—of PHMA and GHMA in MZs II/VII are located on BLM-administered and National Forest System lands in the Idaho and southwest Montana sub-region. As a result, BLM and Forest Service management in this sub-region would have very little influence on GRSG across the broader MZs II/VII. BLM and Forest Service management in this sub-region would be most effective at conserving a portion of the Wyoming Basin population; it would have little or no effect on other populations in the MZs. Because past, present, and reasonably foreseeable future actions do not vary by alternative, the incremental effect of implanting any of the Idaho and southwest Montana LUPA alternatives on GRSG in MZs II/VII would vary little across the range of alternatives.

**Population Trends in Management Zones II/VII**

The Wyoming Basin population within MZs II/VII is the largest population in the GRSG range with over 20,000 males attending leks annually. Although recent data suggests a population increase, long-term monitoring is trending downward and population modeling suggests this trend will continue (Garton et al. 2011). Between 2007 and 2013, this population showed a 63 percent decline in the estimated minimum male population attending leks in the population (Garton et al. 2015, p. 34).

Wyoming data suggest a cyclic pattern with population lows in 1995, 2002 and 2013 and peaks in 2000 and 2006. Actual trends are difficult to discern due to the lower survey effort prior to 2007, meaning the number and proportion of active/inactive leks is unknown. Since 2007, the number of active leks has remained stable (approximately 1,100 active leks), but the number of males/active lek has declined by more than half (from 42 to 17 males/lek).

1 The isolation of many other populations on the fringes of MZs II/VII makes them  
2 particularly vulnerable to habitat loss and fragmentation. The Wyoming Basin population  
3 within Wyoming and extending into the sub-region is at risk due to renewable and non-  
4 renewable energy development, long-term drought, and brush eradication programs  
5 (USFWS 2013, p. 68).

#### 6 **5.1.8 Regional Efforts to Manage Threats to GRSG in MZs II/VII**

7 There are several regional efforts to manage threats to GRSG in MZs II/VII. These efforts  
8 may have a strong influence in alleviating threats to GRSG than BLM and Forest Service  
9 actions alone. This is because state and private lands account for approximately 16 million  
10 acres (approximately 44 percent) of GRSG habitat in MZs II/VII (Manier et al. 2013, p.  
11 118).

##### 12 ***Idaho Statewide Efforts***

13 Idaho statewide efforts are as described in **Section 5.1.4.**

##### 14 ***Montana Statewide Efforts***

15 Montana statewide efforts are as described in **Section 5.1.4.**

##### 16 ***Natural Resource Conservation Service Sage Grouse Initiative***

17 The NRCS SGI is as described in **Section 5.1.4.** As of 2014, the most recent year for which  
18 data are available, SGI has secured conservation easements on 243,403 acres within MZs  
19 II/VII (NRCS 2015).

##### 20 ***Wyoming Statewide Efforts***

21 Wyoming has established Core Population Areas to help delineate landscape planning units  
22 by distinguishing areas of high biological value. These areas are based on the locations of  
23 breeding areas and are intended to help balance GRSG habitat requirements with demand  
24 for energy development (Doherty et al. 2011).

25 In 2000, the Wyoming Sage-Grouse Working Group (WSG WG) was formed to develop a  
26 statewide strategy for GRSG conservation. This group prepared the Wyoming GRSG  
27 Conservation Plan (WSG WG 2003) to provide coordinated management and direction  
28 across the state. In 2004, local GRSG working groups were formed to develop and  
29 implement local conservation plans. Eight local working groups around Wyoming have  
30 completed conservation plans, many of which prioritize addressing past, present, and  
31 reasonably foreseeable threats at state and local levels, and prescribe management actions for  
32 private landowners to improve GRSG conservation at the local scale, consistent with the  
33 overall Wyoming Core Area Strategy.

34 Wyoming Executive Order. Wyoming Governor Matt Mead issued an executive order on  
35 June 2, 2011, that complemented and replaced several executive orders issued by his  
36 predecessor. The 2011 Wyoming Executive Order articulates Wyoming's Core Population  
37 Area Strategy (Core Area Strategy) as an approach to balancing GRSG conservation and  
38 development. It also provides an approach to mitigating human disturbances to GRSG. The  
39 USFWS believes that Wyoming's Core Area Strategy, if extended to all landowners via

1 regulatory mechanisms, would provide adequate protection for GRSG and its habitat  
2 (USFWS 2010); however, universal implementation remains uncertain due to the variety in  
3 landownership and management (Manier et al. 2013).

4 The Wyoming Executive Order applies to state trust lands starting in 2008. These trust lands  
5 cover almost 23 percent of GRSG habitat and benefit approximately 80 percent of the  
6 estimated breeding population in the state (USFWS 2010). All proposed activities are  
7 evaluated through a density/disturbance calculation tool to determine if the project would  
8 exceed recommended density/disturbance thresholds. Additionally, the order has  
9 stipulations to be included in permits, with varying restrictions depending on whether the  
10 proposed development activity occurs within or outside delineated Core Population Areas  
11 (Wyoming Executive Order, June 2, 2011).

12 In Core Areas, there is a 0.6-mile no surface occupancy (NSO) buffer around occupied leks,  
13 density restrictions of one location per 640 acres, a disturbance cap of 5 percent, and  
14 restrictions on activities in breeding and winter concentration habitat. This buffer provides  
15 protection for males during lekking season and acts in coordination with the density  
16 disturbance cap. Large wind energy and other development projects would not be allowed  
17 within Core Areas unless they would have no adverse effects to GRSG. Such a combination  
18 of restrictions could offer GRSG considerable regulatory protection within Wyoming.

19 Statewide modeling of trends under the Core Area Strategy suggests that with effective  
20 enforcement statewide, the strategy could reduce population losses by 9 to 15 percent across  
21 Wyoming. Moreover, the number of Core Areas predicted to maintain 75 percent of their  
22 current populations could increase from 20 to 25 under long-term scenarios (Copeland et al.  
23 2013). Combining the Core Area Strategy with \$250 million in target conservation easements  
24 (provided willing landowners and funding are available) could reduce population declines by  
25 another 9 to 11 percent (Copeland et al. 2013).

26 Sweetwater River Conservancy Habitat Conservation Bank. The Sweetwater River  
27 Conservancy Habitat Conservation Bank is the first conservation bank established for  
28 GRSG. Located in central Wyoming, the bank manages habitat for GRSG allowing energy  
29 development and other activities to proceed on other lands within Wyoming. A conservation  
30 bank is a site or suite of sites established under an agreement with the USFWS, intended to  
31 protect, and improve habitat for species. Credits may be purchased which result in perpetual  
32 conservation easements and conservation projects on the land to offset impacts occurring  
33 elsewhere. The Sweetwater River Conservancy Habitat Conservation Bank launched with  
34 55,000 deeded acres of GRSG habitat, and could expand up to 700,000 acres on other lands  
35 owned by the Sweetwater River Conservancy contingent upon demand (USFWS 2015).

36 Wyoming Landscape Conservation Initiative. The Wyoming Landscape Conservation  
37 Initiative is a long-term science based effort to assess and enhance aquatic and terrestrial  
38 habitats at a landscape scale in southwest Wyoming, while facilitating responsible  
39 development through local collaboration and partnership. Collaborative efforts address  
40 multiple concerns at a scale that considers all activities on the landscape, and can leverage  
41 resources that might not be available for single agency projects. GRSG initiatives from the



1 Wyoming Landscape Conservation Initiative have included habitat enhancement efforts  
2 (e.g., invasive weed treatment, prescribed grazing strategies), and GRSG research studies  
3 (Wyoming Landscape Conservation Initiative 2013).

4 Umbrella Candidate Conservation Agreement with Assurances for Wyoming Ranch  
5 Management. Candidate Conservation Agreements with Assurances are voluntary  
6 conservation agreements between the USFWS and one or more federal or private partners  
7 (e.g., the ranchers). In return for managing lands to benefit GRSG, landowners receive  
8 assurances against additional regulatory requirements should GRSG be listed under the  
9 Endangered Species Act. Within Wyoming, the USFWS and Wyoming Governor's Office in  
10 conjunction with the BLM, Natural Resources Conservation Service, Forest Service, and  
11 other agencies, have developed an umbrella Candidate Conservation Agreement with  
12 Assurances for range management activities. Enrolled landowners are expected to comply  
13 with grazing specific conservation measures including but not limited to: avoid (or  
14 rotationally utilize) known nesting and brood-rearing habitat as a location for activities that  
15 concentrate livestock such as stock tank placement branding and roundup; place salt or  
16 mineral supplements in sites minimizing impacts to GRSG habitat; and within 24 months  
17 develop and implement a written grazing management plan to maintain or enhance the  
18 existing plant community as suitable GRSG habitat (USFWS et al. 2013).

#### 19 ***Colorado Statewide Efforts***

20 In 2008, the Colorado Division of Wildlife (now Colorado Parks and Wildlife) developed a  
21 state conservation plan, which prioritized threats and identified key issues facing  
22 conservation. The plan included issues, objectives, and strategies in detail. The strategies for  
23 conservation discussed responsible parties, lead agency, timeline, and cost associated with  
24 implementation of the strategy.

25 In 2012, a state conservation plan revision process began, and in consultation with  
26 stakeholders, a matrix summarizing implementation and effectiveness of the strategies was  
27 developed (Colorado Package), along with a subsequent Synthesis Report. The Colorado  
28 Package identified a number of conservation efforts within Colorado which have resulted in  
29 positive impacts to GRSG including acquisition of conservation easements and habitat  
30 improvement projects (Colorado Department of Natural Resources 2013). The Synthesis  
31 Report provided additional information on the effectiveness of conservation efforts such as  
32 county zoning ordinances which support protection of GRSG habitat, and measures from  
33 the Colorado State Board of Land Commissioners which will support adaptive management  
34 techniques to improve GRSG habitat (Colorado Department of Natural Resources 2014).

35 Colorado Oil and Gas Conservation Commission Rules. Oil and gas development in  
36 Colorado is governed primarily by statutory provisions of the Oil and Gas Conservation  
37 Act (Colo. Rev. Stat. § 34-60-100, et seq.) and rules developed by the Colorado Oil and Gas  
38 Conservation Commission (COGCC) (2 CCR 404-1, et seq.). The rules are intended to  
39 prevent waste and to conserve oil and gas in Colorado while protecting public health, safety,  
40 and welfare, including the environment and wildlife resources. As the state agency charged  
41 with promoting the exploration, development, and conservation of Colorado's oil and gas  
42 resources, the COGCC also handles the drilling permit process and ensures industry

1 compliance with state-wide oil and gas statutes and regulations. Operators may be subject to  
2 consultation requirements under the Colorado Oil and Gas Conservation Commission  
3 Rules, to determine if conditions of approval are necessary to minimize adverse impacts  
4 from propose oil and gas operations in sensitive wildlife habitat (e.g., GRSG PHMA).

### 5 ***Utah Statewide Efforts***

6 The Conservation Plan for Greater Sage-grouse in Utah (2013) was designed to protect,  
7 enhance, and restore GRSG habitat, in an effort to reduce the threats to the species. The  
8 plan identifies 11 GRSG management areas throughout the state (including lands within  
9 MZs II/VII), which represent areas of high habitat value. The plan calls for state and local  
10 efforts to obtain incentive-based negotiated covenants, easements, leases or other legal tools  
11 in order to protect habitat. Additionally, the plan identifies a five percent disturbance  
12 limitation of habitat on state or federally managed lands, intended to limit the effects of large  
13 scale disturbances.

### 14 ***Other Regional Efforts***

15 Other regional efforts are as described in **Section 5.1.4**.

### 16 **5.1.9 Relevant Cumulative Actions**

17 This cumulative effects analysis considers past, present, and reasonably foreseeable future  
18 actions on other federal, state, private or mixed landownership lands in MZs II/VII  
19 (**Section 5.1.12**). Where these actions interface with GRSG habitat, they would cumulatively  
20 add to the impacts of BLM- and Forest Service-authorized activities.

21 The following list includes past, present, and future actions in MZs II/VII that could  
22 cumulatively affect GRSG (more detail is included in the table in Appendix A):

- 23 • Pinedale Anticline Project, Wyoming
- 24 • LaBarge Platform Exploration and Development Project, Wyoming
- 25 • Continental Divide-Creston Natural Gas Project, Wyoming
- 26 • Moneta Divide Natural Gas and Oil Development Project, Wyoming
- 27 • Black Fork Project (Formerly Moxa Arch Area Infill), Wyoming
- 28 • Atlantic Rim Natural Gas Field Development Project, Wyoming
- 29 • Chokecherry Sierra Madre Wind Farm, Wyoming
- 30 • Hiawatha Regional Energy Development Project, Wyoming, Colorado
- 31 • Oil Shale and Tar Sands Programmatic EIS, Wyoming, Colorado, Utah
- 32 • Gateway South Transmission Project, Wyoming, Colorado, Utah
- 33 • TransWest Express Transmission Line Project, Wyoming, Colorado, Utah,  
34 Nevada





- Gateway West Transmission Line Project, Wyoming, Idaho
- Riley Ridge to Natrona Pipeline Project, Wyoming
- Invasive Plant Management EIS for the Medicine Bow-Routt National Forests and Thunder Basin National Grassland, Wyoming, Colorado

### 5.1.10 Threats to GRSG in Management Zones II/VII

In its COT report, the USFWS identifies energy development, infrastructure, grazing/free-roaming equids, conversion to agriculture, fire, spread of weeds, recreation, and conifers as the present and widespread threats facing GRSG in MZs II/VII (USFWS 2013, pp. 17-19, 27-28). Each threat is discussed below.

#### *Energy Development and Mining*

The COT report states that energy development should be designed to ensure that it will not impinge on stable or increasing GRSG population trends. For mining, the objective is to maintain stable to increasing GRSG populations and no net loss of GRSG habitats in areas affected by mining (USFWS 2013, p. 49).

There are approximately 1,144,800 acres of GRSG habitat in MZs II/VII where energy and mineral development is presently occurring. There are over 30 million acres indirectly influenced by energy development (including oil and gas, coal leasing, mineral materials, and renewables) (Manier et al. 2013, pp. 52-71). No geothermal energy development is presently occurring in MZs II/VII. Indirect influences are primarily due to oil and gas leases. Of the 80 percent of GRSG habitat in MZ II/VII indirectly influenced by oil and gas development, approximately 50 percent occurs on BLM-administered land, with most of the remainder on private lands (Manier et al. 2013, p. 52). Only 1 percent of oil and gas development affects National Forest System lands. Approximately 7 percent of federal lands are closed to oil and gas leasing, but the majority of leased lands are presently undeveloped. BLM and Forest Service regulatory actions would primarily influence unleased areas by way of attaching stipulations, conditions of approval, and other conservation measures on future leases.

#### *Oil and Gas*

Nature and Type of Effects. The impacts of oil and gas development on GRSG are described in **Section 4.2** and above in **Section 5.1.6**.

Conditions in the Sub-region and in MZs II/VII. Forty-four percent of the 39-million acre federal mineral estate in MZs I and II is leased and authorized for exploration and development (Naugle et al. 2011). The Greater Green River Basin, Uintah-Piceance Basin, and North Park Basin are all important oil and gas reserves in MZs II/VII. In Wyoming, which contains the bulk of the mineral estate, 52 percent is authorized for development (Naugle et al. 2011). There are two leases on the Bear Lake Plateau within the sub-region but there has been no oil and gas development.

Approximately 15 percent of GRSG habitat in MZs II/VII is within 1.8 miles of oil and gas wells (Knick et al. 2011, p. 240). Oil and natural gas development-related wells indirectly influence over 50 percent of priority habitat and general habitat on BLM-administered lands

1 across MZs II/VII, occurring to a distance of 12 miles from the development. There are  
2 virtually no indirect impacts on National Forest System lands. Private surface lands account  
3 for 33 percent of the indirect impact in priority habitat and 37 percent in general habitat in  
4 MZs II/VII (Manier et al. 2013, p. 52). Thus, actions on BLM-administered land are likely to  
5 have a greater potential to ameliorate the effects of oil and gas development than any other  
6 single land management entity.

7 Though the BLM and Forest Service may restrict future leasing for oil and gas on BLM-  
8 administered and National Forest System lands within GRSG habitat, existing leases remain  
9 valid with potential for development based on locations of geologic fields for traditional oil  
10 and gas distributed extensively across eastern portions of GRSG range (Manier et al. 2013, p.  
11 51). Oil and gas reserves are extensive across the Powder River Basin of northeastern  
12 Wyoming and southeastern Montana; the Wyoming Thrust Belt of extreme southwestern  
13 Wyoming, and the Southwest Wyoming Basin including portions of southwestern and  
14 central Wyoming. The Southwestern Wyoming and the Uinta–Piceance geological basins are  
15 both located partly in MZs II/VII, and coincide with high-density areas of GRSG, large  
16 numbers of leks, and the highest male attendance at leks compared with any areas in the  
17 eastern part of the range (USFWS 2010).

18 According to the RFD scenario (**Appendix O**), permanent disturbance associated with oil  
19 and gas development is projected to occur on 156 acres within the sub-region over the next  
20 10 years. The potential for impacts would be reduced where areas are closed to fluid mineral  
21 leasing and where NSO and CSU/TL stipulations are applied. Given the small acreage and  
22 implementation of RDFs and BMPs (**Appendix B**), the likelihood for impacts on GRSG  
23 habitat on BLM-administered and National Forest System lands in the sub-region is  
24 anticipated to be small and localized under all alternatives.

25 Impact Analysis. **Tables 5-14** and **5-15** provide a quantitative summary of fluid mineral  
26 leasing conditions on BLM-administered and National Forest System lands across MZs  
27 II/VII, followed by an analysis of the Idaho and southwestern Montana sub-regional  
28 alternatives.

**Table 5-14**

**Acres Open\* and Closed to Fluid Mineral Leasing in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
	Open <sup>2</sup> to Fluid Mineral Leasing			
Alternative A	30,000	100%	2,401,000	1%
Alternative B	0	0%	2,382,000	<1%
Alternative C	0	0%	2,378,000	0%
Alternative D	0	0%	2,378,000	0%

Table 5-14

Acres Open\* and Closed to Fluid Mineral Leasing in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative E	0	0%	2,384,000	<1%
Alternative F	0	0%	2,382,000	<1%
Proposed Plan	0	0%	2,378,000	0%
Closed to Fluid Mineral Leasing				
Alternative A	1,307,000	1%	1,170,000	1%
Alternative B	1,358,000	5%	1,166,000	<1%
Alternative C	1,368,000	6%	1,164,000	0%
Alternative D	1,340,000	4%	1,170,000	1%
Alternative E	1,308,000	1%	1,166,000	<1%
Alternative F	1,358,000	1%	1,166,000	<1%
Proposed Plan	1,290,000	0%	1,165,000	<1%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> Open with standard lease terms and conditions. This table displays the acres of PHMA and GHMA open and closed to fluid mineral leasing in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

Table 5-15

Acres with NSO and CSU/TL Stipulations in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
NSO Stipulations				
Alternative A	4,415,000	<1%	1,254,000	<1%
Alternative B	4,393,000	0%	1,254,000	<1%
Alternative C	4,393,000	0%	1,251,000	0%
Alternative D	4,397,000	<1%	1,256,000	<1%
Alternative E	4,442,000	1%	1,256,000	<1%
Alternative F	4,393,000	0%	1,254,000	<1%
Proposed Plan	4,442,000	1%	1,281,000	2%
CSU/TL Stipulations				
Alternative A	5,407,000	0%	6,955,000	0%

Table 5-14

Acres Open\* and Closed to Fluid Mineral Leasing in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative B	5,407,000	0%	6,955,000	0%
Alternative C	5,407,000	0%	6,955,000	0%
Alternative D	5,421,000	<1%	6,977,000	<1%
Alternative E	5,407,000	0%	6,955,000	0%
Alternative F	5,407,000	0%	6,955,000	0%
Proposed Plan	5,407,000	0%	6,957,000	<1%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA with NSO Stipulations and CSU/TL Stipulations in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

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Acres open, closed, and with stipulations for fluid mineral leasing do not vary substantially across alternatives, as the acres in **Tables 5-14** and **5-15** represent the Proposed Plans from other BLM and Forest Service sub-regions and planning areas in MZs II/VII combined with the management in the MZs II/VII portion of the Idaho and southwestern Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few acres within MZs II/VII, alternatives in this sub-region would have a relatively small influence on total acres open, closed, or with stipulations. As shown in **Tables 5-14** and **5-15**, any action alternative for fluid mineral leasing in the Idaho and southwestern Montana LUPA would affect 6 percent or less of GRSG habitat within MZs II/VII.

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Implementing any alternative under the Idaho and southwestern Montana LUPA/EIS would not affect pending or future oil and gas development projects outside of the sub-region. For example, numerous oil and gas development projects are proposed in Wyoming (Appendix A). However, the NSO buffer and the disturbance cap under the Wyoming Executive Order would reduce the threat to GRSG from oil and gas development on non-federal lands in MZs II/VII.

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All BLM and Forest Service Proposed Plans within MZs II/VII include BMPs and RDFs to minimize impacts on GRSG from oil and gas development on federal lands. Examples include: locating new compressor stations outside of PHMA to reduce noise disturbance; clustering operations and facilities as closely as possible; placing infrastructure in already disturbed locations where the habitat has not been fully restored; and restoring disturbed areas at final reclamation to the pre-disturbance landforms and desired plant communities. State plans contain similar measures to reduce impacts. Together, these measures would help



1 protect unfragmented habitats, minimize habitat loss and fragmentation, and maintain  
2 conditions that meet GRSG life history needs. Recent research indicates that restored  
3 habitats lack many of the features sought by GRSG in their habitat areas, and may not  
4 support GRSG for long periods following restoration activities. In order to conserve GRSG  
5 populations on the landscape, protection of existing habitat through minimizing  
6 development, would provide the best hope for GRSG persistence (Arkle et al. 2014).

7 The effect of the Proposed Plans and other conservation actions in the MZ (most notably  
8 the Montana and Wyoming executive orders) could be synergistic. For example, applying  
9 buffers in PHMA and on state and private land would effectively conserve larger blocks of  
10 land than if these actions occurred individually. This would provide a landscape-scale net  
11 conservation benefit, especially in areas where little development has occurred to date.

12 Reasonably foreseeable oil and gas development in MZs II/VII is expected to increase over  
13 the 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation  
14 efforts as well as other BLM and Forest Service proposed plans in MZ IV would reduce the  
15 threat by restricting the location of developments, implementing disturbance caps and  
16 planned restoration activities. Together these conservation actions would result in a net  
17 conservation gain to GRSG habitats and populations in MZ IV regardless of management  
18 within the Idaho and southwestern Montana sub-region.

#### 19 *Coal*

20 While coal is the major mining activity in GRSG habitat (Braun 1998), there is no potential  
21 for coal within the sub-region. Coal mines are widespread in southern portions of MZs  
22 II/VII, and federal leases developed through surface extraction directly influence  
23 approximately 52,100 acres of these MZs. There is the potential for additional coal mining in  
24 large portions of priority habitat and general habitat in MZs I, II, and VII. Indirect effects of  
25 surface coal mines suggest influence over approximately 8 percent of priority habitat across  
26 the range of the species and approximately 5 percent of priority habitat in MZs II/VII.  
27 Approximately 36 percent of priority habitat that is indirectly influenced by coal mines  
28 across the species' range are managed by BLM. Although coal companies have demonstrated  
29 that disturbed lands can be restored to a point that supports a diversity of vegetative species,  
30 including big sagebrush, there is little evidence that GRSG populations have reoccupied  
31 habitat disturbed by coal mining, at least in terms of lek establishment (Manier et al. 2013,  
32 pp. 70-71, 74).

33 Coal development is also managed at the state level. For example, coal development that  
34 requires state agency review or approval would be subject to the permitting process and  
35 stipulations for development in GRSG Core areas under the Wyoming Executive Order.  
36 Additionally, new coal leases applications on federal lands would be subject to 43 CFR, Part  
37 3461.5, Criterion 15. This states that a lease may be issued if, after consultation with the  
38 state, the surface management agency determines that all or certain stipulated methods of  
39 coal mining would not have a significant long-term impact on the GRSG. Special conditions  
40 could be required, as identified during the leasing process, to protect GRSG habitat. The  
41 requirements of 43 CFR, Part 3461.5, Criterion 15, in combination with BLM and Forest  
42 Service planning efforts and state plans, would help reduce the threat from coal extraction

1 and would provide a net conservation gain to GRSG habitats and populations in MZs  
2 II/VII.

3 *Mineral Materials*

4 Nature and Type of Effects. The impacts of mineral material development on GRSG are  
5 described in **Section 4.2** and above in **Section 5.1.6**.

6 Conditions in the Sub-region and in MZs II/VII. There are 846,600 acres of mining and  
7 mineral materials disposal sites (not including minerals mined as energy sources) on BLM-  
8 administered surface land on priority habitat and general habitat in MZs II/VII. There are  
9 1,027,500 acres across all landownership types, making BLM-administered land the largest  
10 contributor to direct effects from this threat. National Forest System lands contribute to  
11 direct effects on 3,100 acres of priority habitat and general habitat (Manier et al. 2013, p. 77).

12 Indirect effects are estimated to 1.5 miles out from the direct effects area. In total, 65  
13 percent of priority habitat and 60 percent of general habitat influenced by the indirect impact  
14 of mining and mineral materials disposal sites are on BLM-administered land. This does not  
15 include minerals mined as energy sources. Mining and mineral materials disposal sites on  
16 private land, by comparison, indirectly affect 26 percent of priority habitat and 32 percent of  
17 general habitat. National Forest System lands have virtually no indirectly effects on priority  
18 habitat and general habitat (Manier et al. 2013, p. 77). As a result, management of mining  
19 and material disposal sites on BLM-administered land would have the greatest impact on  
20 GRSG habitat conditions.

21 Impact Analysis. Acres open and closed to mineral material disposal do not vary  
22 substantially across alternatives, as the acres in **Table 5-16** represent the Proposed Plans  
23 from other BLM and Forest Service sub-regions and planning areas in MZs II/VII  
24 combined with the management in the MZs II/VII portion of the Idaho and southwestern  
25 Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few  
26 acres within MZs II/VII, alternatives in this sub-region would have a relatively small  
27 influence on total acres open or closed. As shown in **Table 5-16**, any alternative for mineral  
28 materials management in the Idaho and southwestern Montana LUPA would affect 2  
29 percent or less of GRSG habitat within MZs II/VII.

30 **Table 5-16**

**Acres Open and Closed to Mineral Material Disposal in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	<i>Percent Within Sub-Region</i>	MZ II/VII	<i>Percent Within Sub-Region</i>
Open to Mineral Material Disposal				
Alternative A	7,249,000	1%	9,762,000	<1%



Table 5-16

Acres Open and Closed to Mineral Material Disposal in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative B	7,181,000	0%	9,740,000	<1%
Alternative C	7,181,000	0%	9,730,000	0%
Alternative D	7,222,000	1%	9,758,000	<1%
Alternative E	7,247,000	1%	9,743,000	<1%
Alternative F	7,181,000	0%	9,740,000	<1%
Proposed Plan	7,181,000	0%	9,762,000	<1%
Closed to Mineral Material Disposal				
Alternative A	3,446,000	0%	1,390,000	0%
Alternative B	3,514,000	2%	1,390,000	0%
Alternative C	3,524,000	2%	1,390,000	0%
Alternative D	3,473,000	1%	1,394,000	<1%
Alternative E	3,446,000	0%	1,390,000	0%
Alternative F	3,514,000	2%	1,390,000	0%
Proposed Plan	3,495,000	1%	1,390,000	0%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open and closed to mineral material disposal in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

1

2 Reasonably foreseeable future mineral material disposals in MZs II/VII could affect GRSG  
3 through habitat disturbance, fragmentation, or behavior disruptions, depending on the  
4 location and extent of the project; however, implementation of BLM and Forest Service  
5 Proposed Plans in other areas of MZs II/VII would restrict development, thereby reducing  
6 the risk of removing or fragmenting habitat elsewhere in MZs II/VII, particularly on federal  
7 lands. There would be a net conservation gain to GRSG habitats and populations in MZs  
8 II/VII, but it would be concentrated in areas outside the Idaho and southwestern Montana  
9 sub-region.

10 Under the Wyoming and Montana Executive Orders, authorizations of new mineral material  
11 disposal sites that require state agency review or approval would be subject to the GRSG  
12 permitting process. They also would be subject to stipulations for development in GRSG  
13 Core areas. These stipulations would be of particular benefit on privately owned surface and

1 subsurface lands, where BLM and Forest Service protective regulatory mechanisms do not  
2 apply.

3 Reasonably foreseeable mineral material development in MZs II/VII is expected to increase  
4 over the 20-year analysis period (**Section 5.1.12**), though state and private GRSG  
5 conservation efforts as well as other BLM and Forest Service proposed plans in MZ IV  
6 would reduce the threat by restricting the location of developments, implementing  
7 disturbance caps and planned restoration activities. Together these conservation actions  
8 would result in a net conservation gain to GRSG habitats and populations in MZ IV  
9 regardless of management within the Idaho and southwestern Montana sub-region.

10 *Locatable Minerals*

11 Nature and Type of Effects. The impacts of locatable mineral development on GRSG are  
12 described in **Section 4.2** and above in **Section 5.1.6**.

13 Conditions in the Sub-region and in MZ II/VII. The magnitude of existing conditions in the  
14 sub-region is largely unknown, but mining of locatable federal mineral resources currently  
15 affects approximately 2.2 percent of GRSG habitat in MZs II/VII (Manier et al. 2013, p. 74).

16 Impact Analysis. Under all alternatives, BMPs and RDFs in all BLM and Forest Service  
17 Proposed Plans would help minimize the impacts on GRSG from locatable mineral  
18 development on federal land. Examples include: clustering operations and facilities as closely  
19 as possible; placing infrastructure in already disturbed locations where the habitat has not  
20 been fully restored; and restoring disturbed areas at final reclamation to the pre-disturbance  
21 landforms and desired plant communities.

22 Acres open and recommended for withdrawal from locatable mineral entry do not vary  
23 substantially across alternatives, as the acres in **Table 5-17** represent the Proposed Plans  
24 from other BLM and Forest Service sub-regions and planning areas in MZs II/VII  
25 combined with the management in the MZs II/VII portion of the Idaho and southwestern  
26 Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few  
27 acres within MZs II/VII, alternatives in this sub-region would have a relatively small  
28 influence on total acres open or recommended for withdrawal. As shown in **Table 5-17**, any  
29 alternative for locatable minerals management in the Idaho and southwestern Montana  
30 LUPA would affect 7 percent or less of GRSG habitat within MZs II/VII. The greatest  
31 impacts would result under Alternatives B, C, and F, where PHMA in the Idaho and  
32 southwestern Montana sub-region would be recommended for withdrawal.

**Table 5-17**

**Acres Open and Recommended for Withdrawal from Mineral Entry  
in GRSG Habitat in MZ II/VII**

Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
MZ II/VII	<i>Percent Within Sub-Region</i>	MZ II/VII	<i>Percent Within Sub-Region</i>



**Table 5-17**  
**Acres Open and Recommended for Withdrawal from Mineral Entry**  
**in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Open to Mineral Entry				
Alternative A	8,204,000	1%	8,932,000	<1%
Alternative B	8,140,000	0%	8,914,000	<1%
Alternative C	8,140,000	0%	8,905,000	0%
Alternative D	8,204,000	1%	8,932,000	<1%
Alternative E	8,202,000	1%	8,917,000	<1%
Alternative F	8,140,000	0%	8,914,000	<1%
Proposed Plan	8,190,000	1%	8,940,000	<1%
Recommended for Withdrawal from Locatable Mineral Entry				
Alternative A	893,000	0%	235,000	0%
Alternative B	957,000	7%	235,000	0%
Alternative C	965,000	7%	235,000	0%
Alternative D	893,000	0%	235,000	0%
Alternative E	893,000	0%	235,000	0%
Alternative F	957,000	7%	235,000	0%
Proposed Plan	893,000	0%	235,000	0%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open to mineral entry and recommended for withdrawal from locatable mineral entry in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

1  
2 Under the Proposed Plans, portions of SFAs would be recommended for withdrawal. SFAs  
3 represent areas having the highest densities of GRSG and other criteria important for the  
4 persistence of the species. As such, if these areas are withdrawn, the Proposed Plan would  
5 provide a greater net conservation gain to GRSG populations by reducing disturbance to  
6 birds from mining. However due to the sub-region containing such a small percentage of  
7 GRSG habitat within the larger MZs, the impact of the sub-region would be limited.

Reasonably foreseeable locatable mineral development in MZs II/VII is expected to increase over the 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts as well as other BLM and Forest Service proposed plans in MZ IV would reduce the threat. Together these conservation actions would result in a net conservation gain to GRSG habitats and populations in MZ IV regardless of management within the Idaho and southwestern Montana sub-region.

*Nonenergy Leasable Minerals*

Nature and Type of Effects. The impacts of nonenergy leasable mineral development on GRSG are described in **Section 4.2** and above in **Section 5.1.6**.

Conditions in the Sub-region and in MZs II/VII. Existing prospecting permits for nonenergy leasable minerals directly affect 935,500 acres (2.5 percent) of GRSG habitats in MZs II/VII, which is the largest proportion of GRSG habitat compared with the other MZs (Manier et al. 2013, p. 79). Phosphate development is prevalent in southeastern Idaho, though acres disturbed are not known (**Section 3.12**).

Impact Analysis. Acres open and closed to nonenergy leasable mineral leasing do not vary substantially across alternatives, as the acres in **Table 5-18** represent the Proposed Plans from other BLM and Forest Service sub-regions and planning areas in MZs II/VII combined with the management in the MZs II/VII portion of the Idaho and southwestern Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few acres within MZs II/VII, alternatives in this sub-region would have a relatively small influence on total acres open or closed. As shown in **Table 5-18**, any alternative for nonenergy leasable minerals management in the Idaho and southwestern Montana LUPA would affect 2 percent or less of GRSG habitat within MZs II/VII.

**Table 5-18**

**Acres Open and Closed to Nonenergy Leasable Mineral Leasing in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Open to Nonenergy Leasing				
Alternative A	5,972,000	1%	7,939,000	<1%
Alternative B	5,921,000	0%	7,916,000	<1%
Alternative C	5,921,000	0%	7,913,000	0%
Alternative D	5,921,000	0%	7,939,000	<1%
Alternative E	5,970,000	1%	7,924,000	<1%
Alternative F	5,921,000	0%	7,916,000	<1%
Proposed Plan	5,921,000	0%	7,939,000	<1%

Table 5-18

Acres Open and Closed to Nonenergy Leasable Mineral Leasing in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Closed to Nonenergy Leasing				
Alternative A	3,614,000	<1%	1,112,000	<1%
Alternative B	3,665,000	2%	1,109,000	<1%
Alternative C	3,675,000	2%	1,106,000	0%
Alternative D	3,665,000	2%	1,112,000	<1%
Alternative E	3,614,000	<1%	1,108,000	<1%
Alternative F	3,665,000	2%	1,109,000	<1%
Proposed Plan	3,646,000	1%	1,114,000	<1%

Source: BLM 2015

<sup>1</sup> Includes IHMA

<sup>2</sup> This table displays the acres of PHMA and GHMA open and closed to nonenergy leasing in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

Reasonably foreseeable nonenergy leasable mineral development in MZs II/VII is expected to increase over the 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts as well as other BLM and Forest Service proposed plans in MZ IV would reduce the threat by restricting the location of developments, implementing disturbance caps and planned restoration activities. Together these conservation actions would result in a net conservation gain to GRSG habitats and populations in MZ IV regardless of management within the Idaho and southwestern Montana sub-region.

**Infrastructure**

*Rights-of-Way*

Nature and Type of Effects. The impacts of ROWs on GRSG are described in **Section 4.2** and above in **Section 5.1.6**.

Conditions in the Sub-region and in MZs II/VII. Infrastructure, such as ROWs and associated facilities and urbanization, is widespread throughout MZs II/VII. In some locations, infrastructure development has affected GRSG habitat. Development of roads, fences, and utility corridors has also contributed to habitat loss and fragmentation in portions of MZs II/VII. The best available estimates suggest about 25 percent of the MZs II/VII are within approximately 4 miles of urban development (Knick et al. 2011, p. 214). Impacts of infrastructure development in MZ IV are primarily related to highways, roads, power lines, and communication towers, with 90 percent of MZs II/VII within 4 miles of a road, 25 percent within 4 miles of a power line, and 5 percent within 4 miles of a communication tower (Knick et al. 2011, pp. 215-216).

1 Although not representative of all infrastructure ROWs, transmission lines greater than 115  
 2 kilovolts indirectly influence 60 percent of priority habitat and 63 percent of general habitat  
 3 across MZs II/VII. Indirect effects are assumed to occur to a radius of 4 miles (Manier et al.  
 4 2013, p. 41). Approximately 50 percent of transmission lines in priority habitat and 45  
 5 percent in general habitat are on BLM-administered lands across GRSG habitats in MZs  
 6 II/VII (Manier et al. 2013, p. 41). There is also a substantial contribution from private lands,  
 7 where 42 percent of transmission lines in priority habitat and 47 percent in general habitat  
 8 are located. In contrast, National Forest System lands contain 1 percent of transmission lines  
 9 in priority habitat and 1 percent in general habitat. Therefore, actions on BLM-administered  
 10 and private lands are likely to have the greatest potential to affect transmission line ROWs in  
 11 GRSG habitat than other land management entities. Designating ROW exclusion and  
 12 avoidance areas in PHMA and GHMA on BLM-administered and National Forest System  
 13 lands could reduce the threat on these lands. However, in areas with scattered federal  
 14 landownership, infrastructure may be routed around federal lands, often increasing its length  
 15 and impact. ROW avoidance and exclusion areas on BLM-administered and National Forest  
 16 System lands could increase this tendency.

17 Impact Analysis. Acres managed as open, exclusion, and avoidance for ROWs do not vary  
 18 substantially across alternatives, as the acres in **Table 5-19** represent the Proposed Plans  
 19 from other BLM and Forest Service sub-regions and planning areas in MZs II/VII  
 20 combined with the management in the MZs II/VII portion of the Idaho and southwestern  
 21 Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few  
 22 acres within MZs II/VII, alternatives in this sub-region would have a relatively small  
 23 influence on total acres managed as open, exclusion, or avoidance. As shown in **Table 5-19**,  
 24 any action alternative for ROW management in the Idaho and southwestern Montana LUPA  
 25 would affect 8 percent or less of GRSG habitat within MZs II/VII. The greatest impacts  
 26 would result under Alternatives B, C, and F, where PHMA in the Idaho and southwestern  
 27 Montana sub-region would be managed as ROW exclusion.

**Table 5-19**  
**Acres of Rights-of-Way Designations in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
	Open to Rights-of-Way			
Alternative A	122,000	37%	5,980,000	<1%
Alternative B	77,000	0%	5,958,000	<1%
Alternative C	77,000	0%	5,594,000	<1%
Alternative D	77,000	0%	5,954,000	<1%
Alternative E	77,000	0%	5,961,000	<1%
Alternative F	77,000	0%	5,958,000	<1%

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
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Table 5-19

Acres of Rights-of-Way Designations in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Proposed Plan	77,000	0%	5,954,000	<1%
Right-of-Way Exclusion				
Alternative A	564,000	0%	675,000	<1%
Alternative B	609,000	7%	674,000	0%
Alternative C	614,000	8%	674,000	0%
Alternative D	564,000	0%	674,000	0%
Alternative E	564,000	0%	674,000	0%
Alternative F	609,000	7%	674,000	0%
Proposed Plan	564,000	0%	674,000	0%
Right-of-Way Avoidance				
Alternative A	8,306,000	0%	3,114,000	0%
Alternative B	8,305,000	0%	3,114,000	0%
Alternative C	8,305,000	0%	3,114,000	0%
Alternative D	8,351,000	<1%	3,142,000	<1%
Alternative E	8,348,000	<1%	3,114,000	0%
Alternative F	8,305,000	0%	3,114,000	0%
Proposed Plan	8,336,000	<1%	3,134,000	<1%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within rights-of-way designations in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

- 1
- 2 The numbers of ROW authorizations are anticipated to grow in the sub-region. Increasing
- 3 populations, continued energy development, and new communication sites drive the need
- 4 for new ROWs on both federal and non-federal lands.
- 5 New ROW authorizations that require state agency review or approval would be subject to
- 6 the permitting process and stipulations for development in GRSG Core areas under the
- 7 Wyoming and Montana Executive Orders. These stipulations would benefit the GRSG in
- 8 Core Areas by encouraging ROW development outside of core habitat areas, restricting

1 surface occupancy within 0.6 mile of occupied leks, prohibiting power lines greater than 115  
2 kV outside of designated corridors, and locating new roads used to transport products or  
3 waste over 1.9 miles from occupied leks.

4 Presidential Priority transmission projects which are proposed in MZs II/VII (i.e., Transwest  
5 Express and Gateway West), would not be subject to GRSG conservation requirements in  
6 BLM and Forest Service LUPAs, but would be subject to requirements in applicable state  
7 plans as well as other state and federal laws and regulations. They would also develop their  
8 own suite of protective measures analyzed in project-specific NEPA documents. Whether or  
9 not these project-specific measures would adequately protect GRSG is unknown at this  
10 point in time because the measures have not been finalized. Regardless, impacts would likely  
11 be greater in Colorado where the proposed route would impact approximately 26 miles in  
12 PACs and 57 miles in PHMA in the Little Snake and White River BLM Field Offices. This  
13 impact would be especially harmful to fringe GRSG populations in Colorado, as some are  
14 less robust than those in Wyoming and southern Montana. In Wyoming, the routes avoid  
15 Core Areas due to that state plan's requirements; this would reduce impacts in Wyoming.

16 The effect of the alternatives and other conservation actions in the MZ (most notably the  
17 Montana and Wyoming executive orders) could be synergistic. By implementing restrictions  
18 on infrastructure in PHMA and on state and private lands together, the cumulative beneficial  
19 effect on GRSG would be greater than the sum of their individual effects because  
20 protections would be applied more consistently across the landscape. This is especially  
21 important in areas of mixed land ownership patterns where complementary protections can  
22 benefit leks, early brood rearing habitat, or other important areas that do not follow  
23 geopolitical boundaries.

24 Reasonably foreseeable ROW development in MZs II/VII is expected to increase over the  
25 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts  
26 as well as other BLM and Forest Service proposed plans in MZs II/VII would reduce the  
27 threat by restricting the type and location of developments. These conservation actions  
28 would provide a net conservation gain to GRSG habitats and populations in MZs II/VII  
29 regardless of management within the Idaho and southwestern Montana sub-region.

#### 30 *Renewable Energy*

31 Nature and Type of Effects. The impacts of renewable energy development on GRSG are  
32 described in **Section 4.2** and above in **Section 5.1.6**.

33 Conditions in the Sub-region and in MZs II/VII. While most federal lands are not currently  
34 leased or developed for wind or solar energy, the areas of potential development coincide  
35 closely with GRSG habitats, especially in MZs II/VII (Manier et al. 2013, p. 60).

36 Although not representative of all renewable energy development, wind turbines on BLM-  
37 administered land indirectly influence less than 1 percent of priority habitat and general  
38 habitat combined across MZs II/VII. Private lands account for 70 percent of wind turbines  
39 affecting GRSG in priority habitat (and 73 percent in general habitat) within MZs II/VII  
40 (Manier et al. 2013, p. 61). Therefore, conservation actions on private land are likely to have



1 a greater potential to ameliorate the effects of wind energy development than any other  
2 single land management entity.

3 Impact Analysis. **Table 5-20** displays acres open to wind energy ROW and wind energy  
4 exclusion and avoidance areas by alternative.

**Table 5-20**

**Acres of Wind Energy Management Designations in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Open to Wind Rights-of-Way				
Alternative A	45,000	100%	5,487,000	<1%
Alternative B	0	0%	5,465,000	<1%
Alternative C	0	0%	5,460,000	0%
Alternative D	0	0%	5,460,000	0%
Alternative E	0	0%	5,467,000	<1%
Alternative F	0	0%	5,465,000	<1%
Proposed Plan	0	0%	5,461,000	0%
Wind Right-of-Way Exclusion				
Alternative A	3,765,000	0%	957,000	0%
Alternative B	3,810,000	1%	957,000	0%
Alternative C	3,815,000	1%	957,000	0%
Alternative D	3,809,000	1%	957,000	0%
Alternative E	3,765,000	0%	957,000	0%
Alternative F	3,810,000	1%	957,000	0%
Proposed Plan	3,796,000	1%	958,000	<1%
Wind Right-of-Way Avoidance				
Alternative A	5,184,000	0%	3,305,000	0%
Alternative B	5,184,000	0%	3,305,000	0%
Alternative C	5,184,000	0%	3,305,000	0%
Alternative D	5,185,000	<1%	3,332,000	<1%
Alternative E	5,226,000	1%	3,305,000	0%
Alternative F	5,184,000	0%	3,305,000	0%

Table 5-20

Acres of Wind Energy Management Designations in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Proposed Plan	5,184,000	0%	3,323,000	<1%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within wind energy management designations in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

1 Acres managed as open, avoidance, and exclusion for wind energy development do not vary  
 2 substantially across alternatives, as the acres in **Table 5-20** represent the Proposed Plans  
 3 from other BLM and Forest Service sub-regions and planning areas in MZs II/VII  
 4 combined with the management in the MZs II/VII portion of the Idaho and southwestern  
 5 Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few  
 6 acres within MZs II/VII, alternatives in this sub-region would have a relatively small  
 7 influence on total acres managed as open, avoidance, or exclusion. As shown in **Table 5-20**,  
 8 any action alternative for wind energy management in the Idaho and southwestern Montana  
 9 LUPA would affect 1 percent or less of GRSG habitat within MZs II/VII.

10 All Proposed Plans within Wyoming in MZs II/VII rely on wind ROW avoidance  
 11 designations to protect GRSG habitat rather than wind ROW exclusion. Similar to other  
 12 ROWs, this approach preserves management flexibility in situations where landownership is  
 13 mixed. Without this flexibility, rerouting ROWs across nonfederal land may result in a longer  
 14 route, increasing disturbance of GRSG leks, nests, and brood-rearing and wintering areas  
 15 more than direct routing across federal land. Other Proposed Plans in MZs II/VII would  
 16 manage PHMA as ROW exclusion, thereby providing the greatest protection on federal  
 17 lands, but potentially increasing impacts on nonfederal lands.

18 Reasonably foreseeable future projects within MZs II/VII include renewable energy  
 19 developments, such as the Chokecherry/Sierra Madre Wind Farm in southern Wyoming.  
 20 Projects which require state agency review or approval would be subject to the Wyoming  
 21 Executive Order permitting process for development in core areas, which would encourage  
 22 ROW development outside of Core Areas and restrict surface occupancy within 0.6 miles of  
 23 occupied leks.

24 Overall, the Montana and Wyoming state actions, other BLM and Forest Service Proposed  
 25 Plans within MZs II/VII, and other past, present, and reasonably foreseeable future actions  
 26 will provide a net conservation gain to GRSG habitats and populations in MZs II/VII from  
 27 wind energy management regardless of management within the Idaho and southwestern  
 28 Montana sub-region.



Reasonably foreseeable renewable energy development in MZs II/VII is expected to increase over the 20-year analysis period (**Section 5.1.12**), though state and private GRSG conservation efforts as well as other BLM and Forest Service proposed plans in MZs II/VII would reduce the threat by restricting the location of developments. These conservation actions would provide a net conservation gain to GRSG habitats and populations in MZs II/VII regardless of management within the Idaho and southwestern Montana sub-region.

***Grazing/Free-Roaming Equids***

***Nature and Type of Effects.*** The impacts of livestock grazing and free-roaming equids on GRSG are described in **Section 4.2** and above in **Section 5.1.6**.

***Conditions in the Sub-region and in MZs II/VII.*** Livestock grazing is present and widespread on many land types, such as federal and private, across MZs II/VII. Rangeland health assessments have found that nearly 4 percent of BLM-administered grazing allotments in GRSG habitat in MZs II/VII are not meeting wildlife standards with grazing as a causal factor. Additionally, nearly 5 million acres of GRSG habitat within MZs II/VII, largely in the central portion of the area, is federally managed wild horse and burro range (Manier et al. 2013, p. 131).

***Impact Analysis.*** **Table 5-21** lists the acres of PHMA and GHMA available and unavailable for grazing by alternative.

**Table 5-21**  
**Acres Available and Unavailable to Livestock Grazing in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Available to Livestock Grazing				
Alternative A	8,915,000	1%	9,711,000	<1%
Alternative B	8,915,000	1%	9,689,000	<1%
Alternative C	8,871,000	0%	9,684,000	0%
Alternative D	8,915,000	1%	9,711,000	<1%
Alternative E	8,913,000	<1%	9,692,000	<1%
Alternative F	8,915,000	1%	9,689,000	<1%
Proposed Plan	8,901,000	<1%	9,705,000	<1%
Unavailable to Livestock Grazing				
Alternative A	28,000	0%	16,000	0%
Alternative B	28,000	0%	16,000	0%
Alternative C	78,000	64%	16,000	0%
Alternative D	28,000	0%	16,000	0%

**Table 5-21**  
**Acres Available and Unavailable to Livestock Grazing in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative E	28,000	0%	16,000	0%
Alternative F	28,000	0%	16,000	0%
Proposed Plan	28,000	0%	16,000	0%

Source: BLM 2015

This table displays the acres of PHMA and GHMA available and unavailable to livestock grazing in MZ I; it also displays the percentage of those acres that are found within the sub-region.

1

2 Acres available and unavailable to livestock grazing generally do not vary substantially across  
3 alternatives, as the acres in **Table 5-21** represent the Proposed Plans from other BLM and  
4 Forest Service sub-regions and planning areas in MZs II/VII combined with the  
5 management in the MZs II/VII portion of the Idaho and southwestern Montana sub-region.  
6 Since the Idaho and southwestern Montana sub-region has so few acres within MZs II/VII,  
7 alternatives in this sub-region would have a relatively small influence on total acres available  
8 or unavailable. As shown in **Table 5-21**, most alternatives for livestock grazing management  
9 in the Idaho and southwestern Montana LUPA would affect 1 percent or less of GRSG  
10 habitat within MZs II/VII. The exception would be under Alternative C, where grazing  
11 would be removed from PHMA in the Idaho and southwestern Montana sub-region. This  
12 represents 64 percent of the total acres unavailable to grazing in MZs II/VII under this  
13 alternative. Impacts from removal of grazing under Alternative C would be as described in  
14 **Section 5.1.6**.

15 Since 2010, SGI has enhanced rangeland health through rotational grazing systems, re-  
16 vegetating former rangeland with sagebrush and perennial grasses and control of invasive  
17 weeds. On privately-owned lands, SGI has developed a prescribed grazing approach that  
18 balances forage availability with livestock demand. This system allows for adjustments to  
19 timing, frequency, and duration of grazing, ensuring rangelands are managed sustainably to  
20 provide continued ecological function of sagebrush-steppe. A primary focus of the  
21 prescribed grazing approach is maintenance of key plant species, such as deep-rooted  
22 perennial grasses that have been shown to be essential for ecological resistance to invasive  
23 annual grasses (Reisner et al. 2013, pp. 1047-1048). These actions help to alleviate the  
24 adverse impacts associated with improper grazing practices outlined above under Nature and  
25 Type of Effects. Within MZs II/VII, SGI has implemented 543,511 acres of prescribed  
26 grazing systems. This program is likely the largest and most impactful program on private  
27 lands within MZs II/VII. Because of its focus on priority areas for conservation, which  
28 often overlap PHMA, the SGI's past, present, and reasonably foreseeable work has had and  
29 likely will continue to have a cumulative beneficial impact on GRSG when considered  
30 alongside protective BLM management actions in PHMA.



1 Reasonably foreseeable livestock grazing management efforts in MZs II/VII are expected to  
2 increase over the analysis period (**Section 5.1.12**), through increased NRCS conservation  
3 actions under the Sage-Grouse Initiative (e.g., fence marking and conservation easements),  
4 state efforts to maintain ranchland, and the implementation of other BLM and Forest  
5 Service LUPAs in MZs II/VII. These conservation actions would result in a net  
6 conservation gain to GRSG habitats and populations in MZ II/VII regardless of  
7 management within the Idaho and southwestern Montana sub-region.

### 8 ***Spread of Invasive Plants***

9 ***Nature and Type of Effects.*** The impacts of weed spread on GRSG are described in **Section**  
10 **4.2** and above in **Section 5.1.6**.

11 Conditions in the Sub-region and in MZs II/VII. Cheatgrass is distributed throughout these  
12 MZs, though generally not with the same abundance observed in other areas, such as the  
13 Great Basin. Localized areas, such as southern Wyoming, are more invaded than cooler parts  
14 of the region (Manier et al. 2013, p. 131).

15 The BLM and Forest Service currently manage weed infestations through integrated weed  
16 management: biological, chemical, mechanical, manual, and educational methods. The BLM  
17 is guided by the 1991 and 2007 RODs for Vegetation Treatment on BLM Lands in Thirteen  
18 Western States (BLM 1991) and by the 2007 Programmatic Environmental Report (BLM  
19 2007). Weeds are managed in cooperation with county governments and represents a  
20 landscape-level approach across management jurisdictions.

21 Impact Analysis. Given the small acreage of the Idaho and southwestern Montana sub-  
22 region within MZs II/VII, it is unlikely that the alternatives in the Idaho and southwestern  
23 Montana LUPA would have a measurable contribution to cumulative effects from invasive  
24 weed management within MZs II/VII.

25 Invasive species on BLM-administered and National Forest System lands would be  
26 controlled under all alternatives and may be more successful given the lower extent of  
27 invasion within the MZs. This would provide a net conservation gain to GRSG by restoring  
28 degraded sagebrush habitat.

29 Relevant cumulative actions that result in surface-disturbing activities would increase the  
30 potential for the spread of invasive weeds on both federal and non-federal lands. Projects  
31 subject to the general stipulations outlined in the Montana and Wyoming Executive Orders  
32 are required to control noxious and invasive weed species and to use native seed mixes  
33 during reclamation processes. These stipulations would benefit GRSG core habitat areas.  
34 They would accomplish this by limiting the spread or establishment of invasive species,  
35 particularly on lands that lack BLM and Forest Service protective regulatory mechanisms.  
36 Further, the Greater Sage-Grouse Habitat Conservation Strategy for NRCS in Idaho has  
37 identified GRSG conservation measures related to invasive weeds, such as reducing the risk  
38 and rate of fire spread, restoration and rehabilitation, and weed control. A number of  
39 projects are ongoing or in the planning phase to treat nonnative, invasive species (Appendix  
40 A).

Reasonably foreseeable weed management efforts are projected to increase (**Section 5.1.12**), including other state and county noxious weed regulations and the implementation of other BLM and Forest Service LUPAs in MZ II/VII. These conservation actions would result in a net conservation gain to GRSG habitats and populations in MZs II/VII regardless of management within the Idaho and southwestern Montana sub-region.

***Conversion to Agriculture***

Nature and Type of Effects. The impacts of conversion to agriculture on GRSG are described in **Section 4.2** and above in **Section 5.1.6**.

Conditions in the Sub-region and in MZs II/VII. Regional assessments estimate that while only 1 percent of priority habitat and general habitat in MZs II/VII are directly influenced by agricultural development, over 80 percent of these habitats are within approximately 4 miles of agricultural land (Manier et al. 2013, p. 27).

Impact Analysis. The BLM and Forest Service do not convert public lands to agriculture. As such, the only direct authority these agencies have over conversion to agriculture is by retaining or disposing of lands in the realty program. Lands retained under BLM and Forest Service management will not be converted to agriculture and disposing of lands could increase the likelihood they will be converted to agriculture, depending on their location and the policies of the new management authority.

Acres identified for retention and disposal generally do not vary substantially across alternatives, as the acres in **Table 5-22** represent the Proposed Plans from other BLM and Forest Service sub-regions and planning areas in MZs II/VII combined with the management in the MZs II/VII portion of the Idaho and southwestern Montana sub-region. Since the Idaho and southwestern Montana sub-region has so few acres within MZs II/VII, alternatives in this sub-region would have a relatively small influence on total acres identified for retention or disposal. As shown in **Table 5-22**, most alternatives for land tenure adjustments in the Idaho and southwestern Montana LUPA would affect 4 percent or less of GRSG habitat within MZs II/VII. The exception would be under Alternatives A and E, which would identify some PHMA in the Idaho and southwestern Montana sub-region for disposal. This represents 65 and 63 percent of the total acres identified for disposal in MZs II/VII under Alternatives A and E, respectively.

**Table 5-22**

**Acres Identified for Retention and Disposal in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	<i>Percent Within Sub-Region</i>	MZ II/VII	<i>Percent Within Sub-Region</i>
	Acres Identified for Retention			
Alternative A	7,272,000	<1%	8,930,000	<1%
Alternative B	7,315,000	1%	8,908,000	<1%

Table 5-22

Acres Identified for Retention and Disposal in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative C	7,320,000	1%	8,907,000	0%
Alternative D	7,315,000	1%	8,934,000	<1%
Alternative E	7,272,000	<1%	8,908,000	<1%
Alternative F	7,315,000	1%	8,908,000	<1%
Proposed Plan	7,291,000	<1%	8,938,000	<1%
Acres Identified for Disposal				
Alternative A	67,000	65%	160,000	3%
Alternative B	24,000	0%	160,000	3%
Alternative C	24,000	0%	156,000	0%
Alternative D	24,000	0%	156,000	0%
Alternative E	65,000	63%	162,000	4%
Alternative F	24,000	0%	160,000	3%
Proposed Plan	24,000	0%	156,000	0%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA identified for retention and disposal in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

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Cumulative impacts vary relatively little across alternatives, and BLM and Forest Service management may have little impact on alleviating this threat. Restrictions on grazing on federal land could increase agriculture pressure on adjacent private lands. If the loss of federal grazing privileges makes ranching economically unviable, the potential conversion of private grazing lands to agriculture would increase. However, the Proposed Plan does not substantially increase acreage unavailable to grazing.

The COT report objectives for converting land to agriculture are to avoid further loss of sagebrush habitat for agricultural activities (both plant and animal production) and to prioritize restoration. In areas where taking agricultural lands out of production has benefited GRSG, the programs supporting these actions should be targeted and continued (USFWS 2013, p. 48). In accordance with this objective, the NRCS's SGI program focuses on maintaining ranchland that provides habitat for GRSG.

1 This voluntary program provides private landowners with monetary incentives to protect  
2 GRSG habitat, often through conservation easements. As a result, private land containing  
3 GRSG habitat is protected from conversion to agriculture or other development for the life  
4 of the conservation agreement. The conservation easements and other conservation  
5 incentives, such as restoration of water features and fence marking, can enhance the ability  
6 of private ranchlands to support GRSG. As of 2014, SGI has secured conservation  
7 easements on 243,403 acres within MZs II/VII and marked or removed 23 miles of fence  
8 (NRCS 2015). This has preserved habitat and reduced the risk of direct mortality on these  
9 lands.

10 Over the analysis period, conversion to agriculture is expected to increase (**Section 5.1.12**),  
11 though state and private conservation efforts as well as other BLM and Forest Service  
12 proposed plans in MZs II/VII would reduce the threat. These conservation actions would  
13 result in net conservation gain to GRSG habitats and populations in MZs II/VII regardless  
14 of management within the Idaho and southwestern Montana sub-region.

### 15 ***Wildfire***

16 Nature and Type of Effects. The impacts of fire on GRSG are described in **Section 4.2** and  
17 above in **Section 5.1.6**.

18 Conditions in the Sub-region and in MZs II/VII. Fire risk is generally low across MZs  
19 II/VII, though areas in the northern and southern portions of the MZs have a higher fire  
20 risk (Manier et al. 2013, p. 131). Within the MZs, 10 percent of priority habitat and general  
21 habitat have a high risk for fire (Manier et al. 2013, p. 85).

22 Impact Analysis. Given the small acreage of the Idaho and southwestern Montana sub-  
23 region within MZs II/VII, it is unlikely that the alternatives in the Idaho and southwestern  
24 Montana LUPA would have a measurable contribution to cumulative effects from fire  
25 management within MZs II/VII.

26 Recognition of the importance of sagebrush habitat during interagency wildfire response  
27 would benefit GRSG in the event of an unplanned fire. The Montana Executive Order  
28 emphasizes fire suppression in Core Population Areas, while recognizing other suppression  
29 priorities may take precedent. This would benefit GRSG during wildfire planning and  
30 response, particularly on lands not administered by the BLM or Forest Service.

31 The Interagency Standards for Fire and Fire Aviation Operations “Red Book” includes a  
32 BMP for GRSG habitat conservation for wildlife and fuels management (BLM 2013b). This  
33 document is a supplemental policy or guidance for the BLM, the Forest Service, and the  
34 USFWS. This BMP would benefit the GRSG during interagency wildland fire operations. It  
35 would do this by using spatial habitat data and predictive services to prioritize and  
36 preposition firefighting resources in critical habitat areas. In January 2015, Secretarial Order  
37 3336 “Rangeland Fire Prevention, Management and Restoration” was signed by the  
38 Secretary of the Interior. The order sets forth enhanced policies and strategies for preventing  
39 and suppressing rangeland wildfire and for restoring sagebrush landscapes impacted by



1 wildfire across the West. The order will improve coordination with local, state, tribal, and  
2 regional efforts to address rangeland wildfire at a landscape level.

3 Reasonably foreseeable wildland fire management efforts are projected to increase (**Section**  
4 **5.1.12**), especially through increased coordination of federal, state, and local fire prevention  
5 actions and the implementation of other BLM and Forest Service LUPAs in MZs II/VII.  
6 These conservation actions would result in a net conservation gain to GRSG habitats and  
7 populations in MZs II/VII regardless of management within the Idaho and southwestern  
8 Montana sub-region.

9 ***Recreation***

10 Nature and Type of Effects. The impacts of recreation on GRSG are described in **Section**  
11 **4.2** and above in **Section 5.1.6**.

12 Conditions in the Sub-region and in MZs II/VII. Human populations have increased and  
13 expanded, primarily over the past century and in the western portion of the sagebrush  
14 distribution. Within MZs II/VII, population densities have increased 31 percent on the  
15 Colorado Plateau and 19 percent in the Wyoming Basin (Knick et al. 2011, p. 212). With  
16 these expanding populations come greater human impacts (Leu et al. 2008).

17 The COT report objectives for recreation are to maintain healthy native sagebrush  
18 communities, based on local ecological conditions, and to manage direct and indirect human  
19 disturbance (including noise) to avoid interruption of normal GRSG behavior (USFWS  
20 2013, p. 49). Limits on road use under the action alternatives and limits on OHVs would  
21 help meet these objectives.

22 In the Idaho and southwestern Montana sub-region, travel management planning is  
23 underway to determine specific routes available for closure.

24 Impact Analysis. **Table 5-23** shows Acres of Travel Management Designations in GRSG  
25 Habitat in MZs II/VII.

**Table 5-23**

**Acres of Travel Management Designations in GRSG Habitat in MZ II/VII**

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	<i>Percent Within Sub-Region</i>	MZ II/VII	<i>Percent Within Sub-Region</i>
		Open		
Alternative A	5,000	0%	58,000	100%
Alternative B	5,000	0%	5,000	0%
Alternative C	5,000	0%	5,000	0%
Alternative D	5,000	0%	5,000	0%
Alternative E	5,000	0%	5,000	0%

Table 5-23

Acres of Travel Management Designations in GRSG Habitat in MZ II/VII

	Priority Habitat Management Areas		General Habitat Management Areas <sup>1</sup>	
	MZ II/VII	Percent Within Sub-Region	MZ II/VII	Percent Within Sub-Region
Alternative F	5,000	0%	5,000	0%
Proposed Plan	5,000	0%	58,000	72%
Limited				
Alternative A	8,876,000	1%	9,338,000	<1%
Alternative B	8,876,000	1%	9,315,000	<1%
Alternative C	8,876,000	1%	9,310,000	0%
Alternative D	8,876,000	1%	9,338,000	<1%
Alternative E	8,873,000	<1%	9,317,000	<1%
Alternative F	8,876,000	1%	9,315,000	<1%
Proposed Plan	8,861,000	<1%	9,331,000	<1%
Closed				
Alternative A	112,000	0%	366,000	0%
Alternative B	112,000	0%	366,000	0%
Alternative C	112,000	0%	366,000	0%
Alternative D	112,000	0%	366,000	0%
Alternative E	112,000	0%	366,000	0%
Alternative F	112,000	0%	366,000	0%
Proposed Plan	112,000	0%	366,000	0%

Source: BLM 2015

<sup>1</sup> Includes IHMA

This table displays the acres of PHMA and GHMA within travel management designations of open, limited and closed in MZ II/VII; it also displays the percentage of those acres that are found within the sub-region.

- 1
- 2 Acres open, closed, and limited to motorized vehicles do not vary substantially across
- 3 alternatives, as the acres in **Table 5-23** represent the Proposed Plans from other BLM and
- 4 Forest Service sub-regions and planning areas in MZs II/VII combined with the
- 5 management in the MZs II/VII portion of the Idaho and southwestern Montana sub-region.
- 6 Since the Idaho and southwestern Montana sub-region has so few acres within MZs II/VII,



1 alternatives in this sub-region would have a relatively small influence on total acres open,  
2 closed or limited. As shown in **Table 5-23**, any alternative for travel management in the  
3 Idaho and southwestern Montana LUPA would affect 1 percent or less of GRSG habitat  
4 within MZs II/VII.

5 Reasonably foreseeable recreation in MZs II/VII is expected to increase over the 20-year  
6 analysis period (**Section 5.1.12**). However, state and private GRSG conservation efforts as  
7 well as other BLM and Forest Service proposed plans in MZs II/VII would reduce the  
8 threat by providing additional protections such as disturbance caps and limitations on  
9 National Forest System lands. These conservation actions would result in a net conservation  
10 gain to GRSG habitats and populations in MZs II/VII regardless of management within the  
11 Idaho and southwestern Montana sub-region.

### 12 ***Conifer Encroachment***

13 Nature and Type of Effects. Conifer woodlands, especially juniper (*Juniperus* spp.) and in  
14 some regions pinyon pine (*Pinus edulis*), may expand into sagebrush habitat and reduce  
15 availability of habitat for GRSG. Conifer expansion may be encouraged by human activities,  
16 including fire suppression and grazing (Miller et al. 2011). If woodland development is  
17 sufficient to restrict shrub and herbaceous understory growth, habitat quality for GRSG will  
18 be reduced (Connelly et al. 2004). Mature trees offer perch sites for raptors; thus, woodland  
19 expansion may also increase the threat of predation, as with powerlines (Manier et al. 2013).  
20 Locations within approximately 1,000 yards of current pinyon-juniper woodlands are at  
21 highest risk of expansion (Bradley 2010). The greatest risks from conifer encroachment are  
22 thought to be in the Great Basin, with smaller risks (6 to 7 percent of priority and general  
23 habitat) in the Wyoming Basin (Connelly et al. 2004; Manier et al. 2013). Studies have shown  
24 that GRSG incur population-level impacts at very low levels of conifer encroachment  
25 (Baruch-Mordo et al. 2013).

26 Conditions in MZs II/VII. Approximately 46 percent of conifer encroachment risk in  
27 priority habitat (and 43 percent in general habitat) occur on BLM-administered lands within  
28 MZs II/VII (Manier et al. 2013). Therefore, BLM actions are likely to have a greater  
29 potential to ameliorate the effects of conifer encroachment on GRSG than any other single  
30 land management entity.

31 Impact Analysis. Specific required design features common to all BLM and Forest Service  
32 plans in MZs II/VII include removal of standing and encroaching trees within 100 meters of  
33 occupied leks and other habitats (e.g., nesting, wintering, and brood rearing). Additionally,  
34 reintroduction of appropriate fire regimes would limit conifer encroachment into the  
35 sagebrush plant communities. These actions would benefit GRSG by improving the quality  
36 of habitat throughout the MZ.

37 Additionally, under the Proposed Plan, conifer removal treatments would be prioritized  
38 closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment  
39 is phase 1 or phase 2. This action would benefit GRSG by improving the quality of habitat  
40 and functionality.

1 In Colorado, the Colorado Parks and Wildlife has conducted conifer treatments totaling  
2 2,600 acres (Colorado Department of Natural Resources 2013). In addition, SGI has helped  
3 reduce the threat of early succession conifer encroachment through mechanical removal on  
4 10,500 acres of private lands within MZs II/VII. The majority of these efforts were located  
5 inside PACs (NRCS 2015), helping to preserve historic fire return intervals and important  
6 GRSG habitat.

7 Reasonably foreseeable conifer encroachment management efforts are projected to increase  
8 (**Section 5.1.12**), including efforts on private land and implementation of other BLM and  
9 Forest Service LUPAs in MZs II/VII. These conservation actions would result in a net  
10 conservation gain to GRSG habitats and populations in MZs II/VII regardless of  
11 management in the Idaho and southwestern Montana sub-region.

### 12 **5.1.11 Conclusions**

13 In addition to BLM and Forest Service management in the Idaho and southwestern  
14 Montana sub-region and other planning areas in MZs IV and II/VII, GRSG in these MZs  
15 will also be impacted by management and conservation at state, regional, tribal and local  
16 levels. This analysis takes into account each alternative in the Idaho and southwestern  
17 Montana LUPA in conjunction with state and private initiatives, as well as past, present, and  
18 reasonably foreseeable future actions at the federal, state, and local levels. The analysis  
19 assumes that the Proposed Plans would be implemented in the other BLM and Forest  
20 Service LUPA planning areas in MZs IV and II/VII.

21 Some of the most important past and present actions benefitting GRSG populations on  
22 private land in MZ IV and II/VII are the conservation easements coordinated by federal  
23 agencies such as BLM and the Forest Service, individual states, and by NRCS SGI with  
24 private ranchers. SGI has also worked with landowners to increase fence marking, seeding of  
25 native vegetation, and conifer removal to improve GRSG habitat quality. Future  
26 coordination of private landowners with SGI is expected to provide further benefits to  
27 GRSG habitat.

28 This coordination with private landowners enhances conservation in addition to what BLM  
29 and Forest Service management can accomplish on federal lands. Ranchers in Wyoming and  
30 Montana are also using Candidate Conservation Agreement with Assurances with the  
31 USFWS. Under these instruments, the ranchers voluntarily agree to manage lands to reduce  
32 threats to GRSG in exchange for a guarantee that they will not be subject to additional  
33 regulations should the species become listed. While ranchers have used these agreements  
34 across the GRSG range, thus far the agreements have been applied to only a small number  
35 of ranches in Wyoming and Montana.

36 As discussed in **Sections 5.1.4** and **5.1.8**, both Wyoming and Montana have adopted  
37 statewide plans to promote GRSG conservation. Both plans implement a Core Population  
38 Area Strategy with well density limitations, timing restrictions, and a uniform 5 percent  
39 disturbance cap across all landownership types. These measures would improve GRSG  
40 population levels if effectively enforced (Copeland et al. 2013) and would primarily affect



1 MZs II/VII. The limitations on timing and density of energy development along with the  
2 disturbance cap, and BLM and Forest Service management on lands with federal mineral  
3 estate, would act in concert to promote GRSG conservation and reduce the impacts from  
4 energy development on leks, breeding habitat, and wintering habitat.

5 However, a majority of MZ IV, including the states of Idaho, Oregon, Nevada, and Utah, do  
6 not have similar executive orders in place. These states do have GRSG conservation plans,  
7 but these plans generally include voluntary guidelines, not regulatory mechanisms. This could  
8 allow for more impacts on the 31 percent of GRSG habitat within the MZ that is state or  
9 privately owned. Since most GRSG habitat in MZ IV (68 percent) is under federal  
10 management, BLM and Forest Service regulatory mechanisms will have a substantial  
11 contribution to cumulative effects.

12 BLM and Forest Service restrictions on ROWs/SUAs, renewable energy, and energy  
13 development in GRSG habitat would help reduce loss and disturbance of GRSG  
14 populations. The Proposed Plan includes numerous measures to allow development while  
15 reducing the likelihood for impacts on GRSG, such as requirements for anthropogenic  
16 disturbance criteria, a 3 percent disturbance cap, buffers, mitigation, and RDFs and BMPs.

17 The more challenging threats to manage in MZ IV are fire, the spread of weeds, and conifer  
18 encroachment. Fire regimes are complex and vary tremendously across the sagebrush region  
19 and through time; furthermore, the ecological role of fire has changed dramatically since the  
20 European settlement era (circa 1850) due to changing fuel and habitat patterns (Manier et al.  
21 2013, p. 79). Fire is exacerbated by invasive weeds, particularly in Wyoming big sagebrush  
22 types, where the invasion by exotic annuals has resulted in dramatic increases in number and  
23 frequency of fires with widespread, detrimental effects on habitat conditions (Manier et al.  
24 2013, p. 88). Expansion of conifer woodlands, especially juniper (*Juniperus* spp.) do not  
25 provide suitable habitat for GRSG, and mature trees displace shrubs, grasses and forbs  
26 through direct competition (Manier et al. 2013, p. 91). These threats are at the landscape  
27 scale and are extensive throughout MZ IV; the Proposed Plans within MZ IV include a  
28 comprehensive strategy to address these threats.

#### 29 ***Alternative A: Current Management***

30 Under Alternative A, current management would continue on BLM-administered and  
31 National Forest System lands in the Idaho and southwestern Montana sub-region. Several  
32 protective measures would not be implemented; for example, the BLM and Forest Service  
33 would not designate PHMA or GHMA and would not manage any additional ROW/SUA  
34 avoidance or exclusion areas. Alternative A does not include any consistent management  
35 prescriptions to protect GRSG across the sub-region, though several individual BLM district  
36 offices and National Forests have some protections in place. Appropriate and allowable uses  
37 and restrictions with regard to such activities as mineral leasing and development, recreation,  
38 utility corridors, and livestock grazing would also remain unchanged.

39 Under current management, widespread wildfire and subsequent spread of nonnative,  
40 invasive species have destroyed and degraded PHMA and PGMA, particularly in MZ IV.  
41 This is likely to continue and reinforce the cycle of fire and weed spread. Further, the

1 expansion of conifers, particularly juniper, will continue to reduce the suitability of sagebrush  
2 habitats for GRSG.

3 In the rest of MZs IV and II/VII, other BLM and Forest Service LUPA planning efforts  
4 would implement their Proposed Plans to improve protection of GRSG and their habitat. In  
5 addition, GRSG conservation strategies would be implemented on state and private lands.  
6 As a result, the lack of protections under the Idaho and southwestern Montana LUPA  
7 Alternative A would be offset to an extent by more protective management elsewhere in the  
8 MZs, particularly within MZs II/VII. In the Idaho and southwestern Montana sub-region,  
9 though, continuation of current management would do little to reduce the major threats to  
10 GRSG in the sub-region: wildfire, invasive weeds, and conifer encroachment. Current  
11 management provides a limited number and extent of regulatory mechanisms to avoid  
12 continued degradation of GRSG habitat in MZs IV and II/VII, but it would not meet the  
13 COT report objectives for conservation of GRSG.

#### 14 ***Alternative B***

15 Under Alternative B, the BLM and Forest Service would manage lands to conserve, enhance,  
16 and restore sagebrush ecosystems. In conjunction with NRCS and state initiatives on private  
17 land, several aspects of BLM and Forest Service management under Alternative B would  
18 benefit GRSG conservation at a landscape level. These include implementation of a 3  
19 percent disturbance cap, retention of GRSG habitat, restrictions on resource uses such as  
20 managing PHMA as ROW exclusion and closed to mineral development, and prioritizing  
21 restoration in GRSG habitat. Implementing these protective measures on BLM-administered  
22 and National Forest System lands within the Idaho and southwestern Montana sub-region  
23 would help reduce damage to GRSG habitat, minimize loss of connectivity and could also  
24 minimize the spread of invasive species by limiting human activities that disturb soil or  
25 introduce seeds. However, such restrictions could also risk pushing development onto  
26 adjacent, nonfederal lands with less restrictive management. This is particularly a concern  
27 where nonfederal lands have fewer protections (e.g., most of MZ IV). In parts of MZ IV  
28 and MZs II/VII, some nonfederal lands have similarly restrictive measures such as in Core  
29 Areas in Wyoming and Montana (though Core areas do not cover all existing GRSG  
30 populations), which would reduce the likelihood for impacts.

31 In combination with other past, present, and reasonably foreseeable future actions,  
32 Alternative B would likely meet the objectives laid out in the COT report for infrastructure,  
33 grazing/free-roaming equids, conversion to agriculture, energy development, and recreation.  
34 Without a comprehensive strategy to address fire, invasive weeds, and conifer encroachment,  
35 it may not meet the COT objectives for these threats.

#### 36 ***Alternative C***

37 Under Alternative C, the BLM and Forest Service would manage lands to conserve, enhance,  
38 and restore sagebrush ecosystems and would apply management to all occupied GRSG  
39 habitats, making it the most restrictive alternative for development in GRSG habitat. In  
40 conjunction with NRCS and state initiatives on private land, several aspects of BLM and  
41 Forest Service management under Alternative C would benefit GRSG conservation at a  
42 landscape level. These include implementation of a 3 percent disturbance cap, removal of



1 livestock grazing from BLM-administered and National Forest System lands, and closure to  
2 leasable mineral development. Impacts would be similar to those described for Alternative B,  
3 but could be greater due to the larger area over which restrictions would be applied.

4 Together with other past, present, and reasonably foreseeable future actions, Alternative C  
5 would likely meet the objectives laid out in the COT report for infrastructure, conversion to  
6 agriculture, energy development, and recreation. Without a comprehensive strategy to  
7 address fire, invasive weeds, and conifer encroachment, it may not meet the COT objectives  
8 for these threats. Further, it is unknown whether removal of grazing would meet the COT  
9 objectives for range management, as analyzed above and in greater detail in **Section 4.2**.

#### 10 ***Alternative D***

11 Under Alternative D, the BLM and Forest Service would manage lands to conserve,  
12 enhance, and restore sagebrush ecosystems. Management and impacts would be similar to  
13 Alternative B, though Alternative D would incorporate more flexibility and adaptive  
14 management applied to resource uses to account for sub-regional conditions. The BLM and  
15 Forest Service would require a no net unmitigated loss of PHMA and IHMA and would  
16 implement numerous conservation measures to reduce impacts from human activities in  
17 PHMA, such as management of GRSG habitat as ROW avoidance areas and closure to  
18 some mineral development. Alternative D also includes additional measures and planning for  
19 wildfire management.

20 Under Alternative D, the BLM would increase GRSG habitat protection over current  
21 management, but with less restrictive actions than under Alternatives B or C. In conjunction  
22 with state and regional planning efforts, implementation of state disturbance caps in GRSG  
23 core areas, conservation easements on private lands, implementation of other BLM and  
24 Forest Service LUPAs in MZ IV and MZs II/VII, and other past, present, and reasonably  
25 foreseeable future actions, Alternative D would likely meet the objectives laid out in the  
26 COT report for fire, infrastructure, grazing/free-roaming equids, conversion to agriculture,  
27 energy development, and recreation. Without a comprehensive strategy to address invasive  
28 weeds and conifer encroachment, it may not meet the COT objectives for these threats.

#### 29 ***Alternative E***

30 Under Alternative E, the BLM and Forest Service would manage to maintain, conserve,  
31 enhance, and restore sagebrush ecosystems. In PHMA and IHMA, the BLM and Forest  
32 Service would incorporate management flexibility to permit high value infrastructure with  
33 appropriate mitigation and best management practices tailored for the sub-region.  
34 Management and impacts are similar to Alternative D, though Alternative E would require  
35 less stringent use restrictions and would designate the least amount of PHMA compared to  
36 the other alternatives' management area designations. Alternative E also includes additional  
37 measures and planning for wildfire management.

38 Under Alternative E, the BLM would increase GRSG habitat protection over current  
39 management, but with less restrictive actions than under Alternatives B C, or D. In  
40 conjunction with state and regional planning efforts, implementation of state disturbance  
41 caps in GRSG core areas, conservation easements on private lands, implementation of other

1 BLM and Forest Service LUPAs in MZ IV and MZs II/VII, and other past, present, and  
2 reasonably foreseeable future actions, Alternative E would likely meet the objectives laid out  
3 in the COT report for fire, infrastructure, grazing/free-roaming equids, and recreation.  
4 Alternative E imposes fewer restrictions on mining and energy development and does not  
5 provide guidance for land tenure decisions, so the alternative may not meet the COT  
6 objectives for mining, energy development, and conversion to agriculture. Without a  
7 comprehensive strategy to address invasive weeds and conifer encroachment, it also may not  
8 meet the COT objectives for these threats.

9 ***Alternative F***

10 Management under Alternative F would be largely similar to that described for Alternative B,  
11 though with more stringent guidance and restrictive management in sagebrush ecosystems.  
12 Alternative F would implement a 3 percent disturbance cap but all surface disturbances  
13 (including human disturbance and fire) would count toward this cap. In addition, grazing  
14 would be reduced by 25 percent.

15 In combination with other past, present, and reasonably foreseeable future actions,  
16 Alternative F would likely meet the objectives laid out in the COT report for infrastructure,  
17 grazing/free-roaming equids, conversion to agriculture, energy development, and recreation.  
18 Without a comprehensive strategy to address fire, invasive weeds, and conifer encroachment,  
19 it may not meet the COT objectives for these threats.

20 ***Proposed Plan***

21 Under the Proposed Plan, the BLM and Forest Service would manage lands to conserve,  
22 enhance and restore GRSG habitat and the sagebrush ecosystem upon which GRSG  
23 populations depend. Management and impacts would be similar to Alternatives D and E,  
24 though the Proposed Plan would incorporate robust strategies and approaches to GRSG  
25 management, including wildfire and invasive species management, conifer removal, adaptive  
26 management, mitigation, a 3 percent disturbance cap, anthropogenic disturbance criteria,  
27 buffers, habitat objectives and monitoring. The Proposed Plan provides vegetation treatment  
28 acres by decade sufficient to meet desired habitat conditions (70 percent of the analysis area  
29 meeting 10 to 30 percent sagebrush cover) (NTT 2011). In addition to habitat management  
30 areas, SPAs would also be managed to protect recognized the most important areas for the  
31 species.

32 The Proposed Plan would provide a higher level of GRSG habitat protection compared to  
33 current management, while allowing flexibility for resource uses when there would be no  
34 impacts to GRSG.

35 In the rest of MZs II/VII, other BLM and Forest Service LUPAs would implement their  
36 Proposed Plans to improve protection of GRSG and their habitat. In addition, other  
37 regional GRSG conservation strategies as discussed in **Section 5.1.8**, would be implemented  
38 on non-federal lands. Reasonably foreseeable future actions in MZs II/VII such as proposed  
39 oil and gas developments, interstate transmission lines, and other land disturbance projects  
40 would be subject to the requirements set forth in the BLM and Forest Service Proposed  
41 Plans which encompass MZs II/VII, where those projects occur on federal decision area



1 lands. For non-federal lands, reasonably foreseeable future projects may be subject to  
2 disturbance caps, buffer restrictions, and other requirements of GRSG state plans, as well as  
3 site specific mitigation measures.

4 In conjunction with state and regional planning efforts, implementation of state disturbance  
5 caps in GRSG core areas, conservation easements on private lands, implementation of other  
6 BLM and Forest Service LUPAs in MZ IV and MZs II/VII, and other past, present, and  
7 reasonably foreseeable future actions, the Proposed Plan would likely meet the objectives  
8 laid out in the COT report for fire, infrastructure, grazing/free-roaming equids, mining,  
9 energy development, conversion to agriculture, invasive weeds, conifer encroachment, and  
10 recreation.

### 11 **Summary**

12 Overall, GRSG populations across MZ IV and MZs II/VII face the greatest pressures from  
13 wildfire, invasive weeds, energy development, and infrastructure. BLM and Forest Service  
14 actions within the Idaho and southwestern Montana sub-region would have a limited  
15 influence on GRSG populations and habitats within MZs II/VII, but would substantially  
16 contribute to cumulative effects on populations and habitats within MZ IV.

17 Infrastructure and energy development are of particular concern in MZs II/VII because they  
18 affect the greatest amount of land. Numerous multi-state transmission lines are proposed  
19 through GRSG habitat, as are large-scale oil and gas field developments in excess of 100,000  
20 acres. Implementation of the BLM and Forest Service Proposed Plans in MZs II/VII is  
21 unlikely to preclude such projects from proceeding, especially Presidential Priority  
22 transmission line projects that are not subject to GRSG protective measures in the  
23 BLM/USFS planning efforts. The cumulative effect of reasonably foreseeable future  
24 infrastructure and energy development projects over the next 20 years, when combined with  
25 unplanned events such as wildfires, drought, or West Nile virus outbreaks, could increase the  
26 likelihood of population extirpation, particularly for the less robust populations which are  
27 considered at-risk. However, restrictions on land use in combination with project-specific  
28 BMPs and required design features, and other regional efforts will help mitigate the effects.

29 Of particular concern is that threat reduction for fire is difficult and costly. Given the  
30 intensity and widespread distribution of the threat, it may never be fully eliminated (USFWS  
31 2013, p. 40), but the comprehensive strategies under Alternatives D, E, and the Proposed  
32 Plan, may be able to reduce the threat considerably.

33 The Idaho and southwestern Montana sub-region in MZ IV contains one of the GRSG  
34 strongholds with the largest area of habitat rangewide with low similarity to extirpated  
35 portions of the range (USFWS 2013, p. 70). Both MZ IV and MZs II/VII support the two  
36 largest populations of GRSG rangewide (USFWS 2013, p. 75). As such, management within  
37 the sub-region and MZs is critical to preserving the species. All action alternatives  
38 considered in the Idaho and southwestern Montana LUPA would reduce threats to some  
39 degree and via different strategies.

1 Although small fringe populations may be extirpated in the next ten years, implementing  
 2 Alternatives B, E, F, or the Proposed Plan in combination with other regional efforts (such  
 3 as the Proposed Plans for other BLM and Forest Service planning areas; conservation  
 4 strategies in state plans; increased land protections via NRCS SGI, and local habitat  
 5 restoration efforts) would effectively conserve the region-wide population of GRSG in MZs  
 6 IV and II/VII.

7 **5.1.12 MZ-Wide Reasonably Foreseeable Future Actions Summary Tables**

8 **Tables 5-24** and **5-25** include a selection of some of the larger projects from the reasonably  
 9 foreseeable future actions tables in the RMPAs/LUPAs for MZs IV and II/VII,  
 10 respectively. The full tables can be found in each EIS within each MZ.

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
Energy and Mining						
IV	Idaho and Southwestern Montana	Northern Great Basin	Sawtooth #4 Plan of Operation Modification	Twin Falls District, Idaho	Locatable mineral surface mining over 20 acres.	NEPA in progress.
IV	Idaho and Southwestern Montana	Northern Great Basin	Mineral Extraction	Dillon Field Office, Montana	Approximately 25 notices for locatable mineral extraction covering less than 50 acres.	Ongoing
IV	Idaho and Southwestern Montana	Northern Great Basin	Quarry Expansions	Sawtooth National Forests, Utah and Idaho	Several quarry expansions covering 40 acres total.	Planned for 2016.
IV	Idaho and Southwestern Montana	East Central	Dairy Syncline Phosphate Mine	Soda Springs, Idaho	Phosphate mine on estimated 580 acres (281 acres of open pit) within PGH/PHMA.	Planning phase
IV	Idaho and Southwestern Montana	Northern Great Basin	Oil and gas lease nominations	Rogerson-Brown's Bench, Idaho	Determine whether to offer leases on up to 90,000 acres.	Deferred, pending completion of Jarbidge RMP and GRSG EIS
IV	Idaho and Southwestern Montana	East Central	Oil and gas lease nominations	Payette-Weiser area, Idaho	Determine whether to offer oil and gas leases. Several nominations, totaling an estimated 181,000 acres.	Deferred, pending completion of Four Rivers RMP and GRSG EIS



Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Oregon	Northern Great Basin	Malheur Queen Placer Project	North-central Malheur County, Oregon	Approximately 800 acres approved for development of placer gold extraction.	Development underway
IV	Oregon	Northern Great Basin	High Bar/Upper and Lower Pine Creek Placer Mining Project	Baker County, Oregon	Up to 250 acres of activity would be disturbed for mineral extraction.	Planning phase
IV	Nevada	Northern Great Basin	Round Mountain Gold Mine			
Expansion	Nye County, Nevada	Expansion of existing facilities at the Round Mountain Mine and development of new mining and leaching facilities at the adjacent Gold Hill ore deposit.	Planning phase			
IV	Nevada	Northern Great Basin	Angel Wing Exploration Plan	60 miles northwest of West Wendover, Nevada, on the Utah/Nevada State Line	Expansion of mining exploration activities, including construction of drill pads and access roads and existing road maintenance, from a 3.3 acre Notice to 60 acres. Access to the proposed Plan is through Utah near the town of Grouse Creek.	Planning phase

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Nevada	Northern Great Basin	Murdock Mountain Phosphate Prospecting Permit	35 miles northwest of West Wendover, Nevada, and 10 miles southwest of Montello, Nevada	Phosphate exploration drilling and trenching in the Murdock Mountain area. The operator is proposing to construct 31 drill pads with 2 drill holes per pad and 29 exploration trenches measuring 100 feet long by 5 feet wide by 5 feet deep. Exploration roads will also be constructed and existing roads will be utilized. Exploration operations are anticipated to take 200 days to complete.	Planning phase
Lands and Realty						
IV	Idaho and Southwestern Montana	Northern Great Basin; Snake-Salmon-Beaverhead	Gateway West 230/500 Transmission Line Project	Wyoming, Southern Idaho	Authorize ROW for 1,100-mile 500-kV transmission line.	Pending; Scheduled for implementation starting 2016
IV	Idaho and Southwestern Montana; Oregon	Baker; Northern Great Basin	Boardman to Hemingway Transmission Line Project	From Boardman, Oregon to Melba, Idaho	A proposal for an approximately 300-mile 500-kV transmission line.	Project under NEPA review.
IV	Oregon	Northern Great Basin	North Steens 230-kV Transmission Line Project	Harney County, Idaho	North Steens is a 29-mile 230-kV transmission line that would convey 104 MW of power generated from wind farms proposed on private land on the north side of Steens Mountain.	Project approved and ROD signed in December 2011; in litigation.
IV	Nevada	Northern Great Basin	China Mountain Wind Project	Northeastern Nevada	Utility-scale wind facility	Temporarily deferred pending NVCA GRSG EIS
IV	Idaho and Southwestern Montana	Northern Great Basin	Owyhee Land Exchange	Western Owyhee County, Idaho	Proposing to dispose of approximately 33,000 acres of non-GRSG habitat and acquiring around 38,000 acres of primarily GRSG habitat	Proposal
Fuels and Vegetation						

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Idaho and Southwestern Montana	Northern Great Basin	Juniper Treatments in Pole Creek Allotment	Owyhee Field Office, Idaho	Juniper removal to enhance resource conditions on 24,486 acres of public, private, and state lands.	Decision issued; treatment implementation pending litigation
IV	Idaho and Southwestern Montana	Northern Great Basin	Juniper Treatment in Trout Springs Allotment	Owyhee Field Office, Idaho	Juniper removal to enhance resource conditions on 29,475 acres of public, private, and state lands.	Planning
IV	Idaho and Southwestern Montana	Northern Great Basin	Upper Castle Creek Fuels Project	Bruneau Field Office, Idaho	Juniper control project on approximately 33,000 acres. 25,000 acres implemented; anticipate 2,000-4,000 acres per year for the remaining areas.	Ongoing through 2014
IV	Idaho and Southwestern Montana	Northern Great Basin	Curlew Fuel Breaks and Juniper Reduction Project	Southeast Idaho	Compartmentalize the Curlew area using existing roads to improve wildfire suppression and reduce wildfire growth over 60,000 acres. Efforts will help to retain existing intact Wyoming sagebrush habitat. Remove encroaching junipers from within Wyoming sagebrush.	Planning; project implementation anticipated in 2017.
IV	Idaho and Southwestern Montana	Northern Great Basin	Burley Landscape Sage-Grouse Habitat Restoration	Burley Field Office, Idaho	Treat encroaching juniper on approximately 38,000 acres.	Approximately 8,500 acres already completed; implementation of remaining 29,500 acres expected over the next 7 years

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Paradigm Project	Four Rivers Field Office, Idaho	Fuel break project that would create up to 294 miles of fuel breaks between 50 and 300 feet wide over a 10-year period. Fuel breaks would be associated with roads and other linear disturbances. At the maximum width of 300 feet, up to 10,690 acres would be directly affected. 2,111 acres of PPH/PHMA and 24,667 acres of PGH/GHMA in project area; fuel breaks would affect 61 acres of sagebrush in PPH/PHMA and 606 acres in PGH/GHMA.	Pending
IV	Idaho and Southwestern Montana	Northern Great Basin	South Owyhee Fuel Breaks	Boise District, Idaho	Fuel breaks over 2,000,000 acres, 850 miles.	Draft EA
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Big Desert Fuel Breaks	Idaho Falls and Twin Falls Districts, Idaho	Compartmentalize the Big Desert management area using existing roads to improve wildfire suppression and reduce wildfire growth; efforts will help to retain intact Wyoming sagebrush habitat within the northern portion of the management area. 291 miles of existing desert roads with a footprint of 10,581 acres. Upper Snake Field Office: 245 miles of roads with 8,908 footprint acres. Shoshone Field Office: 46 miles of roads with 1,673 footprint acres.	NEPA is complete and project began in 2012 within the Upper Snake Field Office; those fuel breaks identified within the Shoshone Field Office require further analysis and consultation before NEPA can be finalized.



Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Big Desert Noxious Weed Treatments	Idaho Falls District, Idaho	Treating noxious weeds within the Big Desert management area over 600,000 acres. Annual treatment target of 5,000 acres.	Ongoing, began in 2006.
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Cheatgrass Treatments	Idaho Falls District, Idaho	Chemically reduce cheatgrass densities over 7,000 acres to modify fire return intervals and allow for seeded native species to become established.	Planning phase
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Salmon-Challis National Forest Forest-wide Invasive Plant Treatment EIS	Salmon-Challis National Forest	Programmatic noxious weed treatment planning within the nonwilderness portion of the Salmon-Challis National Forest (3.2 million acres)	Planning phase
IV	Idaho and Southwestern Montana	Northern Great Basin	Twin Falls District Noxious Weed and Invasive Plant Treatments	Twin Falls District, Idaho	Proposed action is to use prevention, prescribed fire, herbicides, and manual, mechanical, and biological methods to treat areas dominated by annual invasive species to restore perennial grasses, forbs, and shrubs. This is a programmatic planning effort. Estimated annual restoration is 5,000-10,000 acres in Burley Field Office (FO), 10,000-15,000 acres in Shoshone FO, and 10,000-15,000 acres in Jarbidge FO. Ten-year total for each office could approach 100,000 acres in Burley FO, 150,000 acres in Shoshone FO, and 150,000 acres in Jarbidge FO.	Planning phase. Implementation is planned to cover 10 years starting in 2015.
IV	Idaho and Southwestern Montana	Northern Great Basin	Shrub Planting	Twin Falls District, Idaho	Reintroduction of shrub species through hand planting of seedlings; up to 200,000 seedlings (13,000 acres) may be planted annually.	Implementation since 2010 and expected to continue over the next 10 years.

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Idaho and Southwestern Montana	Northern Great Basin	Twin Falls District Wildlife Tracts Restoration	Twin Falls District, Idaho	Proposed action is to use prescribed fire, chemical, drill and harrow seeding, shrub seeding, and plantings to establish perennial vegetation and restore native shrub habitat on wildlife tracts. 500-1,000 acres per year, for a cumulative total of 10,000 acres over ten years.	Implementation has been occurring since 2011 and is planned to continue over the next 8 years.
IV	Oregon	Northern Great Basin	Five Creeks Rangeland Restoration Project	Three Rivers and Andrews/Stens Resource Areas, Oregon	A landscape-scale vegetation treatment encompassing approximately 73,500 acres (approximately 26,000 acres in the CMPA) to return vegetation communities to historic compositions and reduce hazardous fuel loads. Various forms of prescribed fire and mechanical treatments have been used to reduce influence of encroaching western juniper.	Ongoing
IV	Oregon	Northern Great Basin	Multiple restoration projects	Three Rivers Resource Area, Oregon	Implementation plans include thinning, piling, pile burning, and implementing a forest underburn.	Ongoing
IV	Oregon	Northern Great Basin	District-wide noxious weed treatments	Oregon	Ongoing interagency noxious weed treatment efforts with Oregon Department of Agriculture and Oregon counties.	Ongoing
IV	Oregon	Northern Great Basin	District-wide Vegetation Management (Weed EA)	Harney County, Oregon	Use new chemicals to treat noxious and invasive species.	Planning phase
IV	Oregon	Baker; Northern Great Basin	Baker Habitat Restoration and Fuels Treatment projects	Baker County, Oregon	Multi-year phased hazardous fuels and wildlife habitat restoration project on approximately 45,000 acres.	Planning phase
IV	Utah	Box Elder	Noxious weed treatments	Utah	Treating noxious weeds	Ongoing
IV	Nevada	Northern Great Basin	Santa Rosa Fuels Project	Winnemucca District, Nevada	355,699 acre planning area to reduce fire threat and improve wildlife habitat.	Ongoing



Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Nevada	Northern Great Basin	North Tuscarora Sage-Grouse Habitat Restoration Project	Elko District Office, Nevada	Restoration of up to 10,000 acres of GRSG habitat. Treatments would improve, protect GRSG habitat, protect PPH/PHMA, protect Lahontan Cutthroat Trout Streams, improve wildlife habitat, reduce invasive weeds, and reduce hazardous fuels.	Planning phase
IV	Nevada	Northern Great Basin	Spruce Mountain Project	Elko District Office, Nevada	Spruce Mountain seeding maintenance over 700 acres. Mastication and seeding to reduce fire threat and improve wildlife habitat.	Ongoing
Livestock Grazing						
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Grazing Permit Renewals	Challis Field Office	Renewing/modifying 2 to 5 grazing permits per year for the next ten years over 770,000 acres	Project under NEPA review.
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Range NEPA for C&H allotments	Boise National Forest, Idaho	Allotments cover over 53,000 acres.	Projects under NEPA review.
IV	Idaho and Southwestern Montana	Northern Great Basin	Allotment Management Plan Updates	Sawtooth National Forest, Idaho and Utah	Cattle and sheep allotment management plan updates on over 350,000 acres.	Ongoing
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Allotment Management Plan Updates	Sawtooth National Forest, Idaho	Cattle and sheep allotment management plan updates on over 140,000 acres.	Ongoing
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Grazing Allotment Management NEPA	Salmon-Challis National Forest	Grazing allotment management NEPA on over 2 million acres.	Ongoing
IV	Idaho and Southwestern Montana	Southwest Montana	Cessation of Lima-Tendoy Sheep Grazing	Beaverhead-Deerlodge National Forest	Permittee waiving sheep permits on 11,700 acres in PPH/PHMA back to Forest Service. Allotments will be closed to future domestic sheep grazing. No new grazing permits for any livestock will be issued for the Indian Creek Allotment. Three-year trial of 100 AUMs fall cattle grazing for Bear Canyon.	Ongoing. NEPA review and new AMP after 2015 grazing season.

Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Nevada	Northern Great Basin	White Rock Mountain Aspen Exclosures	Northeastern Nevada	Place up to nine exclosures around aspen stands to protect from overgrazing by livestock.	Planning process
IV	Utah	Box Elder	Fence marking	Utah	The NRCS is planning to mark fences within 3.2 miles of leks throughout Utah on private lands.	Ongoing
Wild Horses and Burros						
IV	Idaho and Southwestern Montana	Northern Great Basin	Wild horse gathers	Owyhee Field Office, Idaho	Gather, fertility treatment, removal of excess wild horses from HMAs. Covers 128,389 acres of public and other (private and state) land.	EAs and decisions have been approved; gathers and treatment are pending due to funding and other priority treatments within the BLM wild horse program.
IV	Oregon	Northern Great Basin	Wild horse gathers	Oregon	Gather wild horses.	Ongoing
Recreation						
IV	Idaho and Southwestern Montana	Northern Great Basin	Special Recreation Permits	Owyhee Field Office, Idaho	Various motorcycle, foot, and mountain bike races, horse endurance rides, dog trials, pioneer treks, and poker runs on 260,000 acres.	Ongoing
Travel Management						
IV	Idaho and Southwestern Montana	Northern Great Basin	Curlew/Deep Creek Travel Management Plan Implementation	Idaho Falls District, Idaho	Implement Travel Management Plan on 375,000 acres; limit motorized travel to designated routes, prohibit cross-country travel	Ongoing



Table 5-24

Reasonably Foreseeable Future Actions in Management Zone IV Likely to Impact GRSG Habitat

MZ	Sub-region	Affected GRSG Population	Project Name	Project Location	Project Description	Project Status
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	North Highway 20 Travel Plan	Idaho Falls District, Idaho	Designate 127 miles of existing trails; construct 52 miles of new trails, construct 3 acres of parking areas, close and rehabilitate 116 miles of existing routes.	Pending
IV	Utah	Box Elder	Motorized Travel Plan Implementation	Utah	Implementation of motorized route designation plans across the planning region.	Ongoing
Land Use Planning						
IV	Idaho and Southwestern Montana	Northern Great Basin	Jarbidge RMP	Jarbidge Field Office, Idaho	Revise the Jarbidge RMP that provides a comprehensive plan for 1,366,000 acres that further restores or maintains resource conditions and provides for the economic needs of local communities over the long term	Ongoing
IV	Idaho and Southwestern Montana	Snake-Salmon-Beaverhead	Craters LUP Amendment	Craters of the Moon National Monument and Preserve, Idaho	Analyze a range of alternatives for livestock grazing in the Craters of the Moon covering 300,000 acres (i.e., identify lands available or unavailable for grazing, identify the amount of forage available, seasons of use, range improvements)	Ongoing

This table includes a selection of some of the larger projects from the reasonably foreseeable future actions tables in the RMPAs/LUPAs for MZ IV. The full tables can be found in each EIS.

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Table 5-25

Reasonably Foreseeable Future Actions in Management Zone II/VII Likely to Impact GRSG Habitat

MZ	Planning Area	Affected GRSG Population	Project Name	Project Location	Project Description, Estimated Footprint	Project Status
Energy and Mining						
II/VII	Northwest Colorado, 9-Plan	Wyoming Basin, Northwest Colorado	Hiawatha Regional Energy Development EIS	Sweetwater County, Wyoming; Moffat County, Colorado	Proposed development of up to 4,208 new natural gas wells on approximately 157,361 acres of mixed federal, state, and private lands. The project area overlaps with lands identified as GRSG Core Areas. 91% of the project area is managed by the BLM.	Proposed

Table 5-25

Reasonably Foreseeable Future Actions in Management Zone II/VII Likely to Impact GRSG Habitat

MZ	Planning Area	Affected GRSG Population	Project Name	Project Location	Project Description, Estimated Footprint	Project Status
II/ VII	9-Plan	Wyoming Basin	LaBarge Platform Exploration & Development Project	Lincoln and Sublette County, Wyoming	Proposed development of up to 838 new oil and gas wells on 218,000 acres of private, state, and federal lands. Approximately 154,000 acres of surface lands are administered by the BLM.	Proposed
II/ VII	9-Plan	Wyoming Basin	Continental Divide-Creston Natural Gas Project	Carbon and Sweetwater Counties, Wyoming	Proposed development of up to 8,950 additional natural gas wells on 1.1 million acres of land, including GRSG Core Areas. The proposed facilities would add to the existing network of wells, pipelines, access routes and electrical distribution systems. Approximately 59 percent of the project area is on federally-owned lands.	Proposed
II/ VII	Lander, 9-Plan	Wyoming Basin	Moneta Divide Natural Gas and Oil Development Project	Fremont and Natrona Counties, Wyoming	Proposed development of approximately 4,250 natural gas and oil wells on 265,000 acres of land (including approximately 169,500 acres of land administered by the BLM). The project area includes GRSG Core Areas.	Proposed
II/ VII	9-Plan	Wyoming Basin	Pinedale Anticline Project	Sublette County, Wyoming	Proposed development of natural gas resources within nearly 200,000 acres of land, of which approximately 80 percent is federal surface ownership. The project area occurs within GRSG Core Areas.	Ongoing
II/ VII	9-Plan	Wyoming Basin	Blacks Fork Project (Formerly Moxa Arch Area Infill)	Sweetwater, Uinta, and Lincoln Counties, Wyoming	Proposed infill drilling project, on approximately 7,500 hydrocarbon wells within 633,532 acres of mixed federal, state, and private lands.	Proposed
II/ VII	9-Plan, Northwest Colorado, Utah	Wyoming Basin, Northwest Colorado	Oil Shale and Tar Sands Programmatic EIS	Colorado, Utah, and Wyoming	Amendment of 10 BLM RMPs to designate certain public lands as available for application for leasing and future exploration and development of oil shale and tar sands resources. A ROD was signed in 2013 which made approximately 678,000 acres available for potential development of oil shale, and approximately 132,000 acres available for development of tar sands.	Ongoing

Table 5-25

Reasonably Foreseeable Future Actions in Management Zone II/VII Likely to Impact GRSG Habitat

MZ	Planning Area	Affected GRSG Population	Project Name	Project Location	Project Description, Estimated Footprint	Project Status
II/ VII	9-Plan	Wyoming Basin	Atlantic Rim Natural Gas Field Development Project	Carbon County, Wyoming	Ongoing development of oil gas resources on 270,080 acres of land, of which 173,672 are federal surface estate. A ROD was signed in 2007. The project area includes GRSG Core Areas.	Ongoing
II/ VII	9-Plan	Wyoming Basin	Chokecherry/Sierra Madre Wind Farm	Carbon County, Wyoming	Proposed development of approximately 1,000 wind turbines and associated ancillary facilities on 220,000 acres of land. The project area includes private, state, and federally managed lands, and overlaps with GRSG Core Areas	Proposed
II/ VII	9-Plan	Wyoming Basin	Normally-Pressured Lance Natural Gas EIS	Sublette County, Wyoming	Proposed development of approximately 3,500 natural gas wells within 141,000 acres of state, private, and BLM-administered lands.	Proposed
II/ VII	9-Plan	Wyoming Basin	Bird Canyon Field Infill Project	Sublette and Lincoln Counties, Wyoming	Proposed drilling and production of 348 new natural gas wells within 17,612 acres of BLM-administered land.	Proposed
<b>Rights-of-way</b>						
II/ VII	9-Plan, NW Colorado, Utah	Wyoming Basin, Rich-Summit-Morgan, Uintah, North Park, NWCO, Strawberry Valley, Carbon	Gateway South Transmission Line Project	17 Counties in Wyoming, Colorado, and Utah	Proposed 500 kV transmission line which would begin near Medicine Bow, Wyoming, and would extend south and west to a proposed substation near Mona, Utah. The proposed transmission line would span over 400 miles, with a 250-foot right-of-way, and would cross multiple land jurisdictions including lands administered by the BLM.	Proposed
II/ VII	9-Plan, NW Colorado, Utah	Wyoming Basin, Northwest Colorado, Sheeprock, Strawberry Valley, Carbon, Bald Hills.	TransWest Express Transmission Line Project	Wyoming, Colorado, Utah, and Nevada	Proposed 600 kV transmission line extending from south-central Wyoming to southern Nevada. The transmission line corridor would span over 700 miles and would cross private, state, and federally owned lands. The proposed route and alternative routes under consideration would cross PPH and PGH.	Proposed

Table 5-25

Reasonably Foreseeable Future Actions in Management Zone II/VII Likely to Impact GRSG Habitat

MZ	Planning Area	Affected GRSG Population	Project Name	Project Location	Project Description, Estimated Footprint	Project Status
II/ VII	9-Plan, Idaho and Southwest Montana	Wyoming Basin, East Central, Northern Great Basin, Box Elder	Gateway West Transmission Line Project	Wyoming and Idaho	Proposed 230 kV and 500 kV transmission line project between Glenrock, Wyoming, and Melba, Idaho. Approximately 1,000 miles of new high-voltage transmission lines would be constructed. The project would cross multiple land jurisdictions, including sage grouse Core Areas in Wyoming.	Proposed
II/ VII	9-Plan	Wyoming Basin	Riley Ridge to Natrona Pipeline Project	Sublette, Sweetwater, Fremont, and Natrona Counties, Wyoming	Proposed 243-mile pipeline from Riley Ridge to Big Piney, Wyoming. The pipeline would consist of a 50-foot right-of-way, and would cross GRSG Core Areas.	Proposed
II/ VII	9-Plan	Wyoming Basin	Zephyr Power Line Transmission Project	Wyoming, Colorado, Utah, and Nevada	Proposed 500 kV transmission line spanning between Chugwater, Wyoming to just south of Las Vegas, Nevada.	Proposed
<b>Weeds</b>						
II/ VII	9-Plan, Northwest Colorado	Wyoming Basin, Northwest Colorado, Powder River Basin, North Park	Invasive Plant Management EIS for the Medicine Bow - Routt National Forests, and Thunder Basin National Grassland	Wyoming and Colorado	Proposed treatment of invasive plant species using adaptive and integrated invasive plant treatment methods. These include manual, mechanical, biological, aerial, and ground herbicide applications. Potential treatment areas include GRSG Core Areas.	Proposed

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**5.2 Cumulative Analysis Methodology**

The cumulative impacts discussion that follows considers the alternatives in the context of the broader human environment, specifically, actions that occur within and next to the geographic area covered by the planning area.

Because of the programmatic nature of the LUPA and cumulative assessment, the analysis of cumulative effects tends to be broad and generalized. Consequently, this assessment is primarily qualitative for most resources because of lack of detailed information that would result from project-level decisions and other activities or projects.

1 Quantitative information is used whenever available and as appropriate to portray the  
2 magnitude of an impact. The analysis assesses the magnitude of cumulative impacts by  
3 comparing the environment in its baseline condition with the expected impacts of the  
4 alternatives and other actions in the same geographic area. The magnitude of an impact is  
5 determined through a comparison of anticipated conditions against the naturally occurring  
6 baseline in the affected environment (see **Chapter 3**) or the long-term sustainability of a  
7 resource or social system.

8 The following factors were considered in this cumulative impact assessment:

- 9 • Federal, nonfederal, and private actions
- 10 • Potential for combined effects or interaction among or between effects
- 11 • Potential for effects across political and administrative boundaries
- 12 • Other spatial and temporal characteristics of each affected resource
- 13 • Comparative scale of cumulative impacts across alternatives

14 The geographic scope for the cumulative impact analysis may extend beyond the planning  
15 area boundary appropriate to the resource under consideration. For Greater Sage-Grouse  
16 (GRSG), the cumulative impact analysis includes an analysis at the WAFWA MZ level, in  
17 addition to the planning area analysis. WAFWA MZs are biologically based delineations that  
18 were determined by GRSG populations and subpopulations identified within seven floristic  
19 provinces. WAFWA MZs II and IV overlap the planning area and are included in the  
20 analysis. Analysis at this level enables the decision maker to understand the impacts on  
21 GRSG at a biologically meaningful scale.

### 22 **5.3 Past, Present, and Reasonably Foreseeable Future Actions**

23 Past, present, and reasonably foreseeable future actions are considered in the analysis to  
24 identify whether and to what extent the environment has been degraded or enhanced and  
25 whether ongoing activities are causing impacts (**Table 5-26**). Also considered are trends for  
26 activities in and impacts on the area. Projects and activities are evaluated on the basis of  
27 proximity, connection to the same environmental systems, potential for subsequent impacts  
28 or activity, similar impacts, the likelihood a project will occur, and whether the project is  
29 reasonably foreseeable.

30 Projects and activities considered in the cumulative analysis were identified by BLM and  
31 Forest Service employees with knowledge of the area. Each was asked to provide  
32 information on the most influential past, present, or reasonably foreseeable future actions.  
33 Additional information was obtained through discussions with agency officials and a review  
34 of publicly available materials and websites.

35 Effects of past actions and activities are manifested in the current condition of the resources,  
36 as described in the affected environment (**Chapter 3**). Reasonably foreseeable future actions

1 are those that have been committed to or known proposals that would take place within a  
2 20-year planning period.

3 Reasonably foreseeable future action scenarios are projections made to predict future  
4 impacts; they are not actual planning decisions or resource commitments. Projections, which  
5 have been developed for analysis only, are based on current conditions and trends and  
6 represent a best professional estimate. Unforeseen changes in such factors as economics,  
7 demand, and federal, state, and local laws and policies could result in different outcomes  
8 than those projected in this analysis.

9 Other potential future actions have been considered and eliminated from further analysis  
10 because there is a small likelihood these actions would be pursued and implemented within  
11 the life of the plan or because so little is known about the potential action that formulating  
12 an analysis of impacts is premature.

13 In addition, potential future actions protective of the environment (such as new regulations  
14 related to fugitive dust emissions) have less likelihood of creating major environmental  
15 consequences alone, or in combination with this planning effort. Federal actions such as  
16 species listing would require the BLM and Forest Service to reconsider decisions created  
17 from this action. This is because the consultations and relative impacts might no longer be  
18 appropriate. These potential future actions may have greater capacity to affect resource uses  
19 within the planning area; however, until more information is developed, no reasonable  
20 estimation of impacts could be developed.

21 Data on the precise locations and overall extent of resources within the planning area are  
22 considerable, although the information varies according to resource type and locale.  
23 Furthermore, understanding of the impacts on and the interplay among these resources is  
24 evolving. As knowledge improves, management measures (adaptive or otherwise) would be  
25 considered to reduce potential cumulative impacts, in accordance with law, regulations, and  
26 current LUPs.

27 Projects and activities identified as having the greatest likelihood to generate potential  
28 cumulative impacts when added to the Idaho and Southwestern Montana Greater Sage-  
29 Grouse EIS/Plan Amendment alternatives are displayed in **Table 5-26**.



**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
<b>Lands and Realty</b>					
Communication sites renewal – 2	Renewal of existing sites	Owyhee Field Office	Southwest Idaho	Less than 5 acres	Pending
Communication sites renewal – 2	Renewal of existing sites	Four Rivers Field Office	Unknown	No new surface disturbance	Pending
Communication site amendment - 1	Change 199-foot tower to 699-foot tower	Owyhee Field Office	Southwest Idaho	Over 15 acres	Pending
Communication site amendment - 1	Tower replacement	Four Rivers Field Office	Unknown	Less than 1 acre	Pending
Road ROW applications – 10	Construct new roads	Owyhee Field Office	Southwest Idaho	Unknown	Pending
Road ROW applications – 4	New applications for ROW on existing roads	Bruneau Field Office	Southwest Idaho	Less than 20 acres	Pending
Road ROW application – 3	New road application on existing roads	Four Rivers Field Office	Unknown	Less than 20 acres	Pending
Road ROW – renewals – 4	Renewal of existing ROW	Owyhee Field Office	Southwest Idaho	No new surface disturbance	Pending
Road ROW renewal – 1	Renewal of existing road	Four Rivers Field Office	Unknown	No new surface disturbance	Pending
Old Highway 37 Reroute Project	Move highway out of canyon and riparian corridor 1/2-mile east onto the upland, over a 5-mile stretch	Curlew National Grassland, 8 miles NW of Holbrook, ID	South Side Snake	5 miles	EA; In the planning phase; Decision Notice FONSI expected in 2016
Oil and gas facility – 1	Expand existing facility	Owyhee Field Office	Southwest Idaho	Less than 2 acres	Pending
Oil and gas facility renewal – 1	Renewal of existing ROW	Bruneau Field Office	Southwest Idaho	No new surface disturbance	Pending
Oil and gas facility renewal – 2	Renewal of existing sites	Four Rivers Field Office	Weiser	No new surface disturbance	Pending

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Oil and gas temporary use areas – 3	Temporary use for construction and maintenance	Four Rivers Field Office	Weiser	Less than 5 acres	Pending
Transmission line ROW application – 1	New transmission line	Bruneau Field Office	Southwest Idaho	Less than 5 acres	Pending
Transmission line ROW application – 1	New transmission line	Four Rivers Field Office	Unknown	Less than 15 acres	Pending
Hooper Springs Transmission Line	New transmission line	Soda Springs, Idaho	Southeast Idaho	No direct disturbance of PGH; if southern alternative is selected, line will be within a mile of PGH in Trail Creek/Slug Creek	FEIS 2013
Transmission line ROW renewals – 3	Renewal of existing lines	Owyhee Field Office	Southwest Idaho	No new surface disturbance	Pending
Transmission line ROW renewals – 12	Renewal of existing lines	Four Rivers Field Office	Unknown	No new surface disturbance	Pending
Transmission line ROW upgrade – 1	Add tap, upgrade line	Owyhee Field Office	Southwest Idaho	Less than 2 acres	Pending
Telephone line ROW renewals – 12	Renewal of existing ROW	Owyhee Field Office	Southwest Idaho	No new surface disturbance	Pending
Telephone line ROW renewals – 7	Renewal of existing lines	Four Rivers Field Office	Unknown	No new surface disturbance	Pending
Telephone line ROW renewal - 1	Renewal of existing ROW	Bruneau Field Office	Southwest Idaho	No new surface disturbance	Pending
Idaho Power - Smith's Prairie SUP renewal	Renewal of power line, which includes some new	Mountain Home Ranger District –	North Side Snake	5 miles	NEPA Decision in FY 2014;

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
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**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	line and some new access roads	Boise National Forest			implementation in FY 2015
King-Moon-Wood River transmission line rebuild	Rebuild of 138 kV transmission line	Twin Falls District	North Side Snake	Unknown	Planning; projected build 2014-2016
Waterline ROW – 1	New buried water pipeline	Owyhee Field Office	Southwest Idaho	Less than 5 acres	Pending
Irrigation facility ditch ROW – 1	Renewal of existing ROW	Owyhee Field Office	Southwest Idaho	No new surface disturbance	Pending
Water facility ROW renewal – 8 (weirs)	Renewals of existing ROWs	Owyhee Field Office	Southwest Idaho	No new surface disturbance	Pending
Water facility ROW renewal – 2	Renewal of existing ROWs	Bruneau Field Office	Southwest Idaho	No new surface disturbance	Pending
Water facility ROW renewal – 1	Renewal of existing pipeline	Four Rivers Field Office	Unknown	Less than 1 acre	Pending
Water facility ROW amendment – 1	Include portions of canal on lands acquired by BLM	Four Rivers Field Office	Unknown	Less than 5 acres	Pending
Symbiotics LLC Hydro Facility	Hydro facility, including a transmission line, substation, dam, penstock, and upper reservoir	Dam located in Idaho, NE of Jackpot, Nevada, Twin Falls District	Southwest Idaho	110 acres	Feasibility study being conducted
New land use Authorizations	Approximately 40 ROW/authorizations/power lines, buried and overhead, roads, communication sites	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	Approximately 100 acres of disturbance. Associated with new ROW	Projected for 10 years based on previous last 5 years in LR2000
Leases/Permits – 3	Cabins and apiaries	Owyhee Field Office	Southwest Idaho	Less than 10 acres	Pending
Leases/Permits – 8	Agricultural and apiaries	Bruneau Field Office	Southwest Idaho	Less than 25 acres	Pending

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Leases and Permits renewal – 3	Occupancy and Trespass Resolution	Four Rivers Field Office	Unknown	Less than 10 acres	Pending
Leases and Permits application – 8	Occupancy and Trespass Resolution	Four Rivers Field Office	Unknown	Less than 15 acres	Pending
Land Use Lease	Lease lands to resolve cabin encroachment on BLM-administered lands	Centennial Valley – PPH in the Dillon Field Office	Southwest Montana	5 acres total	Proposal stage
Owyhee land exchange	Land exchange with the state	Western portion of Owyhee County, Bruneau Field Office	Southwest Idaho	Proposing to dispose of approximately 33,000 acres of non-GRSG habitat and acquiring around 38,000 acres of primarily GRSG habitat	2015
Thompson Creek Mine land exchange	Increase public land acres through a land exchange within PPH	Challis Field Office, Idaho Falls District	Mountain Valleys	Unknown	Project under NEPA review; decision anticipated in 2014
Dairy Syncline land sale	Land sale and tailings pond construction; possible mitigation GRSG habitat land parcel in Stump Creek as exchange	Slug creek watershed, Idaho Falls District	East-Central Idaho	225 acres	Draft EIS to be released early 2015
Mackay Transfer Station land sale	Sale of land to Custer County for transfer station	T 7N, R 24E, Sec. 22, Idaho Falls District	Mountain Valleys	10 acres	Waiting for completed application from Custer County. Decision anticipated

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
					2014.
Military training	From low-level up to high-altitude flights by military aircraft; military motor vehicle access to emitter sites and use at emitter sites.	Entire Bruneau Field Office and vehicles use roads and emitter sites on the Highway 51/Rowland Road area; military withdrawal site has relatively heavy use.	Southwest Idaho	Unknown	Ongoing
F-35 A Operational Wing Bed Down EIS	Alternative in place to bed down the aircraft at the Mountain Home Air Force Base	Entire Bruneau Field Office	Southwest Idaho	Unknown	Proposed
F-35 A Training Wing Bed Down EIS	Alternative in place to bed down the aircraft at the Gowen Field Military Base	Entire Bruneau Field Office	Southwest Idaho	Unknown	Proposed
Idaho Power Integrated Resource Plan	Describes the company's projected need for additional electricity and the resources necessary to meet that need while balancing reliability, environmental responsibility, efficiency, and cost.	Entire sub-region	All GRSG population areas	None – planning effort	Completed June 2013
Rocky Mountain Power Integrated Resource Plan	Describes the company's projected need for additional electricity and	Entire sub-region	All GRSG population areas	None – planning effort	Completed April 2013

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	the resources necessary to meet that need while balancing reliability, environmental responsibility, efficiency, and cost.				
<b>Major Realty Actions</b>					
Gateway West 230/500 Transmission Line project	Authorize ROW for 1,100-mile 500-KV transmission line	Wyoming, Southern Idaho, Boise District, Curlew National Grassland, Idaho Falls District	Southwest Idaho, North Side Snake	1,100 miles	Pending; final EIS 2013  Scheduled for implementation starting 2016
Boardman to Hemingway	New transmission line	Owyhee Field Office	Southwest Idaho	Unknown	Pending
<b>Fuels and Vegetation</b>					
ARS South Mountain Juniper Management Study	Determine the effects of management-driven juniper treatments on the hydrology of four watersheds in the South Mountain Area, including snowpack distribution and drifts, after altering the canopy by removing juniper from the sagebrush-steppe ecosystem. Removal would be through prescribed burning.	South Mountain (T 9S, R 5W, Sect. 2, 3, 10, 11), Owyhee Field Office	Southwest Idaho	603 acres (357 BLM; 246 private)	Scoping complete; NEPA and ROD pending

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
ARS Reynolds Creek Experimental Watershed Prescribed Fire Research Plan	Study the effects of juniper encroachment and prescribed fire on soil-water balance. Treatments occurred through prescribed burning.	Reynolds Creek Experimental Watershed, Owyhee Field Office	Southwest Idaho	5,549 acres of public and private lands; acreage broken into four treatment areas	Three of the four treatment areas have been implemented as planned. The fourth (Johnson Draw) is pending. Due to topography, the treatment area may be adjusted.
Juniper Treatments in Pole Creek Allotment	Juniper removal to enhance resource conditions	Pole Creek Allotment, Owyhee Field Office	Southwest Idaho	24,486 acres of public, private, and state land	Decision issued; treatment implementation pending litigation
Juniper Treatment in Trout Springs Allotment	Juniper removal to enhance resource conditions	Trout Springs Allotment, Owyhee Field Office	Southwest Idaho	29,475 acres of public, private, and state lands	Planning; draft EA complete
Upper Castle Creek Fuels Project	Juniper control project on approximately 33,000 acres in the northwestern portion of Upper Castle Creek	Upper Castle Creek, Bruneau Field Office	Southwest Idaho	25,000 acres implemented; of the remaining areas to treat, 2,000-4,000 acres/year	Ongoing through 2014
BOSH Sage-Grouse Juniper	Juniper thinning	Boise District, Owyhee Field Office, Boise Field Office, Owyhee County	Southwest Idaho	1,500,000 acres	Draft EA
Pixley Basin	Juniper treatments (mechanical and prescribed fire)	Boise District, Boise Field Office, Owyhee County, South	Southwest Idaho	1,933 acres	Ongoing project

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Oreana			
West Antelope	Juniper thinning	Boise District, Boise Field Office, Owyhee County	Southwest Idaho	287 acres	Ongoing project
Tex Creek Aspen Health Project	Remove encroaching junipers from within historic aspen clones	Tex Creek WMA east of Idaho Falls, Idaho, Idaho Falls District	East-Central Idaho	70 acres	NEPA is complete; implementation of the project began in 2012.
Patelzik Creek Aspen Health Project	Remove encroaching conifers from within historic aspen clones and thin remaining conifer stands	Medicine lodge management area within the northern portion of the Upper Snake Field Office, Idaho Falls District	Mountain Valleys	750 acres	NEPA started; implementation slated to begin in 2014
Cedar Butte Juniper Thinning	Remove encroaching junipers from within Wyoming sagebrush and thin remaining stands of juniper	Northern portion of the Big Desert management area west of Idaho Falls, Idaho, Idaho Falls District	North Side Snake	1,000 acres	Planning phase; project implementation anticipated in 2016
Deadman Juniper Thinning	Remove encroaching junipers from within Wyoming sagebrush and thin remaining stands of juniper	Northern portion of the Big Desert management area west of Idaho Falls, Idaho, Idaho Falls District	Mountain Valleys	1,000 acres	Planning phase 1 project implementation anticipated in 2015
Samaria Mountain Fuels Reduction and Restoration Project,	Remove encroaching junipers from within Wyoming sagebrush and	Southeast Idaho, northern Utah, southwest Wyoming,	Southwest Idaho	3,000 acres	NEPA complete; approximately 1,000 acres completed,

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**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Juniper Thinning	thin remaining stands of juniper	15 miles south of Samaria, Idaho, Idaho Falls District			remaining acres to be completed over next 7 years
Soda Hills Fuels Reduction and Restoration Project, Juniper and Douglas-Fir Thinning	Remove encroaching junipers and Douglas-fir from within Wyoming sagebrush and thin remaining stands of juniper and Douglas-fir	Southeast Idaho, Soda Springs area, Idaho Falls District	East-Central Idaho	3,000 acres	NEPA complete; approximately 1,500 acres completed, remaining acres to be completed over next 5 years
Crystal Springs/Toponce Fuels Reduction and Restoration Project, Juniper and Douglas-Fir Thinning	Remove encroaching junipers and Douglas-fir from within Wyoming sagebrush and thin remaining stands of juniper and Douglas-fir	Southeast Idaho, 20 miles north of Lava Hot Springs, Blackfoot River area, Idaho Falls District	East-central Idaho	2,000 acres	Planning phase; project implementation anticipated in 2014
South Stone Juniper Thinning Project	Remove encroaching junipers from within Wyoming sagebrush	Southeast Idaho, Idaho Falls District	South Side Snake	1,700 acres	In progress; approximately 600 acres completed
Juniper Town Site Juniper Thinning Project	Remove encroaching junipers from within Wyoming sagebrush	Southeast Idaho, Idaho Falls District	South Side Snake	700 Acres	Planning phase; project implementation anticipated in 2020
Curlew Fuel Breaks and Juniper Reduction Project	Compartmentalize the Curlew area using existing roads to improve wildfire suppression and reduce wildfire growth. Efforts will help to retain existing	Southeast Idaho, north Utah, Idaho Falls District	South Side Snake	60,000 acres	Planning phase; project implementation anticipated in 2017

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	intact Wyoming sagebrush habitat. Remove encroaching junipers from within Wyoming sagebrush.				
Bear Lake Fuels Reduction and Restoration Project	Remove encroaching junipers from within Wyoming sagebrush, improve and restore sagebrush habitat	Southeast Idaho, north Utah, Idaho Falls District	Bear Lake	30,000 acres	Planning phase; project implementation anticipated in 2020
Wolverine Fuels Reduction Project	Remove encroaching juniper and Douglas-fir from within Wyoming sagebrush; improve and restore sagebrush habitat	Southeast Idaho, Idaho Falls District	East-central Idaho	2,000 acres	Planning phase; project implementation anticipated in 2021
Trapper Creek Vegetation Project	Reduce conifer encroachment in riparian areas, shrublands, and grasslands; increase the aspen component; slash and jackpot burn; broadcast burn	Wise River Ranger District, Beaverhead-Deerlodge National Forest	Southwest Montana	Approximately 3,200 acres total, less than 1,100 acres in PGH	Project withdrawn per litigation; NEPA supplements underway; ROD anticipated end of 2013
Sage-Grouse Habitat Improvement	Remove conifer from Phase I-II sagebrush habitat	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	800 acres	Completed



**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Burley Landscape Sage-Grouse Habitat Restoration	Treat encroaching juniper on approximately 38,000 acres	Various locations throughout the Burley Field Office, Twin Falls District	South Side Snake	38,000	Approximately 8,500 acres already completed; implementation of remaining 29,500 acres expected over the next 7 years
Douglas-fir removal	Mechanically remove Douglas-fir in sagebrush habitat	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	Approximately 50 acres yearly	Complies with NEPA; ongoing
Bruneau Fuel Breaks Project	Fuel breaks, in the form of greenstrips and roadside mowing, will occur in the eastern portion of the Bruneau Field Office. The projects may take 5 years to implement; maintenance is anticipated every 7-10 years.	11 allotments in Bruneau Field Office: Blackstone Center China Creek Crab Creek East Canyon View Louse Creek Miller Table Seeding Northwest Owens Table Butte West Canyon View	Southwest Idaho	Treatments along 128 miles of roads; 2,836 acres of shrub modification	Project approved; awaiting completion of appeal period before beginning implementation
Paradigm Project	Fuel break project that would create up to 294 miles of fuel breaks between 50 and 300 feet wide over a 10-year period. Fuel breaks would	Ada (eastern) and Elmore (western) Counties between Boise and Glens Ferry, between the railroad and the base	North Side Snake	2,111 acres of PPH and 24,667 acres of PGH in project area; five leks within the project boundary, two leks within 0.5	Pending

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	be associated with roads and other linear disturbances. At the maximum width of 300 feet, up to 10,690 acres would be directly affected. Methods proposed to create fuel breaks include seeding with forage kochia or native/nonnative grass species, disking/bare ground, mechanical thinning and mowing, herbicides, targeted grazing, and prescribed burning.	of the foothills (293,891 total acres), in Four Rivers Field Office		mile, and 17 leks within 10 miles; fuel breaks in PPH would be 50 feet on either side of road and in PGH would be 100 feet on either side of road; would affect 61 acres of sagebrush in PPH and 606 acres in PGH	
Bruneau Mow	Fuel breaks	Boise District, Boise Field Office, Owyhee County, south of Bruneau	Southwest Idaho	130 miles	EA done in 2013; ready for treatments
South Owyhee Fuel Breaks	Fuel breaks	Boise District, Owyhee Field Office, Boise Field Office, Owyhee County	Southwest Idaho	2,000,000 acres, 850 miles	Draft EA
I-84	Fuel breaks	Boise District, Four Rivers Field Office, I-84 Oregon – Glens Ferry	North Side Snake	80 miles	Ongoing project

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Curlew National Grassland Sagebrush Protection Project	Mechanical mowing of 314 acres of fuel breaks in strategic locations to protect existing stands of sagebrush from wildland fire	Curlew National Grassland	South Side Snake	314 acres	Decision completed; work started in 2012 and will continue through 2014 as funding allows
Curlew Sagebrush Protection Project Upgrade	Fuel break mowing	Westside Ranger District, Curlew Grasslands	South Side Snake	900 acres	Planned for 2017
Big Desert Fuel Breaks	Compartmentalize the Big Desert management area using existing roads to improve wildfire suppression and reduce wildfire growth; efforts will help to retain intact Wyoming sagebrush habitat within the northern portion of the management area	Big Desert Area in the southwest portion of the Upper Snake Field Office and the eastern portion of the Shoshone Field Office, Idaho Falls and Twin Falls Districts	North Side Snake	291 miles of existing desert roads with a footprint of 10,581 acres  Upper Snake Field Office: 245 miles of roads with 8,908 footprint acres  Shoshone Field Office: 46 miles of roads with 1,673 footprint acres	NEPA is complete and project began in 2012 within the Upper Snake Field Office; those fuel breaks identified within the Shoshone Field Office require further analysis and consultation before NEPA can be finalized.
Blackfoot River Fuel Breaks	Compartmentalize the Blackfoot River Corridor area using existing roads to improve wildfire suppression and reduce wildfire growth; efforts	Blackfoot River, 20 miles East of Blackfoot Idaho, Idaho Falls District	East-central Idaho	2,000 acres	Planning phase; project implementation anticipated in 2018

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	will help to retain existing intact Wyoming sagebrush habitat				
Minidoka Fuel Break	Maintenance treatments of forage kochia fuel breaks	Minidoka desert road network approximately 30 miles northeast of Burley, Idaho, Twin Falls District	North Side Snake	100-foot fuel breaks on each side of multiple roads for 28 miles; approximately 690 acre footprint	Fuel breaks were implemented in 2010 – 2012; maintenance actions are expected within the next 10 years to improve fuel break effectiveness.
Jarbidge Fuel Breaks	Implementation of self-sustaining fuel breaks using prescribed fire, herbicide, mechanical seedbed preparation, broadcast and drill seeding methods	Multiple locations along road corridors within the Jarbidge Field Office, Twin Falls District	South Side Snake	160 miles of 550-foot-wide fuel breaks along existing roads; approximately 10,499-acre footprint	Planned ROD in 2014; implementation is planned to cover a 5- to 10-year period
Pocatello Field Office Noxious Weed Control	Apply chemical treatments for noxious weed control	BLM-administered and National Forest System lands within Bear Lake County, Idaho, Idaho Falls District	Bear Lake	300 acres per year	Ongoing
Challis Field Office weed treatments	Treating weeds across the field office with biological, chemical, and mechanical treatments	Challis Field Office	Mountain Valleys	1,000 acres per year	Ongoing
Big Desert Noxious Weed Treatments	Treating noxious weeds within the Big Desert	Big Desert Area in the southwest portion	North Side Snake	Total landmass is 600,000 acres with an	NEPA is complete; project began in 2006

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	management area	of the Upper Snake Field Office, Idaho Falls District		annual treatment target of 5,000 acres	
Eastside Sheeptrail Cheatgrass Treatment	Chemically reduce cheatgrass densities to modify fire return intervals and allow for seeded native species to become established	Eastern portion of the Big Desert management area west of Blackfoot, Idaho, Idaho Falls District	North Side Snake	2,000 acres	Planning phase; project implementation anticipated in 2016
Rock Corral Cheatgrass Treatment	Chemically reduce cheatgrass densities to modify fire return intervals and allow for seeded native species to become established	Eastern portion of the Big Desert management area west of Blackfoot, Idaho, Idaho Falls District	North Side Snake	2,000 acres	Planning phase; project implementation anticipated in 2018
Stage Road Cheatgrass Treatment	Chemically reduce cheatgrass densities to modify fire return intervals and allow for seeded native species to become established	Eastern portion of the Big Desert management area west of Blackfoot, Idaho, Idaho Falls District	North Side Snake	3,000 acres	Planning phase; project implementation anticipated in 2017
Birch Willow Lost EIS Vegetation Management EIS	Vegetation management treatments to meet Forest Plan desired conditions including removing encroaching conifers in Sagebrush, Aspen, Mountain Mahogany, thinning Douglas-fir,	Dillon Ranger District Southern portion of East Pioneers	No population overlap.	Unknown at this time Possible slight overlap of PGH	EIS on hold

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	daylighting Whitebark Pine.				
Salmon-Challis National Forest Forest-wide Invasive Plant Treatment EIS	Programmatic Noxious Weed Management EIS and ROD	Salmon-Challis National Forest	Mountain Valleys	Project area is nonwilderness portion of the Salmon-Challis National Forest (3.2 million acres)	NEPA anticipated to be completed by September 2014
Clear Creek Restoration	Treat cheatgrass-dominated site and restore to perennial grasses and shrubs	15 miles east of Almo, Idaho, Twin Falls District	South Side Snake	1,000 acres	Planned implementation within the next 3 years
Twin Falls District Noxious Weed and Invasive Plant Treatments	Proposed action is to use prevention, prescribed fire, herbicides, and manual, mechanical, and biological methods to treat areas dominated by annual invasive species to restore perennial grasses, forbs, and shrubs.	Various locations throughout the Shoshone, Jarbidge, and Burley Field Offices, Twin Falls District	South Side Snake	This is a programmatic planning effort. Estimated annual restoration is 5,000-10,000 acres in Burley, 10,000-15,000 acres in Shoshone, and 10,000-15,000 acres in Jarbidge. Ten-year total for each office could approach 100,000 acres in Burley, 150,000 acres in Shoshone, and 150,000 acres in	Programmatic EA with planned ROD in 2014. Implementation is planned to cover 10 years starting in 2015.

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
				Jarbidge.	
Noxious weeds treatment	Treat noxious weeds across the Dillon Field Office	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	Approximately 1,500 acres yearly	Ongoing
Rock Creek Riparian Restoration Project	In association with the Old Highway 37 Reroute Project, once the highway is moved, remove road materials and restore hydrologic function to Rock Creek	Curlew National Grassland, 8 miles northwest of Holbrook, Idaho	South Side Snake	5 miles	In the planning phase; expected EA in 2014 once a decision is made on highway project (above)
Rock Creek Fuels EA	Fuels reduction and vegetation improvement adjacent to sagebrush communities	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth NF	South Side Snake	7,959 acres	Planned for 2016
Pocatello Field Office Seedling plantings	Seedling planting of sagebrush and antelope bitterbrush	BLM-administered and National Forest System lands within Bear lake County, Idaho, Idaho Falls District	Bear Lake	20 acres per year	Ongoing, includes Fish and Game habitat restoration projects
Pocatello Field Office Curlew Seedling plantings	Seedling planting of sagebrush and antelope bitterbrush	BLM-administered and National Forest System lands within Oneida County, Idaho – Curlew and South Stone areas, Idaho Falls District	South Side Snake	20 acres per year	Ongoing, includes Fish and Game habitat restoration projects
Pahsimeroi Sagebrush	Treating sagebrush with	West River Flat	Mountain Valleys	700 acres	Project under NEPA

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Restoration	Lawson aerator and seeding native herbaceous species	Pasture of the Upper Pahsimeroi Allotment, Challis Field Office, Idaho Falls District			review; decision date anticipated in 2014
Buckwalter Sage-Grouse Habitat Project	Treating sagebrush cover to increase herbaceous cover to site potential	T 8N.,R 23E., Sec. 36, Challis Field Office, Idaho Falls District	Mountain Valleys	Up to 640 acres	Project under NEPA review; decision date anticipated in 2014
Pocatello Shrub Planting Programmatic EA	Reintroduction of shrub species through hand planting of seedlings	Various locations throughout southeast Idaho, Idaho Falls District	Bear Lake, South Side Snake, east-central Idaho	Up to 500 acres annually	NEPA complete; implementation has been occurring since 2011 and is expected to continue for next 5-10 years.
Burley Shrub Planting	Reintroduction of shrub species through hand planting of seedlings; up to 150,000 seedlings may be planted annually.	Various locations throughout the Burley Field Office, Twin Falls District	South Side Snake	Up to approximately 8,000 acres annually	Implementation has been occurring since 2010 and is expected to continue over the next 7-10 years.
Jarbidge Shrub Planting	Reintroduction of shrub species through hand planting of seedlings; up to 50,000 seedlings may be planted annually.	Various locations throughout the Jarbidge Field Office, Twin Falls District	South Side Snake	Up to approximately 5,000 acres annually	Implementation has been occurring since 2012 and is expected to continue over the next 10 years.
Twin Falls District Wildlife Tracts Restoration	Proposed action is to use prescribed fire, chemical, drill and harrow seeding, shrub seeding, and	Multiple wildlife tracts throughout the Shoshone, Burley, and Jarbidge Field	South Side Snake	500-1,000 acres per year, for a cumulative total of 10,000 acres over ten years	Implementation has been occurring since 2011 and is planned to continue over the

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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	plantings to establish perennial vegetation and restore native shrub habitat on wildlife tracts.	Offices, Twin Falls District			next 8 years.
Upper Horse Prairie Crested Wheatgrass Sagebrush Restoration	Reseeding crested wheatgrass with native grasses and forbs	Upper Horse Prairie watershed in the Dillon Field Office	Southwest Montana	500 acres total over the life of the RMP	NEPA completed 2012, anticipate implementation beginning in 2014
Sublett Prescribed Fire - Aspen	Prescribed fire in aspen; sagebrush surrounds the project	Minidoka Ranger District, Sublett Division, Idaho, Sawtooth National Forest	South Side Snake	1,000 acres	Planned for 2015
Jeff Creek Prescribed Burn	Prescribed fire	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	4,035-acre project area; 90 acres of project area in GRSG habitat but not planning to burn in this area	Planned for 2014
Prescribed Fire	Used prescribed fire to restore sagebrush habitat by removing Douglas-fir colonization	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	Approximately 600 acres yearly	NEPA compliant and ongoing
Woodcutting Permits	Woodcutting permits would continue to be issued. Each permit allows a minimum of 10 cords and a maximum of 20 cords to be purchased.	Within the Owyhee Field Office jurisdiction. Cutting in Wilderness areas, ACECs, Mud Flat Scenic By-Way, a	Southwest Idaho	Unknown	Permitting process is approved and being implemented.

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	Stipulations regarding distance from perennial streams, diameter of trees, and distance from paved roads are included.	corridor to Silver City, and within rock outcroppings is not allowed.			
Ramey Creek Reforestation Project	Restoring healthy lodgepole and Douglas fir communities through thinning, removal of dead, and burning in Ramey Creek watershed	Lost River Ranger District	Mountain Valleys	3,000 acres	Decision planned in next two years
Canyon Creek Stream Restoration Project	Instream Habitat Restoration & Willow Cutting Plantings	Leadore Ranger District	Mountain Valleys	4.0 miles stream restored	Decision & implementation in 2015, implementation in 2016-2019
Sawmill Canyon Aspen Regeneration	Removing conifer trees from aspen stands for aspen regeneration	Lost River Ranger District	Mountain Valleys	40 acres	Continuing implementation
<b>Range</b>					
Permit Renewals	Will complete environmental assessments before making decisions regarding grazing permit renewals	Allotments: Owens, East Castle Creek, Battle Creek, Big Springs, Bruneau Canyon, in Bruneau Field Office	Southwest Idaho	Unknown	Ongoing
Grazing Permit Renewals	Renewing/modifying 2 to 5 grazing permits per year for the next ten years	Challis Field Office	Mountain Valleys	770,000 acres	Project under NEPA review; decision dates 2014-2024
North Little Camas Allotment	Range NEPA for on-off C&H allotment	Mountain Home Ranger District –	North Side Snake	1,377 acres	NEPA decision in FY 2014

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Boise National Forest			
South Little Camas Allotment	Range NEPA for on-off C&H allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	1,790 acres	NEPA decision in FY 2014
Bennett Mountain Allotment	Range NEPA for C&H allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	7,076 acres	Planned within the next 10 years
Dixie Allotment	Range NEPA for C&H allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	20,046 acres	Planned within the next 10 years
Granite Allotment	Range NEPA for S&G allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	6,351 acres	Planned within the next 10 years
Lake Creek Allotment	Range NEPA for C&H allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	3,147 acres	Planned within the next 10 years
Mennecke Creek Allotment	Range NEPA for C&H allotment	Mountain Home Ranger District – Boise National Forest	North Side Snake	13,272 acres	Planned within the next 10 years
Almo Park C&H Allotment	Cattle allotment management plan (AMP) update	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	11,990 acres	2017
Conner Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	5,609 acres	2017

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Goose Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	66,872 acres	2021
Oakley Valley C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	30,674 acres	2025
Coal Pit C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	32,454 acres	2025
Big Hollow C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	7,958 acres	2025
Third Fork S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	9,041 acres	2033
Buckbrush S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National	South Side Snake	19,937 acres	2033

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**Table 5-26  
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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Forest			
Little Fork S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	5,360 acres	2033
Deadline S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	8,625 acres	2033
Little Piney S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	7,658 acres	2033
Trout Creek S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	10,261 acres	2033
Badger S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	7,535 acres	2033
Trapper Creek S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho,	South Side Snake	11,403 acres	2033

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Sawtooth National Forest			
Ridgeline C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	9,583 acres	2025
Fall-Swenty C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	Unknown	2025
Albion C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	11,991 acres	2017
Barnes Canyon C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	2,841 acres	2029
Basin C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	8,220 acres	2017
Cross Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion	South Side Snake	322 acres	2017

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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Division, Idaho, Sawtooth National Forest			
East End C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	7,777 acres	2029
East Park Valley C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	1,625 acres	2029
Elba C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	19,488 acres	2017
Land Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	2,017 acres	2017
Pine Hollow C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	340 acres	2017
Pothole/Bedke C&H	Cattle allotment AMP	Minidoka Ranger	South Side Snake	3,744 acres	2017

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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Allotment	renewal	District, Albion Division, Idaho, Sawtooth National Forest			
Rosette C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	11,503 acres	2029
West Park Valley C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	3,942 acres	2029
Willow Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	18,854 acres	2017
Clear Creek C&H Allotment	Cattle allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	10,237 acres	2029
Clark's Basin S&G	Sheep allotment AMP renewal	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	8,499 acres	2029

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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
East Dry Pole S&G Allotment	Sheep allotment AMP renewal	Minidoka Ranger District, Black Pine Division, Idaho, Sawtooth NF	South Side Snake	9,571 acres	2045
Walters Creek	Cattle allotment AMP update	Minidoka Ranger District, Albion Division, Idaho, Sawtooth National Forest	South Side Snake	1,062 acres	2017
Deer Creek/Curran S&G Allotment	Sheep allotment AMP renewal	Ketchum Ranger District, Idaho, Sawtooth National Forest	North Side Snake	21,119 acres	2022
Greenhorn – Kelly Mountain C&H Allotment	Cattle allotment AMP renewal	Ketchum Ranger District, Idaho, Sawtooth National Forest	North Side Snake	6,880 acres	2013
Cove Creek S&G Allotment	Sheep allotment AMP renewal	Ketchum Ranger District, Idaho, Sawtooth National Forest	North Side Snake	8,942 acres	2020
Stanley Basin C&H, Alpine Way On/Off, Goat Creek On/Off, Anderson On/Off	Cattle allotment AMP renewal	Sawtooth NRA, Idaho, Sawtooth NF	Sawtooth	31,530 acres	2016
Williams Creek C&H	Cattle allotment AMP renewal	Sawtooth NRA, Idaho, Sawtooth National Forest	Sawtooth	466 acres	2021
Soldier C&H Allotment	Cattle allotment AMP	Fairfield Ranger	North Side Snake	23,406 acres	2021

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Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	renewal	District, Idaho, Sawtooth National Forest			
Bremner-Middle Fork S&G Allotment	Sheep allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	17,207 acres	2016
Hunter Creek C&H Allotment	Cattle allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	4,973 acres	2017
Wardrop C&H Allotment	Cattle allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	10,383 acres	2021
Corral Creek S&G Allotment	Sheep allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	4,014 acres	2018
North Fork Lime Creek S&G Allotment	Sheep allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	15,145 acres	2016
Deer Creek C&H Allotment	Cattle allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	1,225 acres	2020
Sheep Basin C&H Allotment	Cattle allotment AMP renewal	Fairfield Ranger District, Idaho,	North Side Snake	7,068 acres	2017

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**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Sawtooth National Forest			
Cherry Creek S&G Allotment	Sheep allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	2,461 acres	2020
Willow C&H Allotment	Cattle allotment AMP renewal	Fairfield Ranger District, Idaho, Sawtooth National Forest	North Side Snake	18,554 acres	2021
Spud and Marco Creek Allotments	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	7,131 acres	Decision planned in 1 year
Antelope Grazing Management Project	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National Forest	Mountain Valleys	49,269 acres	Decision planned in 2016
Morgan Creek Allotment and Sleeping Deer Unit of Eddy Creek	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	44,050 acres	Decision planned in 2 years
Lee Creek to Cove Creek Allotments	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National Forest	Mountain Valleys	71,826 acres	Decision planned in 2 years
Pahsimeroi and Upper Pahsimeroi Allotments (3)	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis	Mountain Valleys	75,159 acres	Decision planned in 3-4 years

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		National Forest			
Gilmore to Nez Perce Allotments	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National Forest	Mountain Valleys	27,414 acres	Decision planned in 3-4 years
Sandy to Agency and Twelvemile	Grazing Allotment Management NEPA	Leadore and Salmon-Cobalt Ranger Districts, Salmon-Challis National Forest	Mountain Valleys	44,790 acres	Decision planned in 3-4 years
Hawley Creek Allotment	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National Forest	Mountain Valleys	31,472 acres	Decision planned in 3-4 years
Pass Creek Allotment	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National Forest	Mountain Valleys	43,412 acres	Decision planned in 4 years
Little Lost Allotments	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National Forest	Mountain Valleys	129,312 acres	Decision planned in 4 years
Upper Salmon Allotments	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	217,150 acres	Decision planned in 4-5 years
Hayden Allotments (up to 3)	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National	Mountain Valleys	63,575 acres	Decision planned in 4-5 years

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**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Forest			
North Fork Allotments	Grazing Allotment Management NEPA	North Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	116,254 acres	Decision planned in 4-5 years
Middle Salmon Allotments	Grazing Allotment Management NEPA	Salmon-Cobalt Ranger District, Salmon-Challis National Forest	Mountain Valleys	98,343 acres	Decision planned in 4-5 years
Various Sheep Allotments	Grazing Allotment Management NEPA	Lost River and Middle Fork Ranger Districts, Salmon-Challis National Forest	Mountain Valleys	56,226 acres	Decision within the reasonably foreseeable time frame (by 2023)
White Knob Cattle Allotments	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National Forest	Mountain Valleys	54,997 acres	Decision possible within the reasonably foreseeable time frame (by 2023)
Little Eightmile and Grizzly Hill	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National Forest	Mountain Valleys	46,086 acres	Decision possible within the reasonably foreseeable time frame (by 2023)
Middle Fork Allotments	Grazing Allotment Management NEPA	Middle Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	52,905 acres	Decision possible within the reasonably foreseeable time frame (by 2023)
Pioneer Cattle Allotments	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National	Mountain Valleys	246,179 acres	Decision planned in 6-7 years

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Forest			
Lost River Allotments	Grazing Allotment Management NEPA	Lost River Ranger District, Salmon-Challis National Forest	Mountain Valleys	113,122 acres	Decision planned in 4-7 years
Lemhi/Salmon Allotments	Grazing Allotment Management NEPA	Leadore Ranger District, Salmon-Challis National Forest	Mountain Valleys	52,661 acres	Decision planned in 6-10 years
North Lost River Allotments	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	71,492 acres	Decision planned in 6-10 years
Lower Salmon/Panther Allotments	Grazing Allotment Management NEPA	Salmon-Cobalt Ranger District, Salmon-Challis National Forest	Mountain Valleys	297,730 acres	Decision planned in 8-10 years
NW Lemhi Allotments	Grazing Allotment Management NEPA	Challis-Yankee Fork Ranger District, Salmon-Challis National Forest	Mountain Valleys	57,782 acres	Decision planned in 8-10 years
Kelly Canyon-Indian Creek Grazing Analysis Project	Grazing re-authorization	Dubois Ranger District	Mountain Valleys	53,220 acres	Planned for 2018
South Soda Sheep AMP revisions	Grazing re-authorization	Soda Spring Ranger District	East-Central Idaho	132,000 acres	Planned for 2016
NW Big Hole AMP Revision	Cattle allotment management plan revision (7 cattle	Wisdom Ranger District, Beaverhead-Deerlodge National	Southwest Montana, Wisdom sub-population (P37)	4 allotments overlapping 687 acres of PGH	NEPA underway; ROD in late 2015

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Cessation Lima-Tendoy Sheep Grazing	allotments)  Indian Creek and Bear Canyon Allotments	Forest  Dillon Ranger District, Beaverhead-Deerlodge National Forest	Southwest Montana, Red Rocks sub-population (P24)	11,700 acres in PPH	Permittee waiving sheep permits back to Forest Service (pending receipt of waiver of term grazing permit-2013). Allotments will be closed to future domestic sheep grazing. No new grazing permits for any livestock will be issued for Indian Creek. Three-year trial of 100 AUMs fall cattle grazing for Bear Canyon. NEPA review and new AMP after 2015 grazing season
Range Improvement Construction	Construction or maintenance of fencing (allotment boundary, pasture or enclosure fencing), water developments (water hauls, pipelines and troughs)	Owyhee Field Office jurisdiction.	Southwest Idaho	Approximately 25 miles of new fence to be constructed; approximately 5 miles of pipelines and associated troughs; approximately 30	Various; projects either waiting for available funding or in the planning stages; maintenance of existing projects is ongoing

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
				water haul sites	
Range Water Developments	40 new spring developments and associated pipeline and drinkers	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	20 miles of pipeline estimated 20 acres disturbance.	NEPA compliant and ongoing
Fence Removal	Removal of approximately 5 miles of old fences yearly	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	50 miles removed in next ten years	Ongoing
New Fence Construction	Approximately 5 miles of new fence construction per year	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	50 miles of new fence in the next ten years	NEPA compliant and ongoing
Pocatello Field Office – Fence Flagging	Install GRSG fence reflectors	BLM-administered and National Forest System lands throughout southeast Idaho, Pocatello Field Office	Bear Lake, South Side Snake	10 miles per year	Ongoing
Grouse Creek Fences	Construct 1 mile of fence to protect 2 springs and ½ mile of Sulphur Creek	Section 30, T13N, R23E; Section 13, T.14N., R.21E., W½SW¼, Challis Field Office, Idaho Falls District	Mountain Valleys	1 mile	NEPA completed; construction in 2014
Upper Pahsimeroi/Burnt Creek Fences	Construct 2.5 miles of fence	at T.10N., R.24E; Challis Field Office, Idaho Falls District	Mountain Valleys	2.5 miles	Project under NEPA review, decision date anticipated 2014
Rock Springs Pipeline Extension Reconstruct with Two New Troughs	Extending an existing pipeline 4 miles and adding two additional	T.13N., R.22E., Section 27 E½ and the other in T.13N.,	Mountain Valleys	4 miles, 1.4 acres of disturbance	NEPA completed; construction in 2014

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**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	troughs	R.22E., Section 15 SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> , Challis Field Office, Idaho Falls District			
Rattlesnake Pipeline	Reconstruct Rattlesnake Pipeline, which includes 3 troughs	Sections 30 and 19 of T.13N., R.22E, Challis Field Office, Idaho Falls District	Mountain Valleys	1.5 miles	NEPA completed; construction in 2014
Upper Pahsimeroi/Burnt Creek Pipeline	Construct additional water sources within the Burnt Creek and Upper Pahsimeroi Allotments	T. 10N., R.24E.; T.11N., R.23E., sec. 10 NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> , Challis Field Office, Idaho Falls District	Mountain Valleys	2.5 miles	Project under NEPA review; decision date anticipated in 2014
Upper Pahsimeroi/Burnt Creek Troughs	Adding three additional troughs in the Burnt Creek and Upper Pahsimeroi Allotments	T.10N., R.24E.; T.11N., R.23E., sec. 10 NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> , Challis Field Office, Idaho Falls District	Mountain Valleys	2.1 acres	Project under NEPA review; decision date anticipated in 2014
Mill Creek Reconnect Project	To reconnect Mill Creek to Big Creek; this would involve public and private lands to restore the historic channel alignment of Mill Creek.	T.14N., R.23E. Sec. 35; T. 13N.,R.23E., Sec. 2, Challis Field Office, Idaho Falls District	Mountain Valleys	640 acres, 3 miles of stream	Project under NEPA review; decision date anticipated in 2014
Spring Hill Spring Restoration	Fence springs and move troughs to uplands; CE or EA	Challis-Yankee Fork Ranger District-Pahsimeroi allotment, Salmon-Challis National Forest	Mountain Valleys	Approximately 10 acres	Planning stage, but implementation likely in 2014

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Lost River Small Batch Fences	Road/Ramey, North Fork, and Kane Lake Fences to manage livestock	Lost River Ranger District - 30 miles west of Mackay, Idaho, Salmon-Challis National Forest	Mountain Valleys	1.25 miles	Environmental analysis ongoing; ROD 2016
Warm Creek Habitat Improvement Fence	Fence to keep cattle off Warm Creek	Lost River Ranger District - on Warm Creek at mouth of Sawmill Canyon, Salmon-Challis National Forest	Mountain Valleys	0.25 miles	Environmental analysis ongoing; ROD 2013
Mud Lake Fence Modification	Convert electric fence to permanent with slight adjustment in location	Lost River Ranger District - Pass Creek, Salmon-Challis National Forest	Mountain Valleys	3 miles	Environmental analysis anticipated in 2015
Copper Basin Swamps Troughs	Add one to two troughs to pipeline in Swamps pasture of Copper Basin Allotment	Lost River Ranger District - Copper Basin, Salmon-Challis National Forest	Mountain Valleys	600 acres	Environmental analysis anticipated in 2015
<b>Minerals</b>					
Western Standard Metals - Almaden Exploration Mining Notice Revision	IDI-37044 Addition of 16 drill sites requiring approximately 4,270 linear feet of constructed roads and approximately 350 linear feet of overland travel for mineral exploration.	Boise Meridian, T. 10 N., R. 3 W., Sections 4 & 5 and T. 11 N., R. 3 W., Section 32 in Washington County, Idaho, Four Rivers Field Office	Weiser	Approximately 3.74 acres	Authorization of this revised notice activity is pending receipt and acceptance of required additional reclamation bond.

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Western Standard Metals - Nutmeg Mountain Exploration Mining Notice	IDI-37444 Proposed construction of nine drill sites and 8,455 linear feet of new road for condemnation drilling.	Boise Meridian, T. 10 N., R. 3 W, Sections 3 & 4, and T. 11 N., R. 3 W., Section 33 in Washington County, Idaho, Four Rivers Field Office	Weiser	Approximately 4.21 acres	Authorization of this mining notice is pending receipt and acceptance of required reclamation bond.
Sawtooth #4 Plan of Operation Modification	Locatable mineral surface mining	Middle Mountain, West of Elba, Idaho, Twin Falls District  T 14 S R 22 E Section 34	South Side Snake	20 acres	NEPA in progress
Mineral Extraction	Approximately 25 notices	Throughout PPH and PGH in the Dillon Field Office	Southwest Montana	Less than 50 acres	Ongoing
Otis Gold Exploratory Drilling Notice of Intent	Exploratory drilling	South of Oakley, Idaho, Twin Falls District  T 16 S R 22 E Section 20	South Side Snake	1 acre	Pending
Prudent Man Mining	Hand excavations	Lost River Ranger District-Alder Creek, Salmon-Challis National Forest	Mountain Valleys	5 acres	Ongoing next 5 years

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
Geothermal drilling and development	Drilling of up to 26 production/injection wells on federal leases and adjacent private lands. Construction of pipelines, access roads, and on-lease infrastructure proposed. Power plant proposed on private lands.	Raft River area (southeast end of Jim Sage Mountain).	South Side Snake	Total of up to 275 acres on leased public lands and adjacent private lands.	Pending NEPA analysis and approval. Drilling anticipated to begin fall 2015.
Oakley Stone quarries	Development of quarries (43 CFR 3809)	Middle Mountain, Raft River Mountains in Utah	South Side Snake	Approximately 60 acres	Ongoing
Goat Springs Quarry	Proposal for surface mining of sand and gravel material	South Hills, south of Twin Falls, Idaho, Twin Falls District T 13S, R 17E, Section 18	South Side Snake	17 acres	NEPA in progress
Lynn Springs Quarry	Plan of Operations-Quarry Expansion	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	20 acres	Planned for 2017-2018
Fish Creek Quarry	Plan of Operations Amendment-Quarry Expansion	Minidoka Ranger District, Burley, Idaho, Albion Division, Idaho, Sawtooth National	South Side Snake	10 acres	Planned for 2017-2018

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**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Forest			
Dove Creek Quarry	Plan of Operations-Amendment-Expansion	Minidoka Ranger District, Raft River Division, Utah, Sawtooth National Forest	South Side Snake	10 acres	Planned for 2018
Paris Hills Phosphate Project	Underground phosphate mine	Paris, Idaho, not on BLM-administered or National Forest System lands	Southeast Idaho	Unknown	Company announced it was ceasing activity on this project for the foreseeable future.
Phosphate mine development	Develop mine, mostly on private and state surface, federal minerals	Trail Creek/Caldwell Canyon	East-central Idaho	Approximately 600 acres	Anticipate submission of a mine plan in 2015
Oil and Gas	Application for permit to drill	Dillon Ranger District, Beaverhead-Deerlodge National Forest	Southwest Montana - Red Rocks subpopulation (P24)	Unknown, but Forest Service PPH totals approximately 84,800 acres, less than 8,500 acres PPH in moderate potential for development.	NO current APDs; Beaverhead-Deerlodge National Forest Update to Beaverhead-Deerlodge National Forest Oil and Gas ROD on hold pending outcome of GRSG EIS; likely less than 10 APDs over the next 10-15 years.
Oil and gas lease nominations	Determine whether to offer leases	Bear Lake Plateau	Bear Lake	Two nominations, totaling an estimated 59,700 acres	Deferred, pending completion of GRSG EIS
Oil and gas lease	Determine whether to	Rogerson-Brown's	South Side Snake	90,000 acres	Deferred, pending

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
nominations	offer leases	Bench			completion of Jarbidge RMP and GRSG EIS
Oil and gas lease nominations	Determine whether to offer leases	Payette-Weiser area	East-central Idaho	Several nominations, totaling an estimated 181,000 acres	Deferred, pending completion of Four Rivers RMP and GRSG EIS
Mineral Gulch Plan of Operation	Exploration drilling plan of operations	Minidoka Ranger District, Idaho, Black Pine Division, Idaho, Sawtooth National Forest	South Side Snake	16 acres	Authorized 2012; not yet implemented. Authorization expires December 31, 2016 (all reclamation required to be completed by this date)
Great Western Exploration Drilling	Core drilling	Lost River Ranger District - Camp Creek area, Salmon-Challis National Forest	Mountain Valleys	1 acre	NEPA; implementation fall 2013
Gold Star Exploration Drilling	Mineral exploration	Salmon-Cobalt Ranger District – Tower Creek Drainage, Salmon-Challis National Forest	Mountain Valleys	Fewer than 5 acres	Planned in 2014
Flume Creek Exploration Drilling	Mineral exploration	Leadore Ranger District – Flume Creek Drainage,	Mountain Valleys	Fewer than 5 acres	Planned in 2013

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Salmon-Challis National Forest			
<b>Wild Horses and Burros</b>					
Wild horse gathers	Gather, fertility treatment, removal of excess wild horses from HMAs	Sands Basin, Hardtrigger, and Black Mountain HMAs, Owyhee Field Office	Southwest Idaho	128,389 acres of public and other (private and state) land	EAs and decisions have been approved; gathers and treatment are pending due to funding and other priority treatments within the BLM wild horse program.
<b>Recreation</b>					
Special Recreation Permits	Various motorcycle, foot, and mountain bike races, horse endurance rides, dog trials, pioneer treks, and poker runs	Owyhee Front; all motorized activities occur within the designated competitive use area of the Murphy Sub-regional Travel Management Area, Owyhee Field Office	Southwest Idaho	260,000 acres; most activities occur within the Murphy and Wilson Creek travel management areas; approximately 900 miles of designated routes; dog trials occur within the Blackstock SRMA (6,149 acres of BLM-administered land)	Future applications and permitting are expected annually.
Special Recreation Permits	Typical applications each year include: <ul style="list-style-type: none"> <li>• 2 motorcycle races</li> <li>• 1-2 bighorn sheep</li> </ul>	Motorcycle races in East/West Castle Creek Allotments, Bruneau Field Office	Southwest Idaho	Unsure	Ongoing

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	guided hunts, 1 wildlife viewing trip, and 1 group hiking trip	Other SRPs typically are in or near Wilderness			
Willow Springs Trail	Single-track motorized trail	Palisades Ranger District in Fall Creek watershed	East-central Idaho	3 miles	Planned for 2015
Indian Spring Trail Plan	Construct new trails and maintain/relocate existing trails for use by mountain bikes	South Hills, south of Kimberly, Idaho, Twin Falls District	South Side Snake	60 miles	Working on NEPA
Horse Endurance Race	Special use permit for horse endurance race	Castle Rocks/City of Rocks west of Almo, Idaho, Twin Falls District	South Side Snake	14 miles	Pending
BORE SRP Jackpot 200	Special use permit for motorcycle race	Shoshone Basin Idaho, North of Jackpot, Nevada, Twin Falls District	South Side Snake	90 miles	Working on NEPA
Recreation Trail Reroutes	Possible addition of one motorcycle trail – Fawn Springs	Minidoka Ranger District, Cassia Division, Idaho, Sawtooth National Forest	South Side Snake	1 mile	Planned for 2016
Stanley Bunkhouses	Install 3 modular bunkhouses	Sawtooth NRA, Redfish Lake Recreation Complex, Idaho, Sawtooth National Forest	Sawtooth	1 acre	Planned activity 2014-2016

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**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
<b>Travel Management</b>					
Bear Lake Travel Management Plan Implementation	Implement Bear Lake Travel Management Plan; limit motorized travel to designated routes, prohibit cross-country travel	BLM-administered and National Forest System lands within Bear Lake County, Idaho, Idaho Falls District	Bear Lake	50,000 acres	Travel plan approved 2012; implementation ongoing
Curlew/Deep Creek Travel Management Plan Implementation	Implement Bear Lake Travel Management Plan; limit motorized travel to designated routes, prohibit cross-country travel	BLM-administered and National Forest System lands within Oneida and Power Counties, as well as small portions of Cassia and Bannock Counties, Idaho, Idaho Falls District	South Side Snake	375,000 acres	Proposed decision out for review, June 2013; anticipated decision September 2013; implementation on-going
North Highway 20 Travel Plan	Designate routes and types of use, parking areas/trailheads and future trail construction corridors	North of HWY 20 in the Shoshone Field Office, Twin Falls District	North Side Snake	Designate 127 miles of existing trails; construct 52 miles of new trails, construct 3 acres of parking areas, close and rehabilitate 116 miles of existing routes.	Pending
Dillon, Wisdom, Wise River Ranger Districts Travel Management Project EA	Analysis for designating wheeled motorized use on the Dillon, Wisdom and Wise River ranger districts of the	Dillon, Wisdom, Wise River Ranger Districts	Unknown at this time	Unknown at this time	NEPA On Hold

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	Beaverhead-Deerlodge NF.				
Madison Ranger District Road Decommissioning as Identified in the Madison MVUM Decision CE	Road 1237B, (0.5 miles) will require complete obliteration. Road closure devices, water bars, tread scarification and re-contouring will discourage motorized use and promote re-vegetation. Road 9677, (1.6 miles) will require only a closed sign.	Madison RD	Road 1237B-No population overlap, no PGH or PPH Road 9677 slight overlap on north end of Pop 24 polygon. Slight overlap of PGH no PPH	Road 9677 slight overlap on north end of Pop 24 polygon. Slight overlap of PGH no PPH. 1.6 miles closed by signing. No earthwork	Expected implementation 8/2015
Road Decommissioning	Road decommissioning associated with travel plan	Minidoka Ranger District, Cassia and Sublett Division, Idaho, Sawtooth National Forest	South Side Snake	30 miles per year	Planned 2016
Redfish Lake Road and Bridges – Phase 1	Road and bridge construction	Sawtooth NRA, Redfish Lake Recreation Complex, Idaho, Sawtooth National Forest	Sawtooth	3 acres	Activity during next 2 field seasons
Redfish Lake Road and Bridges – Phases 2 and 3	Road construction	Sawtooth NRA, Redfish Lake Recreation Complex, Idaho, Sawtooth National Forest	Sawtooth	3 acres	Planned in 5 years
Stanley-Redfish trail	Trail construction	Sawtooth NRA,	Sawtooth	Approximately 2	Planned in 3 years

**Table 5-26  
Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
		Redfish Lake Recreation Complex, Idaho, Sawtooth National Forest		acres (3 miles) of trail construction	
Iron Creek Road	Road reconstruction	Sawtooth NRA, Redfish Lake Recreation Complex, Idaho, Sawtooth National Forest	Sawtooth	3 acres	Planned in 4 years
Pole Creek Travel Management	ATV trail construction and unauthorized road obliteration	Sawtooth National Recreation Area, Idaho, Sawtooth National Forest	Sawtooth	4.6 acres of rehabilitation; 1.1 acres (1.75 miles) of trail construction	Implementation started in 2012 and continuing in 2013
<b>Land Use Planning</b>					
Jarbidge RMP	Revise the Jarbidge RMP that provides a comprehensive plan that further restores or maintains resource conditions and provides for the economic needs of local communities over the long term	Jarbidge Field Office, Twin Falls District	South Side Snake	1,366,000 acres	Finalizing the EIS
Craters LUP Amendment	Analyze a range of alternatives for livestock grazing in the Craters of the Moon (i.e., identify lands available or unavailable for grazing,	Craters of the Moon National Monument and Preserve, Twin Falls District	North Side Snake	300,000 acres	Working on scoping package and planning public meetings

**Table 5-26**  
**Past, Present, and Reasonably Foreseeable Future Actions**

Name	Description	Location	Sage-Grouse Population Area	Estimated Footprint (Acres or Miles)	Status of Action
	identify the amount of forage available, seasons of use, range improvements)				

Administrative Draft  
Cooperating Agency Review

1       **5.3.1 Vegetation**

2       Past, present, and reasonably foreseeable future actions and conditions that affect vegetation  
3       are vegetation and habitat management and improvement projects, noxious weed control,  
4       wildfire management, livestock grazing management, lands and realty management, mineral  
5       extraction and development, and travel management planning.

6       Sagebrush-promoting and conifer-removing vegetation and habitat treatments would retain  
7       and enhance sagebrush vegetation and overall ecosystem productivity, while reducing the  
8       distribution of invasive weeds and woody conifer species. Given the limited distribution of  
9       suitable sagebrush habitats and the cost of habitat restoration, management plans that  
10      protect intact sagebrush acreage and restore impacted areas strategically to improve habitat  
11      connectivity have the best chance of increasing the amount and quality of sagebrush cover  
12      (Manier et al. 2013).

13      An assortment of nonnative annuals and perennials and native conifers is invading sagebrush  
14      ecosystems. Many areas throughout the range of GRSG are at high risk from invasive plants;  
15      the most concentrated areas of risk include the Intermountain West and Great Basin (Manier  
16      et al. 2013). Invasive plants can alter plant community structure and composition,  
17      productivity, nutrient cycling, and hydrology and may competitively exclude native plant  
18      populations. Invasive plant spread may result in habitat loss and fragmentation and may also  
19      increase the risk of wildfire. The spread of invasive plants such as cheatgrass has increased  
20      the frequency and intensity of fires in some areas (Balch et al. 2012). Treatments designed to  
21      prevent encroachment of shrubs, nonnative species, or woody vegetation would alter the  
22      condition of native vegetation communities by changing the density, composition, and  
23      frequency of species within plant communities. The intent of these management programs is  
24      to improve rangeland condition and enhance sagebrush ecosystems.

25      Slow rates of regrowth and recovery of vegetation after disturbances (driven by low water  
26      availability and other constraints) coupled with high rates of disturbance and conversion to  
27      introduced plant cover have contributed to the accumulating displacement and degradation  
28      of the sagebrush ecosystem (Beck et al. 2009). Big sagebrush does not resprout after a fire  
29      but is replenished by wind-dispersed seed from adjacent unburned stands or seeds in the  
30      soil. Depending on the species and the size of a burn, a return to pre-burn community cover  
31      can take 13 to 100 years (Connelly et al. 2000). When management reduces wildfire  
32      frequency by suppressing natural ignitions, the indirect impact is that vegetation ages across  
33      the landscape, and early successional vegetation communities are diminished.

34      Fire suppression may preserve the condition and connectivity of some vegetation  
35      communities. This is particularly important in areas where fire frequency has increased as a  
36      result of weed invasion or where landscapes are highly fragmented. Fire suppression can also  
37      lead to increased fuel loads, which can lead to more damaging or larger fires in the long  
38      term. Fire also increases opportunities for invasive species such as cheatgrass to spread, so  
39      fire suppression can indirectly limit this expansion.

40      Controlled burning may be prescribed to treat fuel buildup and to assist in the recovery of  
41      sagebrush habitat in some vegetation types. Reseeding with native plants and long-term

1 monitoring to ensure the production of cover and forage plants would assist vegetation  
2 recovery (NTT 2011).

3 Livestock grazing may have both beneficial and detrimental aspects on rangeland vegetation,  
4 depending on site-specific management (USFWS 2010). At higher levels, grazing can lead to  
5 loss of vegetative cover, degraded riparian habitats, increases in invasive weeds, decreased  
6 plant litter, increased soil erosion, and reduced habitat quality for wildlife (Belsky et al. 1999;  
7 Reisner et al. 2013; Knick 2011; Connelly et al. 2004). However, in some habitats, targeted  
8 livestock grazing may be useful for reducing fine fuels produced by annual grasses (Boyd et  
9 al. 2014). In areas meeting BLM Idaho Standards for Rangeland Health or similar Forest  
10 Service standards, grazing practices coexist with healthy vegetation communities, providing  
11 wildlife habitat.

12 Grazing systems that aim to protect sagebrush and riparian ecosystems would allow more  
13 plant growth and reduce trampling and introduction of exotic species. Reducing or removing  
14 grazing in habitats would also reduce these effects but could have unintended consequences  
15 of increasing fuel buildup. Range improvement projects often can be used to improve  
16 livestock distribution and set aside areas for rest from grazing, which would reduce the  
17 likelihood of impacts described above.

18 As described in **Section 4.3**, Vegetation, mineral extraction and development impacts  
19 sagebrush habitats directly by disturbance and removal from well pad and access  
20 construction, seismic surveys, roads, power lines, and pipeline corridors. It impacts  
21 sagebrush habitats indirectly by gaseous emissions, changes in water availability and quality,  
22 and human disturbance. The interaction and intensity of effects could cumulatively or  
23 individually lead to habitat fragmentation in the long term (Connelly et al. 2004; Holloran  
24 2005).

25 The BLM uses travel management planning to designate and close routes and to balance the  
26 demands for motorized recreation and access with protection of sensitive resources. By  
27 planning at the landscape scale, the BLM would be able to retain large expanses of sagebrush  
28 and manage impacts on vegetation from motorized vehicles (discussed in **Section 4.3**,  
29 Vegetation) through route designations and closures.

### 30 ***Alternatives Analysis***

31 Under Alternative A, current management would continue on BLM-administered and  
32 National Forest System lands in the planning area. There would be no PHMA, IHMA or  
33 GHMA designated, and most land use plans would not implement use restrictions (e.g.,  
34 ROW exclusion and closure to mineral leasing and development) to protect GRSG habitat.  
35 Seasonal restrictions and lek buffers would continue to be applied as stipulations to oil and  
36 gas and geothermal leases, in accordance with existing land use plan direction. Grazing  
37 management would not specifically consider GRSG habitat needs, and vegetation  
38 management would not prioritize sagebrush. Prescribed fires in sagebrush communities  
39 could be harmful to sagebrush, which is slow to regrow and susceptible to weed invasion  
40 post-fire.



1 Planned ROW construction could increase fragmentation of vegetation, and new mineral  
2 extraction would increase loss of sagebrush vegetation until sites are reclaimed. However,  
3 some use restrictions would be implemented, which would protect vegetation in these areas  
4 from degradation or removal. Vegetation management and noxious weed control projects  
5 would benefit sagebrush ecosystems by removing invasive plants and promoting healthy  
6 vegetation communities. Overall, Alternative A would lack the landscape-level management  
7 tools to reduce cumulative effects from past, present, and reasonably foreseeable future  
8 actions.

9 Under Alternative B, PHMA and GHMA would be designated and ROW exclusion and  
10 avoidance areas would be established over larger areas, compared to Alternative A. Grazing  
11 management would be improved, which would reduce impacts on sagebrush vegetation. No  
12 ACECs would be established, but land disposals and acquisitions would focus on  
13 maintaining sagebrush acreage and connectivity. ROWs, access roads, and associated  
14 infrastructure planned according to **Table 5-26** would be sited outside PHMA under  
15 Alternative B. Planned mineral exploration and development would be sited outside PHMA  
16 in unleased areas, and RDFs would be applied to post-lease actions on existing leases. The  
17 vegetation management and restoration projects mentioned above would benefit the  
18 planning area in discrete locations. Prescribed fire areas would be reseeded and monitored to  
19 prevent invasive plants from becoming established. As a result, the cumulative effects from  
20 past, present, and reasonably foreseeable future actions under Alternative B would be  
21 reduced, compared to Alternative A.

22 Cumulative impacts under Alternative C are similar to those described for Alternative B,  
23 though with fewer restrictions on resource uses. Under Alternative C, grazing would be  
24 removed from occupied habitat, which would allow for greater herbaceous growth but could  
25 increase fuel loading and risk of wildfire. This could degrade vegetation quality over the long  
26 term. Given the uncertain effects of removing livestock grazing, it is not known whether  
27 cumulative effects from past, present, and reasonably foreseeable future actions would be  
28 reduced, compared to Alternative A.

29 Alternative D is intended to preserve management flexibility and provide increased  
30 implementation guidance, while protecting GRSG habitat. Management under Alternative D  
31 would increase vegetation protection, compared to current management, but with more  
32 limited actions than Alternatives B or F. Alternative D would establish ROW avoidance but  
33 not exclusion areas, thereby reducing but not eliminating impacts from ROW development.

34 Restrictions on mineral leasing and development under Alternative D would be greater than  
35 under Alternative A but less stringent than Alternatives B and F. Prescribed burning and  
36 fuels management would take sagebrush vegetation into account. As under the other  
37 alternatives, the vegetation management and weed control plans listed in **Table 5-26** would  
38 benefit vegetation health. Development restrictions in occupied habitat would retain  
39 vegetation, and rangeland improvements would improve vegetation quality on sagebrush  
40 acreage. As a result, the cumulative effects from past, present, and reasonably foreseeable  
41 future actions under Alternative D would be reduced, compared to Alternative A, but to a  
42 lesser extent than Alternatives B and F.

1 Cumulative impacts from Alternative E are similar to those described for Alternative D,  
2 though Alternative E would require less stringent use restrictions and would designate the  
3 least amount of CHZ (compared to PHMA) of all the action alternatives. As a result, the  
4 cumulative impacts from past, present, and reasonably foreseeable future actions would be  
5 reduced, compared to Alternative A, but to a lesser extent than the other action alternatives.

6 Alternative F would provide more protection to GRSB habitat on BLM-administered and  
7 National Forest System lands but would reduce management flexibility. Alternative F would  
8 establish ACECs and ZAs in occupied habitat, and occupied habitat would become ROW  
9 exclusion areas and closed to mineral development and leasing. These provisions would  
10 protect vegetation from loss, fragmentation, and disturbance associated with surface-  
11 disturbing activities. Reduced management flexibility could lead to inefficient or ineffective  
12 management at the site-specific scale, when conditions may require alterations in  
13 management. As under the other alternatives, the vegetation management and weed  
14 prevention projects listed in **Table 5-26** would benefit vegetation health.

15 Alternative F would impose the most stringent restrictions on development of GRSB  
16 habitat, potentially restricting the ROW and mineral developments in **Table 5-26** thereby  
17 retaining the greatest extent of sagebrush vegetation. Alternative F would result in the  
18 greatest reduction in cumulative effects from past, present, and reasonably foreseeable future  
19 actions, compared to all alternatives.

20 Cumulative impacts from the Proposed Plan are similar to those described for Alternative D,  
21 though the Proposed Plan would have additional measures that would afford protections to  
22 vegetation and would further reduce cumulative impacts. These include managing to attain  
23 GRSB habitat objectives; management of SFAs where restrictions on uses would be greater  
24 than in PHMA; a comprehensive mitigation strategy that would avoid, minimize and  
25 compensate for GRSB habitat impacts; and specified acres of vegetation treatments. In  
26 addition, the Fire and Invasives Assessment Tool would be implemented, which would  
27 increase the effectiveness of management activities and is anticipated to maintain and  
28 improve habitat. On National Forest System lands, grazing use guidelines would be  
29 implemented that limit the amount of allowable use on perennial grass, shrubs, upland  
30 herbaceous species, and herbaceous riparian/wet meadow vegetation. These guidelines  
31 would reduce grazing impacts on vegetation over time. Together, these would reduce  
32 cumulative effects from past, present, and reasonably foreseeable future actions compared to  
33 Alternative A, but to a lesser extent than Alternatives B and F.

### 34 **5.3.2 Wild Horses and Burros**

35 The cumulative impact analysis area used to analyze cumulative impacts on wild horse  
36 management includes the planning area. This is because impacts are expected to be limited  
37 to those actions originating within the planning area.

38 Past, present, and reasonably foreseeable actions and conditions within the cumulative  
39 impact analysis area that have affected and will likely continue to affect wild horse  
40 management are actions that change forage and water availability, access to water sources,





1 range conditions, and barriers to movement and population control (such as removing  
2 excess animals and repressing population).

3 Reasonably foreseeable projects in the project area include extensive vegetation treatment  
4 and fuels reduction projects. These could result in short-term impacts on horses, but they  
5 are likely to improve rangeland health in the long term. Population control gathers would  
6 continue in the area to keep wild horses at appropriate population levels and to support  
7 maintenance or improvement of land health in the area overall. In addition, actions that  
8 disturb wild horses are recreation and development for transmission, as well as the  
9 exploration for energy and mineral development.

10 Under all alternatives, no direct change would occur on areas allocated as HMAs for wild  
11 horses. Under Alternative A, AML would continue to be adjusted as needed, based on  
12 rangeland conditions. Populations would be controlled to support land health within the  
13 constraints of national priorities and budgets. Under Alternatives B, C, D, E, and the  
14 Proposed Plan there could be long-term reduction of AMLs. This would occur if  
15 management for wild horses conflicts with GRSG management objectives, resulting in a  
16 cumulative addition to the management needs and associated costs of wild horse and burro  
17 management in the planning area. Under Alternative F, a direct 25 percent reduction in  
18 AMLs is proposed, resulting in a cumulative addition to costs and time for management of  
19 the wild horse and burro program due to the need for increased gathers. This could strain  
20 available resources in the region.

21 In addition, should management resources be concentrated in GRSG habitat due to  
22 priorities for management under the action alternatives, HMAs outside of GRSG habitat  
23 may be allotted fewer resources. In general, actions to improve land health for GRSG are  
24 also likely to improve rangelands for wild horses, resulting in a cumulative improvement in  
25 the ability to meet AMLs.

### 26 **5.3.3 Wildland Fire**

27 Past, present, and reasonably foreseeable future actions and conditions within the cumulative  
28 impact analysis area that have affected and will likely continue to affect wildfire are fuels and  
29 vegetation management projects, ROW and energy development, projects that impact the  
30 agencies' abilities to respond to wildfire, and projects that would increase the risk of human-  
31 caused ignitions.

32 Wildfires in the planning area have been frequent in the past, with over 9,600 wildfire starts  
33 occurring on or threatening to spread to BLM and FS-administered lands in the planning  
34 area between 1980 and 2012. Approximately 54 percent of these wildfires were attributed to  
35 human-caused ignition. Wildfires are expected to increase in the future due to increasingly  
36 severe drought conditions caused in part by climate change. This could impact wildland fire  
37 management through increased personnel requirements and need for fire suppression and  
38 resultant increased costs.

1 A variety of fuels treatments, including hazardous fuels reduction, prescribed fires, chemical  
2 and mechanical treatment, and seeding, would likely continue to be used. At least 80  
3 reasonably foreseeable fuels and vegetation management projects have been identified within  
4 the planning area (see **Table 5-26**).

5 ROWs and the associated development may increase the risk of human-caused ignitions due  
6 to vehicular travel to and from the site, construction, maintenance, and operation of the  
7 facilities. The development allowed under these authorizations would result in surface  
8 disturbance, which would generally contribute to the modification of the composition and  
9 structure of vegetation communities in the vicinity of developed areas, which could then be  
10 more likely to fuel high-intensity fires.

11 Similarly, energy and mineral development has contributed to human-caused ignitions in the  
12 planning and would do so in the future.

13 As the global effects of climate change continue, the likelihood of natural unplanned  
14 ignitions and large fires within the planning area may increase due to the irregular weather  
15 patterns, increased likelihood of storms, and drought.

#### 16 ***Alternatives Analysis***

17 Under Alternative A, the trends described above would continue to affect wildland fire  
18 management in the planning area.

19 Under Alternative B, restrictions on land uses and development may reduce new sources of  
20 ignition and decrease the risk of human-caused ignitions. However, this alternative may  
21 restrict the ability of the wildland fire management program to suppress and preventatively  
22 treat fires.

23 Under Alternative C, responses to wildfire or appropriate treatments to prevent wildfire may  
24 be prohibited. As a result, there may be changes in fuel levels and management options for  
25 fuels treatments and wildfire suppression. Drought may cause vegetation to be more  
26 vulnerable to wildfires. In addition, the exclusion of livestock grazing on BLM-administered  
27 lands could increase fine fuels and associated risk of wildfire. These cumulative effects would  
28 create a need for greater flexibility in fire suppression, but stringent controls on the wildland  
29 fire management program under Alternative C would inhibit responses to and preventative  
30 treatments for wildfire.

31 Under Alternative D, the emphasis on fire risk reduction in the GRSG habitat and efforts to  
32 coordinate with local and state governments would cumulatively reduce fire risk across all  
33 landownership types in the planning area.

34 Under Alternative E, impacts in Montana are the same as under Alternative A. In Idaho,  
35 guidance to reduce wildfire response time, create fuel breaks, and improve the wildfire  
36 suppression baseline would provide the wildland fire management program with the tools  
37 necessary to manage fuel levels and decrease the risk of catastrophic wildfire in the planning  
38 area.



1 Alternative F places the greatest restrictions on land uses and development. It also includes  
2 the greatest restrictions on the wildland fire management program, limiting wildfire response  
3 options and fire and fuels treatments. As a result, there would be less risk of human-caused  
4 ignition, but the lack of proactive fire prevention activities (e.g., fuels treatments) may mean  
5 that wildfires would be more severe. Drought may cause vegetation to be more vulnerable to  
6 wildfires, exacerbating these effects. The management actions under Alternative F that  
7 inhibit responses to and preventative treatments for wildfire may be insufficient to meet the  
8 growing need for wildland fire management flexibility over the long term.

9 Under the Proposed Plan, interagency coordination and strategic deployment of resources  
10 via the GRSG Fire and Invasive Species Assessments, restrictions on anthropogenic  
11 development in GRSG habitat, and site-specific monitoring and implementation measures  
12 for fire operations and fuels management would result in improved vegetation and reduced  
13 cumulative fire risk in the sub-region.

#### 14 **5.3.4 Livestock Grazing**

15 Past, present, and reasonably foreseeable future actions and conditions that have affected  
16 and will likely continue to affect livestock grazing are those that reduce available grazing  
17 acreage and the level of forage production in those areas or that inhibit livestock  
18 improvements, such as water development or fences.

19 In the planning area, relevant past and present actions include human-caused surface  
20 disturbances, such as those associated with minerals, transmission and energy development,  
21 recreation, and current and historic grazing practices. In addition, changes in habitat due to  
22 historic fire suppression and climate change have resulted in juniper and other trees  
23 encroaching onto grasslands, decreasing available forage.

24 Reasonably foreseeable future actions affecting livestock grazing are similar to the present  
25 actions and include numerous permit/lease renewals, over 75 allotment NEPA  
26 assessments, and additional AMP reviews, as detailed in **Table 5-26**. These actions could  
27 cumulatively reduce permitted AUMs or restrict management options when allotments are  
28 found to be inconsistent with land health standards due to livestock use. Furthermore,  
29 proposed fencing projects may impact ability to distribute livestock. Conversely, the  
30 development of 40 springs and associated pipelines, as well as additional water troughs,  
31 would provide additional watering sources and may allow for better distribution of livestock,  
32 resulting in decreased time and costs for permittees to manage livestock.

33 Cumulative projects that increase human disturbance in grazing areas could also indirectly  
34 impact grazing, by increasing weeds and the spread of invasive species. As stated above,  
35 weed invasion can reduce preferred livestock and wildlife forage and increase the chance of  
36 weeds being dispersed by roaming cattle. Cumulative projects that increase human  
37 disturbance in grazing areas could also directly impact grazing by displacing, injuring, or  
38 killing animals. Such projects include drilling and road construction for mineral development  
39 operations.

1 Conversely, planned vegetation improvement and fuels reduction and restoration projects in  
2 the planning area, as described in **Table 5-26**, may exclude grazing from site-specific areas  
3 temporarily. However, these projects would generally improve rangeland conditions in the  
4 long term by reducing juniper encroaching into grasslands and, potentially, by improving  
5 vegetation condition. In addition to foreseeable actions, vegetation may change due to  
6 continued drought or climate change. While these changes are difficult to quantify, they are  
7 likely to include reduced forage availability.

### 8 ***Alternatives Analysis***

9 The contribution of the project to cumulative impacts would parallel the impacts of the  
10 alternatives, as described in **Section 4.5**, Livestock Grazing/Range Management.

11 Under Alternative A, permitted active use would likely decline to some extent over time,  
12 following observed trends. Alternative A would allow the highest level of surface disturbance  
13 of all alternatives, with the highest cumulative contribution to decrease forage availability in  
14 the planning area.

15 Under Alternative B, while no direct reduction to permitted AUMs would occur, compared  
16 to Alternative A, permitted active use would decline to a greater extent over time. This is  
17 because of the implementation of grazing management changes to meet GRSG habitat  
18 objectives. These include potential grazing management changes and restrictions on  
19 structural improvements and water developments. As a result forage availability may increase  
20 in GRSG habitat, although this forage would generally not be available for livestock use.

21 Surface-disturbing activities would be sited in lower priority habitats and mainly in  
22 nonhabitats, increasing cumulative impacts in these areas.

23 The greatest impacts on livestock grazing in the planning area would be seen under  
24 Alternative C, due to the elimination of all AUMs within occupied habitat. The elimination  
25 of grazing in occupied habitat may reduce livestock grazing overall, both inside and outside  
26 the planning area. Many livestock operations that rely on BLM-administered and National  
27 Forest System lands also incorporate private and leased lands in their operations. Grazing on  
28 private lands is often limited and may not be able to absorb the grazing use that is eliminated  
29 from BLM-administered and National Forest System lands.

30 Eliminating grazing in occupied habitat would likely result in operations going out of  
31 business. In other cases, greater reliance on private lands could also put additional pressure  
32 on forage resources and may accelerate the conversion of private native range at a local level,  
33 potentially including GRSG habitat, to agricultural or introduced grass production.

34 Cumulative impacts under Alternative D are similar to those described under Alternative B.  
35 Impacts from the project would be focused on the highest quality GRSG habitat limit any  
36 impacts of disturbance from development in these areas but may shift disturbance and  
37 related forage loss to nonhabitat on BLM-administered and other lands.



1 The contribution to cumulative impacts on grazing in Alternative E would be slightly  
2 decreased, compared to other action alternatives. This would be due to increased flexibility  
3 in application of restrictions to account for site-specific habitat needs.

4 Under Alternative F, the contribution to cumulative impacts would be similar to that  
5 described under Alternative B. In addition, prohibiting structural range improvements and  
6 new water developments under Alternative F would further decrease grazing in the area for  
7 both BLM-administered lands and in the area overall. This would increase forage availability  
8 but could lead to closures/reductions of grazing should operators go out of business.

9 Under the Proposed Plan, the contribution to cumulative impacts would be similar to that  
10 described under Alternative B and D. Changes to grazing management would be focused on  
11 PHMA, particularly in areas currently not meeting land health standards. On NFS lands  
12 implementation of the grazing use guidelines would have greater impacts to livestock  
13 management on allotments within nesting habitat. This could include the reduction of  
14 AUMs on these allotments over time. Management changes focused on achieving specific  
15 vegetation objectives based on site conditions would improve vegetation and forage  
16 conditions for livestock and wildlife in the long term within GRSG habitat. There would be  
17 potential for development and related forage loss to shift to non-GRSG habitat.

### 18 **5.3.5 Travel and Transportation**

19 Past, present and reasonably foreseeable future actions and conditions that have affected and  
20 will likely continue to affect travel and transportation are the result of management actions  
21 to obtain the following:

- 22 • Limit motorized travel to existing or designated routes
- 23 • Designate types of uses and seasonal restrictions for designated routes
- 24 • Limit the construction or expansion of roads in GRSG habitat

#### 25 ***Alternatives Analysis***

26 Under all alternatives, unauthorized cross-country motorized travel will continue to impact  
27 comprehensive travel and transportation management. Cumulative impacts from cross-  
28 country travel include the creation of new linear features and the need for additional  
29 management, such as enforcement, signs, and education. Unauthorized travel could result in  
30 seasonal or permanent closures of areas or designated routes. Staff in several BLM field  
31 offices and National Forests in the planning area are developing travel management plans to  
32 address the need for closures and designate routes. For example, the Minidoka Ranger  
33 District in the Sawtooth National Forest is decommissioning 30 miles of roads per year as  
34 part of its travel plan (see **Table 5-26**).

35 Under Alternative A, only travel management planning being carried out by BLM Field  
36 Offices and Forest Service Ranger Districts under separate planning efforts would impact  
37 travel management. Currently on National Forest System lands, travel is limited to  
38 designated roads and trails. Under Alternative B, the BLM would additionally limit

1 motorized travel to existing roads and trails in PHMAs, thereby reducing cross-country  
2 access in those areas. Reducing access would be greatest under Alternative C, due to BLM  
3 management that would prohibit new road construction within 4 miles (6.4 km) of active  
4 leks and preclude upgrading of existing routes in PHMAs. Cumulative impacts on travel and  
5 transportation management as a result of the limitations under Alternative C could include  
6 congestion on the existing travel route network in and next to the planning area, particularly  
7 where routes provide access to multiple resource uses.

8 Impacts on travel and transportation management under Alternatives D, F and the Proposed  
9 Plan are the same as under Alternative B, while impacts under Alternative E are the same as  
10 under Alternative A.

11 Reasonably foreseeable trends that would result in cumulative impacts on travel and  
12 transportation are continued growth patterns in demand for OHV recreation experiences,  
13 continued and increased visitation from a growing regional population, and increased  
14 popularity of adjacent BLM-administered and National Forest System lands.

15 The Proposed Plan, which would implement a 3 percent disturbance cap for new surface  
16 disturbing activities, would limit new route construction in a BSU where future disturbance  
17 exceeds the cap. However, proposed RDFs would enhance the long-term condition of  
18 routes available for public and/or permitted use.

### 19 **5.3.6 Lands and Realty**

20 Past, present and reasonably foreseeable future actions and conditions that have affected and  
21 will likely continue to affect lands and realty are land use authorizations, including  
22 foreseeable demand for ROWs associated with transmission lines, roads, and expanded  
23 communication infrastructure (see **Table 5-26**). They also include land tenure adjustments  
24 and withdrawals necessary to meet various public needs.

25 Land use authorizations in the planning area place the largest demand on the BLM-  
26 administered and National Forest System Lands and realty programs. Past authorizations  
27 include those for linear features, such as roads, power lines, and water canals, pipelines, and  
28 site ROW features, such as communication towers and temporary permits for oil and gas  
29 facilities. There will be a steady increase in demand for ROWs to accommodate new power,  
30 water, and telecommunication lines, roadways, pipelines, and communication sites. Two  
31 major realty actions being considered in the sub-region are the Gateway West and Boardman  
32 to Hemingway transmission line projects. These projects would add more than 1,000 miles  
33 (600 km) of new ROWs across southern Idaho. The Proposed Plan identifies the Boardman  
34 to Hemingway line as a high-priority project and considers limited exemptions to the  
35 proposed ROW for the project. Since all but 300 acres of the proposed alignment are within  
36 a designated corridor, exemption from the avoidance designation would apply only those  
37 acres. Cumulative impacts from the development of this line would include increased ability  
38 to accommodate electrical transmission infrastructure demand in the short-term. However,  
39 in the longer-term, placement of the large Boardman to Hemingway line in one of the few  
40 designated corridors managed as open, could exclude future development from occurring in



1 those corridors due to technical (i.e., spacing and design) constraints. On the other hand, if  
2 technically feasible, the developed line could provide an opportunity for the co-location of  
3 future infrastructure to accommodate longer-term demand.

4 Land tenure and landownership adjustments allow the BLM and Forest Service to effectively  
5 manage BLM-administered and National Forest System lands over time. Exchanges may  
6 consolidate BLM-administered and National Forest System lands and improve management  
7 efficiency. Land exchanges are pending in the Bruneau and Challis BLM Field Offices. In the  
8 Bruneau Field Office, the BLM would dispose of 33,000 acres of non-GRSG habitat and  
9 would acquire 38,000 acres of mostly GRSG habitat. In the BLM Idaho Falls District, there  
10 are 235 acres of pending land sales. Management prescriptions that limit land tenure  
11 adjustments could result in cumulative impacts on lands and realty and other resources and  
12 uses.

13 Land withdrawals are used to preserve sensitive environmental values, protect major federal  
14 investments in facilities, support national security, and provide for public health and safety.  
15 There are several pending land withdrawals, for which jurisdiction would be transferred to  
16 the Department of Defense for military use or to Idaho Power as part of a state-wide  
17 Integrated Resource Plan for power development.

#### 18 ***Alternatives Analysis***

19 Impacts on lands and realty across alternatives depend largely on the number of acres where  
20 the BLM or Forest Service would exclude or avoid new ROW development. A prohibition  
21 on ROW development, particularly electrical transmission lines, over a large area would  
22 prevent the BLM and Forest Service from accommodating demand for new ROWs.  
23 Potential ROW applicants could choose to develop on land not administered by the BLM or  
24 Forest Service outside the planning area. This could increase environmental impacts on  
25 sensitive lands and permitting times and decrease the overall effectiveness of the power grid,  
26 telecommunication system, or roadway network. Development on adjacent lands could also  
27 result in indirect effects on BLM-administered and National Forest System lands via  
28 increased vehicle traffic or requests for ROW authorizations for transmission lines.

29 Under Alternative A, the BLM and Forest Service would continue to authorize ROW  
30 development and temporary surface disturbance on a case-by-case basis. There would  
31 continue to be 1,010,900 acres designated as ROW exclusion and 1,903,400 as ROW  
32 avoidance. Land tenure adjustments would be subject to current LUP criteria without further  
33 limitations. As a result, cumulative impacts on lands and realty would occur as new ROWs or  
34 land tenure adjustments are proposed. Alternative A would not affect the BLM's or Forest  
35 Service's ability to accommodate new ROW development or to improve management  
36 efficiency through land tenure decisions or withdrawals.

37 Under Alternatives B, C, D, E, F and the Proposed Plan, BLM and Forest Service  
38 management would include increased levels of ROW restrictions, when compared to  
39 Alternative A. Designations of areas as avoidance or exclusion would not impact existing  
40 ROW authorizations. The ROW restrictions would, however, impact future ROW  
41 authorizations. Alternative C would restrict ROW development the most by designating

1 PHMAs and GHMAs as ROW exclusion. Alternative B would exclude ROW development  
2 in PHMAs, while Alternative D would exclude electrical transmission lines greater than  
3 50kV on 6,135,200 acres. Similar to Alternatives B, C, D, E, and F, the Proposed Plan would  
4 result in more complex project reviews and increased project costs. Management of PHMA  
5 and IHMA as avoidance, combined with GRSG net conservation gain requirements such as  
6 RDFs, buffers, and tall structure limitations, could discourage future development in PHMA  
7 and IHMA. The long-term cumulative effect would entail future ROW/SUA demand being  
8 accommodated in GHMA and non-habitat areas.

9 Limitations on land tenure adjustments, which allow the BLM and Forest Service to sell,  
10 exchange, withdraw, or acquire lands to increase effective management, would be the most  
11 restrictive under Alternative C and the least restrictive under Alternatives A, E, and F.  
12 Alternatives B and D would allow land sales under certain conditions. Under the Proposed  
13 Plan, the BLM and Forest Service could carry out land tenure actions where they would  
14 result in a cumulative net conservation gain to GRSG and its habitat. Land exchanges that  
15 result in a consolidated land ownership pattern would over time increase BLM and Forest  
16 Service management efficiency, including GRSG conservation.

17 National policies to mitigate climate change through the expansion of renewable energy  
18 production could contribute to direct and indirect long-term cumulative impacts on the  
19 lands and realty program and be affected by management under Alternatives B through F  
20 and the Proposed Plan.

21 As part of the 2013 Climate Action Plan, President Obama set a new energy goal of 10 new  
22 gigawatts of new renewable energy permitted on DOI lands by 2020 (The White House  
23 2013). Despite wind energy potential in the planning area being moderate (NREL 2009) and  
24 solar resources being moderate to low (NREL 2005), the President's plan is expected to  
25 increase the demand for renewable energy ROWs.

26 The potential for cumulative impacts on wind energy ROW development in the planning  
27 area would be greatest under Alternative C, which would restrict renewable energy ROW  
28 development in PHMAs and GHMAs. Impacts on wind and solar ROWs under Alternatives  
29 B, D, F and the Proposed Plan would be less than under Alternative C but greater than  
30 under Alternatives A and E. Alternatives A, B, C, F and the Proposed Plan would force wind  
31 energy ROWs outside GRSG habitat, thereby increasing the potential for indirect effects to  
32 wind energy development in the planning areas, such as denial of requests for new  
33 transmission line ROWs and access roads. The Proposed Plan would redirect future wind  
34 energy development outside of PHMA and restrict wind energy development in IHMA.

35 GRSG conservation measures under the Proposed Plan, such as RDFs, lek buffers, tall  
36 structure limitations, mitigation, and a disturbance cap, would cumulatively increase the  
37 project costs and complexity of project reviews. Overtime, new technology could minimize  
38 cost impacts; however, for some projects, the increased costs and mitigation requirements  
39 could preclude development. In any BSU or proposed project analysis area, where future  
40 development results in an exceedance of the disturbance cap, future disturbance, including  
41 ROW development, would be excluded from that BSU or proposed project analysis area.





**5.3.7 Leasable Minerals**

***Fluid Minerals***

Past, present and reasonably foreseeable future actions and conditions within the sub-region that have affected and will likely continue to affect fluid minerals include existing and planned oil and gas development projects on nonfederal mineral estate within the planning area.

***Alternatives Analysis***

The management actions proposed under this LUPA/EIS would cumulatively impact mineral development through surface use restrictions (e.g., closures and NSO, CSU, and TL stipulations). This ultimately would decrease the amount of oil and gas development in the planning area during the planning period. Surface use restrictions, such as NSO restrictions, could also cause an operator to move to nearby private or state land with no such restrictions.

Reasonably foreseeable oil and gas activities that are anticipated to occur in the planning area over the next 20 years include offering parcels of lands in five parts of the planning area for oil and gas leasing (**Appendix O**). Expressions of Interest have been made by the public for lands in the Four Rivers Field Office near Payette; lands near Brown’s Bench/China Mountain primarily in the Jarbidge Field Office; and lands on the Bear Lake Plateau in southeast Idaho (**Appendix O**). Also included in the RFDS analysis are lands on the Caribou National Forest and in the Dillon Field Office, because the RFDSs for those land use plans forecast oil and gas activity. **Table 5-27** shows the number of exploratory and production wells forecast over the next 20 years:

**Table 5-27 Number of Wells and Permanent Disturbance Predicted, by Alternative**

ALTERNATIVE	# Exploratory Wells predicted	# Discovery Wells	# Step-out wells	Total Permanent Disturbance
Alternative A	25 wells	4 wells	12 wells	156 acres
Alternative B	13 wells	2 wells	6 wells	73.5 acres
Alternative C	13 wells	2 wells	6 wells	73.5 acres
Alternative D	23 wells	4 wells	12 wells	156 acres
Alternative E	19 wells	4 wells	10 wells	128.5 acres
Alternative F	13 wells	2 wells	6 wells	73.5 acres
Proposed Plan	15 wells	2 wells	6 wells	63 acres

1 Under Alternative A, it is predicted that up to 25 exploratory wells would be drilled over the  
2 next 20 years in the planning area, and that four well fields would be developed. Fields  
3 would be located in the Four Rivers Field Office area (one field), the Bear Lake area (one  
4 field), and in the Dillon Field Office (two fields). Under Alternatives B, C, and F, no leasing  
5 would occur on the Bear Lake Plateau or in the Jarbidge area, so wells would not be drilled  
6 there, and only half the Dillon Field Office wells would be drilled. Under Alternative D, no  
7 leasing or development would be allowed in low potential areas, including the Jarbidge area.  
8 Under Alternative E, the same number of wells would be drilled as under Alternatives B, C,  
9 and F, but wells in Montana could be drilled. Under the Proposed Plan, only wells in the  
10 Four Rivers Field Office, Caribou National Forest, and half the wells in the Dillon Field  
11 Office would be drilled.

12 Under Alternative A, 83,650 acres with medium development potential (8 percent of the  
13 federal oil and gas estate with medium development potential) would remain closed to oil  
14 and gas leasing, and approximately 400,600 acres of federal oil and gas estate with medium  
15 development potential (41 percent of the federal oil and gas estate with medium  
16 development potential) would remain open to leasing subject to NSO stipulations.  
17 Management under Alternatives B and F would close 344,300 acres with medium potential  
18 (35 percent of the medium potential acres in the decision area), and 330,400 acres with  
19 medium potential would be subject to NSO stipulations.

20 Under Alternative C, 513,700 acres (52 percent) of minerals with medium oil and gas  
21 potential would be closed, and 222,900 acres (22 percent), would be subject to NSO  
22 stipulations. Under Alternative D, 86,000 unleased acres with medium development  
23 potential (10 percent of total unleased acres with medium development potential in the oil  
24 and gas decision area) would be closed to leasing, and 421,800 acres (47 percent) of unleased  
25 areas with medium development potential would be subject to NSO stipulations.

26 Under Alternative E, 86,000 unleased acres with medium development potential (10 percent  
27 of total unleased acres with medium development potential in the oil and gas decision area)  
28 would be closed to leasing. Approximately 550,400 acres (62 percent) of unleased areas with  
29 medium development potential would be subject to NSO stipulations.

30 Under the Proposed Plan, 264,400 acres (27 percent) of minerals with medium oil and gas  
31 potential in the planning area would be closed to leasing, and 373,800 acres (38 percent)  
32 would be subject to NSO stipulations.

33 Of all the alternatives, Alternative C would close the most acres with medium oil and gas  
34 potential to fluid mineral leasing: a 600 percent increase over Alternatives A or E.

### 35 ***Geothermal Resources***

36 Past, present and reasonably foreseeable future actions and conditions that have affected and  
37 will likely continue to affect renewable energy are the construction of existing and proposed  
38 roads and transmission lines. This would increase the routing options and possibly reduce  
39 project construction or implementation costs. GRSG conservation measures would not



1 contribute to cumulative impacts since the above-identified effects would benefit renewable  
2 energy development.

### 3 ***Alternatives Analysis***

4 The management actions proposed under this LUPA/EIS would cumulatively impact  
5 mineral development through surface use restrictions (e.g., closures and NSO, CSU, and TL  
6 stipulations). This ultimately would decrease the amount of geothermal development in the  
7 planning area during the planning period. Surface use restrictions, such as NSO restrictions,  
8 could also cause an operator to move to nearby private or state land with no such  
9 restrictions.

10 Unlike for oil and gas, there are no pending geothermal lease nominations in the planning  
11 area. All the areas discussed in the geothermal RFDS have been leased, so the forecasted  
12 number of wells and acreages disturbed are the same under all the alternatives. All existing  
13 leases in GRSG habitat have stipulations including seasonal restrictions and lek buffers.  
14 While post-lease activities are currently proposed on existing leases at Raft River, they have  
15 valid existing rights. Conditions of Approval will be attached to drilling permits when they  
16 are approved. It is highly likely that COAs that mitigate sage grouse will be included, since  
17 applying COAs to a drilling permit is not a land use planning decision.

#### 18 **5.3.8 Locatable Minerals**

19 Past, present, and reasonably foreseeable future actions and conditions within the cumulative  
20 impact analysis area that have affected and will likely continue to affect locatable minerals are  
21 existing and planned locatable mineral operations within the planning area but outside of the  
22 decision area. Locatable mineral resources are associated with the geological formations or  
23 units they are found within, which are typically localized and do not encompass large areas.  
24 Additionally, not all geological formations contain mineral resources, or mineral resources  
25 could be found only in a portion of a certain geological formation. To provide context for  
26 where interest in locatable mineral development is most likely within the planning area, the  
27 BLM has assessed the locatable mineral occurrence potential throughout the planning area  
28 (see **Section 3.12.1**, Conditions within the Planning Area, Locatable Minerals). Assessment  
29 of locatable mineral occurrence potential in the planning area allows impact analysis to focus  
30 on those areas withdrawn or recommended for withdrawal from locatable mineral entry that  
31 are actually likely to have locatable mineral resources and interest in their development.  
32 While areas outside of the Idaho and Southwestern Montana Sub-region may be  
33 recommended for withdrawal from locatable mineral entry as a result of decisions in other  
34 sub-regional LUPAs, expanding the cumulative impact analysis to include additional sub-  
35 regions would both dilute and inflate the impacts on locatable mineral development.  
36 Expansion of the cumulative impacts analysis area would dilute the impacts because the  
37 acres withdrawn or recommended for withdrawal across the GRSG range under the  
38 proposed plan would be minute compared to the total acreage of the range. On the other  
39 hand, expansion of the cumulative impacts analysis area would inflate the impacts because  
40 many of the acres withdrawn or recommended for withdrawal across the GRSG range do  
41 not actually have locatable mineral resources that would be impacted. While data on  
42 locatable mineral occurrence potential are available for the planning area, similar data are not

1 available across the GRSG range. Therefore, adding up areas withdrawn or recommended  
2 for withdrawal from locatable mineral entry beyond the planning area without accounting  
3 for where such entry is foreseeable would provide a less accurate picture of the cumulative  
4 impacts on locatable mineral development.

### 5 ***Alternatives Analysis***

6 The cumulative impacts analysis area for locatable minerals is the planning area.

7 Less than 250 acres are forecasted to be disturbed in the planning area as a result of locatable  
8 mineral development over the next 20 years. Approximately half this disturbance is predicted  
9 to occur in Cassia County, where Oakley Stone, a micaceous quartzite prized for its  
10 durability as a building stone, is mined. Most of the proposed activity involves expanding the  
11 existing quarries. Several exploratory drilling operations are anticipated in different parts of  
12 the planning area, including on the Salmon-Challis National Forest, Dillon Field Office, and  
13 in the extreme southern part of the Burley Field Office. Alternatives A, D, and E would  
14 continue to manage 5,380,200 acres, 18 percent, of locatable mineral estate in the planning  
15 area as withdrawn from locatable mineral entry. Alternative B would withdraw or  
16 recommend for withdrawal 237,400 acres (10 percent) of minerals in the planning area with  
17 a high likelihood of interest. The increase from Alternative A would represent 8 percent of  
18 the planning area. Alternative C would withdraw or recommend for withdrawal 369,600  
19 acres (16 percent) of minerals in the planning area with a high likelihood of interest. The  
20 increase from Alternative A to Alternative C would represent 14 percent of the planning  
21 area. The Proposed Plan would withdraw or recommend for withdrawal 94,600 acres (5  
22 percent) of minerals in the planning area with a high likelihood of interest. The increase  
23 from Alternative A to the Proposed Plan would represent 3 percent of the planning area.  
24 Alternative C would withdraw or recommend for withdrawal more acres than any other  
25 alternative. Since all areas (250 acres) that are forecast to be disturbed in the next 20 years are  
26 on claims with valid existing rights which are exempt from the proposed withdrawals,  
27 cumulative impacts on locatable minerals are expected to be negligible.

### 28 **5.3.9 Mineral Materials**

29 Past, present and reasonably foreseeable future actions and conditions that have affected and  
30 will likely continue to affect mineral materials include existing and planned mineral material  
31 development projects on nonfederal mineral estate within the planning area. There are five  
32 planned mineral materials projects in the planning area, all of which are on federal minerals.

### 33 ***Alternatives Analysis***

34 The cumulative impacts analysis area for mineral materials is the planning area. It covers  
35 52,000,000 acres total, regardless of surface or mineral ownership. Under Alternative A,  
36 10,707,600 acres in the planning area would remain closed to mineral material disposal (21  
37 percent of the planning area). Under Alternative B, 18,517,500 acres would be closed to  
38 mineral material disposal (36 percent of the planning area). Under Alternative C, 21,102,200  
39 acres (41 percent of the planning area); under Alternative D, 13,202,200 acres (25 percent);  
40 under Alternative E, 10,707,600 acres (21 percent); and under Alternative F, 18,517,500 acres  
41 (36 percent). Under the Proposed Plan, 15,529,000 acres in the sub-region would be closed



1 to mineral material disposal (30 percent of the planning area). Alternative C would close the  
2 most acres to mineral material disposal out of all the alternatives. The increase in closed  
3 acres from Alternative A (which would close the fewest acres) represents 20 percent of the  
4 planning area.

### 5 **5.3.10 Nonenergy Leasable Minerals**

6 Past, present and reasonably foreseeable future actions and conditions that have affected and  
7 will likely continue to affect nonenergy leasable minerals include existing and planned  
8 nonenergy leasable development projects on nonfederal mineral estate. There are three  
9 existing mines currently in operation and four proposed mines in the planning/NEPA  
10 analysis stages. Two proposed mines, at Caldwell Canyon and Trail Creek, have some  
11 GRSG habitat in the proposed disturbance area. An underground mine has been proposed  
12 a few miles west of Paris, Idaho, however the company announced in late 2014 that it was  
13 suspending its development plans for the foreseeable future.

#### 14 ***Alternatives Analysis***

15 The cumulative impacts analysis area for nonenergy leasable minerals is the planning area. It  
16 contains 34,000 acres of unleased known phosphate leasing areas (KPLAs). Since all the  
17 currently proposed mining would occur on existing federal leases, management actions  
18 proposing to close lands under the alternatives would not affect these operations, or any  
19 operations on existing leases, due to valid existing rights. BLM and the Forest Service have  
20 already begun requiring compensatory mitigation for newly proposed mines, and this trend is  
21 expected to continue. Under Alternative E 4,870 acres (14 percent) of unleased minerals in  
22 the planning area within KPLAs, would be closed to nonenergy solid mineral leasing.

23 Under Alternatives B and F, 5,350 acres (16 percent) would be closed; under Alternative C,  
24 5,870 acres (17 percent) would be closed.

25 Of all the alternatives, Alternative C represents the largest closure of unleased KPLAs.  
26 However, the increase in acres closed compared with Alternatives A, D, and E and the  
27 Proposed Plan (which would have the fewest acres closed) would make up only three  
28 percent of the total KPLAs in the planning area.

### 29 **5.3.11 Special Designations**

30 Past, present and reasonably foreseeable future actions and conditions that have affected and  
31 will likely continue to affect ACECs include any action that would impact the relevant and  
32 important values for which the ACEC is established (e.g., GRSG habitat health). Such  
33 actions include surface-disturbing activities, wildfires, increased recreation demands, and  
34 climate change.

35 Cumulative impacts on existing ACECs under the various alternatives could result from  
36 non-BLM actions and decisions on lands next to ACECs. While protections exist within the  
37 ACECs, population growth, development, and recreation throughout the planning area  
38 could, over time, encroach on these areas. This could degrade the ACEC values, such as  
39 unauthorized off-route travel and trash dumping and increased noise and air and light

1 pollution. Other impacts include species displacement, habitat fragmentation, and changes to  
2 the visual landscape that could affect resources within ACECs. Impacts are greater where  
3 recreation areas or development are next to an ACEC.

4 There are several ROW road applications and new transmission lines pending within the  
5 planning area. If these roads, transmission lines, or facilities were to run through, or be next  
6 to, any of the ACECs, this could damage the relevant and important values for which these  
7 ACECs are designated. Future road ROW applications, transmission line construction, and  
8 energy development in the planning area could cumulatively impact existing ACECs.  
9 Examples of long-term impacts on the ACEC from these activities are noise, heavy vehicle  
10 traffic, and dust.

11 Climate change could also pose a long-term threat of cumulative impacts on the relevant and  
12 important values of ACECs. Cumulative impacts on GRSG habitat and, consequently, on  
13 the ACEC from climate change are vegetation regime changes (e.g., from sagebrush to  
14 grasslands) and increased wildfire potential due to drought (Connelly et al. 2004).

### 15 ***Alternatives Analysis***

16 All action alternatives and the Proposed Plan would restrict such activities as ROW  
17 development, grazing, mineral entry, and new road construction, which could provide  
18 indirect protections to ACECs. However, existing and future ROWs, oil and gas  
19 development, and travel routes could result in cumulative impacts on ACECs.

20 ACECs for which GRSG is an important and relevant value could experience more  
21 protections and could have more restrictions on resource uses and surface-disturbing  
22 activities than ACECs that do not identify GRSG as an important and relevant value. No  
23 existing ACECs identify GRSG as an important and relevant value, and under Alternatives C  
24 and F, new ACECs (and ZAs under Alternative F) would be created for the important and  
25 relevant value of GRSG. The ACECs under Alternatives C and F (and ZAs under  
26 Alternative F) would be less likely to experience cumulative degradation to their important  
27 and relevant values due to management actions focused on GRSG conservation.

28 The BLM would adaptively manage to protect ACEC values and minimize impacts where  
29 applicable and feasible.

### 30 **5.3.12 Lands with Wilderness Characteristics**

31 Past, present, and reasonably foreseeable future actions and conditions that have affected  
32 and will likely continue to affect lands with wilderness characteristics are wildfires, wildland  
33 fire management, energy development, mining, noxious weed invasion, increased recreation  
34 demand, and road construction.

35 Many past, present, and reasonably foreseeable actions have impacted or could impact lands  
36 with wilderness characteristics. For example, continued travel management and recreation  
37 development in the planning area will likely increase visitor use on BLM-administered lands,  
38 including lands with wilderness characteristics. This could impact wilderness characteristics



1 by reducing opportunities for solitude. Development of energy and minerals resources could  
2 introduce sights, noises, and infrastructure in or next to lands with wilderness characteristics,  
3 which could impair the feeling of solitude and degrade naturalness. In addition, vegetation  
4 management on public and private lands could alter landscape appearance and setting in the  
5 short and long term, protecting or degrading wilderness characteristics, depending on the  
6 activity. Cumulative impacts on lands with wilderness characteristics would be mitigated  
7 where management actions governing other resources threaten wilderness characteristics.

### 8 ***Alternatives Analysis***

9 Cumulative impacts would be most likely to damage lands with wilderness characteristics  
10 under Alternative A. This is because the fewest restrictions on present and future resource  
11 uses are in place under this alternative. Management under the action alternatives and the  
12 Proposed Plan would protect wilderness characteristics to some degree by restricting  
13 development and land uses that could degrade the characteristics. Such restrictions would  
14 indirectly limit cumulative impacts on wilderness characteristics. Alternatives C and F place  
15 broader and more stringent restrictions on allowable uses of resources in GRSG habitat.  
16 Consequently, these alternatives would provide more indirect protections to lands with  
17 wilderness characteristics and would be less likely to have cumulative impacts that would  
18 degrade those characteristics.

### 19 **5.3.13 Social and Economic Conditions (Including Environmental Justice)**

20 The cumulative impact analysis area used to analyze potential impacts on social and  
21 economic conditions consists of the counties identified as the primary and secondary  
22 socioeconomic study area.

23 Virtually every major government action has some influence on social and economic  
24 conditions, as government actions have the power to create or alter incentives for numerous  
25 individuals and businesses that make choices that affect employment, earnings, population  
26 demographics, and other variables of concern for social and economic conditions. Past,  
27 present, and reasonably foreseeable future actions and conditions have affected and will  
28 likely continue to affect social and economic conditions, including livestock grazing,  
29 recreation, lands and realty, transportation, ROWs, renewable energy development, and  
30 mineral development. Changes to social and economic conditions result when individuals,  
31 businesses, governments, and other organizations initiate actions. Over the next several  
32 decades, millions of decisions will be made by tens of thousands of residents of the counties  
33 in the socioeconomic study area and others that will affect trends in employment, income,  
34 housing, and property.

35 Projections published by the Idaho Department of Labor and the Montana Department of  
36 Labor and Industry account for these individual decisions in the aggregate, and provide a  
37 baseline for comparing effects of alternatives in the future. The projections represent a  
38 regional forecast taking a wide range of actions into account, including management actions  
39 by the BLM and Forest Service as well as many other government entities, private citizens,  
40 and businesses. As a result, these projections incorporate the past, present, and reasonably  
41 foreseeable future projects that will form the basis of future economic and social trends in

1 the cumulative impact analysis area. Current and future trends in the cumulative impact  
2 analysis area include population growth, demographic change, changes in recreational  
3 demand and availability of recreational opportunities, renewable energy development,  
4 livestock grazing, housing development policies, mining, and other activities.

5 The Idaho Department of Labor provides employment projections from 2010 to 2020, for  
6 six regions across the state. Four overlap with the study area:

- 7 • Southwest Idaho (includes primary study area counties of Adams, Elmore, Gem,  
8 Owyhee, Payette, and Washington; secondary study area counties of Ada, Boise,  
9 and Canyon; and also Valley County) – projected increase of 18.6 percent
- 10 • South-Central Idaho (includes primary study area counties of Blaine, Camas,  
11 Cassia, Gooding, Jerome, Lincoln, Minidoka and Twin Falls, all of which are in  
12 the primary study area) – projected increase of 19.7 percent
- 13 • Southeast Idaho (includes primary study area counties of Bear Lake, Bingham,  
14 Caribou, Oneida and Power; Bannock County in the secondary study area; and  
15 also Franklin County) – projected increase of 14.4 percent
- 16 • Eastern Idaho (includes primary study area counties of Bonneville, Butte, Clark,  
17 Custer, Fremont, Jefferson, Lemhi, and Madison counties, all of which are in the  
18 primary study area, and also Teton County) – projected increase of 15.9 percent  
19 (Idaho Department of Labor, 2013)

20 Similarly, the Montana Department of Labor and Industry projects employment growth in  
21 upcoming years, with the current projections reflecting forecasted conditions in 2020, for  
22 five regions in the state. The relevant region for this EIS is the Southwest Region, which  
23 contains Beaverhead and Madison (in the primary study area), Gallatin and Silver Bow (in  
24 the secondary study area), and nine other counties: Deer Lodge, Granite, Park, Powell, Lewis  
25 and Clark, Broadwater, Sweetgrass, Meagher, and Jefferson. From 2011 to 2020, the  
26 Montana Department of Labor and Industry projected employment in that region to  
27 increase about 11 percent (Montana Department of Labor and Industry 2011).

28 To provide information about the cumulative impacts of the alternatives in this draft  
29 LUPA/EIS, the BLM compared the projected employment differences associated with the  
30 alternatives with the forecasts of the Idaho and Montana labor agencies as described above.  
31 As described in **Section 4.15**, the only employment and income effects of the management  
32 alternatives that were quantified were those on livestock grazing, where BLM and Forest  
33 Service used IMPLAN, a regional economic model, to calculate indirect and induced impacts  
34 of these actions.

35 **Table 5-28** provides an overview of how forecasted changes in employment from the  
36 alternatives would occur within the context of the ten-year trend of employment to 2020.  
37 Because Alternative A represents current management plans, employment would correspond  
38 most closely to the existing forecasts. By contrast, employment under Alternatives C and F





1 would be expected to change from the projections, based on anticipated impacts on  
 2 livestock grazing. **Table 5-28** shows the estimated change in employment for these  
 3 alternatives, based on modifying the projected future employment by the estimated changes  
 4 for the socioeconomic study area (from IMPLAN). The table focuses on the primary  
 5 socioeconomic study area because the great majority of impacts occur in that area, and  
 6 adding the secondary study area would effectively dilute the magnitude of impacts by adding  
 7 a large employment base (especially from more urban counties) without adding substantially  
 8 to the impacts.

**Table 5-28**  
**Projected Employment by Alternative for Primary Socioeconomic Study Area**

Item	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Proposed Plan
Employment (2010) <sup>1</sup>	309,620	309,620	309,620	309,620	309,620	309,620	309,620
Average annual change in future employment related to livestock grazing <sup>2</sup>	N/A	0	-1,420	0	0	-310	0
Projected 2020 employment <sup>3</sup>	356,063	356,121	354,643	356,343	356,343	355,753	356,343
% change, 2010 to 2020	15.0%	15.0%	14.5%	15.1%	15.1%	14.9%	15.1%

Source: Idaho Department of Labor (2013) and Montana Department of Labor and Industry (2011) (projected employment data), modified by estimates from IMPLAN reported in **Chapter 4, Section 4.15**, Social and Economic Impacts (Including Environmental Justice). Changes related to livestock grazing include direct, indirect, and induced effects from IMPLAN; see **Appendix R**, Economic Impact Analysis Methodology, for a detailed description of this model.

N/A not applicable

<sup>1</sup> Employment in 2010 in the primary socioeconomic study area from **Chapter 3, Section 3.22**, Social and Economic Conditions (Including Environmental Justice).

<sup>2</sup> The values for livestock grazing are those shown in **Chapter 4, Section 4.15**, Social and Economic Impacts (Including Environmental Justice).

<sup>3</sup> Based on the projected employment increase for the four Idaho regions and southwest Montana, a conservative (i.e., lower range) estimate for employment growth would be about a 15 percent increase from 2010 to 2020. This results in an estimate of about 356,063 jobs (for Alternative A), which is then modified based on the results of the IMPLAN analysis for each alternative.

9  
 10 Changes in employment in Alternatives C and F, would have a measurable effect on future  
 11 employment, according to this analysis, but reductions would be relatively small given the  
 12 size of the study area and the uncertainty associated with a long-term forecast. Long-term  
 13 trends including changing market conditions, consolidation supported by economies of  
 14 scale, demographic change, and environmental concerns have resulted in increasingly  
 15 challenging economic conditions for ranch operators, especially smaller operators. Increased  
 16 costs due to restrictions on vegetation treatments, range improvements, and other  
 17 management elements could exacerbate existing trends and create additional, cumulative  
 18 impacts for the livestock grazing and ranching sector. This could have economic impacts  
 19 over and above those identified in **Table 5-28** and could also result in social impacts since  
 20 the grazing and ranching industry has been relatively influential in terms of establishing  
 21 community character, identity, and social values, particularly in certain areas within the study  
 22 area. In terms of geographic regions, the cumulative effects on livestock grazing operators

1 would occur throughout the socioeconomic study area but would be most important in  
2 Cassia, Gooding, Jerome, Lincoln, and Owyhee Counties, Idaho, based on the importance of  
3 grazing within the economy of those counties.

4 Of the effects documented in **Section 4.15**, Social and Economic Conditions (Including  
5 Environmental Justice), the impact that most exacerbates current economic challenges is the  
6 potential for several of the management alternatives to result in increased costs for livestock  
7 grazing operators. Long-term trends including changing market conditions, consolidation  
8 supported by economies of scale, demographic change, and environmental concerns have  
9 resulted in increasingly challenging economic conditions for ranch operators, especially  
10 smaller operators.

11 Increased costs due to restrictions on vegetation treatments, range improvements, OHV  
12 travel, and other management elements could exacerbate existing trends and create  
13 additional, cumulative impacts for the livestock grazing and ranching sector. This could have  
14 economic impacts over and above those identified in Error! Reference source not  
15 found. **Table 5-28** and could also result in social impacts since the grazing and ranching  
16 industry has been relatively influential in terms of establishing community character, identity,  
17 and social values, particularly in certain areas within the study area.

18 All of the alternatives would have some degree of cumulative social and economic impact  
19 related to grazing. Although AUMs would be reduced only in Alternatives C and F,  
20 Alternatives B, D and E would also entail changes to management that could increase costs  
21 or decrease the flexibility of ranchers to manage their animals.

22 In terms of geographic regions, the cumulative effects on livestock grazing operators would  
23 occur throughout the socioeconomic study area but would be most important in Cassia,  
24 Gooding, Jefferson, Lincoln, and Owyhee Counties, Idaho, based on the importance of  
25 grazing within the economy of those counties.

26 Another effect identified in **Section 4.15** that could lead to a cumulatively considerable  
27 contribution to impacts would be impacts on recreation (in Alternatives C and F), especially  
28 in counties where recreation contributes substantially to the local economy, which are  
29 identified in **Section 4.15** as Madison County in Montana and Blaine County in Idaho.

30 Other effects would not be expected to contribute to cumulative effects. From a cumulative  
31 effects standpoint the economic and social impacts of these changes would be relatively  
32 minor and do not particularly exacerbate existing trends in the study area.



# Chapter 6

## Consultation and Coordination



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Administrative Draft  
Cooperating Agency Review

1 **Changes to Chapter 6 between Draft LUPA/EIS and Proposed LUPA/Final EIS**

- 2
- 3
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- 8
- Chapter 5 in the DEIS was renumbered to become Chapter 6 in the Proposed LUPA/FEIS.
  - General corrections (e.g., typographical errors) and clarifications were included.
  - A summary of the public comment period and public comments on the Draft LUPA/EIS was added in **Section 6.2.5**, Public Comment on the Draft LUPA/EIS.
  - Future opportunity for public involvement was added in **Section 6.2.6**, Future Public Involvement.

Administrative Draft  
Cooperating Agency Review

1           **Chapter 6.    Consultation and Coordination**

2           **6.1     Introduction**

3           This chapter describes the efforts undertaken by the BLM and Forest Service throughout the  
4           process of developing the LUPA/EIS to ensure the process remained open and inclusive to  
5           the extent possible. This chapter also describes efforts taken to comply with legal  
6           requirements to consult and coordinate with various government agencies. These efforts  
7           include public scoping; identifying and designating cooperating agencies; consulting with  
8           state, local, and tribal governments; and determining whether the LUPA/EIS is consistent  
9           with tribal, state, local, and county plans.

10          The BLM and Forest Service land use planning activities are conducted in accordance with  
11          NEPA requirements, CEQ regulations, and US Departments of the Interior and Agriculture  
12          policies and procedures implementing NEPA, as well as specific BLM and Forest Service  
13          planning and NEPA policies. The NEPA and associated laws, regulations, and policies  
14          require the BLM and Forest Service to seek public involvement early in and throughout the  
15          planning process to develop a range of reasonable alternatives to proposed actions and to  
16          prepare environmental documents that disclose the potential impacts of proposed  
17          alternatives.

18          Public involvement and agency consultation and coordination have been at the heart of the  
19          planning process leading to this LUPA/EIS. These efforts were achieved through Federal  
20          Register notices, public and informal meetings, individual contacts, media releases, planning  
21          bulletins, and a series of GRSG planning-related Web sites. This chapter documents the  
22          outreach efforts that have occurred to date.

23          **6.2     Public Involvement**

24          In accordance with CEQ scoping guidance, the BLM and Forest Service provided  
25          opportunities for public involvement as an integral part of amending the LUPs and  
26          preparing the EIS. CEQ scoping guidance (1981) defines scoping as the process by which  
27          lead agencies solicit input from the public and interested agencies on the nature and extent  
28          of issues and impacts to be addressed and the methods by which they will be evaluated. The  
29          scoping comment summary report, which summarizes comments received during the  
30          scoping process, is available on the BLM's National GRSG Web site at  
31          [http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents\\_and\\_resources.html](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html).

32          The intent of the scoping process is to provide an opportunity for the public, tribes, other  
33          government agencies, and interest groups to learn about the project and provide input on  
34          the planning issues, impacts, and potential alternatives that will be addressed in the EIS, and  
35          the extent to which those issues will be analyzed. In general, public involvement during  
36          scoping assists the agency through the following:

- 37                   •   Broadening the information base for decision-making

- 1 • Informing the public about the EIS and proposed LUPAs and the potential  
2 impacts associated with various management decisions
- 3 • Ensuring public needs and viewpoints are brought to the attention of the agency
- 4 • Determining the scope and the significant issues to be analyzed in depth in the  
5 EIS

### 6 **6.2.1 Scoping Period**

7 The scoping period for the Idaho and Southwestern Montana Sub-region LUPA/EIS began  
8 with the publication of the NOI in the Federal Register on December 9, 2011, and ended on  
9 March 23, 2012. The scoping period provides an opportunity for the public to identify  
10 potential planning issues and concerns associated with the LUP amendments and EIS.  
11 Information obtained by the BLM and Forest Service during scoping is combined with  
12 issues identified by the agencies to form the scope of the EIS.

### 13 **6.2.2 Public Notification of Scoping**

14 A press release was made available on the national, Great Basin Region, and Rocky  
15 Mountain Region Web sites on December 8, 2011, announcing the scoping period for the  
16 EIS process. A similar press release was also sent out from the BLM Idaho State Office on  
17 January 5, 2012. The press releases provided information on the scoping open houses being  
18 held (see *Public Scoping Open Houses* below) and described the various methods for submitting  
19 comments. A second press release was posted on the project Web sites on February 7, 2012,  
20 announcing the extension of the public scoping period to March 23, 2012. A newsletter was  
21 also sent out to the mailing list as described below (see Newsletter and Mailing List).

22 In addition to news releases and other notifications from the BLM and Forest Service  
23 regarding the scoping process, some members of the public received notification from other  
24 sources. Several articles were published in local newspapers, including in the Times New on  
25 January 28, 2012, and the Idaho Mountain Express on February 29, 2012.

26 The national GRSG conservation Web site (see Web site below) provides background  
27 information on the project, a description of the scoping process and meeting locations,  
28 instructions on how to submit comments, and copies of public information documents such  
29 as the NOI. The Web site is one of the methods used to communicate project news and  
30 updates to the public. The Web site is available on the Internet at  
31 <http://www.blm.gov/sagegrouse.html>.

### 32 **6.2.3 Public Scoping Open Houses**

33 The BLM and Forest Service hosted six open houses throughout the Idaho and  
34 Southwestern Montana Sub-region to provide the public with opportunities to become  
35 involved, learn about the project and the planning process, meet the planning team  
36 members, and offer comments. Where possible, representatives from the USFWS and state  
37 fish and game agencies also attended. The open houses were advertised via press releases,  
38 the project newsletter, and the project Web sites. The locations of the open houses are  
39 provided in **Table 6-1**, Idaho and Southwestern Montana Sub-region Scoping Open Houses.

**Table 6-1**  
**Idaho and Southwestern Montana Sub-region Scoping Open Houses**

Location	Venue	Date	Number of Attendees
<b>Idaho</b>			
Boise	Red Lion Boise Hotel	January 9, 2012	110
Idaho Falls	Red Lion Hotel	January 10, 2012	63
Salmon	Salmon Valley Business & Innovation Center	January 11, 2012	63
Twin Falls	Canyon Springs Red Lion Inn	January 25, 2012	87
Pocatello	The Clarion	January 26, 2012	58
<i>Idaho Total</i>			<i>381</i>
<b>Montana</b>			
Dillon	National Guard Armory	January 12, 2012	47
<i>Montana Total</i>			<i>47</i>
<b>Idaho and Southwestern Montana Sub-region Total</b>			<b>428</b>

Scoping meetings were held in an open house format to encourage participants to discuss concerns and questions with the BLM and Forest Service and other agency staff representatives. Copies of scoping information, as well as blank scoping comment forms, were available at the sign-in station. Resource stations displayed maps to illustrate the planning area under consideration, GRSG habitat and bird densities, resource uses (e.g., rights-of-way, energy, livestock grazing, and recreation), and resource conditions (e.g., vegetation and wildland fire). At those stations, fact sheets for various topics (e.g., planning process, purpose and need, preliminary planning issues, preliminary planning criteria, GRSG conservation, biology and habitat, and threats to GRSG) provided an overview of current management practices and issues.

#### 6.2.4 Other Public Involvement

##### *Newsletter and Mailing List*

In December 2011, the BLM and Forest Service mailed a newsletter announcing the start of the public scoping period for the Great Basin EISs, including the Idaho and Southwestern Montana Sub-region, to more than 14,000 individuals from the public, agencies, and organizations who had participated in past BLM and Forest Service activities and had been included on past BLM and Forest Service distribution lists. The newsletter provided background information and an overview of the National GRSG Planning Strategy, the dates and venues for the scoping open houses (see Public Scoping Open Houses above), and the various methods for submitting comments, including dedicated email and postal addresses. In December 2012, the BLM and Forest Service mailed a postcard providing a notification of updates to the national Web site.

The BLM and Forest Service will publish future newsletters at major project milestones and will mail them to individuals and organizations that have requested to remain on or be added



1 to the project mailing list. All newsletters will be made available on the national or regional  
2 project Web sites. Participants may request to receive newsletters and other project  
3 information through electronic or postal mail.

#### 4 **Web Site**

5 The BLM launched a national GRSG conservation Web site as part of the agency's efforts to  
6 maintain and restore GRSG habitat on BLM-administered lands. The site is intended to  
7 make it easy to find out about how the BLM and Forest Service are working on maintaining  
8 and restoring GRSG habitat, and includes background information related to governmental  
9 and the BLM and Forest Service roles in GRSG conservation. The Web site is available on  
10 the Internet at <http://www.blm.gov/sagegrouse.html>.

11 The BLM has also launched a regional Web site for the Great Basin Region. This site is  
12 regularly updated to provide the public with the latest information about the EIS processes  
13 in the region. The regional Web site provides background information about the project, a  
14 public involvement timeline, maps of the planning areas, and copies of public information  
15 documents such as the newsletter and NOI. The site also provides a description of how to  
16 submit comments about the EIS process, including a link to the scoping comment email  
17 address. The dates and locations of scoping open houses were also announced on the  
18 regional Web site. The Great Basin Region Web site is available on the Internet at  
19 <http://www.blm.gov/wo/st/en/prog/more/sagegrouse/western.html>. A link to this Web  
20 site is also provided on the National Web site.

### 21 **6.2.5 Public Comment on the Draft LUPA/EIS**

#### 22 **Public Meetings**

23 A Notice of Availability (NOA) for the Draft LUPA/EIS was published in the Federal  
24 Register on November 1, 2013. The NOA initiated a 90-day public comment period, which  
25 ended on January 29, 2014. The BLM and Forest Service notified the public of open house  
26 meetings via the project Web site and a news release to various media sites including  
27 newspapers, radio, and television.

28 The BLM and Forest Service held seven public comment open houses for the Draft LUPA/EIS  
29 from January 6 through January 15, 2014:

- 30 • Murphy, ID- January 6, 2014
- 31 • Idaho Falls, ID, January 7, 2014
- 32 • Salmon, ID, January 8, 2014
- 33 • Dillon, MT, January 9, 2014
- 34 • Pocatello, ID, January 13, 2014
- 35 • Twin Falls, ID, January 14, 2014
- 36 • Boise, ID, January 15, 2014

1 All meetings were from 5:30 to 7:30 PM. The goal of the open houses was to inform the public  
2 about the Draft LUPA/EIS and to obtain further public input on the alternatives that were  
3 developed and analyzed. In addition, the BLM and Forest Service sought comments on potential  
4 impacts resulting from the six alternatives. At the open houses, displays introduced the various  
5 resource topics and presented the six alternatives for the resource topics. Other displays  
6 explained the NEPA process and the methods for submitting comments. A slide show  
7 looped throughout the open house describing the Idaho and Southwestern Montana Sub-  
8 region Greater Sage-Grouse Draft LUPA/EIS preparation process.

9 Public comments were solicited at the open houses, where comment sheets were provided.

### 10 ***Comment Analysis Methodology***

11 After publishing the Draft LUPA/EIS, the BLM and Forest Service held a 90-day public  
12 comment period to receive comments on the Draft LUPA/EIS. The BLM and Forest  
13 Service received written comments by mail, email, and submissions at the public meetings.  
14 Comments covered a wide spectrum of thoughts, opinions, ideas, and concerns. The BLM  
15 and Forest Service recognize that commenters invested considerable time and effort to  
16 submit comments on the Draft LUPA/EIS, and developed a comment analysis  
17 methodology to ensure that all comments were considered as directed by NEPA regulations.

18 According to NEPA, the BLM and Forest Service are required to identify and formally  
19 respond to all substantive public comments. The BLM and Forest Service developed a  
20 systematic process for responding to comments to ensure all substantive comments were  
21 tracked and considered. Upon receipt, each comment letter was assigned an identification  
22 number and logged into CommentWorks, a Web-based database that allowed the BLM and  
23 Forest Service to organize, categorize, and respond to comments. Substantive comments  
24 from each letter were coded to appropriate categories based on content of the comment,  
25 retaining the link to the commenter. The categories generally follow the sections presented  
26 in the Draft LUPA/EIS, though some relate to the planning process or editorial concerns.

27 Comments similar to each other were grouped under a topic heading, and the BLM and  
28 Forest Service drafted a statement summarizing the ideas contained in the comments. The  
29 responses were crafted to respond to the comments; a response indicates whether or not the  
30 commenters' points resulted in a change in the document. As a result of public comments,  
31 changes were made to the Draft LUPA/DEIS and reflect consideration given to public  
32 comments. A summary of major changes between the Draft LUPA/EIS and the Proposed  
33 LUPA/FEIS can be found prior to each Chapter in the Proposed LUPA/FEIS.

34 Although each comment letter was diligently considered, the comment analysis process  
35 involved determining whether a comment was substantive or nonsubstantive in nature. In  
36 performing this analysis, the BLM and Forest Service relied on the CEQ's regulations to  
37 determine what constituted a substantive comment.

1 A substantive comment does one or more of the following:

- 2 • Questions, with a reasonable basis, the accuracy of the information and/or  
3 analysis in the EIS
- 4 • Questions, with a reasonable basis, the adequacy of the information and/or  
5 analysis in the EIS
- 6 • Presents reasonable alternatives other than those presented in the draft EIS that  
7 meet the purpose and need of the proposed action and addresses significant  
8 issues
- 9 • Questions, with a reasonable basis, the merits of an alternative or alternatives
- 10 • Causes changes in or revisions to the proposed action
- 11 • Questions, with a reasonable basis, the adequacy of the planning process itself

12 Additionally, BLM's NEPA handbook identifies the following types of substantive  
13 comments:

- 14 • Comments on the Adequacy of the Analysis: Comments that express a  
15 professional disagreement with the conclusions of the analysis or assert that the  
16 analysis is inadequate are substantive in nature but may or may not lead to  
17 changes in the Final EIS. Interpretations of analyses should be based on  
18 professional expertise. Where there is disagreement within a professional  
19 discipline, a careful review of the various interpretations is warranted. In some  
20 cases, public comments may necessitate a reevaluation of analytical conclusions.  
21 If, after reevaluation, the manager responsible for preparing the EIS (the  
22 Authorized Officer) does not think that a change is warranted, the response  
23 should provide the rationale for that conclusion.
- 24 • Comments That Identify New Impacts, Alternatives, or Mitigation Measures:  
25 Public comments on a draft EIS that identify impacts, alternatives, or mitigation  
26 measures that were not addressed in the draft are substantive. This type of  
27 comment requires the Authorized Officer to determine whether it warrants  
28 further consideration. If it does, the Authorized Officer must determine whether  
29 the new impacts, new alternatives, or new mitigation measures should be  
30 analyzed in the Final EIS, a supplement to the Draft EIS, or a completely revised  
31 and recirculated Draft EIS.
- 32 • Disagreements with Significance Determinations: Comments that directly or  
33 indirectly question, with a reasonable basis, determinations regarding the  
34 significance or severity of impacts are substantive. A reevaluation of these  
35 determinations may be warranted and may lead to changes in the Final EIS. If,  
36 after reevaluation, the Authorized Officer does not think that a change is  
37 warranted, the response should provide the rationale for that conclusion.

38 Some submissions received contained substantive comments, but were out of the scope of  
39 this project. These included comments on subjects not related to this effort, other GRSG

1 efforts, or BLM or Forest Service laws, rules, regulations, or policy. These comments were  
2 reviewed and sent along to the appropriate party as needed, but are not included in the  
3 comment response for this effort.

4 Comments that failed to meet the above description were considered nonsubstantive. Many  
5 comments received throughout the process expressed personal opinions or preferences, had  
6 little relevance to the adequacy or accuracy of the Draft LUPA/EIS, or represented  
7 commentary regarding resource management without any real connection to the document  
8 being reviewed. These comments did not provide specific information to assist the planning  
9 team in making a change to the Preferred Alternative, did not suggest other alternatives, and  
10 did not take issue with methods used in the Draft LUPA/EIS, and are not addressed further  
11 in this document. Examples of some of these comments include the following:

- 12 • The best of the alternatives is Alternative F (or A, B, C, D or E).
- 13 • The BLM has yet to show land stewardship at or above the level currently  
14 demonstrated by the private sector.
- 15 • Your plan does not reflect balanced land management.
- 16 • Stop giving away land to the mineral companies.
- 17 • More land should be protected as wilderness.
- 18 • I want the EIS to reflect the following for this area: no grazing, no logging, no  
19 drilling, no mining, and no OHVs.
- 20 • You need to protect all ACECs/Wild and Scenic Rivers/areas with wilderness  
21 characteristics.
- 22 • Do not add any more road closures to what is now in existence.
- 23 • People need access and the roads provide revenue for local communities.
- 24 • More areas should be made available for multiple uses (drilling, OHVs, ROWs,  
25 etc.) without severe restrictions.

26 Opinions, feelings, and preferences for one element or one alternative over another, and  
27 comments of a personal and/or philosophical nature were all read, analyzed, and considered,  
28 but because such comments are not substantive in nature, the BLM and Forest Service did  
29 not respond to them. It is also important to note that, while all comments were reviewed and  
30 considered, comments were not counted as “votes.” The NEPA public comment period is  
31 neither considered an election nor does it result in a representative sampling of the  
32 population. Therefore, public comments are not appropriate to be used as a democratic  
33 decision-making tool or as a scientific sampling mechanism.

34 Comments citing editorial changes to the document were reviewed and incorporated. The  
35 Final LUPA/EIS has been extensively technically edited and revised to fix typos, missing  
36 references, definitions, and acronyms, and other clarifications as needed.

**Public Comments**

A total of 297 unique comment letters, forms, and emails were received during the 90-day public comment period. These documents resulted in 1,085 substantive comments. Out of the 297 comment letters, 193 were submitted by private individuals (65 percent); 29 by organizations, including businesses and environmental and wildlife protection groups (10 percent); 54 by associations, including user groups, recreational clubs, realty associations, industry groups, and partnerships (18 percent); 4 by federal agencies (1 percent); 3 by state governments (1 percent); 12 by local governments (4 percent); and 2 letters were submitted anonymously (1 percent). The BLM and Forest Service parsed 1,085 substantive comments from the 297 submissions. Private individuals submitted 111 of these comments (10 percent), 408 were submitted by organizations (38 percent), 382 were submitted by associations (35 percent), 59 were submitted by federal agencies (5 percent), 53 were submitted by state agencies (5 percent), 72 were submitted by local governments (7 percent), and no substantive comments came from anonymous submission (see **Table 6-2**, Number of Unique Submissions and Commenters by Affiliation).

<b>Group</b>	<b>Number of Submissions</b>	<b>Number of Comments</b>
Private individuals	193	111
Organizations (including businesses and environmental and wildlife protection groups)	29	408
Associations (user groups, recreational clubs, realty associations, industry groups, partnerships, etc.)	54	382
Federal agencies (EPA, USFWS, USFS, NPS)	4	59
State government (state agencies, Governor's Office)	3	53
Local government (county commissions and departments)	12	72
Anonymous	2	0
<b>Total</b>	<b>297</b>	<b>1,085</b>

In addition to the unique submissions discussed above, 15,646 form letters were submitted during the public comment period. Form letters are exact or very close copies of a letter that are submitted multiple times by different individuals; individuals may add additional language to the letter, but this usually does not substantially change the content of the letter. Often, form letters are created by an organization and sent to their members, who in turn submit this letter to the planning effort. For the Idaho and Southwestern Montana Draft LUPA/EIS, 6 different form letter masters were submitted: 2,930 letters from WildEarth Guardians; 2,510 letters from the American Bird Conservancy; 2,080 letters from Defenders of Wildlife; 7,660 letters from the American Wild Horse Preservation Campaign; 126 letters from local ranchers; and 5 letters from unknown organizations. One copy of each of these letters was included in the comment analysis process as a master form letter. All of the form letters were reviewed for additional substantive content; this was included in the comment analysis process when present.

1 A review of the 1,085 substantive comments received revealed a high level of interest about  
 2 the management of GRSG (346 comments, 32 percent), compliance with NEPA, FLPMA,  
 3 and other laws (NEPA: 136 comments, 13 percent; other laws: 15 comments, 1 percent; and  
 4 FLPMA: 28 comments, 3 percent), livestock grazing (120 comments, 11 percent), sagebrush  
 5 vegetation (47 comments, 4 percent), socioeconomics (39 comments, 4 percent), and lands  
 6 and realty (35 comments, 3 percent). Topics that received moderate interest were fire and  
 7 fuels (27 comments, 2 percent), leasable minerals (26 comments, 2 percent), travel  
 8 management (20 comments, 2 percent), and wild horses and burros (18 comments, 2  
 9 percent). The topics with the least amount of interest were lands with wilderness  
 10 characteristics (10 comments, 1 percent); ACECs (10 comments, 1 percent), riparian  
 11 vegetation (7 comments, 1 percent); predation (6 comments, 1 percent); climate change (5  
 12 comments, 0.5 percent); noxious and invasive weeds (4 comments, 0.4 percent); recreation,  
 13 tribal interests, and fish and wildlife (3 comments, 0.3 percent each); water resources (2  
 14 comments, 0.2 percent), and locatable minerals, noise, and soil resources (1 comment, 0.1  
 15 percent each). In addition to these topics, substantive comments were collected that  
 16 suggested editorial changes (62 comments, 6 percent), were substantive comments but  
 17 considered out of scope of this document (109 comments, 10 percent), and those that  
 18 requested an extension of the comment period (1 comments, 0.1 percent). These comments  
 19 were reviewed and considered, but not included in the formal comment responses effort. See  
 20 **Table 6-3**, Number of Comments on the Draft LUPA/EIS by Category.

**Table 6-3**  
**Number of Comments on the Draft LUPA/EIS by Category**

Topic	Number of Comments
Greater Sage-Grouse	346
NEPA	136
Livestock grazing	120
Vegetation – sagebrush	47
Socioeconomics	39
Lands and realty	35
FLPMA	28
Fire and fuels	27
Leasable minerals	26
Travel management	20
Wild horses and burros	18
Other Laws	15
Lands with wilderness characteristics	10
ACECs	10



Table 6-3 Number of Comments on the Draft LUPA/EIS by Category	
Topic	Number of Comments
Vegetation – riparian	7
Predation	6
Climate change	5
Noxious and invasive weeds	4
Recreation	3
Tribal interests	3
Fish and wildlife	3
Water resources	2
Locatable minerals	1
Noise	1
Soil resources	1
Salable minerals	0
Edits*	62
Out of scope*	109
Extension requests*	1
<b>Total</b>	<b>1,085</b>
*Comments in these categories were reviewed for their content, but not included in the comment response effort.	

1  
2 The comments received on the Draft LUPA/EIS were similar to the issues raised during  
3 public scoping. In many cases, comments expressed a desire for very specific  
4 implementation level (project level) details to be included in the LUPA. As described in  
5 Chapters 1 and 2, the LUPA/EIS provides general guidance and identifies allowable uses  
6 and allocations but is not meant to address all details about individual projects. A separate  
7 environmental review will be conducted for specific projects at the implementation level to  
8 address these details. Some comments spanned several topical areas and included a  
9 discussion about a resource use or activity and listed concerns about the resources that  
10 would be impacted by the use, or conversely, the impact that restrictions would have on  
11 resource uses or activities.

12 All substantive comments, detailed summaries, and responses organized by resource,  
13 resource use, or EIS planning regulation can be found in **Appendix T**. An overview of these  
14 summaries and responses can be found below in **Table 6-4**, Overview of Comments by  
15 Category. Comments related to editorial changes, out of scope topics, extension requests,  
16 and non-substantive comments were not included in the comment response effort.

<b>Table 6-4 Overview of Comments by Category</b>	
<i>Topic</i>	<i>Overview</i>
ACECs	Commenters noted inconsistencies in the representation of ACECs under alternatives in the DEIS, wanted to see a greater range of alternatives for ACEC locations, and emphasized that protective actions in ACECs be adequate.
Climate change	Commenters wanted to see a more thorough and rigorous analysis of the cumulative effects of climate change on GRSG or GRSG habitat.
Fire and fuels	Commenters requested clarification on the potential impacts of the plan on fuel loads and fire risk and additional analysis of fire suppression impacts, suggested potential changes to alternatives or management actions, and recommended that additional references be incorporated to support the analysis.
Fish and wildlife	Commenters stated that the BLM fails to address avoiding the potential to list the GRSG under the Endangered Species Act and that the bird does not meet the criteria to be listed under that law.
FLPMA	Commenters claimed that the Draft LUPA/EIS failed to comply with the multiple use mandate required under FLPMA and the Multiple Use Sustained Yield Act required under the Forest Service. They also noted that the plan is not consistent with state, local, and tribal plans and policies, and that there needs to be a consistency review with local plans in the document.
Greater Sage-Grouse	Commenters claimed the BER and NTT reports were inadequate to use as a primary source in the plan, found the plan to be inconsistent with COT conservation objectives, requested clarification on the range of alternatives and habitat mapping, suggested additional literature to be used for best available information on GRSG, made recommendations on how to improve the impact analysis of various resources on GRSG, found the cumulative impacts to be deficient, and requested clarification or revisions to mitigation measures.
Lands and realty	Commenters requested clarification on or recommended specific changes to proposed management, recommended additional references related to infrastructure, and found the analysis of impacts between lands and realty management and renewable energy infrastructure to be lacking.
Lands with wilderness characteristics	Commenters wanted additional lands with wilderness characteristics to be considered for the protection of GRSG, requested that these lands be analyzed more thoroughly, and requested additional baseline information be provided.
Leasable minerals	Commenters wanted certain aspects of the alternatives clarified, recommended additional literature to consider, and wanted a more complete analysis impacts and cumulative impacts,
Livestock grazing	Commenters expressed concerns regarding retirement of grazing permits, recommended expanding the range of alternatives for livestock grazing, recommended additional references to consider, and found the analysis of impacts to be inadequate.
Locatable minerals	Commenters stated that the DLUPA/DEIS failed to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range.
NEPA	Commenters asserted that the plan does not comply with the requirements of NEPA, did not adequately notify the public about the DEIS, did not coordinate with local agencies, did not provide a wide enough range of alternatives, did not use the best available data, and have not provided adequate cumulative impacts analysis or mitigation measures.
Noise	Commenters questioned current studies used regarding noise and wanted to see



**Table 6-4  
Overview of Comments by Category**

<i>Topic</i>	<i>Overview</i>
	additional information used to determine the impacts of noise on different parts of GRSG life cycle.
Noxious and invasive weeds	Commenters requested additional analysis be conducted, recommended literature to consider, asked for more baseline data, and suggested collaboration with private landowners.
Other laws	Commenters argued that the plan does not comply with other federal laws.
Predation	Commenters state that the BLM does not adequately address the threat of predation or fully analyze the direct, indirect, and cumulative impacts of predation on GRSG populations.
Recreation	Commenters recommended additional management actions to limit the potential for impacts on GRSG from recreation activities.
Socioeconomics	Commenters claimed the analysis used was at the wrong scale to make the information meaningful, and noted that the impacts analysis was inadequate.
Soil resources	One commenter noted that the DEIS lacked references to support discussion of macrobiotic crusts.
Travel management	Commenters stated that the DEIS failed to consider a full range of travel management alternatives and suggested additional management actions, and felt the DEIS did not adequately analyze the impacts of proposed management actions on travel management.
Tribal interests	Commenters requested the BLM consult with tribes regarding ACEC designations and stated that the BLM must ensure tribes maintain opportunities to access the public domain.
Vegetation – riparian	Commenters requested that the BLM and Forest Service consider additional management approaches for riparian vegetation, requested baseline data be provided, and suggested modification of current assessment methods to address GRSG needs,
Vegetation – sagebrush	Commenters recommended actions to include in the alternatives, provided additional literature to consider, stated that the DEIS inadequately analyzes impacts, including cumulative impacts, and requested clarification on mitigation and monitoring.
Water resources	Commenters stated that the DEIS fails to address impacts on the soil and watershed conditions and to provide appropriate mitigation measures.
Wild horses and burros	Commenters suggested changes in management actions, such as inclusion of the National Academy of Sciences’ 2013 recommendations into the plan, requested additional baseline information, and felt the impact analysis was inadequate,

Complete responses, including rationale and any associated changes made in the Proposed LUPA/FEIS, can be found in **Appendix T**. A brief overview of changes to the document is included below:

- The disturbance cap in the Proposed LUPA/FEIS was revised to provide additional detail, such as enhanced descriptions of what types of activities would count towards the disturbance totals, where disturbance activities would count against the cap, reclamation and habitat requirements for a disturbed area for both temporary and permanent disturbance, and how the cap would be implemented and monitored. **Appendix H** has also been added to the Proposed LUPA/FEIS, which contains preliminary disturbance inventory to more

1 accurately assess current disturbance levels and potential impacts across the  
2 planning area.

- 3 • A more comprehensive list of cumulative projects, past and future, has been  
4 developed, and used to support a more detailed analysis of cumulative impacts.  
5 Cumulative impacts have also been reviewed for consistency with the rest of the  
6 plan.
- 7 • Additional language has been added describing the adaptive management  
8 approach for the LUPA/EIS level.
- 9 • Mitigation and monitoring have been further defined as a Regional Mitigation  
10 Framework and National Monitoring Framework, detailed in **Appendices J and**  
11 **E**, respectively.
- 12 • Management objectives and actions in **Chapter 2** have been updated.
- 13 • Additional literature was reviewed and added to the baseline information in  
14 **Chapter 3**.
- 15 • **Chapter 4** has been updated with new information and analysis, and revised for  
16 consistency with **Chapter 3**.
- 17 • Clarifications have been added on specific topics commenters found confusing  
18 or deficiently described, including implementation level decisions.

19 All comments citing editorial changes to the document were reviewed and incorporated as  
20 appropriate. The Proposed LUPA/FEIS has been edited and revised to fix typographic  
21 errors, missing references, definitions, acronyms, calculations, and other inconsistencies.

### 22 **6.2.6 Future Public Involvement**

23 Public participation efforts will be ongoing throughout the remainder of the LUPA/EIS  
24 process.

25 An NOA will be published in the *Federal Register* to notify the public of the availability of the  
26 Proposed LUPA/Final EIS. The NOA will also outline protest procedures during the 30-  
27 calendar-day protest period. The Proposed LUPA/Final EIS will be available for downloading  
28 from the project Web site at: [http://www.blm.gov/id/st/en/prog/nepa\\_register/sage-  
29 grouse\\_rmp\\_revision.html](http://www.blm.gov/id/st/en/prog/nepa_register/sage-grouse_rmp_revision.html). The Proposed LUPA/Final EIS will also be available for review at  
30 the BLM Idaho and Montana State Offices along with the Beaverhead-Deerlodge, Boise,  
31 Caribou-Targhee, Salmon-Challis, and Sawtooth national forests. Press releases will be issued to  
32 notify the public of the Proposed LUPA/Final EIS availability. All recipients of the Draft  
33 LUPA/EIS and all parties who submitted written comments on the Draft LUPA/EIS will  
34 receive the Proposed LUPA/Final EIS in either a hard copy or CD, or they will be able to  
35 download it from the Web site. The BLM and Forest Service will notify those who previously  
36 received the Draft RMP/EIS electronically. The BLM Idaho State Office maintains the  
37 distribution list for the Proposed LUPA/EIS, which is available on request.



1 Records of Decision will be issued by the BLM and the Forest Service after the release of  
2 the Proposed LUPA/Final EIS, the Governor’s Consistency Review, and any resolution of  
3 protests received on the Proposed LUPA/Final EIS.

### 4 **6.3 Consultation and Coordination**

5 Various federal laws require the BLM to consult with Native American tribes, the State  
6 Historic Preservation Office, and USFWS, the US Environmental Protection Agency, and  
7 the US Department of Defense during the planning/NEPA decision-making process. This  
8 section documents the specific consultation and coordination efforts undertaken by the  
9 BLM throughout the process of developing the LUPA/EIS.

#### 10 **6.3.1 Cooperating Agencies**

11 A cooperating agency is any federal, state, or local government agency or Native American  
12 tribe that enters into a formal agreement with the lead federal agency to help develop an  
13 environmental analysis. Cooperating agencies and tribes “work with the BLM, sharing  
14 knowledge and resources, to achieve desired outcomes for public lands and communities  
15 within statutory and regulatory frameworks” (BLM 2005). The Forest Service defines  
16 collaboration as, “People working together to share knowledge and resources to describe  
17 and achieve desired conditions for National Forest System lands and for associated social,  
18 ecological, and economic systems in a plan area. Collaboration applies throughout the  
19 planning process, encompasses a wide range of external and internal relationships, and  
20 entails formal and informal processes” (Forest Service 2006). The benefits of enhanced  
21 collaboration among agencies in preparing NEPA analyses are:

- 22 • Disclosing relevant information early in the analytical process
- 23 • Applying available technical expertise and staff support
- 24 • Avoiding duplication with other federal, state, tribal, and local procedures
- 25 • Establishing a mechanism for addressing intergovernmental issues

26 The Idaho and Southwestern Montana Sub-region invited local, state, federal, and tribal  
27 representatives to participate as cooperating agencies for this LUPA/EIS. **Table 6-5**, Idaho  
28 and Southwestern Montana Sub-region Cooperating Agency Participation, provides the list  
29 of invited and accepted cooperating agencies for the sub-region. Agencies accepting  
30 invitations to be cooperating agencies sign an MOU with the BLM. The MOU outlines the  
31 interests, expertise, and jurisdictional responsibilities of both the agency and its cooperating  
32 agency partners and also outlines their respective roles and responsibilities in the planning  
33 and NEPA processes.

**Table 6-5**  
**Idaho and Southwestern Montana Sub-region Cooperating Agency**  
**Participation**

Agencies and Tribes Invited to be Cooperators	Accepted
Adams County Commissioners	
Bannock County Commissioners	

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**Table 6-5  
Idaho and Southwestern Montana Sub-region Cooperating Agency  
Participation**

<b>Agencies and Tribes Invited to be Cooperators</b>	<b>Accepted</b>
Bear Lake County Commissioners	
Beaverhead County Commissioners	✓
Beaverhead-Deerlodge National Forest	✓
Bingham County Commissioners	✓
Blackfeet Tribe of the Blackfeet Indian Reservation of Montana	
Blaine County Commissioners	✓
Boise County Commissioners	
Boise National Forest	✓
Bonneville County Commissioners	
Bureau of Indian Affairs	
Bureau of Reclamation	
Butte County Commissioners	
Camas County Commissioners	
Canyon County Commissioners	
Caribou County Commissioner	
Caribou-Targhee National Forest	✓
Cassia County Commissioners	✓
Clark County Commissioners	✓
Coeur d'Alene Tribe	
Confederated Salish and Kootenai Tribes	
Craters of the Moon National Monument	✓
Custer County Commissioners	✓
Eastern Shoshone Tribe	
Elmore County Commissioners	
Franklin County Commissioners	
Fremont County Commissioners	✓
Gem County Commissioners	
Gooding County Commissioners	
Idaho Association of Counties	✓
Idaho Department of Agriculture	
Idaho Department of Environmental Quality	
Idaho Department of Fish and Game	✓
Idaho Department of Lands	
Idaho Department of Parks and Recreation	
Idaho Department of Transportation	
Idaho Governor's Office of Species Conservation	✓
Idaho National Guard	✓
Jefferson County Commissioners	✓
Jerome County Commissioners	
Kootenai Tribe of Idaho	
Lemhi County Commissioners	✓
Lincoln County Commissioners	

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**Table 6-5  
Idaho and Southwestern Montana Sub-region Cooperating Agency  
Participation**

<b>Agencies and Tribes Invited to be Cooperators</b>	<b>Accepted</b>
Madison County Commissioners	✓
Minidoka County Commissioners	
Mountain Home Air Force Base	
Montana Fish, Wildlife and Parks	✓
Natural Resources Conservation Service	✓
Nez Perce Tribe	
Oneida County Commissioners	
Owyhee County Commissioners	✓
Payette County Commissioners	
Power County Commissioners	✓
Salmon-Challis National Forest	✓
Sawtooth National Forest	✓
Shoshone-Bannock Tribes	
Shoshone-Paiute Tribes	
Teton County Commissioners	
Twin Falls County Commissioners	✓
USDA APHIS Plant Protection and Quarantine	
USDA APHIS Wildlife Services	
US Department of Defense	✓
US Department of Energy (INL)	✓
US Fish and Wildlife Service	✓
USGS (Forest and Rangeland Ecosystem Science Center)	
Washington County Commissioners	

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Cooperating agencies have been involved throughout the planning process with monthly conference calls providing project updates. In addition, cooperating agencies were given advance review of LUPA/EIS sections. Cooperating agencies will continue to be engaged throughout the planning process.

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The BLM is aware that there are specific State laws and local plans relevant to aspects of public land management that are discrete from, and independent of, Federal law. However, BLM is bound by Federal law. As a consequence, there may be inconsistencies that cannot be reconciled. The FLPMA and its implementing regulations require that BLM's land use plans be consistent with State and local plans only if those plans are consistent with the purposes, policies, and programs of federal laws and regulations applicable to public lands. Where State and local plans conflict with the purposes, policies, and programs of Federal law there will be an inconsistency that cannot be resolved. While County and Federal planning processes, under FLPMA, are required to as integrated and consistent as practical, the Federal agency planning process is not bound by or subject to County plans, planning processes, or planning stipulations.

1           **6.3.2 USFWS Section 7 Consultation**

2           Consultation with USFWS is required under Section 7(c) of the ESA prior to initiation of  
3           any project by the BLM/Forest Service that may affect any federally listed or endangered  
4           species or its habitat. This LUPA process is considered to be a major project, and the  
5           Proposed LUPA/Final EIS defines potential impacts on threatened and endangered species  
6           as a result of management actions proposed in the alternatives. The USFWS is a cooperating  
7           agency in this planning process, and USFWS staff has participated in interdisciplinary team  
8           meetings and has been provided drafts of alternative decisions and analyses for discussion  
9           and input.

10           The BLM and Forest Service formally initiated Section 7 consultation with a letter to the  
11           USFWS on November 19, 2013, and requested concurrence on which species would require  
12           consideration during consultation. Over the ensuing months, regular meetings and  
13           coordination efforts were held to identify the species that would be analyzed in the biological  
14           assessment, address which actions could affect those species, and determine whether the  
15           implementation of the Proposed Plan “may affect” the species for which this consultation  
16           occurred.

17           In May 2015, the biological assessment was formally submitted to the USFWS for review  
18           (see **Appendix Y**, Biological Assessment). The USFWS will evaluate the biological  
19           assessment and either concur with the determination via memorandum or prepare a  
20           biological opinion. The USFWS response to this consultation process (either the  
21           memorandum or the biological opinion) will be included in the RODs.

22           **6.3.3 Native American Tribal Consultation**

23           In accordance with the National Historic Preservation Act and several other legal authorities  
24           (see BLM Manual 8120), and in recognition of the government-to-government relationship  
25           between individual tribes and the federal government, the BLM has initiated Native  
26           American consultation efforts related to preparation of this LUPA. In December 2011, the  
27           BLM sent letters to tribal governments providing initial notification of the LUPA and  
28           background information on the project, an invitation to be a cooperating agency, and  
29           notification of subsequent consultation efforts related to the planning process. These letters  
30           were sent to the following tribes located in Idaho or southwestern Montana or having  
31           cultural ties to areas with GRS habitat in the sub-region:

- 32           • Blackfoot Tribe of the Blackfoot Indian Reservation of Montana
- 33           • Coeur d’Alene Tribe
- 34           • Confederated Salish and Kootenai Tribes
- 35           • Eastern Shoshone Tribe
- 36           • Kootenai Tribe of Idaho
- 37           • Nez Perce Tribe



- 1 • Shoshone-Bannock Tribes
- 2 • Shoshone-Paiute Tribes

3 None of the tribes have agreed to become cooperating agencies. The Shoshone-Bannock  
4 and Shoshone-Paiute tribes requested regular briefings at key milestones during the planning  
5 process. Per their request, BLM staff provided early drafts of some project documents for  
6 their review and comment under the government-to-government relationship. Other tribes  
7 have requested to be kept informed as the LUPA/EIS is developed, so that they may have  
8 an opportunity to comment. The complete Proposed LUPA/FEIS was provided to the  
9 tribes concurrently with its release to the public. Government-to-government consultation  
10 will continue throughout the LUPA process to ensure that tribal groups' concerns are  
11 considered.

12 Under the proposed plan, all GRSG habitat would be retained under BLM and Forest  
13 Service management unless an exchange would result in a greater benefit to GRSG or their  
14 habitat. Lands would be available for exchange with no net loss of GRSG Key habitat within  
15 PHMA and IHMA and site-specific NEPA would be required for any future exchanges.  
16 Additional tribal consultation would occur during this site-specific NEPA to address tribal  
17 concerns and requests regarding specific parcels.

#### 18 **5.1.1 State Historic Preservation Officer Consultation**

19 As part of the NEPA scoping and consultation process, BLM and the Forest Service have  
20 notified the Idaho and Montana State Historic Preservation Officers and several Tribal  
21 Historic Preservation Officers of the proposed LUPA. However, full formal NHPA Section  
22 106 consultation is not called for at this time, as effects on historic properties cannot be  
23 determined until site-specific follow-on projects have been identified. The Section 106  
24 process will be completed at a later stage, during project proposal and design, and will  
25 include consultation with SHPOs, THPOs, Native American Tribes, and other interested  
26 parties. This process will be performed consistent with the alternative procedures BLM  
27 agreed to in a Programmatic Agreement with the Advisory Council on Historic Preservation  
28 and the National Conference of State Historic Preservation Officers. Any future actions not  
29 covered by the BLM's national Programmatic Agreement may require either (a) separate  
30 NHPA analysis, or (b) a separate Section 106 agreement.

#### 31 **5.1.2 US Environmental Protection Agency**

32 NEPA regulations require that EISs be filed with the US Environmental Protection Agency  
33 for review and comment (40 CFR 1506.9). The Idaho and Southwestern Montana Sub-  
34 region Draft LUPA/EIS was submitted to the US Environmental Protection Agency for  
35 review as required by CEQ regulations. The US Environmental Protection Agency provided  
36 comments on the Draft LUPA/EIS and rated the document Environmental Concerns –  
37 Insufficient Information (EC-2).

#### 38 **6.4 List of Preparers**

39 Table 6-6, List of Preparers, lists the name and project role of the individuals involved in the  
40 preparation of this document.

**Table 6-6  
List of Preparers**

<b>Name</b>	<b>Role/Responsibility</b>
<b>Bureau of Land Management</b>	
Brent Ralston	Idaho State Office Project Lead, special designations lead
Jon Beck	Idaho State Office Project Lead, mineral resources, special designations
John Thompson	Montana State Office Project Lead
Joe Adamski	Forestry
Kelly Bocking	GRSG, vegetation, livestock grazing, recreation and visitor services, comprehensive trail and travel management, lands and realty, mineral resources
Bryce Bohn	Air quality, soil resources, water resources
Connie Breckenridge	GIS
Brandon Brown	Wildland fire management
Glen Burkhardt	Air quality, wildland fire management
Tim Carrigan	Lands and realty
Rod Collins	GIS
Natalie Cooper	Lands and realty
Lynn Danly	Vegetation
Robin Fehlau	Visual resources, lands with wilderness characteristics, recreation and visitor services, comprehensive trail and travel management, special designations
Vince Guyer	GRSG, wild horse and burro
Kirk Halford	Cultural resources, paleontological resources
Lara Hannon	Vegetation
Jon Haupt	Livestock grazing
Sara Heide	Wildland fire management
Terry Heslin	Comprehensive trail and travel management
Scott Hoefler	Special status species, fish resources
Gloria Jakovac	Lands and Realty
Steve Jirik	Vegetation, wildland fire management
Brandon Knaption	Special status species
Kevin Knauth	Wildland fire management
Michael Kuyper	Vegetation, livestock grazing, mineral resources
Stephen Leonard	Wild horse and burro
Nika Lepak	Wild horse and burro, livestock grazing
Don Major	Vegetation, wildlife resources
Paul Makela	GRSG, special status species, wildlife resources, lands and realty
Clint McCarthy	Vegetation
Diane McConnaughey	GIS
Kelly Moore	Lands and realty
Karen Porter	Mineral resources
Kasey Prestwich	Lands and realty
Jesse Rawson	GRSG
Tom Rinkes	GRSG, wildlife resources
Chris Robbins	Livestock grazing
Bruce Schoeberl	Fish resources
Elena Shaw	Vegetation, livestock grazing



**Table 6-6  
List of Preparers**

<b>Name</b>	<b>Role/Responsibility</b>
Steve Shaw	Wildland fire management
Dick Todd	Lands and realty
Jason Wright	Vegetation, wildland fire management
Cheryle Zwang	Cultural resources
<b>Forest Service Nest Members</b>	
Rob Mickelsen	Idaho Project Lead, vegetation
Dustin Bambrough	Livestock grazing
Pam Bode	NEPA/planning
Chris Colt	Special status species, wildlife
Dale Harber	Minerals specialist
Kolleen Kralick	Cultural resources, Native American tribal interests
Tim Love	GIS
Tim Metzger	Wildland fire management
Cory Norman	Wildland fire management
David Reis	Comprehensive trails and travel management
<b>Consultant - EMPSi</b>	
Meredith Zaccherio	Project Manager, biological resources lead
Angie Adams	Special designations, wilderness characteristics
David Batts	Project Advisor
Constance Callahan	Quality Assurance, editing
Amy Cordle	Air quality
Annie Daly	Air quality, special designations, wilderness characteristics
Andrew Gentile	Soil resources, water resources
Zoe Ghali	Forestry, livestock grazing, wild horse and burro, wildland fire management
Peter Gower	Comprehensive trails and travel management, lands and realty, recreation and visitor services, visual resources
Brandon Jensen	Fish resources, wildlife resources
Matt Kluvo	Vegetation, forestry, paleontological resources
Kate Krebs	Visual resources
Laura Long	Technical editing
Carol-Anne Murray	Cultural resources, Native American tribal interests, paleontological resources
Katie Patterson	Minerals (coal, fluid minerals, locatable minerals, mineral materials, nonenergy leasable minerals)
Holly Prohaska	Livestock grazing, wild horse and burro
Marcia Rickey	GIS
Chad Ricklefs	Lands and realty
Cindy Schad	Word processing
Jordan Tucker	Soil resources, water resources
Drew Vankat	Wildland fire management, recreation and visitor services, comprehensive trails and travel management
Jennifer Whitaker	Minerals (coal, fluid minerals, locatable minerals, mineral materials, nonenergy leasable minerals)
Liza Wozniak	GRSG, special status species
<b>Consultant – ICF International</b>	

**Table 6-6**  
**List of Preparers**

<b>Name</b>	<b>Role/Responsibility</b>
Robert Fetter	Project Manager-Socioeconomics and Environmental Justice
Alex Uriarte	Socioeconomics and Environmental Justice Specialist
Elizabeth Kurz	Project Assistance
Alison Carey	Project Assistance

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# Chapter 7

## References

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1 **Changes to Chapter 7 between Draft LUPA/EIS and Proposed LUPA/Final EIS**

- 2
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- 5
- Chapter 7 was renumbered. It was formerly Chapter 6 in the DEIS.
  - References were updated and revised where errors were found.
  - New references were added.

Administrative Draft  
Cooperating Agency Review

1 **Chapter 7. References**

- 2 Adams County. 2006. Adams County Comprehensive Plan. Internet website:  
3 <http://www.co.adams.id.us/adams-county-comp-plan.pdf>.
- 4 Agapito Associates, Inc. 2013. NI 43-101 Technical Report Paris Hills Phosphate Project  
5 Bloomington, Idaho, USA. Prepared for Stonegate Agricom. July. Available at:  
6 <http://www.stonegateagricom.com/s/TechReports.asp>.
- 7 Agee, J. K. 1993. Fire Ecology of Pacific Northwest Forests. Island Press, Washington, DC.
- 8 Aldridge, C. L., and M. S. Boyce. 2007. "Linking occurrence and fitness to persistence: a  
9 habitat-based approach for endangered greater sage-grouse." *Ecological Applications*  
10 17:508-526.
- 11 Aldridge, C. L., and R. M. Brigham. 2002. "Sage-grouse nesting and brood habitat use in  
12 southern Canada." *Journal of Wildlife Management* 66:433-444.
- 13 Aldridge, C. L., S. E. Nielsen, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, and M.  
14 A. Schroeder. 2008. "Range-wide patterns of greater sage-grouse persistence."  
15 *Diversity and Distributions* 14:983-994.
- 16 Anderson, J. E., and R. S. Inouye. 2001. "Landscape-scale changes in plant species  
17 abundance and biodiversity of a sagebrush steppe over 45 years." *Ecological*  
18 *Monographs* 71:531-556.
- 19 Amstrup, S. C., and R. L. Phillips. 1977. Effects of Coal Extraction and Related  
20 Development on Wildlife Populations: Effects of Coal Strip Mining on Habitat Use,  
21 Activities and Population Trends of Sharp-Tailed Grouse (*Pedioecetes phasianellus*).  
22 Annual progress report. Denver Wildlife Research Center. US Fish and Wildlife  
23 Service, Denver, Colorado.
- 24 Archer, A. J. 2001. *Taeniatherum caput-medusae*. In: Fire Effects Information System,  
25 [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research  
26 Station, Fire Sciences Laboratory (Producer). Available:  
27 <http://www.fs.fed.us/database/feis/> [2015, April 2].
- 28 Armour, C. L., D. A. Duff, and W. Elmore. 1991. "The effects of livestock grazing on  
29 riparian and stream ecosystems." *Fisheries* 16(1):7-11.
- 30 Armstrong, J. C. 2007. "Improving sustainable seed yield in Wyoming big sagebrush."  
31 Thesis. Brigham Young University, Provo, Utah.
- 32 Atamian, M. T., M. S. Sedinger, J. S. Heaton, and E. J. Blomberg. 2010. "Landscape-level  
33 assessment of brood rearing habitat for greater sage-grouse in Nevada." *Journal of*  
34 *Wildlife Management* 74:1533-1543.

- 1 Bailey, D.W. 2005. Identification and Creation of Optimum Habitat Conditions for  
2 Livestock. *Rangeland Ecol Manage* 58:109–118.
- 3 Baker, W. L. 2011. “Pre-Euro-American and recent fire in sagebrush ecosystems.” In: S. T.  
4 Knick and J. W. Connelly (editors), *Greater Sage-Grouse: Ecology and Conservation*  
5 *of a Landscape Species*. University of California Press, Berkeley. Pp. 185-202.
- 6 Balch, J. K., B. A. Bradley, C. M. D’Antonio, and J. Gomez-Dans. 2012. “Introduced annual  
7 grass increases regional fire activity across the arid western USA (1980-2009).”  
8 *Global Change Biology* 19 (1):173-183.
- 9 Barnett, J. F., and J. A. Crawford. 1994. “Pre-laying nutrition of sage-grouse hens in  
10 Oregon.” *Journal of Wildlife Management* 47:114-118.
- 11 Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas J. M. Kiesecker,  
12 M. J. Falkowski , C. A. Hagen, K. P. Reese. 2013. Saving sage-grouse from the trees:  
13 A proactive solution to reducing a key threat to a candidate species. *Biological*  
14 *Conservation* 167: 233-241.
- 15 Baxter, R. J., J. T. Flinders, and D. L. Mitchell. 2008. “Survival, movements, and  
16 reproduction of translocated Greater Sage-Grouse in Strawberry Valley.” *Journal of*  
17 *Wildlife Management* 72:179-186.
- 18 Beaverhead County. 2005. Beaverhead County Growth Policy. Internet website:  
19 [http://www.beaverheadcounty.org/growth\\_policy.pdf](http://www.beaverheadcounty.org/growth_policy.pdf). Beck, J. L., and D. L.  
20 Mitchell. 2000. “Influences of livestock grazing on sage grouse habitat.” *Wildlife*  
21 *Society Bulletin* 28:993-1002.
- 22 Beck, J. L., J. W. Connelly, and K. P. Reese. 2009. “Recovery of Greater Sage-Grouse habitat  
23 features in Wyoming Big Sagebrush following prescribed fire.” *Restoration Ecology*  
24 17:393-403.
- 25 Beck, J. L., J. W. Connelly, and C. L. Wambolt. 2012. “Consequences of treating Wyoming  
26 big sagebrush to enhance wildlife habitats.” *Rangeland Ecology & Management*  
27 65:444-455
- 28 Becker, J. M., C. A. Duberstein, J. D. Tagestad, J. L. Downs. 2009. Sage-Grouse and Wind  
29 Energy: Biology, Habits, and Potential Effects from Development. Prepared for the  
30 US Department of Energy by Pacific Northwest Energy. PNNL-18567.
- 31 Beever, E. A., and C. L. Aldridge. 2011. “Influences of free-roaming equids on sagebrush  
32 ecosystems, with a focus on greater sage-grouse.” In: S. T. Knick and J. W. Connelly  
33 (editors), “*Greater Grouse: Ecology and Conservation of a Landscape Species and*  
34 *Its Habitats*.” *Studies in Avian Biology* 38:273-290. University of California Press,  
35 Berkeley.



- 1 Belnap, J. K. 2001. IN: USDI. BLM. Biological crusts – ecology and management. Technical  
2 Reference 1730-2 BLM/ID/ST-01/001+1730.
- 3 Belnap, J., and D. A. Gillette. 1997. Disturbance of biological soil crusts: impacts on  
4 potential wind erodibility of sandy desert soils in southeastern Utah, USA. *Land*  
5 *Degradation and Development* 8: 355-362.
- 6 \_\_\_\_\_. 1998. Vulnerability of desert soil surfaces to wind erosion: impacts of soil texture and  
7 disturbance. *Journal of Arid Environments* 39: 133-142.
- 8 Belsky, A. J., A. Matzke, and S. Uselman. 1999. Survey of livestock influences on stream and  
9 riparian ecosystems in the western United States. *Journal of Soil and Water*  
10 *Conservation* 54: 419-431.
- 11 Benvenuti, S. 2007. “Weed seed movement and dispersal strategies in the agricultural  
12 environment.” *Weed Biol. Manage* 7:141-157.
- 13 Bergquist, E., P. Evangelista, T. J. Stohlgren, and N. Alley. 2007. “Invasive species and coal  
14 bed methane development in the Powder River Basin, Wyoming.” *Environmental*  
15 *Monitoring and Assessment* 128:381-394.
- 16 Beschta, R. L. D. L. Donahue, D. A. DellaSala, J. J. Rhodes, J. R. Karr, M. H. O’Brien, T. L.  
17 Fleischner, C. Deacon Willia. 2014. Reducing Livestock Effects on Public Lands in  
18 the Western United States as the Climate Changes: A Reply to Svejcar et al  
19 *Environmental Management* DOI 10.1007/s00267-014-0263-5.
- 20 Billings, W. D. 1994. “Ecological impacts of cheatgrass and resultant fire on ecosystems in  
21 the western Great Basin.” In: S. B. Monsen and S. G. Kitchen (compilers),  
22 *Proceedings: Ecology and Management of Annual Rangelands*. Gen. Tech. Rep.  
23 INT-313:22-30. US Department of Agriculture, Forest Service, Ogden, Utah.
- 24 Bingham County. 2005. Bingham County Comprehensive Plan. Internet website:  
25 [http://www.co.bingham.id.us/planning\\_zoning/planning\\_zoning\\_pdf/March\\_2005](http://www.co.bingham.id.us/planning_zoning/planning_zoning_pdf/March_2005)  
26 [CompPlanfinal.pdf](#).
- 27 Blaine County. 1994. Comprehensive Plan. Internet website: [http://sterlingcodifiers.com/](http://sterlingcodifiers.com/codebook/index.php?book_id=450&chapter_id=19590)  
28 [codebook/index.php?book\\_id=450&chapter\\_id=19590](#). Accessed September 19,  
29 2013.
- 30 Blickley, J. L. and G. L. Patricelli. 2012. Potential acoustic masking of Greater Sage-Grouse  
31 display components by chronic industrial noise. *Ornithological Monographs* 74:23-  
32 35.

- 1       Blickley, J. L., K. R. Word, A. H. Krakauer, J. L. Phillips, S. N. Sells, C. C. Taff, J. C.  
2       Wingfield, et al. 2012. “Experimental chronic noise is related to elevated fecal  
3       corticosteroid metabolites in lekking male Greater Sage-Grouse (*Centrocercus*  
4       *urophasianus*.” PLoS ONE 7(11): e50462. DOI:10.1371/journal.pone.0050462.
- 5       Blickley, J. L., D. Blackwood, and G. L. Patricelli. 2012. “Experimental evidence for the  
6       effects of chronic anthropogenic noise on abundance of Greater Sage-Grouse at  
7       leks.” *Conservation Biology* 26:461-471.
- 8       BLM (US Department of the Interior, Bureau of Land Management). 1991. *Vegetation*  
9       *Treatment on BLM Lands in Thirteen Western States.*
- 10       \_\_\_\_\_. 1997a. *Standards for Rangeland Health and Guidelines for Livestock Grazing*  
11       *Management for Public Lands Administered by the Bureau of Land Management for*  
12       *Montana and the Dakotas.* BLM Montana/Dakota State Office.
- 13       \_\_\_\_\_. 1997b. *Idaho Standards for Rangeland Health and Guidelines for Livestock*  
14       *Grazing Management.* Idaho State Office.
- 15       \_\_\_\_\_. 2004. “The Foundations for Managing Cultural Resources.” US Department of the  
16       Interior, Bureau of Land Management 8100 Manual Series, Washington, DC.
- 17       \_\_\_\_\_. 2005. *Final Programmatic Environmental Impact Statement on Wind Energy*  
18       *Development on BLM-Administered Lands in the Western United States.* FES 05-  
19       11. June 2005.
- 20       \_\_\_\_\_. 2006a. *Dillon Resource Management Plan.* Dillon Field Office, Dillon, Montana.
- 21       \_\_\_\_\_. 2006b. *Roads and Trails Terminology.* Technical Note 422. Washington D.C. pp. 5-  
22       11.
- 23       \_\_\_\_\_. 2007. *Final Vegetation Treatments on Bureau of Land Management Lands in 17*  
24       *Western States Programmatic Environmental Impact Statement and Associated*  
25       *Record of Decision.* FES 07-21.
- 26       \_\_\_\_\_. 2008. *Jarbridge Draft Resource Management Plan and Environmental Impact*  
27       *Statement.* Idaho State Office, Boise, Idaho.
- 28       \_\_\_\_\_. 2009a. *Approved Resource Management Plan Amendments/Record of Decision*  
29       *(ROD) for Designation of Energy Corridors on Bureau of Land Management-*  
30       *Administered Lands in the 11 Western States.* January 2009.
- 31       \_\_\_\_\_. 2009b. *Record of Decision and Resource Management Plan Amendments for*  
32       *Geothermal Leasing in the Western United States.* Washington, DC.
- 33       \_\_\_\_\_. 2010a. *Draft Programmatic Environmental Impact Statement for Solar Energy*  
34       *Development in Six Southwestern States.* December 2010.

- 1 \_\_\_\_\_ . 2010b. Proposed Butte Resource Management Plan and Final Environmental  
2 Impact Statement. Bureau of Land Management. Butte Field Office, Butte, Montana.
- 3 \_\_\_\_\_ . 2011a. Supplement to the Draft Programmatic Environmental Impact Statement  
4 for Solar Energy Development in Six Southwestern States. October 2011.
- 5 \_\_\_\_\_ . 2011b. China Mountain Wind Project, Draft Environmental Impact Statement.  
6 Jarbidge Field Office. Chapter 4, Environmental Consequences. Internet website:  
7 [http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge\\_fo/china\\_mount](http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge_fo/china_mount)  
8 [ain\\_wind0/china\\_mountain\\_wind/china\\_mountain\\_wind/volume\\_ii.Par.41781.File.](http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge_fo/china_mount)  
9 [dat/2\\_Ch\\_4\\_Env\\_Consequences\\_508.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge_fo/china_mount). Accessed in July 2013.
- 10 \_\_\_\_\_ . 2012a. Approved Resource Management Plan Amendments and Record of  
11 Decision for Solar Energy Development in Six Southwestern States. Washington,  
12 DC. October 2012.
- 13 \_\_\_\_\_ . 2012b. FY2011 BLM Expenditures: FY2011 BLM Labor Summary and FY2011  
14 BLM Non-Labor Summary.
- 15 \_\_\_\_\_ . 2012c. Data from BLM Recreation Management Information System
- 16 \_\_\_\_\_ . 2012d. Data from BLM Rangeland Administration System.
- 17 \_\_\_\_\_ . 2012e. Idaho Sage-Grouse Habitat Planning Map 2011 Version. Shapefile. Internet  
18 website: <http://cloud.insideidaho.org>.
- 19 \_\_\_\_\_ . 2013a. Rapid Ecoregional Assessment Sage-Grouse Package. Northern Great Basin  
20 Ecoregion.
- 21 \_\_\_\_\_ . 2013b. Grazing Impacts. Data provided by Dominika Lepak, Idaho State Office.  
22 July 2013.
- 23 \_\_\_\_\_ . 2013c. Grazing IMPLAN approach. Data provided by Josh Sidon and Dominika  
24 Lepak, Idaho State Office. July 2013.
- 25 \_\_\_\_\_ . 2013d. Greater Sage-Grouse Planning Project Idaho and Southwest Montana  
26 Economic Strategies Workshop: Summary Report. June 2013
- 27 \_\_\_\_\_ . 2013e. Recreation Impacts. Data provided by Josh Sidon, Idaho State Office. June  
28 2013.
- 29 \_\_\_\_\_ . 2013f. Idaho minerals data provided by Karen Porter, Geologist, Idaho State  
30 Office. May 2013.
- 31 \_\_\_\_\_ . 2013g. (in preparation). Draft Utah Sub-Regional Greater Sage-Grouse LUPA/EIS.

- 1 \_\_\_\_\_ . 2013h. Solid minerals data provided by Karen Porter, Geologist, Idaho State Office.  
2 May 2013.
- 3 \_\_\_\_\_ . 2013i. Renewable energy data provided by Natalie Cooper, Idaho State Office. July  
4 2013.
- 5 \_\_\_\_\_ . 2013j. Interdisciplinary team input. Idaho State Office. May 2013.
- 6 \_\_\_\_\_ . 2014. Personal communication with BLM minerals specialist Karen Porter, June and  
7 July 2014.
- 8 \_\_\_\_\_ . 2015. Personal communication with BLM specialist Karen Porter. March 2015.
- 9 BLM GIS. 2013. Geographic Information System data files. Boise State Office. 2013.
- 10 \_\_\_\_\_ 2015. Geographic Information System data files. Boise State Office. March 2015.
- 11 BLM and Forest Service (US Department of the Interior, Forest Service). 2008. Final  
12 Programmatic Environmental Impact Statement and Record of Decision for  
13 Geothermal Leasing in the Western United States. Internet website:  
14 [http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal\\_nationwide.h](http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide.html)  
15 [tml](http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide.html). Accessed on September 1, 2013.
- 16 \_\_\_\_\_ . 2011. Interagency Memorandum of Understanding Concerning Greater Sage-  
17 Grouse. Internet Web site: [http://www.blm.gov/wo/st/en/prog/more/](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html)  
18 [sagegrouse/documents\\_and\\_resources.html](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html). Accessed June 27, 2013.
- 19 \_\_\_\_\_ . 2012. National Greater Sage-Grouse Planning Strategy: Land Use Plan  
20 Amendments and Environmental Impact Statements, Scoping Summary Report.  
21 May 2012. Internet Web site: [http://www.blm.gov/wo/st/en/prog/more/](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html)  
22 [sagegrouse/documents\\_and\\_resources.html](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html) . Accessed June 27, 2013.
- 23 BLS (US Bureau of Labor Statistics). 2012a. Consumer Price Index History Table. Internet  
24 website: <http://www.bls.gov/cpi/#data>.
- 25 \_\_\_\_\_ . 2012b. Local Area Unemployment Statistics. Internet website:  
26 <http://www.bls.gov/lau/data.htm>.
- 27 Boarman, W. I., and B. Heinrich. 1999. "Common Raven (*Corvus corax*).” In: The birds of  
28 North America, No. 476. A. Poole and F. Gill (editors). The Academy of Natural  
29 Sciences, Philadelphia, Pennsylvania, and The American Ornithologists’ Union,  
30 Washington, DC.
- 31 Bonneville County. 2004. Bonneville County Comprehensive Plan. Internet website:  
32 <http://www.co.bonneville.id.us/index.php/planning-and-zoning>.

- 1 Boyd, C. S., J. L. Beck, and J. A. Tanaka. 2014. Livestock grazing and sage-grouse habitat:  
2 impacts and opportunities. *Journal of Rangeland Applications* 1: 58-77.
- 3 Bradley, B. A., and J. F. Mustard. 2006. "Characterizing the landscape dynamics of an  
4 invasive plant and risk of invasion using remote sensing." *Ecol. Appl.* 16:1132-1147.
- 5 Braun, C. E. 1998. "Sage-grouse declines in western North America: What are the  
6 problems?" *Proceedings of Western Association of Fish and Wildlife Agencies*  
7 (WAFWA). Pp. 139-156.
- 8 Braun, C. E., O. O. Oedekoven, and C. L. Alderidge. 2002. "Oil and gas development in  
9 western North America: Effects on sagebrush steppe avifauna with particular  
10 emphasis on Sage Grouse." *Transactions of the North American Wildlife and*  
11 *Natural Resources Conference* 67:337-349.
- 12 Briske, D. D., J. D. Derner, D. G. Milchunas, and K. W. Tate. 2011. "An evidence based  
13 assessment of prescribed grazing practices." *In*: D. D. Briske, "Conservation benefits  
14 of rangeland resources: Assessment, recommendations, and knowledge gaps."  
15 USDA National Resources Conservation Service, Washington DC. Pp. 23-74.
- 16 Brooks, M. L., C. M. D'Antonio, D. M. Richardson, J. M. DiTomaso, J. B. Grace, R. J.  
17 Hobbs, J. E. Keeley, et al. 2004. "Effects of invasive alien plants on fire regimes."  
18 *Bioscience* 54:677-688.
- 19 Brown, J. K. 1982. "Fuel and fire behavior prediction in big sagebrush." US Department of  
20 Agriculture, Forest Service, Intermountain Forest and Range Experiment Station.  
21 Research Paper INT-290. Ogden, Utah.
- 22 \_\_\_\_\_. 1995. "Fire regimes and their relevance to ecosystem management." *In*: *Proceedings*  
23 *of Society of American Foresters National Convention, September 18-22, 1994,*  
24 *Anchorage, Alaska. Society of American Foresters, Washington, DC. Pp. 171-178.*
- 25 Brown, K. G., and K. M. Clayton. 2004. Ecology of the Greater Sage-Grouse (*Centrocercus*  
26 *urophasianus*) in the Coal Mining Landscape of Wyoming's Powder River Basin. Final  
27 Technical Report, Thunderbird Wildlife Consultants, Inc. Wright, Wyoming.
- 28 Bunting, S. C. 1984. "Prescribed burning of live standing western juniper and post-burning  
29 succession." *In*: T. E. Bedell (compiler), *Western Juniper Short Course. Oregon State*  
30 *University Extension Service, Bend, Oregon. Pp. 69-73.*
- 31 Burkhardt, J. W., and E. W. Tisdale. 1976. "Causes of juniper invasion in southwestern  
32 Idaho." *Ecology* 57:472-484.
- 33 Butler, B. R. 1978. *A Guide to Understanding Idaho Archaeology: the Upper Snake River and Salmon*  
34 *River Country* (Third Edition). A Special Publication of the Idaho Museum of Natural  
35 History, Pocatello.

- 1 Butler, B. R. 1986. "Prehistory of the Snake and Salmon River Area." *In*: W. L. D'Azevedo  
2 (editor), *Handbook of North American Indians, Great Basin*, Vol. 11. Smithsonian  
3 Institution, Washington DC.
- 4 Cagney J., E. Bainter, B. Bud, T. Christiansen, V. Herren, M. Holloran, B. Rashford, et al.  
5 2010. *Grazing Influence, Objective Development, and Management in Wyoming's*  
6 *Greater Sage-Grouse Habitat with Emphasis on Nesting and Early Brood Rearing*.  
7 University of Wyoming Cooperative Extension Service. B-1203. March 2010.
- 8 Camas County. 2006. *Camas County Comprehensive Plan*. Internet website:  
9 [http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Camascounty\\_200](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Camascounty_2006.pdf)  
10 [6.pdf](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Camascounty_2006.pdf).
- 11 Caribou County. 2006. *2006 Comprehensive Plan*. Internet website:  
12 [http://www.co.caribou.id.us/Content/site102/Articles/01\\_01\\_2008/323Comprehe](http://www.co.caribou.id.us/Content/site102/Articles/01_01_2008/323Comprehe)  
13 [nsiv\\_00000000817.pdf](http://www.co.caribou.id.us/Content/site102/Articles/01_01_2008/323Comprehe).
- 14 Carpenter, J., C. Aldridge, and M. S. Boyce. 2010. "Sage-grouse habitat selection during  
15 winter in Alberta." *Journal of Wildlife Management* 74:1806-1814.
- 16 Casazza, M. L., P. S. Coates, and C. T. Overton. 2011. "Linking habitat selection to brood  
17 success in greater sage-grouse." *In*: M. K. Sandercock, K. Martin, and G Segelbacher  
18 (editors). *Ecology, Conservation, and Management of Grouse*. University of  
19 California Press, Berkeley. Pp. 151-167.
- 20 Cassia County. 2006. *Comprehensive Plan*. Internet website:  
21 [http://www.cassiacounty.org/county-ode/publications/title8/Title8\\_Comp](http://www.cassiacounty.org/county-ode/publications/title8/Title8_Comp)  
22 [Plan.pdf](http://www.cassiacounty.org/county-ode/publications/title8/Title8_Comp).
- 23 CEQ (Council on Environmental Quality). 1981. "Forty Most Asked Questions Concerning  
24 CEQ's NEPA Regulations." *Federal Register* Vol. 46. No. 55. Washington, DC. March  
25 23, 1981.
- 26 \_\_\_\_\_ 1997. *CEQ Environmental Justice: Guidance Under the National Environmental*  
27 *Policy Act*. US Council on Environmental Quality. Washington, DC. Internet  
28 website: [http://www.epa.gov/compliance/ej/resources/policy/ej\\_guidance\\_nepa\\_](http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_)  
29 [ceq1297.pdf](http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_).
- 30 Chambers, J. C., D. A. Pyke, J. D. Maestas, M. Pellant, C. S. Boyd, S. B. Campbell, S.  
31 Espinosa, et al. 2014. Using resistance and resilience concepts to reduce impacts of  
32 invasive annual grasses and altered fire regimes on the sagebrush ecosystem and  
33 greater sage-grouse: A strategic multi-scale approach. Gen. Tech. Rep. RMRS-GTR-  
34 326. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky  
35 Mountain Research Station. 73 p.

- 1 Christiansen, T. 2009. Fence marking to reduce greater sage-grouse collisions and mortality  
2 near Farson, Wyoming – summary of interim results. Wyoming Game and Fish  
3 Department unpublished interim report.
- 4 City of Rexburg. 2012. History from the 1900s to the Present. Internet website:  
5 <http://www.rexburg.org/index.aspx?NID=336>.
- 6 City of Twin Falls. 2012. Demographics. Internet website:  
7 <http://www.tfid.org/index.aspx?NID=101>.
- 8 Clark County. 2010. Comprehensive Plan. Internet website: [http://www.clark-](http://www.clark-co.id.gov/ClarkCountyComprehensivePlan.pdf)  
9 [co.id.gov/ClarkCountyComprehensivePlan.pdf](http://www.clark-co.id.gov/ClarkCountyComprehensivePlan.pdf).
- 10 Clark, L., J. Hall, R. McLean, M. Dunbar, K. Klenk, R. Bowen, and C. A. Smeraski. 2006.  
11 “Susceptibility of greater sage-grouse to experimental infection with West Nile  
12 virus.” *Journal of Wildlife Diseases* 42:14-42.
- 13 Coates, P. S. 2007. Greater Sage-Grouse (*Centrocercus urophasianus*) nest predation and  
14 incubation behavior. Idaho State University, Boise.
- 15 Coates, P. S., M. L. Casazza, E. J. Blomberg, S. C. Gardner, S. P. Espinosa, J. L. Yee, L.  
16 Wiechman, B. J. Halstead. 2013. Evaluating greater sage-grouse seasonal space use  
17 relative to leks: implications for surface use designations in sagebrush ecosystems.  
18 *The Journal of Wildlife Management* 77(8): 1598-1609.
- 19 Coates, P. S., and D. J. Delehanty. 2010. “Nest predation of greater sage-grouse in relation to  
20 microhabitat factors and predators.” *Journal of Wildlife Management* 74(2):240-248.
- 21 Columbia Basin Research. 2013. Species information. Internet website: [http://www.cbr.](http://www.cbr.washington.edu/dart/wrapper?type=php&fname=adultdaily_1360791423_934.php)  
22 [washington.edu/dart/wrapper?type=php&fname=adultdaily\\_1360791423\\_934.php](http://www.cbr.washington.edu/dart/wrapper?type=php&fname=adultdaily_1360791423_934.php).  
23 Accessed July 22, 2013.
- 24 Condon, L. A., P. J. Weisberg, and J. C. Chamber. 2011. “Abiotic and biotic influences on  
25 *Bromus tectorum* invasion and *Artemisia tridentate* recovery after fire.” *International*  
26 *Journal of Wildland Fire* 20:597-604.
- 27 Congressional Research Service. 2012. Forest Service Payments to Counties – Title I of the  
28 Federal Forests County Revenue, Schools, and Jobs Act of 2012: Issues for  
29 Congress. R42452. Internet website: [http://www.nationalaglawcenter](http://www.nationalaglawcenter.org/assets/crs/R42452.pdf)  
30 [.org/assets/crs/R42452.pdf](http://www.nationalaglawcenter.org/assets/crs/R42452.pdf).
- 31 Connelly, J. W., and C. E. Braun. 1997. “A review of long-term changes in sage-grouse  
32 populations in western North America.” *Wildlife Biology* 3:229-234.



- 1 Connelly, J. W. Connelly, A. D. Apa, R. B. Smith, and K. P. Reese. 2000a. "Effects of  
2 predation and hunting on adult sage-grouse *Centrocercus urophasianus* in Idaho."  
3 *Wildlife Biology* 6:227-232.
- 4 Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. "Guidelines to  
5 manage sage-grouse populations and their habitats." *Wildlife Society Bulletin* 28:967-  
6 985.
- 7 Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. "Conservation  
8 assessment of greater sage-grouse and sagebrush habitats." *Western Association of*  
9 *Fish and Wildlife Agencies (WAFWA)*.
- 10 Connelly, J. W., E. T. Rinkes, and C. E. Braun. 2011. "Characteristics of greater sage-grouse  
11 habitats: A landscape species at micro and macro scales." *In*: S. T. Knick and J. W.  
12 Connelly (editors), "Greater sage-grouse: ecology and conservation of a landscape  
13 species and its habitats." *Studies in Avian Biology* 38:69-83. University of California  
14 Press, Berkeley.
- 15 Connelly, J. W., A. Moser, and D. Kemner, 2013. "Greater sage-grouse breeding habitats:  
16 Landscape-based comparisons." *Grouse News*. Newsletter of the Grouse Group of the  
17 IUCN SSC-WPA Galliformes Specialist Group 45:4-8.
- 18 Cook, R. C., D. L. Murray, J. G. Cook, P. Zager, and S. L. Monfort. 2001. "Nutritional  
19 influences on breeding dynamics in elk." *Can. J. Zool.* Vol.79:845-853.
- 20 Cooper, S. V. P. Lesica, and G. M. Kudray. 2007. Post-fire Recovery of Wyoming Big  
21 Sagebrush Shrub-steppe in Central and Southeast Montana. Montana Natural  
22 Heritage Program. 34 pp. December 2007.
- 23 Courtois, D. R., B. L. Perryman, and H. S. Hussein. 2004. "Vegetation change after 65 years  
24 of grazing and grazing exclusion." *Journal of Range Management* 57:575-585.  
25 November 2004.
- 26 Cox, M., D. W. Lutz, T. Wasley, M. Fleming, B. B. Compton, T. Keegan, D. Stroud, et al.  
27 2009. "Habitat guidelines for mule deer: intermountain west ecoregion." Mule Deer  
28 Working Group, Western Association of Fish and Wildlife Agencies.
- 29 Crawford, J. A., R. A. Olson, N. E. West, J. C. Mosley, M. A. Schroeder, T. D. Whitson, R.  
30 F. Miller, et al. 2004. "Ecology and management of sage-grouse and sage-grouse  
31 habitat." *Journal of Range Management* 57:2-19.
- 32 Custer County. 2006. Custer County Comprehensive Plan. Internet website:  
33 [http://www.co.custer.id.us/files/file/Feb%2009%20comp%20plan%20with%20up](http://www.co.custer.id.us/files/file/Feb%2009%20comp%20plan%20with%20updates.doc)  
34 [dates.doc](http://www.co.custer.id.us/files/file/Feb%2009%20comp%20plan%20with%20updates.doc).
- 35 Davies, K. W. 2010. "Revegetation of medusahead-invaded sagebrush steppe." *Rangeland*  
36 *Ecology & Management* 63:564-571.



- 1 Davies, K. W., T. J. Svejcar, and J. D. Bates. 2009. "Interaction of historical and  
2 nonhistorical disturbances maintains native plant communities." *Ecological*  
3 *Applications*, 19(6):1536-1545.
- 4 Davies, K. W., J. D. Bates, T. J. Svejcar, and C. S. Boyd. 2010. "Effects of long-term  
5 livestock grazing on fuel characteristics in rangelands: An example from the  
6 sagebrush steppe." *Rangeland Ecological Management* 63:662-669. November 2010.
- 7 Davies, K. W., C. S. Boyd, J. L. Beck, J. D. Bates, T. J. Svejcar, and M. A. Gregg. 2011.  
8 "Saving the sagebrush sea: An ecosystem conservation plan for big sagebrush plant  
9 communities." *Biological Conservation* 144:11:2573-2584.
- 10 Deaver, S., and K. Deaver. 1990. *An Archaeological Overview of the Butte District*  
11 *Prehistory*. Bureau of Land Management, Montana State Office, Cultural Resources  
12 Series No. 2, Billings, Montana.
- 13 Diamond, J. M., C. A. Call, and N. Devoe. 2009. "Effects of targeted cattle grazing on fire  
14 behavior of cheatgrass-dominated rangeland in the northern Great Basin, USA."  
15 *International Journal of Wildland Fire* 18:944-950.
- 16 Dienes, L, R. Rosentreter, D, Eldridge, M. D. Serpe. 2007. Germination and seedling  
17 establishment of two annual grasses on lichen-dominated biological soil crusts. *Plant*  
18 *and Soil*. Volume 295, [Issue 1-2](#), pp 23-35.
- 19 Dobkin, D. S., A. C. Rich, and W. H. Pyle. 1998. "Habitat and avifaunal recovery from  
20 livestock grazing in a riparian meadow system of the northwestern Great Basin."  
21 *Conservation Biology* 12:209-221.
- 22 Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. "Greater sage-grouse  
23 winter habitat selection and energy development." *Journal of Wildlife Management*  
24 72:187-195.
- 25 Doherty, K. E., D. E. Naugle, H. E. Copeland, A. Pocewicz, and J. M. Kiesecker. 2011a.  
26 "Energy development and conservation tradeoffs: systematic planning for greater  
27 sage-grouse in their eastern range." *In*: S. T. Knick and J. W. Connelly (editors),  
28 "Greater sage-grouse: ecology and conservation of a landscape species and its  
29 habitats." *Studies in Avian Biology* 38:505-516. University of California Press,  
30 Berkeley.
- 31 Doherty, K. E., J. L. Beck, and D. E. Naugle. 2011b. "Comparing ecological site descriptions  
32 to habitat characteristics influencing greater sage-grouse nest site occurrence and  
33 success." *Rangeland Ecology & Management* 64:344-351.
- 34 Doherty, M. K. 2007. "Mosquito populations in the Powder River Basin, Wyoming: A  
35 comparison of natural, agricultural, and effluent coal-bed natural gas aquatic  
36 habitats." Thesis. Montana State University, Bozeman.



- 1 DOI (US Department of the Interior. 2004. Bureau of Land Management National Sage-  
2 Grouse Habitat Conservation Strategy. 1.3.1 Guidance for Addressing Sagebrush  
3 Habitat Conservation in BLM Land Use Plans. November 2004.
- 4 \_\_\_\_\_ . 2012. Payments in Lieu of Taxes FY 2010. Internet website:  
5 <http://www.nbc.gov/pilt/search.cfm#search>.
- 6 Dooley, S. R., and J. Beckstead. 2010. "Characterizing the interaction between a fungal seed  
7 pathogen and a deleterious rhizobacterium for biological control of cheatgrass."  
8 *Biological Control* 53(2):197-203.
- 9 Drut, M. S., W. H. Pyle, and J. A. Crawford. 1994. "Diets and food selection of sage grouse  
10 chicks in Oregon." *Journal of Range Management* 47:90-93.
- 11 EIA (Energy Information Administration). 2012. Power Outages Often Spur Questions  
12 Around Burying Power Lines. July. Available:  
13 <http://www.eia.gov/todayinenergy/detail.cfm?id=7250>.
- 14 \_\_\_\_\_. 2013. Annual Energy Outlook with Projections to 2040. Available:  
15 [http://www.eia.gov/forecasts/aeo/pdf/0383\(2013\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2013).pdf). Accessed: June 04, 2014
- 16 Eiswerth, M. E., and J. S. Shonkwiler. 2006. "Examining post-wildfire reseeding on arid  
17 rangeland: A multivariate tobit modeling approach." *Ecological Modeling* 192:286-  
18 298.
- 19 Eldridge, D. J., and R. S. B. Greene. 1994. Microbiotic soil crusts: a review of their roles in  
20 soil and ecological processes in the rangelands of Australia. *Australian Journal of Soil*  
21 *Research* 32: 389-415.
- 22 Ellis, K. L. 1984. "Behavior of lekking sage-grouse in response to a perched golden eagle."  
23 *Western Birds* 15:37-38.
- 24 Ellis, K. L. 1985. Effects of a New Transmission Line on Distribution and Aerial Predation  
25 of Breeding Male Sage-Grouse. Final Report, Desert Generation and Transmission  
26 Cooperative. Sandy, Utah.
- 27 Elmore County. 2004. 2004 Comprehensive Growth and Development Plan. Internet  
28 website: [http://www.elmorecounty.org/pdfs/Elmore%20Co.%20Comprehensive%  
29 20Plan.pdf](http://www.elmorecounty.org/pdfs/Elmore%20Co.%20Comprehensive%20Plan.pdf).
- 30 Epanchin-Niell, R., J. Englin, and D. Nalle. 2009. "Investing in rangeland restoration in the  
31 Arid West, USA: Countering the effects of an invasive weed on the long-term fire  
32 cycle." *Journal of Environmental Management* 91:370-379.
- 33 Fessler, A. J. 2003. Selenium toxicity in sheep grazing on reclaimed phosphate mining sites.  
34 Master's Thesis, 100 pp. August 2003.

- 1 Fischer, R. A. 1994. "The effects of prescribed fire on the ecology of migratory sage-grouse  
2 in southeastern Idaho." Doctoral dissertation, University of Idaho, Moscow.
- 3 Fischer, A., W. L. Wakkinenk, P. Reesea, and J. W. Connelly. 1997. "Effects of prescribed  
4 fire on movements of female sage grouse from breeding to summer ranges." *Wilson*  
5 *Bulletin* 109:82-91.
- 6 Foor, T. A. 1996. Southwestern Montana Prehistoric Sites Overview and Management Plan.  
7 Prepared by the University of Montana, Department of Anthropology, Missoula.
- 8 Forest Service (US Department of the Interior, Forest Service). 2003. Final Environmental  
9 Impact Statement for the Boise, Payette, and Sawtooth National Forest Plans, FEIS  
10 Vols. 1-3 and Appendices Vols. 1-3.
- 11 \_\_\_\_\_. 2012b. National Visitor Use Monitoring, Round 2 Results.
- 12 \_\_\_\_\_. 2013a. US Forest Service Geospatial Technical Center, Salt Lake City, Utah.  
13 Geographic Information System data files. September 2013.
- 14 \_\_\_\_\_. 2013b. Great Basin Native Plant Selection and Increase Project. Internet website:  
15 <http://www.fs.fed.us/rm/boise/research/shrub/greatbasin.shtml>. Accessed July 18,  
16 2013.
- 17 \_\_\_\_\_. 2013c. ID-MT USFS Allotment AUM Data. Data provided by Dustin Bambrough.  
18 June and July 2013.
- 19 \_\_\_\_\_. 2013d. FY2011 Expenditures (no fire), Idaho Forests. Data provided by Susan  
20 Winter via e-mail to Alex Uriarte, ICF International. February 2013.
- 21 \_\_\_\_\_. 2013e. FTE calculations based on "Active Position Organizational Listings." Data  
22 provided by Chris Miller via e-mail to Alex Uriarte, ICF International. March 2013.
- 23 Forest Service GIS. 2015. Geographic Information System data and vegetation modeling  
24 outputs. March 2015.
- 25 Formann R. T. T., and L. E. Alexander. 1998. "Roads and their major ecological effects."  
26 *Annual Review of Ecology and Systematics* 29:207-231.
- 27 Freese, M. T. 2009. "Linking greater sage-grouse habitat use and suitability across  
28 spatiotemporal scales in central Oregon." Unpublished Master's thesis. Oregon State  
29 University, Corvallis.
- 30 Fremont County. 2008. Fremont County Comprehensive Plan. Internet website:  
31 [http://www.co.fremont.id.us/departments/planning\\_building/Comp\\_Plan/Fremon](http://www.co.fremont.id.us/departments/planning_building/Comp_Plan/Fremon)  
32 [t\\_Comp\\_Plan\\_09.pdf](http://www.co.fremont.id.us/departments/planning_building/Comp_Plan/Fremon_t_Comp_Plan_09.pdf).



- 1 Gallatin County. 2005. Gallatin County Growth Policy. Internet website:  
2 [http://www.gallatin.mt.gov/public\\_documents/gallatincomt\\_plandept/Plans&Policies/GrowthPolicyComplete05.pdf](http://www.gallatin.mt.gov/public_documents/gallatincomt_plandept/Plans&Policies/GrowthPolicyComplete05.pdf).  
3
- 4 Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder.  
5 2011. "Greater Sage-grouse population dynamics and probability of persistence." *In*:  
6 S. T. Knick and J. W. Connelly (editors), "Greater Sage-Grouse ecology and  
7 conservation of a landscape species and its habitats." *Studies in Avian Biology*  
8 38:293-381. Cooper Ornithological Society. University of California Press, Berkeley.
- 9 Garwood, R. 2013. Biologist, Sawtooth National Forest, personal communication with Paul  
10 Makela, BLM. July 1, 2013.
- 11 Gelbard, J. L., and J. Belnap. 2003. "Roads as conduits for exotic plant invasions in a  
12 semiarid landscape." *Conservation Biology* 17:420-432.
- 13 Gem County. 2010. Gem Community Joint Comprehensive Plan. Internet website:  
14 [http://www.co.gem.id.us/development-services/comprehensive-plan/GemComp](http://www.co.gem.id.us/development-services/comprehensive-plan/GemCompPlan.pdf)  
15 [Plan.pdf](http://www.co.gem.id.us/development-services/comprehensive-plan/GemCompPlan.pdf).
- 16 Gibson, D., E. Blomberg, J. Sedinger. 2013. Dynamics of Greater Sage-grouse (*Centrocercus*  
17 *urophasianus*) Populations in Response to Transmission Lines in Central Nevada.  
18 Progress Report: Final. University of Nevada, Reno. December 2013.
- 19 Gibson, R. M., and J. W. Bradbury. 1986. "Male and female mating strategies on Sage-  
20 Grouse leks." *In*: D. I. Rubenstein and R. W. Wrangham (editors), *Ecological*  
21 *Aspects of Social Evolution: Birds and Mammals*. Princeton University Press, New  
22 Jersey. Pp. 379-398.
- 23 Gillan, J. K., E. K. Strand, J. W. Karl, K. P. Reese, T. Laninga. 2013. "Using spatial statistics  
24 and point-pattern simulations to assess the spatial dependency between Greater  
25 Sage-Grouse and anthropogenic features." *Wildlife Society Bulletin* 37:301-310. June  
26 2013.
- 27 Godfrey, A. 2003. Historic Preservation Plan: Placer and Hard Rock Mining Resources in  
28 Montana. US West Research, Salt Lake City, Utah.
- 29 Gooding County. 2010. Gooding County Comprehensive Plan. Internet website:  
30 [http://www.goodingcounty.org/P&Z/Comprehensive%20Plan%20May%203%2020](http://www.goodingcounty.org/P&Z/Comprehensive%20Plan%20May%203%202010.pdf)  
31 [10.pdf](http://www.goodingcounty.org/P&Z/Comprehensive%20Plan%20May%203%202010.pdf).
- 32 Gratson, M. W. 1993. "Sexual selection for increased male courtship and acoustic signals and  
33 against large male size at sharp-tailed grouse leks." *Evolution* 47:691-696.
- 34 Gregg, M. A., J. A. Crawford, M. S. Drut, and A. K. DeLong. 1994. "Vegetational cover and  
35 predation of sage grouse nests in Oregon." *Journal of Wildlife Management* 58:162-  
36 166.

- 1 Gregg, M. A., M. R. Dunbar, and J. A. Crawford. 2007. "Use of implanted radio transmitters  
2 to estimate survival of Greater Sage-Grouse chicks." *Journal of Wildlife Management*  
3 71:646-651.
- 4 Hagen, C. A. 2011. Predation on Greater Sage-Grouse: Facts, process, and effects. *In*: S. T.  
5 Knick and J. W. Connelly (editors), "Greater Sage-Grouse: Ecology of a landscape  
6 species and its habitats." Cooper Ornithological Union, University of California  
7 Press, Berkeley. Pp. 95-100.
- 8 Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. "A meta-analysis for Greater Sage-  
9 Grouse nesting and brood rearing habitats." *Wildlife Biology* 13 (Supplement 1):42-  
10 50.
- 11 Hand, J. L., S. A. Copeland, D. E. Day, A. M. Dillner, H. Indres, W. C. Malm, C. E.  
12 McDade, et al. 2011. Spatial and Seasonal Patterns and Temporal Variability of Haze  
13 and Its Constituents in the United States: Report V. Colorado State University, Fort  
14 Collins, Cooperative Institute for Research in the Atmosphere.
- 15 Hann, W. J., and D. L. Bunnell. 2001. "Fire and land management planning and  
16 implementation across multiple scales." *Int. J. Wildland Fire* 10:389-403.
- 17 Hardy, C. C., K. M. Schmidt, J. M. Menakis, and N. R. Samson. 2001. "Spatial data for  
18 national fire planning and fuel management." *International Journal of Wildland Fire*  
19 10:353-372.
- 20 Hausleitner D. 2003. "Population dynamics, habitat use and movements of Greater Sage-  
21 Grouse in Moffat County, Colorado." Master's Thesis, University of Idaho, Moscow.
- 22 Headwaters Economics. 2011. Federal, State, and Local Government Financial Data  
23 Methods and Resources. Internet website: [http://headwaterseconomics.org/wphw/  
24 wp-content/uploads/EPS-HDT\\_Federal\\_Land\\_Payments\\_Documentation\\_1-30-  
25 2011.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/EPS-HDT_Federal_Land_Payments_Documentation_1-30-2011.pdf).
- 26 \_\_\_\_\_ . 2012. Economic Profile System-Human Dimensions Toolkit (EPS-HDT). Internet  
27 website: <http://headwaterseconomics.org/tools/eps-hdt>.
- 28 \_\_\_\_\_ . 2013. Economic Profile System-Human Dimensions Toolkit (EPS-HDT). Internet  
29 website: <http://headwaterseconomics.org/tools/eps-hdt>.
- 30 Hempy-Mayer, K., and D. A. Pyke. 2008. "Defoliation effects on *Bromus tectorum* seed  
31 production: Implications for grazing." *Rangeland Ecol. Manage.* 61:116-123.
- 32 Herbort, D. P. 1995a. Standard Procedures for the Documentation, Evaluation, and  
33 Management of Historic Mining Properties. Montana Department of Environmental  
34 Quality-Abandoned Mine Reclamation Bureau, Helena.



- 1 \_\_\_\_\_ . 1995b. Handbook for the Identification of Historic Metal Mining Properties.  
2 Montana Department of Environmental Quality-Abandoned Mine Reclamation  
3 Bureau, Helena.
- 4 Heyerdahl, E. K., R. F. Miller, and R. A. Parsons. 2006. "History of fire and Douglas-fir  
5 establishment in a savanna and sagebrush-grassland mosaic, southwestern Montana,  
6 USA." *Forest Ecology and Management* 230:107-118.
- 7 Holloran, M. J. 2005. "Greater sage-grouse (*Centrocercus urophasianus*) population response to  
8 natural gas field development in western Wyoming." Doctoral dissertation.  
9 University of Wyoming, Laramie.
- 10 Holloran, M. J. R., and S. H. Anderson. 2005. "Spatial distribution of Greater Sage-Grouse  
11 nests in relatively contiguous sagebrush habitat." *Condor* 107:742-52.
- 12 Holloran, M. J. R., R. C. Kaiser, and W. Hubert. 2010. "Yearling Greater Sage-Grouse  
13 response to energy development in Wyoming." *Journal of Wildlife Management*  
14 74:65-72.
- 15 Howe, K. B. 2012. "Selection for anthropogenic structures and vegetation characteristics by  
16 common ravens (*Corvus corax*) within a sagebrush-steppe ecosystem." Thesis. Idaho  
17 State University, Pocatello.
- 18 Howe K. B., P. S. Coates, D. J. Delehanty. 2014. Selection of anthropogenic features and  
19 vegetation characteristics by nesting common ravens in the sagebrush ecosystem.  
20 *The Condor* 116(1): 35-49. doi: 10.1650/CONDOR-13-115-R2.1
- 21 Hulbert, L. C. 1955. "Ecological studies of *Bromus tectorum* and other annual brome grasses."  
22 *Ecological Monographs* 25:181-213.
- 23 Idaho Association of Counties. 2011. County Financing and Budgeting. CEO Handbook-  
24 2011. Internet website: <http://idcounties.org/DocumentCenter/Home/>.
- 25 Idaho Commerce & Labor, 2005. Profile of Rural Idaho. A look at economic and social  
26 trends affecting rural Idaho. Internet website: [http://lmi.idaho.gov/Portals/  
27 13/PDF/population/Profile%20of%20Rural%20Idaho.pdf](http://lmi.idaho.gov/Portals/13/PDF/population/Profile%20of%20Rural%20Idaho.pdf).
- 28 Idaho Department of Labor. 2015. Work Force Trend Profiles. Caribou County. January.  
29 Available: <https://labor.idaho.gov/publications/lmi/pubs/CaribouProfile.pdf>.  
30 Accessed: March 29, 2015.
- 31 Idaho Governor's Office of Species Conservation. 2013. Letter to Steve Ellis, BLM Idaho  
32 State Director, and spreadsheet. July 1, 2013.
- 33 Idaho State Department of Agriculture. 2012. Idaho Invasive Species Strategic Plan 2012-  
34 2016.

- 1 Idaho Department of Labor. 2011. Labor Market Information. Internet website:  
2 <http://lmi.idaho.gov/PopulationCensus.aspx>
- 3 \_\_\_\_\_. 2013. 2010-2020 Long-Term Occupation Projections. Internet website:  
4 <http://www2.labor.idaho.gov/workforceglance/LongTermOccupations>. Accessed  
5 in July 2013.
- 6 Idaho Governor's Sage-grouse Task Force. 2012. Recommendations. June 15, 2012.
- 7 Idaho Legislature Energy, Environment and Technology Interim Committee. 2012. Idaho  
8 Energy Plan. Internet website:  
9 [http://www.energy.idaho.gov/energyalliance/d/2012\\_idaho\\_energy\\_plan\\_final\\_2.p](http://www.energy.idaho.gov/energyalliance/d/2012_idaho_energy_plan_final_2.pdf)  
10 [df](http://www.energy.idaho.gov/energyalliance/d/2012_idaho_energy_plan_final_2.pdf). Accessed September 20, 2013.
- 11 Idaho Mining Association. 2010. Idaho Mining Industry. Internet website:  
12 <http://www.idahomining.org/ima/idmining.html>.
- 13 Idaho Sage-Grouse Advisory Committee. 2006. Conservation Plan for the Greater Sage-  
14 Grouse in Idaho. July 2006.
- 15 \_\_\_\_\_. 2009. Conservation Plan for the Greater Sage-Grouse in Idaho, as amended. July  
16 2009.
- 17 Idaho State Tax Commission. 2011. 2011 Annual Report. Internet website:  
18 [http://tax.idaho.gov/reports/EPB00033\\_11-30-2011.pdf](http://tax.idaho.gov/reports/EPB00033_11-30-2011.pdf).
- 19 IDFG (Idaho Department of Fish and Game). 2005. Idaho Comprehensive Wildlife  
20 Conservation Strategy. Idaho Department of Fish and Game, Boise.
- 21 \_\_\_\_\_. 2011a. Mule deer. Project W-170-R-34. Progress Report. Study I, Job 2. Boise.
- 22 \_\_\_\_\_. 2011b. Pronghorn. Project W-170-R-34. Progress Report. Study I, Job 7. Boise.
- 23 \_\_\_\_\_. 2011c. Elk. Project W-170-R-34. Progress Report. Study I, Job 1. Boise.
- 24 \_\_\_\_\_. 2012. Sage-Grouse lek database metadata.
- 25 IPCC (Intergovernmental Panel on Climate Change). 2007. Climate change 2007: the  
26 physical science basis: contribution of Working Group I to the Fourth Assessment  
27 Report of the Intergovernmental Panel on Climate Change. (D. Solomon, D. Qin,  
28 M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor, and H. L. Miller [editors].  
29 Cambridge University Press, New York, New York. Internet website:  
30 <http://www.ipcc.ch/>.



- 1 Jackson, S. D. 2000. "Overview of transportation impacts on wildlife movement and  
2 populations." *In*: T. A. Messmer and B. West (editors), *Wildlife and Highways:  
3 Seeking Solutions to an Ecological and Socio-economic Dilemma*. The Wildlife  
4 Society, pp. 7-20.
- 5 Jefferson County. 2005. Jefferson County Comprehensive Plan. Internet website:  
6 [http://www.co.jefferson.id.us/use\\_images/planning\\_zoning/JeffersonCoCompPlan](http://www.co.jefferson.id.us/use_images/planning_zoning/JeffersonCoCompPlan.pdf)  
7 .pdf
- 8 Jerome County. 2006. Jerome County Comprehensive Plan. Internet website:  
9 [http://www.jeromecountyid.us/vertical/sites/%7b2423a997-f66f-4bae-9896-  
10 858e67909c93%7d/uploads/%7b63a4d57d-af09-42a7-9a5a-7329b9301771%7d.pdf](http://www.jeromecountyid.us/vertical/sites/%7b2423a997-f66f-4bae-9896-858e67909c93%7d/uploads/%7b63a4d57d-af09-42a7-9a5a-7329b9301771%7d.pdf).
- 11 Johnson, D. J., M. J. Holloran, J. W. Connelly, S. E. Hanser, C. L. Amundson, and S. T.  
12 Knick. 2011. "Influences of environmental and anthropogenic features on Greater  
13 Sage-Grouse population, 1997-2007." *In*: S. T. Knick and J. W. Connelly (editors),  
14 *Studies in Avian Biology*. Cooper Ornithological Union, University of California  
15 Press, Berkeley. Pp. 407-450.
- 16 Johnson, G. D., and M. S. Boyce. 1990. "Feeding trials with insects in the diet of Sage  
17 Grouse chicks." *Journal of Wildlife Management* 54:89-91.
- 18 Johnson, G. D., and S. E. Stephens. 2011. "Wind power and biofuels: A green dilemma for  
19 wildlife conservation." *In*: D. E. Naugle (editor), *Energy Development and Wildlife  
20 Conservation in Western North America*. Pp. 131-156.
- 21 Jones, A. L. (editor). 2012. *Best Management Practices for Siting, Developing, Operating and  
22 Monitoring Renewable Energy in the Intermountain West: A Conservationist's  
23 Guide*. Special publication. Wild Utah Project. Salt Lake City.
- 24 Kaiser, R. C. 2006. "Recruitment by Greater Sage-Grouse in association with natural gas  
25 development in western Wyoming." Master's thesis, University of Wyoming,  
26 Laramie.
- 27 Karl, T. R., J. M. Melillo, and T. C. Peterson. 2009. *Global Climate Change Impacts in the United  
28 States*. Cambridge University Press, New York, New York.
- 29 Kiesecker, J. M., H. Copeland, B. McKenney, A. Pocerwicz, and K. Doherty. 2011. "Energy  
30 by design: Making mitigation work for conservation and development." Chapter 9 in:  
31 D. E. Naugle (editor), *Energy Development and Wildlife Conservation in Western North  
32 America*. Island Press, New York, New York.
- 33 Kirol, C. P., J. L. Beck, J. B. Dinkins, and M. R. Conover. 2012. "Greater Sage-Grouse  
34 nesting and brood-rearing microhabitat selection in xeric big sagebrush." *Condor*  
35 114:75-89.



- 1 Klebenow, D. A., and G. M. Gray. 1968. "Food habits of juvenile Sage Grouse." *Journal of*  
2 *Range Management* 21:80-83.
- 3 Knapp, P. A. 1996. "Cheatgrass (*Bromus tectorum* L.) dominance in the Great Basin Desert:  
4 History, persistence, and influences to human activities." *Global Environmental*  
5 *Change-Human and Policy Dimensions* 6:37-52.
- 6 Knick, S. T. 2011. "Historical development, principal federal legislation, and current  
7 management of sagebrush habitats: Implications for conservation." *In*: S. T. Knick  
8 and J. W. Connelly (editors). "Greater Sage-Grouse: Ecology and conservation of a  
9 landscape species and its habitats." *Studies in Avian Biology* 38:13-31. University of  
10 California Press, Berkeley.
- 11 Knick, S. T., D. S. Dobkin, J. T. Rotenberry, M. A. Schroeder, W. M. Vander Haegen, and C.  
12 van Riper III. 2003. "Teetering on the edge or too late? Conservation and research  
13 issues for avifauna of sagebrush habitats." *The Condor* 105:4:611-634. November  
14 2003.
- 15 Knick, S. T., and S. E. Hanser. 2011. "Connecting pattern and process in Greater Sage-  
16 Grouse populations and sagebrush landscapes." *In*: S. T. Knick and J. W. Connelly  
17 (editors), "Greater Sage-Grouse: Ecology of a landscape species and its habitats."  
18 Cooper Ornithological Union, University of California Press, Berkeley. Pp. 383-406.
- 19 Knick S. T., S. E. Hanser and K. L. Preston. 2013. Modeling ecological minimum  
20 requirements for distribution of greater sage-grouse leks: implications for population  
21 connectivity across their western range. *Ecology and Evolution* 3: 1539 – 1551.
- 22 Knick, S. T., S. E. Hanser, R. F. Miller, D. A. Pyke, M. J. Wisdom, S. P. Finn, E. T. Rinkes,  
23 and C. J. Henny. 2011. "Ecological influence and pathways of land use in  
24 sagebrush." *In*: S. T. Knick and J. W. Connelly (editors), "Greater Sage-Grouse:  
25 ecology and conservation of a landscape species and its habitats." *Studies in Avian*  
26 *Biology* 38:203-251. University of California Press, Berkeley.
- 27 Knick, S. T., and J. T. Rotenberry. 1995. "Landscape characteristics of shrubsteppe habitats  
28 and breeding passerine birds." *Conservation Biology* 9:1059-1071.
- 29 Kolada, E. J., M. L. Casazza, and J. S. Sedinger. 2009. "Ecological factors influencing nest  
30 survival of Greater Sage-Grouse in Mono County, California." *Journal of Wildlife*  
31 *Management* 73:1341-1347.
- 32 Kramer, A. T., and K. Havens. 2009. "Plant conservation genetics in a changing world."  
33 *Trends in Plant Science* 14:599-607.
- 34 Kuchler, A. W. 1970. "The potential natural vegetation of the conterminous United States."  
35 *The National Atlas of the United States of America*. USDI Geological Survey,  
36 Washington, DC.



- 1 Lammers, W. M, and M. W. Collopy. 2007. "Effectiveness of avian predator perch  
2 deterrents on electric transmission lines." *Journal of Wildlife Management* 71:2752-  
3 2758.
- 4 Launchbaugh, K., B. Brammer, M. L. Brooks, S. Bunting, P. Clark, J. Davison, M. Fleming,  
5 et al. 2007. Interactions among livestock grazing, vegetation type, and fire behavior  
6 in the Murphy Wildland Fire Complex in Idaho and Nevada, July 2007. US  
7 Geological Survey Open-File Report, pp. 2008-1214. Internet website:  
8 <http://pubs.usgs.gov/ofr/2008/1214>.
- 9 LeBeau, C. W. 2012. "Evaluation of greater sage-grouse reproductive habitat and response  
10 to wind energy development in south-central Wyoming." Thesis. University of  
11 Wyoming, Laramie.
- 12 LeBeau, C. W., J. L. Beck, G. D. Johnson, and M. J. Holloran. 2014. Short-term impacts of  
13 wind energy development on greater sage-grouse fitness. *Journal of Wildlife Management*  
14 78:522–530.
- 15 Lemhi County. 2007. Lemhi County Comprehensive Plan. Internet website:  
16 [http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Lemhicounty\\_200](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Lemhicounty_2007.pdf)  
17 [7.pdf](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Lemhicounty_2007.pdf).
- 18 Lentsch, L. D., C. A. Toline, J. Kershner, J. M. Hudson, J. Mizzi. 2000. Range-Wide  
19 Conservation Agreement and Strategy for Bonneville Cutthroat Trout (*Oncorhynchus*  
20 *clarki utah*). Publication Number 00-19. Utah Division of Wildlife Resources, Salt  
21 Lake City.
- 22 Leonard, K. A., K. P. Reese, and J. W. Connelly. 2000. "Distribution, movements and  
23 habitats of Sage-Grouse *Centrocercus urophasianus* on the Upper Snake River Plain of  
24 Idaho: Changes from the 1950s to the 1990s." *Wildlife Biology* 6:265-270.
- 25 Leu, M., and S. E. Hanser. 2011. "Influences of the human footprint on sagebrush landscape  
26 patterns." *In*: S. T. Knick and J. Connelly (editors), "Greater Sage-Grouse: Ecology  
27 of a landscape species and its habitats." Cooper Ornithological Union, University of  
28 California Press, Berkeley. Pp. 253-271.
- 29 Leu, M., S. E. Hanser, and S. T. Knick. 2008. "The human footprint in the west: A large-  
30 scale analysis of anthropogenic impacts." *Ecological Applications* 18:1119-1139.
- 31 Lincoln County. 2008. Lincoln County Comprehensive Plan. Internet website:  
32 <http://lincolncountyid.us/comprehensiveplan2008-56.pdf>.
- 33 Lyon, A. G. 2000. "The potential effects of natural gas development on Sage-Grouse  
34 (*Centrocercus urophasianus*) near Pinedale, Wyoming." Master's thesis. University of  
35 Wyoming, Laramie.

- 1 Lyon, A. G., and S. H. Anderson. 2003. "Potential gas development impacts on Sage-Grouse  
2 nest initiation and movement." *Wildlife Society Bulletin* 31:486-491.
- 3 Mack, R. N., and D. A. Pyke. 1983. "The demography of *Bromus tectorum*: Variation in time  
4 and space." *J. Ecol.* 71:69-93.
- 5 Madison County. 2006. Madison County Growth Policy. Internet website:  
6 <http://madison.mt.gov/departments/plan/publications/MCGrowthPolicy0906.pdf>.
- 7 \_\_\_\_\_ . 2008. Madison County "2020" Madison County Comprehensive Plan. Internet  
8 website: <http://www.co.madison.id.us/attachments/article/62/compplan.pdf>.
- 9 Mainstreet Uptown Butte, Inc. 2012. Mainstreet Uptown Butte. Internet website  
10 <http://www.mainstreetbutte.org/>.
- 11 Makela, P., and D. Major. 2012. A Framework to Identify Greater Sage-Grouse Preliminary  
12 Priority Habitat and Preliminary General Habitat for Idaho. BLM Idaho State Office.  
13 April 2012.
- 14 Manier, D. J., D. J. A. Wood, Z. H. Bowen, R. Donovan, M. J. Holloran, L. M. Juliusson, K.  
15 S. Mayne, et al. 2013. Summary of Science, Activities, Programs and Policies that  
16 Influence the Rangeland Conservation of Greater Sage-Grouse (*Centrocercus*  
17 *urophasianus*). US Geological Survey Open-File Report 2013-1098, Fort Collins,  
18 Colorado.
- 19 Manier, D. J., and N. T. Hobbs. 2006. "Large herbivores influence the composition and  
20 diversity of shrub-steppe communities in the Rocky Mountains, USA." *Oecologia*  
21 146:641-651.
- 22 May, B. E., S. E. Albeke, and T. Horton. 2007. Range-Wide Status Assessment for  
23 Yellowstone Cutthroat Trout (*Oncorhynchus clarkii bouvieri*): 2006. Prepared for  
24 Yellowstone Cutthroat Trout Interagency Coordinating Group. July 2007.
- 25 McGrath C. L., A. J. Woods, J. M. Omernik, S. A. Bryce, M. Edmondson, J. A. Nesser, J.  
26 Shelden, et al. 2002. Ecoregions of Idaho. (Color poster with map, descriptive text,  
27 summary tables, and photographs): Reston, Virginia, US Geological Survey (map  
28 scale 1:1,350,000).
- 29 McKay, K. L. 2011. Mining Idaho's History: Metal Mining in Idaho 1860-1960, A Mining  
30 Context for Idaho. Idaho State Historical Society.
- 31 McKenna-Neuman, C., C. D. Maxwell, and J. W. Boulton. 1996. Wind transport of sand  
32 surfaces crusted with photoautotrophic microorganisms. *Catena* 27: 229-247.
- 33 Meatte, D. S. 1990. "Prehistory of the Western Snake River Basin." Occasional papers of the  
34 Idaho Museum of Natural History, No. 35. Pocatello.



- 1 Meinke, C. W., S. T. Knick, and D. A. Pyke. 2009. "A spatial model to prioritize sagebrush  
2 landscapes in the intermountain West (USA) for Restoration." *Restoration Ecology*  
3 17:652-659.
- 4 Menard C., P. Duncan, G. Fleurance, J. Georges, and M. Lila. 2002. "Comparative foraging  
5 and nutrition of horses and cattle in European wetlands." *Journal of Applied*  
6 *Ecology* 39:120-133.
- 7 Messmer T. A., R. Hasenyager, J. Burruss, S Liguori. 2013 Stakeholder contemporary  
8 knowledge needs regarding the potential effects of tall structures on sage-grouse.  
9 *Human–Wildlife Interactions* 7(2):273–298.
- 10 METI Corp/Economic Insights of Colorado. 2012. USDA Forest Service Protocols for  
11 Delineation of Economic Impact Analysis Areas.
- 12 Meyer, S. E., D. L. Nelson, S. Clement, and J. Beckstead. 2008. "Cheatgrass (*Bromus tectorum*)  
13 biocontrol using indigenous fungal pathogens." *In*: S. G. Kitchen, R. L. Pendleton, T.  
14 A. Monaco, and J. Vernon (compilers), "Proceedings—Shrublands under fire:  
15 Disturbance and recovery in a changing world." Proc. RMRS-P-52. US Department  
16 of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins,  
17 Colorado. Pp. 61-67.
- 18 MFWP (Montana Fish, Wildlife and Parks). 2009. Greater Sage-Grouse Habitat  
19 Conservation Strategy. January 13, 2009.
- 20 \_\_\_\_\_. 2004. Montana Statewide Elk Management Plan. MFWP Wildlife Division report.  
21 Helena.
- 22 \_\_\_\_\_. 2012. Deer management. Internet website: [http://fwp.mt.gov/fishAndWildlife/  
23 management/deer/default.html](http://fwp.mt.gov/fishAndWildlife/management/deer/default.html). Accessed July 22, 2013.
- 24 Miller, R.F., J. D. Bates, T. J. Svejcar, F. B. Pierson, L. E. and Eddleman. 2007. Western  
25 Juniper Field Guide: Asking the Right Questions to Select Appropriate Management  
26 Actions: U.S. Geological Survey Circular 1321, 61 p.
- 27 Miller, R. F., and L. L. Eddleman. 2001. "Spatial and temporal changes of Sage-Grouse  
28 habitat in the sagebrush biome." Agricultural Experiment Station, Oregon State  
29 University, Corvallis. Technical Bulletin 151.
- 30 Miller, R. F., and J. A. Rose. 1999. "Fire history and western juniper encroachment in  
31 sagebrush shrublands." *Journal of Range Management* 52:550-559.
- 32 Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L.  
33 Hild. 2011. "Characteristics of sagebrush habitats and limitations to long-term  
34 conservation." *In*: S. T. Knick (editor), "Greater Sage-Grouse: Ecology of a  
35 landscape species and its habitats." Cooper Ornithological Union, University of  
36 California Press, Berkeley. Pp. 145-184.

- 1 Minidoka County. 2001. County/City Comprehensive Plan. Internet website:  
2 [http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Minidokacounty\\_](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Minidokacounty_)  
3 [2001.pdf](http://www.bioregionalplanning.uidaho.edu/data/idahoplanning/Minidokacounty_2001.pdf).
- 4 Monson, S. B., R. Stevens, and N. L. Shaw. 2004. "Restoring western rangelands." USFS  
5 General Technical Report RMRS-GTR-136 1:194.
- 6 Montana Department of Labor and Industry. 2011. Montana Employment Projections, 2010  
7 through 2020. Produced by the Research and Analysis Bureau; Barbara Wagner,  
8 Senior Economist. Internet website: [http://swib.mt.gov/docs/Web%20](http://swib.mt.gov/docs/Web%20Documents/2011Projections.pdf)  
9 [Documents/2011Projections.pdf](http://swib.mt.gov/docs/Web%20Documents/2011Projections.pdf). Accessed in July 2013.
- 10 Montana Department of Revenue. 2010. Biennial Report, July 1, 2008-June 30, 2010.
- 11 Montana Natural Heritage Program. 2013. Species information. Internet web site:  
12 <http://mtnhp.org/>. Accessed July 3, 2013.
- 13 Montana Office of Indian Affairs. 2011. Tribal Relations Report 2011. Internet website:  
14 [http://tribalnations.mt.gov/docs/2011\\_Tribal\\_Relations\\_Report.pdf](http://tribalnations.mt.gov/docs/2011_Tribal_Relations_Report.pdf).
- 15 Montana Sage-Grouse Work Group. 2005. Management Plan and Conservation Strategies  
16 for Sage Grouse in Montana. February 1, 2005.
- 17 Moore, R., and T. Mills. 1977. "An environmental guide to western surface mining. Part  
18 Two: Impacts, mitigation, and monitoring." Federal Government Series: FWS/OBS  
19 - 78/04. Department of the Interior.
- 20 Mote, P. W., and E. P. Salathe, Jr. 2010. "Future climate in the Pacific Northwest." Climatic  
21 Change 102:29-50.
- 22 Mountain Home Air Force Base. 2012. Integrated Natural Resources Management Plan for  
23 Mountain Home Air Force Base, Small Arms Range, Saylor Creek Air Force Range,  
24 Juniper Butte Range, and other Mountain Home Range Complex Sites. June 2012.  
25 Internet website: [http://www.mountainhome.af.mil/shared/media/document/](http://www.mountainhome.af.mil/shared/media/document/AFD-120824-035.pdf)  
26 [AFD-120824-035.pdf](http://www.mountainhome.af.mil/shared/media/document/AFD-120824-035.pdf). Accessed September 25, 2012.
- 27 National Association of Counties (NACO). 2012. Find a County. Internet website:  
28 <http://www.naco.org/counties/pages/findacounty.aspx>.
- 29 National Center for Education Statistics. 2012. Public School Revenue Sources. Internet  
30 website: [http://nces.ed.gov/programs/coe/indicator\\_sft.asp](http://nces.ed.gov/programs/coe/indicator_sft.asp).
- 31 National Renewable Energy Laboratory (NREL). 2005. United States Photovoltaic Solar  
32 Resource. Internet website: <http://www.nrel.gov/gis/solar.html>. Accessed July 2013.



- 1 \_\_\_\_\_ . 2009. Idaho – Annual Average Wind Speed at 80m. Internet website:  
2 [http://www.windpoweringamerica.gov/wind\\_resource\\_maps.asp?stateab=id](http://www.windpoweringamerica.gov/wind_resource_maps.asp?stateab=id).  
3 Accessed July 2013.
- 4 National Technical Team (NTT). 2011. National Greater Sage-Grouse Conservation  
5 Measures/Planning Strategy. December 21, 2011. BLM.
- 6 Natural Resources Conservation Service. 2012. “Achieving Wildlife Conservation Through  
7 Sustainable Ranching.” Sage-Grouse Initiative Status Report Fiscal Year 2010-2011.  
8 March 2012.
- 9 \_\_\_\_\_ . 2011. “Introduction to NRCS’s New Sage-Grouse Initiative: Wildlife Conservation  
10 through Sustainable Ranching.” Department of Agriculture, Washington DC.
- 11 \_\_\_\_\_ . 2003. *National Range and Pasture Handbook. Revision 1 - December 2003*. Grazing Lands  
12 Technical Institute, USDA-NRCS.  
13 [http://www.monocounty.ca.gov/cdd%20site/Planning/Projects/Documents/Com  
14 pleteHandbook\\_001.pdf](http://www.monocounty.ca.gov/cdd%20site/Planning/Projects/Documents/CompleteHandbook_001.pdf)
- 15 Naugle D. E., K. E. Doherty, B. L. Walker, M. J. Holloran, and H. E. Copeland. 2011.  
16 “Energy development and Greater Sage-Grouse.” *In*: S. T. Knick and J. W. Connelly  
17 (editors), “Greater Sage-Grouse: Ecology of a landscape species and its habitats.”  
18 Cooper Ornithological Union, University of California Press, Berkeley. Pp. 489-504.
- 19 Nonne, D., E. Blomberg, and J. Sedinger. 2013. Dynamics of GRSG (*Centrocercus*  
20 *urophasianus*) populations in response to transmission lines in central Nevada.  
21 Progress report. University of Nevada, Reno.
- 22 NRCS. 2012. Applying the Sage-Grouse Fence Collision Risk Tool to Reduce Bird Strikes.  
23 NRCS/CEAP Conservation Insight Publication. November 2012. Internet website:  
24 [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1049415.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1049415.pdf).
- 25 NREL (National Renewable Energy Laboratory). 2005. United States Photovoltaic Solar  
26 Resource. Internet website: <http://www.nrel.gov/gis/solar.html>. Accessed July 2013.
- 27 \_\_\_\_\_ . 2009. Idaho – Annual Average Wind Speed at 80m. Internet website:  
28 [http://www.windpoweringamerica.gov/wind\\_resource\\_maps.asp?stateab=id](http://www.windpoweringamerica.gov/wind_resource_maps.asp?stateab=id).  
29 Accessed July 2013.
- 30 \_\_\_\_\_ . 2012. “Classes of Wind Power Density at 10m and 50m”. Internet website: [http:  
31 //redc.nrel.gov/wind/pubs/atlas/tables/1-1T.html](http://redc.nrel.gov/wind/pubs/atlas/tables/1-1T.html). Accessed December 2012.
- 32 Oles, L. 2007. Effectiveness of Raptor Perch-Deterrent Devices on Power Poles for  
33 Reducing Secondary Effects on Prey Species. BLM Resource Note No. 84.

- 1 OMB (Office of Management and Budget). 2009. Update of Statistical Area Definitions and  
2 Guidance on Their Uses. OMB Bulletin N. 10-02. Internet website:  
3 <http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf>.
- 4 ONRR (Department of Interior, Office of Natural Resources Revenue). 2012. Data from  
5 Office of Natural Resources Revenue. Washington, DC.
- 6 Owyhee County. 2010. Owyhee County Comprehensive Plan. Internet website:  
7 [http://owyheecounty.net/docs/adminforms/Owyhee%20County%20Comp%20Pla](http://owyheecounty.net/docs/adminforms/Owyhee%20County%20Comp%20Plan)  
8 [n080910.pdf](http://owyheecounty.net/docs/adminforms/Owyhee%20County%20Comp%20Plan080910.pdf).
- 9 \_\_\_\_\_. 2013. Sage-Grouse Management Plan, Owyhee County, Idaho. April 8, 2013.
- 10 Patricelli, G. L., J.L. Blickley, S.L. Hooper. 2013. Recommended management strategies to  
11 limit anthropogenic noise impacts on greater sage-grouse in Wyoming. *Human–*  
12 *Wildlife Interactions* 7(2):230–249, Fall 2013.
- 13 Patterson, R. L. 1952. The Sage-Grouse in Wyoming. Sage Books [for] Wyoming Game and  
14 Fish Commission. 1952.
- 15 Payette County. 2006. Payette County Comprehensive Plan. Internet website:  
16 <http://www.payettecounty.org/pnz/Docs/FinalCompPlan.pdf>.
- 17 Payne, G. F., J. W. Foster, and W. C. Leininger. 1983. “Vehicle impacts on northern Great  
18 Plains range vegetation.” *Journal of Range Management* 36:327-331.
- 19 Pellant, M. 1992. “History and applications of the intermountain greenstripping program.”  
20 Paper presented at the Symposium on Ecology, Management, and Restoration of  
21 Intermountain Annual Rangelands, Boise, Idaho, May 18-22, 1992.
- 22 Pellant, M. 1990. “The cheatgrass-wildfire cycle—Are there any solutions?” *In*: E. Durant  
23 McArthur, Evan M. Romney, Stanley D. Smith, Paul T. Tueller (compilers),  
24 “Proceedings—Symposium on Cheatgrass Invasion, Shrub Die-Off, and Other  
25 Aspects of Shrub Biology and Management, Las Vegas, Nevada.” Gen. Tech. Rep.  
26 INT-276. US Department of Agriculture, Forest Service, Intermountain Research  
27 Station, Ogden, Utah. April 5-7, 1989. Pp. 11-17.
- 28 Pellant, M. 1996. “Use of indicators to qualitatively assess rangeland health.” *In*: N. E. West  
29 (editor), “Rangelands in a sustainable biosphere.” Proc. 5th International Rangeland  
30 Congress. Society for Range Management, Denver, Colorado. Pp. 434-435.
- 31 Pellant, M., and C. R. Lysne. 2005. “Strategies to enhance plant structure and diversity in  
32 crested wheatgrass seedings.” *In*: Nancy L. Shaw, Mike Pellant, Stephen B. Mosen  
33 (compilers), “Sage-Grouse habitat restoration symposium proceedings.” June 4-7,  
34 2001. Boise, Idaho. Proc. RMRS-P-38. Fort Collins, Colorado: US Department of  
35 Agriculture, Forest Service, Rocky Mountain Research Station. Pp. 81-92.



- 1 Peterson, E.B. 2013. Regional-scale relationship among biological soil crusts, invasive annual  
2 grasses, and disturbance. *Ecological Processes* 2013, 2:2.
- 3 Peterson, J. G. 1970. “The food habits and summer distribution of juvenile Sage-Grouse in  
4 central Montana.” *Journal of Wildlife Management* 34:147-155.
- 5 Plew, M. G. 2008. *The Archaeology of the Snake River Plain*. Department of Anthropology,  
6 Boise State University, Idaho.
- 7 Ponzetti, J. M., B. McCune, and D. A. Pyke. 2007. “Biotic soil crusts in relation to  
8 topography, cheatgrass and fire in the Columbia Basin, Washington.” *Bryologist*  
9 110:706-722.
- 10 Power County. 2009. Power County Comprehensive Plan. Internet website:  
11 <http://gis.whispermountain.net/download/PowerCountyCompPlan/CompPlan.pdf>.
- 12 Prather, P. R. and T. A. Messmer. 2010. Raptor and Corvid Response to Power Distribution  
13 Line Perch Deterrents in Utah. *The Journal of Wildlife Management* 74 (4): 796–800.
- 14 Pruett, C. L., M. A. Patten, and D. H. Wolfe. 2009. “Avoidance behavior by prairie grouse:  
15 Implications for development of wind energy.” *Conservation Biology* 23:1253-1259.
- 16 PSC (Public Service Commission of Wisconsin). 2011. Underground Electric Transmission  
17 Lines. Available: <https://psc.wi.gov/thelibrary/publications/electric/electric11.pdf>.
- 18 Pyke, D. A. 2011. “Restoring and rehabilitating sagebrush habitats.” *In*: S. T. Knick and J. W.  
19 Connelly (editors). “Greater Sage-Grouse: Ecology and conservation of a landscape  
20 species and its habitats.” *Studies in Avian Biology* 38):531-548. University of  
21 California Press, Berkeley.
- 22 Pyle, W. H. 1993. “Response of brood-rearing habitat of Sage-Grouse to prescribed burning  
23 in Oregon.” Master’s thesis. Oregon State University, Corvallis.
- 24 Pyrah, D. B. 1987. *American Pronghorn Antelope in the Yellow Water Triangle, Montana*.  
25 Montana Department of Fish, Wildlife and Parks and Bureau of Land Management.
- 26 Reisner, M. D., J. B. Grace, D. A. Pyke, P. S. Doescher. 2013. “Conditions favouring *Bromus*  
27 *tectorum* dominance of endangered sagebrush steppe ecosystems.” *Journal of Applied*  
28 *Ecology*. doi: 10.1111/1365-2664.
- 29 Remington, T. E., and C. E. Braun. 1991. “How surface coal mining affects Sage-Grouse,  
30 North Park, Colorado.” Thorne Ecological Institute. *Proceedings, Issues and*  
31 *Technology in the Management of Impacted Western Wildlife* 5:128-132 (not seen;  
32 as cited by Manier et al. 2013).
- 33 Richards, R. T., J. C. Chambers, and C. Ross. 1998. “Use of native plants on federal lands:  
34 Policy and practice.” *Journal of Range Management* 51:625-632.



- 1 Rickard, W. H. 1985. "Experimental cattle grazing in a relatively undisturbed shrub steppe  
2 community." Northwest Science 59:66-72.
- 3 Robinson, E. D, J. M. Ponzetti, J. Bakker. 2013. Long-term changes in biological soil crust  
4 cover and composition. Ecological Processes. Ecological Processes 2013,  
5 2:5.Springer-Verlag. 10 pgs.
- 6 Rodríguez, A. 2011. Indian Tribes in Idaho: Opportunities and Challenges In the Times of  
7 Self-Determination. University of Idaho. Internet website:  
8 <http://www.cals.uidaho.edu/edcomm/pdf/BUL/BUL0873.pdf>.
- 9 Root, H. T., and B. McCune. 2012. "Regional patterns of biological soil crust lichen species  
10 composition related to vegetation, soils, and climate in Oregon, USA." Journal of  
11 Arid Environments 79:93-100.
- 12 Rowland, M. M., L. H. Suring, and M. J. Wisdom. 2010. "Assessment of habitat threats to  
13 shrublands in the Great Basin: A case study." In: J. M. Pye, H. M. Rauscher, Y.  
14 Sands, D. C. Lee, and J. S. Beatty (editors), Environmental Threat Assessment and  
15 Application to Forest and Rangeland Management. US Forest Service, General  
16 Technical Report, PNW, Bozeman, Montana. Pp. 673-685.
- 17 Schmidt, K. M., J. P. Menakis, C. C. Hardy, W. J. Hann, and D. L. Bunnell. 2002.  
18 Development of Coarse-Scale Spatial Data for Wildland Fire and Fuel Management.  
19 General Technical Report, RMRS-GTR-87, US Department of Agriculture, Forest  
20 Service, Rocky Mountain Research Station, Fort Collins, Colorado.
- 21 Schroeder, M. A., J. R. Young, and C. E. Braun. 1999. "Sage-Grouse (*Centrocercus*  
22 *urophasianus*). In: A. Poole and F. Gill (editors), The Birds of North America, No.  
23 425, The Birds of North America, Inc., Philadelphia, Pennsylvania.
- 24 Schroeder, M. A., C. L. Aldridge, A. D. Apa, J. R. Bohne, C. E. Braun, S. D. Bunnell, J. W.  
25 Connelly, et al. 2004. "Distribution of Sage-Grouse in North America." Condor  
26 106:363-376.
- 27 Shepherd, J. F., J. W. Connelly, and K. P. Reese. 2011. "Modeling nest and brood habitats of  
28 Greater Sage-Grouse." In: B. K. Sandercock, K. Martin, and G. Segelbacher  
29 (editors), "Ecology, Conservation, and Management of Grouse." Studies in Avian  
30 Biology 39:137-150. Cooper Ornithological Society. University of California Press,  
31 Los Angeles.
- 32 Shirk, A., M. Schroeder, L. Robb, and S. Cushman. *In review*. Empirical validation of  
33 landscape resistance models: insights from the Greater Sage-Grouse (*Centrocercus*  
34 *urophasianus*). Submitted for publication in Conservation Biology.



- 1 Shlisky, A., J. P. Waugh, M. Gonzalez, M. Manta, H. Santoso, E. Alvarado, A. Ainuddin, et  
2 al. 2007. "Fire, ecosystems, and people: Threats and strategies for global biodiversity  
3 conservation." The Nature Conservancy Global Fire Initiative Technical Report  
4 2007-2.
- 5 Silver Bow County. 2008. Silver Bow Growth Policy. Internet website:  
6 <http://www.co.silverbow.mt.us/departments/documents/Butte-SilverBowGrowth>  
7 [Policy2008Update-Final.pdf](http://www.co.silverbow.mt.us/departments/documents/Butte-SilverBowGrowth).
- 8 Slater, S. J., and J. P. Smith. 2010. Effectiveness of raptor perch deterrents on an electrical  
9 transmission line in southwestern Wyoming. *Journal of Wildlife Management* 74:  
10 1080-1088.
- 11 Southern Idaho Living. 2012. Oakley Rocks. Internet website:  
12 <http://southernidaholiving.com/features/oakley-rocks>. Accessed July 2012.
- 13 State of Idaho. 2012. Federal Alternative of Governor C. L. "Butch" Otter, For Greater  
14 Sage-Grouse Management in Idaho. September 5, 2012.
- 15 Steenhof, K., M. N. Kochert, and J. A. Roppe. 1993. "Nesting by raptors and common  
16 ravens on electrical transmission line towers." *Journal of Wildlife Management*  
17 57:271-281.
- 18 Stevens, B. S. 2011. "Impacts of fences on Greater Sage-Grouse in Idaho: Collision,  
19 mitigation and spatial ecology." Thesis. University of Idaho, Moscow.
- 20 Stevens, B. S., J. W. Connelly, and K. P. Reese. 2012. "Multi-scale assessment of Greater  
21 Sage-Grouse fence collision as a function of site and broad scale factors." *Journal of*  
22 *Wildlife Management*. 76:1370-1380.
- 23 Stewart, T. E. 2009 "The grass seed pathogen *Pyrenophora semeniperda* as a biological agent for  
24 annual brome grasses." Master's thesis. Brigham Young University, Provo, Utah.
- 25 Still, S. M. and B. A. Richardson. 2014. Projections of contemporary and future climate  
26 niche for Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*): a guide for  
27 restoration. *Natural Areas Journal* 35(1): 30-43.
- 28 Stiver, S. J. 2011. "The legal status of Greater Sage-Grouse: Organizational structure of  
29 planning efforts." *In*: S. T. Knick and C. J. W. (editors), "Greater Sage-Grouse:  
30 Ecology of a landscape species and its habitats." Cooper Ornithological Union,  
31 University of California Press, Berkeley. Pp. 33-49.
- 32 Stiver, S. J., A. D. Apa, J. R. Bohne, S. D. Bunnesll, P. A. Deibert, S. C. Gardner, M. A.  
33 Hilliard, et al. 2006. Greater Sage-grouse Comprehensive Conservation Strategy.  
34 Western Association of Fish and Wildlife Agencies. Cheyenne, Wyoming.

- 1 Stiver, S. J., E. T. Rinkes, and D. E. Naugle. 2010. Sage-Grouse Habitat Assessment  
2 Framework. Unpublished report. US Department of the Interior, Bureau of Land  
3 Management, Idaho State Office, Boise.
- 4 \_\_\_\_\_ . 2013. Unpublished. Revised Draft Habitat Assessment Framework. May 2013.
- 5 Stonegate Agricom. 2015. Stonegate Agricom Provides Corporate Update. January 26.  
6 Available: [http://www.stonegateagricom.com/i/pdf/2015-01-26\\_NR.pdf](http://www.stonegateagricom.com/i/pdf/2015-01-26_NR.pdf). Accessed:  
7 March 29, 2015
- 8 Strand, E. K., and K. L. Launchbaugh. 2013. Livestock Grazing Effects on Fuel Loads for  
9 Wildland Fire in Sagebrush Dominated Ecosystems. Great Basin Fire Science  
10 Delivery Report. April 2013.
- 11 Strand, E. K., K. L. Launchbaugh, R. Limb, and L. A. Torell. 2014. Livestock grazing effects  
12 on fuel loads for wildland fire in sagebrush dominated ecosystems. *Journal of*  
13 *Rangeland Applications* 1: 35-57.
- 14 Svejcar T., C. Boyd, K. Davies, M. Madsen, J. Bates, R. Sheley, C. Marlow, et al. 2014.  
15 Western land managers will need all available tools for adapting to climate change,  
16 including grazing: a critique of Beschta et al. *Environ Manage.* 2014 Jun;53(6):1035-  
17 8.
- 18 Sveum, C. M., J. A. Crawford, and W. D. Edge. 1998. "Use and selection of brood-rearing  
19 habitat by Sage-Grouse in south-central Washington." *Great Basin Naturalist* 58:344-  
20 351.
- 21 Swetnam, T. W., C. H. Baisan, and J. M. Kaib. 2001. "Forest fire histories of the sky islands  
22 of La Frontera." In: G. L. Webster and C. J. Bahre (editors), *Changing Plant Life of La*  
23 *Frontera: Observations on Vegetation in the US/Mexico Borderlands*. University of New  
24 Mexico Press, Albuquerque. Pp. 95-119.
- 25 The White House. 2013. The President's Climate Action Plan.
- 26 Taylor, R. L., D. E. Naugle, and L. S. Mills. 2012. Viability Analyses for Conservation of  
27 Sage-Grouse Populations: Buffalo Field Office, Wyoming Final Report. Prepared for  
28 Bureau of Land Management Buffalo Field Office, Buffalo, Wyoming. Wildlife  
29 Biology Program, University of Montana BLM Contract 09-3225-0012 Number  
30 G09AC00013. February 27, 2012.
- 31 Thurow, T. L., and C. A. Taylor, Jr. 1999. "Viewpoint: The role of drought in range  
32 management." *Journal of Range Management* 52:413-419.
- 33 Tollefson, T. N., L. A. Shipley, W. L. Myers, D. H. Keisler, and N. Dasgupta. 2010.  
34 "Influence of summer and autumn nutrition on body condition and reproduction in  
35 lactating mule deer." *Journal of Wildlife Management* 74:5:974-986.



- 1 Torell, L.A, N. Rimbey, J. Tanaka, D. Taylor, J. Ritten, T. Foulke. 2014. Ranch-Level  
2 Economic Impacts of Altering Grazing Policies on Federal Land to Protect the  
3 Greater Sage-Grouse.
- 4 Torell, L. A., J. A. Tanaka, N. Rimbey, T. Darden, L. Van Tassell, and A. Harp. 2002.  
5 “Ranch-level impacts of changing grazing policies on BLM land to protect the  
6 Greater Sage-Grouse: Evidence from Idaho, Nevada and Oregon.” Policy Analysis  
7 Center for Western Public Lands, policy paper SG-01-02, Caldwell, Idaho. BLM  
8 1997.
- 9 Trombulak, S. C., and C. A. Frissel. 2000. “Review of ecological effects of roads on  
10 terrestrial and aquatic communities.” *Conservation Biology* 14:18-30.
- 11 Twin Falls County. 2008. Twin Falls County Comprehensive Plan. Internet website:  
12 [http://twinfallscounty.org/pdf/commiss/Final\\_comp\\_plan\\_with\\_map.pdf](http://twinfallscounty.org/pdf/commiss/Final_comp_plan_with_map.pdf).
- 13 USAF (US Air Force). 2012. Integrated Natural Resource Management Plan for Mountain  
14 Home Air Force Base, Small Arms Range, Saylor Creek Air Force Range, Juniper  
15 Butte Range, and other Mountain Home Range Complex Sites. June.
- 16 US Census Bureau. 1990 Census of Population. Internet website:  
17 <http://www.census.gov/popest/data/intercensal/st-co/index.html>.
- 18 \_\_\_\_\_. 2000 Census of Population. Internet website:  
19 <http://www.census.gov/popest/data/intercensal/st-co/index.html>.
- 20 \_\_\_\_\_. 2010a. 2010 Census of Population. Internet website:  
21 <http://2010.census.gov/2010census/data/>.
- 22 \_\_\_\_\_. 2010b. Profile of General Population and Housing Characteristics: 2010.
- 23 \_\_\_\_\_. 2010c. American Community Survey, 5-Year Estimates, 2006-2010.
- 24 \_\_\_\_\_. 2010d. State Government Tax Collections Summary Report: 2010. Internet website:  
25 <http://www.census.gov/prod/2011pubs/g10-stc.pdf>.
- 26 \_\_\_\_\_. 2010e. State and Local Government Finances by Level of Government and by  
27 State: 2009-10. State and Local Government Finances. Internet website:  
28 <http://www.census.gov/govs/estimate/>.
- 29 \_\_\_\_\_. 2012a. OnTheMap. Internet website: <http://onthemap.ces.census.gov/>.
- 30 \_\_\_\_\_. 2012b. How the Census Bureau Measures Poverty. Internet website:  
31 <http://www.census.gov/hhes/www/poverty/about/overview/measure.html>.

- 1 US Department of Agriculture. 2012. Economic Research Service. Commodity Costs and  
2 Returns. Internet website: [http://www.ers.usda.gov/data-products/commodity-](http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx)  
3 [costs-and-returns.aspx](http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx). Accessed August 2012.
- 4 US Department of Commerce. 2012a. Bureau of Economic Analysis. Regional Economic  
5 Information System, Local Area Personal Income & Employment. Internet website:  
6 <http://www.bea.gov/regional/index.htm>.
- 7 \_\_\_\_\_. 2012b. Local Area Personal Income and Employment Methodology. Internet  
8 website: <http://www.bea.gov/regional/pdf/lapi2010.pdf>.
- 9 \_\_\_\_\_. 2013. Bureau of Economic Analysis. Widespread Economic Growth in 2012 (Table  
10 4, Current-Dollar GDP by State). Internet website: [https://www.bea.gov/](https://www.bea.gov/newsreleases/regional/gdp_state/2013/pdf/gsp0613.pdf)  
11 [newsreleases/regional/gdp\\_state/2013/pdf/gsp0613.pdf](https://www.bea.gov/newsreleases/regional/gdp_state/2013/pdf/gsp0613.pdf). Accessed in June 2013.
- 12 US Department of the Interior (DOI), US Department of Agriculture, Department of  
13 Energy, Department of Defense, Department of Commerce, US Environmental  
14 Protection Agency, Federal Emergency Management Agency, and National  
15 Association of State Foresters. 2001. Review and Update of the 1995 Federal  
16 Wildland Fire Management Policy. January 2001.
- 17 US Department of State. 2010. Fifth US climate action report. Washington, DC: Global  
18 Publishing Services. Internet website: [http://www.state.gov/e/oes/](http://www.state.gov/e/oes/rls/rpts/car/index.htm)  
19 [rls/rpts/car/index.htm](http://www.state.gov/e/oes/rls/rpts/car/index.htm).
- 20 USEPA (US Environmental Protection Agency). 1990. Livestock grazing on western riparian  
21 areas. Northwest Resource Information Center, Eagle, Idaho.
- 22 \_\_\_\_\_. 2010. Inventory of US greenhouse gas emissions and sinks: 1990-2010. EPA 430-R-  
23 12-001. Washington, DC: US Environmental Protection Agency. Internet website:  
24 <http://www.epa.gov/climatechange/emissions/>.
- 25 \_\_\_\_\_. 2012. Our Nation's Air: Status and Trends through 2010. Office of Air Quality  
26 Planning and Standards, Research Triangle Park, North Carolina. February 2012.
- 27 USFWS (US Department of the Interior, Fish and Wildlife Service). 1987. Northern Rocky  
28 Mountain Wolf Recovery Plan. August 3, 1987.
- 29 \_\_\_\_\_. 1993. Revised Grizzly Bear Recovery Plan. September 10, 1993.
- 30 \_\_\_\_\_. 1995. Pacific Region. Snake River Aquatic Species Recovery Plan. December 1995.
- 31 \_\_\_\_\_. 2002a. Draft Recovery Plan for Three of the Five Distinct Population Segments of  
32 Bull Trout (*Salvelinus confluentus*).
- 33 \_\_\_\_\_. 2002b. Recovery Plan for the Bruneau Hot Springsnail (*Pyrgulopsis bruneauensis*).  
34 December 2002.



- 1 \_\_\_\_\_ . 2003. Recovery Plan for the Northern Idaho Ground Squirrel (*Spermophilus brunneus*)  
2 *brunneus*). September 2003.
- 3 \_\_\_\_\_ . 2004. Draft Recovery Plan for Jarbidge River Distinct Population Segment of Bull  
4 Trout (*Salvelinus confluentus*).
- 5 \_\_\_\_\_ . 2008. Birds of Conservation Concern. Internet website: [http://www.fws.gov/  
6 migratorybirds/CurrentBirdIssues/Management/BCC.html](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html).
- 7 \_\_\_\_\_ . 2010a. Endangered and Threatened Wildlife and Plants; 12-Month Findings for  
8 Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or  
9 Endangered. Washington, DC. 75 *Federal Register* 13910. March 23, 2010.
- 10 \_\_\_\_\_ . 2010b. Endangered and Threatened Wildlife and Plants; 12-Month Findings for  
11 Petitions to List the Pygmy Rabbit as Endangered or Threatened. Washington, DC.  
12 *Federal Register* FWS-R8-ES-2007-0022. P. 60516.
- 13 \_\_\_\_\_ . 2013. Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final  
14 Report. Conservation Objectives Team, Denver, Colorado. February 2013.
- 15 USGS (United States Geological Survey). 2006. Effects of Fire in the Northern Great Plains;  
16 Effects of Fire on Some Undesirable Species. Internet website: [http://www.  
17 npwrc.usgs.gov/resource/habitat/fire/undesire.htm](http://www.npwrc.usgs.gov/resource/habitat/fire/undesire.htm). Accessed January 29, 2013.
- 18 \_\_\_\_\_ . 2014. Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review.  
19 US Geological Survey Open-File Report 2014-1239, 14 p. Accessed online:  
20 <http://dx.doi.org/10.3133/ofr20141239>. Accessed February 9, 2015.
- 21 \_\_\_\_\_ . 2014b. Phosphate Rock. Statistics and Information. Available:  
22 [http://minerals.usgs.gov/minerals/pubs/commodity/phosphate\\_rock/](http://minerals.usgs.gov/minerals/pubs/commodity/phosphate_rock/).
- 23 Vavra, M. 1992. "Livestock and Big Game Forage Relationships." *Rangelands* 14(2):57-59.  
24 April 1992.
- 25 Verma, S., and S. Jayakumar. 2012. "Impact of forest fire on physical, chemical and  
26 biological properties of soil: A review." *Proceedings of the International Academy of  
27 Ecology and Environmental Sciences* 2(3):168-176.
- 28 Walker, B. L., D. E. Naugle, K. E. Doherty, and T. E. Cornish. 2007. "West Nile virus and  
29 Greater Sage-Grouse: Estimating infection rate in a wild bird population." *Avian  
30 Diseases* 51:691-696.
- 31 Walker, B. L., and D. E. Naugle. 2011. "West Nile virus ecology in sagebrush habitat and  
32 impacts on Greater Sage-Grouse populations." *In*: S. T. Knick and J. W. Connelly  
33 (editors), "Greater sage-grouse: Ecology and conservation of a landscape species and  
34 its habitats." *Studies in Avian Biology* 38:127-144. University of California Press,  
35 Berkeley.

- 1 Wallestad, R. O. 1975. "Life history and habitat requirements of Sage-Grouse in central  
2 Montana." Montana Fish and Game Department, Technical Bulletin, Helena.
- 3 Warhank, J. J. 1999. A Plan for the Management of Historic Mines in Montana: Placer and  
4 Hardrock. Montana State Historic Preservation Office, Helena.
- 5 Washington County. 2010. Washington County Comprehensive Plan. Internet website:  
6 <http://zoning.co.washington.id.us/files/2012/06/Comp-Plan-Final-2010.pdf>.
- 7 Washington Wildlife Habitat Connectivity Working Group. 2012. Washington Connected  
8 Landscapes Project: Analysis of the Columbia Plateau Ecoregion. Washington's  
9 Department of Fish and Wildlife, and Department of Transportation, Olympia, WA.
- 10 WECC (Western Electricity Coordinating Council). 2012. Capital Costs for Transmission  
11 and Substations. Recommendations for WECC Transmission Expansion Planning.  
12 Available:  
13 [http://www.wecc.biz/committees/BOD/TEPPC/External/BV\\_WECC\\_TransCost](http://www.wecc.biz/committees/BOD/TEPPC/External/BV_WECC_TransCost_Report_Final.pdf)  
14 [Report\\_Final.pdf](http://www.wecc.biz/committees/BOD/TEPPC/External/BV_WECC_TransCost_Report_Final.pdf). Accessed: June 04, 2014
- 15 West, N. E. 1983. "Western intermountain sagebrush shrublands." *In*: N. E. West (editor),  
16 *Ecosystems of the World*, Vol. 5: Temperate Deserts and Semideserts. Elsevier Scientific  
17 Publishing Company, New York, New York. Pp. 351-397.
- 18 West, N. E., and J. A. Young. 2000. "Intermountain valleys and lower mountain slopes." *In*:  
19 M. G. Barbour and W. D. Billings (editors), *North American Terrestrial Vegetation*, 2nd  
20 Edition. Cambridge University Press. Pp. 256-284.
- 21 West, N. E., and T. P. Yorks. 2002. "Vegetation responses following wildfire on grazed and  
22 ungrazed sagebrush semidesert." *Journal of Range Management* 55:171-181.
- 23 West, N. E., F. D. Provenza, P. S. Johnson, and M. K. Owens, 1984. "Vegetation change  
24 after 13 years of livestock grazing exclusion on sagebrush semidesert in west central  
25 Utah." *Journal of Range Management* 37:262-264.
- 26 Whisenant, S. G. 1990. "Changing fire frequencies on Idaho's Snake River Plains: Ecological  
27 and management implications." *In*: E. D. McArthur, E. M. Romney, E. M. Smith,  
28 and P. T. Tueller (compilers), *Proceedings: Symposium on Cheatgrass Invasion,*  
29 *Shrub Die-Off, and Other Aspects of Shrub Biology and Management*, Las Vegas,  
30 Nevada, April 5-7, 1989. US Forest Service, Rocky Mountain Research Station, GTR  
31 INT-276, Ogden, Utah. Pp. 4-10.
- 32 White, Eric M., and Darren Gooding. 2012. Estimation of National Forest Visitor Spending  
33 Averages from National Visitor Use Monitoring Round 2. Gen. Tech. Rep. PNW-  
34 GTR-XXX. US Department of Agriculture, Forest Service, Pacific Northwest  
35 Research Station, Portland, Oregon.



- 1 Wild Trout Enterprises, LLC. 2009. Westslope Cutthroat Trout Status Update Summary.  
2 Bozeman, Montana.
- 3 \_\_\_\_\_ . 2012. Redband Trout Status Update Summary. Bozeman, Montana.
- 4 Wilkins, R. N., R. D. Brown, R. J. Conner, J. Engle, C. Gilliland, A. Hays, R. D. Slack, and  
5 D. W. Steinbach. 2003. Fragmented lands: Changing land ownership in Texas. Texas  
6 A&M University, College Station.
- 7 Williams, M. I., G. B. Paige, T. L. Thurow, A. L. Hild, and K. G. Gerow. 2011. "Songbird  
8 relationships to shrubsteppe ecological site characteristics." *Rangeland Ecology &  
9 Management* 64:109-118. Wisdom, M. J., C. W. Meinke, S. T. Knick, and M. A.  
10 Schroeder. 2011. Factors associated with extirpation of sage-grouse. *In: S. T. Knick  
11 and J. W. Connelly (editors), Greater Sage-Grouse: Ecology of a Landscape Species and Its  
12 Habitats*, Cooper Ornithological Union, University of California Press, Berkeley. Pp.  
13 451-474.
- 14 Workman, J. P. 1986. *Range Economics*. Macmillan, New York, New York.
- 15 Wyoming Game and Fish Department (WGFD). 2011. Wyoming Game and Fish  
16 Department Protocols for Treating Sagebrush to Benefit Sage-Grouse. Unpublished  
17 report.
- 18 Yoakum, J. D. 2004a. Habitat characteristics and requirements. *In: B. W. O’Gara and J. D.  
19 Yoakum, Pronghorn Ecology and Management*. Wildlife Management Institute. University  
20 Press of Colorado. Boulder. Pp. 409-445.
- 21 \_\_\_\_\_ . 2004b. Foraging ecology, diet studies, and nutrient values. *In: B. W. O’Gara and J.  
22 D. Yoakum, Pronghorn Ecology and Management*. Wildlife Management Institute.  
23 University Press of Colorado. Boulder. Pp. 447-502.
- 24 Yoder, J. M., D. A. Swanson, and E. A. Marschall. 2004. "The cost of dispersal: Predation as  
25 a function of movement in ruffed grouse." *Behavioral Ecology* 15:469-476.
- 26 Young, J. A., R. A. Evans, and J. Robison. 1972. "Influence of repeated annual burning on a  
27 medusahead community." *J. Range Manage.* 25:372-375.
- 28 Young, J. A., R. A. Evans, and R. A. Weaver. 1976. "Estimating potential downy brome  
29 competition after wildfires." *Journal of Range Management* 29:322-325.
- 30 Young, J. A., and R. A. Evans. 1978. "Population dynamics after wildfires in sagebrush  
31 grasslands." *Journal of Range Management* 31:283-289.
- 32 Zou, L., S. N. Miller, and E. T. Schmidtman. 2006. "Mosquito larval habitat mapping using  
33 remote sensing and GIS: Implications of coalbed methane development and West  
34 Nile virus." *Journal of Medical Entomology* 43:1034-1041.



1 **References from the GRSG Cumulative Effects Analysis in Chapter 5**

- 2 Arkle R. S., D. S. Pilliod, S. E. Hanser, M. L. Brooks, J. C. Changers, J. B. Grace, K. C.  
3 Knutson, D. A. Pyke, J. L. Welty, T. A. Wirth. 2014. "Quantifying restoration  
4 effectiveness using multi-scale habitat models: implications for sage-grouse in the  
5 Great Basin." *Ecosphere* 5 (3): pp. 1-32.
- 6 Baker, W.L., 2011, Pre- Euro-American and recent fire in sagebrush ecosystems, *in* Knick,  
7 S.T. and Connelly, J.W., eds., Greater sage-grouse: ecology and conservation of a  
8 landscape species: Berkeley, Calif., University of California Press, p. 185–202 .
- 9 Beck, J. L., and D. L. Mitchell. 2000. "Influences of livestock grazing on sage grouse  
10 habitat." *Wildlife Society Bulletin* 28:993-1002.
- 11 BLM. 1991. Record of Decision Environmental Impact Statement for Vegetation Treatment  
12 on BLM Lands in Thirteen Western States. BLM, Wyoming State Office. Cheyenne,  
13 Wyoming.
- 14 \_\_\_\_\_. 2007. Final Vegetation Treatments on Bureau of Land Management Lands in 17  
15 Western States Programmatic Environmental Report. June 2007, FES 07-21. BLM.  
16 Reno, Nevada and Washington, DC. Internet website:  
17 [www.blm.gov/wo/st/en/prog/more/veg\\_eis.html](http://www.blm.gov/wo/st/en/prog/more/veg_eis.html).
- 18 \_\_\_\_\_. 2013a. Ecoregional Assessment Report. Northern Great Basin Rapid Ecoregional  
19 Assessment. June 2013. Accessed online:  
20 [http://www.blm.gov/wo/st/en/prog/more/Landscape\\_Approach/reas/nbasinran](http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas/nbasinran)  
21 [ge.html](http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas/nbasinran). Accessed January 7, 2015.
- 22 \_\_\_\_\_. 2013b. Interagency Standards for Fire and Fire Aviation Operations. US  
23 Department of the Interior, Bureau of Land Management. Washington, DC.
- 24 \_\_\_\_\_. 2013c. Long Draw/Miller Homestead Fire Review. Vale and Burns Districts. April  
25 2013.
- 26 \_\_\_\_\_. 2015. Geographic Information Systems Data. National Operations Center, Denver,  
27 Colorado.
- 28 Braun, C.E. 1998. Sage Grouse declines in western North America: what are the problems?  
29 Proceedings of the Western Association of State Fish and Wildlife Agencies 78: 139-  
30 156.
- 31 Christiansen, T. 2013. Wyoming Sage-Grouse Population Trend Data – 1995-2013.  
32 Unpublished data. Wyoming Game and Fish. August 24, 2013.
- 33 Coates, P. S. 2007. "Greater sage-grouse (*Centrocercus urophasianus*) nest predation and  
34 incubation behavior." Doctoral dissertation, Idaho State University, Pocatello.



- 1 Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation  
2 assessment of greater sage-grouse and sagebrush habitats. Western Association of  
3 Fish and Wildlife Agencies.
- 4 Copeland, H. E., A. Pocewicz, D. E. Naugle, T. Griffiths, D. Keinath, J. Evans, J. Platt.  
5 2013. “Measuring the effectiveness of conservation: A novel framework to quantify  
6 the benefits of sage-grouse conservation policy and easements in Wyoming. *PLoS*  
7 *ONE* 8(6): e67261. Doi:10.1371/journal.pone.0067261.
- 8 Council on Environmental Quality. 1997. Considering Cumulative Impacts under the  
9 National Environmental Policy Act. January 1997.
- 10 Davies K. W., C. S. Boyd, J. L. Beck, J. D. Bates, T. J. Svejcar, M. A. Gregg. 2010. “Saving  
11 the sagebrush sea: An ecosystem conservation plan for big sagebrush plant  
12 communities.” *Biological Conservation* 144:2573-2584.
- 13 Doherty, K. E., J. L. Beck, and D. E. Naugle. 2011. “comparing ecological site descriptions  
14 to habitat characteristics influencing greater sage-grouse nest site occurrence and  
15 success.” *Rangeland Ecology & Management* 64:344-351.
- 16 Forman, R. T. T., and L. E. Alexander 1998. “Roads and their major ecological effects.”  
17 *Annual Review of Ecology and Systematics*. 29:207–31
- 18 Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. Schroeder. 2011.  
19 “Greater sage-grouse population dynamics and probability of persistence.” Pp. 293-  
20 381. *In*: S. T. Knick and J. W. Connelly (eds.), *Greater Sage-Grouse: Ecology of a*  
21 *Landscape Species and Its Habitats*. Cooper Ornithological Union, University of  
22 California Press, Berkeley.
- 23 Garton, E. O., A. G. Wells, J. A. Baumgardt, and J. W. Connelly. 2015. *Greater Sage-Grouse*  
24 *Population Dynamics and Probability of Persistence*. Final Report to Pew Charitable  
25 Trusts. March 2015.
- 26 George, M. R., R. D. Jackson, C. S. Boyd, K. W. Tate. 2011. “A scientific assessment of the  
27 effectiveness of riparian management practices. *In*: D. D. Briske (ed.), *Conservation*  
28 *gains of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps*.  
29 Washington, DC: USDA-NRCS. Pp. 213-252.
- 30 Gillen, R. L., W. C. Krueger, and R. F. Miller. 1984. “Cattle distribution on mountain  
31 rangeland in northeastern Oregon.” *Journal of Range Management* 37:549-553.
- 32 Greater Sage-Grouse Wildfire, Invasive Annual Grasses & Conifer Expansion Assessment  
33 (Fire and Invasive Assessment Tool (FIAT)). June 2014. Prepared by Fire and  
34 Invasive Assessment Team (Appendix 5). 43 pages.

- 1 Gregg, M. A., J. A. Crawford, M. S. Drut, and A. K. DeLong. 1994. "Vegetation cover and  
2 predation of sage grouse nests in Oregon." *Journal of Wildlife Management* 58(1):162-  
3 166.
- 4 Holloran, M. J. 2005. "Greater sage-grouse (*Centrocercus urophasianus*) population response to  
5 natural gas field development in western Wyoming." Thesis. University of Wyoming  
6 Department of Zoology and Physiology, Laramie.
- 7 IDL (Idaho Department of Lands). 2015. Idaho Department of Lands Proposed Greater  
8 Sage-Grouse Conservation Plan. February 11, 2015. 33 pp.
- 9 Idaho Sage-grouse Advisory Committee. 2006. Conservation Plan for the Greater Sage-  
10 grouse in Idaho. 36 pp.
- 11 Knick, S. T. 2011. "Historical development, principal federal legislation and current  
12 management of sagebrush habitats: Implications for conservation." Pp. 13-32. *In*: S.  
13 T. Knick and J.W. Connelly (eds.), *Greater Sage-Grouse: Ecology of a Landscape  
14 Species and Its Habitats*. Cooper Ornithological Union, University of California  
15 Press, Berkeley.
- 16 Knick, S. T., and S. E. Hanser. 2011. "Connecting pattern and process in greater sage-  
17 grouse populations and sagebrush landscapes." Pp. 383-406. *In*: S. T. Knick and J.W.  
18 Connelly (eds.), *Greater Sage-Grouse: Ecology of a Landscape Species and Its  
19 Habitats*. Cooper Ornithological Union, University of California Press, Berkeley.
- 20 Knick, S. T., S. E. Hanser, R. F. Miller, D. A. Pyke, M. J. Wisdom, S. P. Finn, E. T. Rinkes,  
21 and C. J. Henny. 2011. "Ecological influence and pathways of land use in  
22 sagebrush." *In*: S. T. Knick and J. W. Connelly (eds.), *Greater Sage-Grouse: Ecology  
23 and Conservation of a Landscape Species and its Habitats*. *Studies in Avian Biology*  
24 Vol. 38:203-251. University of California Press, Berkeley.
- 25 Leu, M., S.E. Hanser, and S.T. Knick. 2008. The human footprint in the West: a large-scale  
26 analysis of anthropogenic impacts. *Ecological Applications* 18:1119-1139.
- 27 Manier, D. J., D. J. A. Wood, Z. H. Bowen, R. M. Donovan, M. J. Holloran, L. M. Juliusson,  
28 K. S. Mayne, et al. 2013. Summary of Science, Activities, Programs and Policies that  
29 Influence the Range-Wide Conservation of Greater Sage-Grouse (*Centrocercus*  
30 *urophasianus*). US Geological Survey Open-File Report 2013-1098, Fort Collins,  
31 Colorado.
- 32 Naugle, D. E., K. E. Doherty, B. L. Walker, M. J. Holloran, and H. E. Copeland. 2011.  
33 "Energy development and greater sage-grouse." Pp. 489-504. *In*: S. T. Knick and J.  
34 W. Connelly (eds.), *Greater Sage-Grouse: Ecology of a Landscape Species and Its  
35 Habitats*. Cooper Ornithological Union, University of California Press, Berkeley.



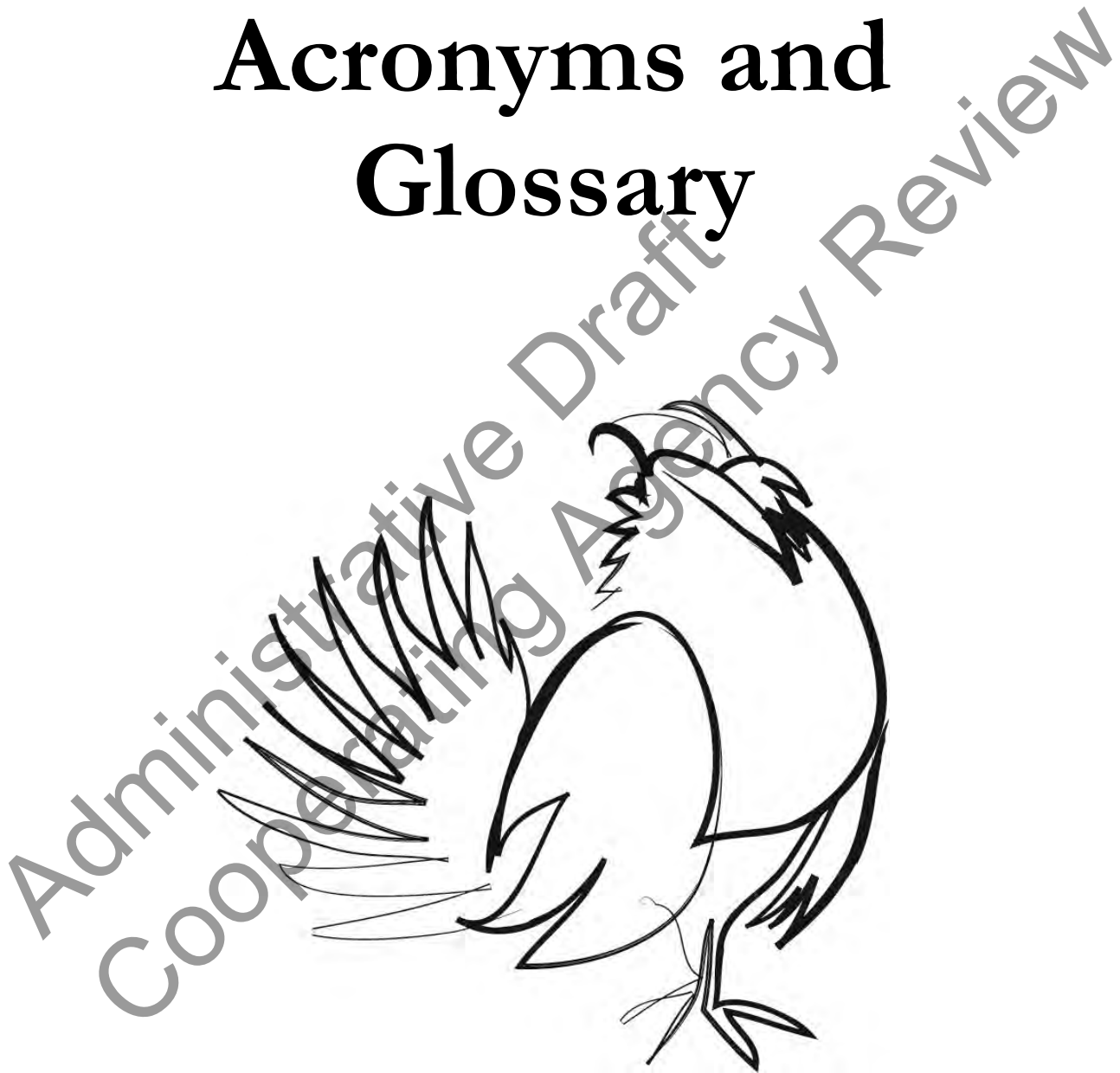
- 1 NRCS. 2015. Outcomes in Conservation: Sage Grouse Initiative. February 2015.  
2 <http://www.sagegrouseinitiative.com/wp-content/uploads/2015/02/>  
3 NRCS\_SGI\_Report.pdf
- 4 Reisner, M. D., J. B. Grace, D. A. Pyke, and P. S. Doescher. 2013. “Conditions favouring  
5 *Bromus tectorum* dominance of endangered sagebrush steppe ecosystems.” *Journal of*  
6 *Applied Ecology* 50:1039-1049.
- 7 Sagebrush Ecosystem Technical Team. 2014. 2014 Nevada Greater Sage-Grouse  
8 Conservation Plan October 1, 2014. 213 Pp.
- 9 State of Montana. 2014. Executive Order (No. 10-2014) Creating the Montana Sage Grouse  
10 Oversight Team and the Montana Sage Grouse Habitat Conservation Program.  
11 Office of the Governor. September 9. Internet website:  
12 governor.mt.gov/Portals/16/docs/2014EOs/EO\_10\_2014\_SageGrouse.pdf.
- 13 Stevens, B. S., K. P. Reese, and J. W. Connelly. 2011. “Survival and detectability bias of avian  
14 fence collision surveys in sagebrush steppe.” *Journal of Wildlife Management* 75(2):437-  
15 449.
- 16 Stiver, S. J. 2011. “The legal status of greater sage-grouse: Organizational structure of  
17 planning efforts.” Pp. 33-49. *In*: S. T. Knick and J. W. Connelly (eds.) Greater Sage-  
18 Grouse: Ecology of a Landscape Species and Its Habitats. Cooper Ornithological  
19 Union, University of California Press, Berkeley.
- 20 Stiver, S. J., A. D. Apa, J. R. Bohne, S. D. Bunnell, P. A. Diebert, S. C. Gardner, M. A.  
21 Hilliard, et al. 2006. Greater Sage-Grouse Comprehensive Conservation Strategy.  
22 Western Association of Fish and Wildlife Agencies. Cheyenne, Wyoming.
- 23 Strand, E. K., and K. L. Launchbaugh. 2013. Livestock Grazing Effects on Fuel Loads for  
24 Wildland Fire in Sagebrush Dominated Ecosystems. Great Basin Fire Science  
25 Delivery Report. April 2013.
- 26 USFWS. 2010. Endangered and Threatened Wildlife and Plants; 12-Month Findings for  
27 Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or  
28 Endangered. P. 107. *In*: Fish and Wildlife Service, Department of the Interior (ed.),  
29 FWS R6-ES-2010-0018. *Federal Register*, Washington, DC.
- 30 \_\_\_\_\_. 2013. Greater Sage-Grouse (*Centrocercus urophasianus*) Conservation Objectives: Final  
31 Report. US Fish and Wildlife Service, Denver, Colorado. February 2013.
- 32 US Fish and Wildlife Service, Wyoming Bureau of Land Management, Natural Resources  
33 Conservation Service, Wyoming Game and Fish Department, Wyoming Department  
34 of Agriculture, Wyoming Associated of Conservation Districts, U.S. Forest Service.  
35 2013. Greater Sage-Grouse Umbrella CCAA for Wyoming Ranch Management A  
36 Candidate Conservation Agreement with Assurances for Greater Sage-Grouse  
37 (*Centrocercus urophasianus*).

- 1 Utah Greater Sage-Grouse Working Group. 2013. Conservation Plan for Greater Sage-  
2 grouse in Utah – Final. February 14, 2013. Available online at:  
3 [http://wildlife.utah.gov/uplandgame/sage-](http://wildlife.utah.gov/uplandgame/sage-grouse/pdf/greater_sage_grouse_plan.pdf)  
4 [grouse/pdf/greater\\_sage\\_grouse\\_plan.pdf](http://wildlife.utah.gov/uplandgame/sage-grouse/pdf/greater_sage_grouse_plan.pdf)."
- 5 Vance, L. K., and D. Stagliano. 2007. Watershed Assessment of Portions of the Lower  
6 Musselshell and Fort Peck Reservoir Sub-Basins. Report to the Bureau of Land  
7 Management, Billings, Montana. Montana Natural Heritage Program, Helena.
- 8 Walker, B. L., and D. E. Naugle. 2011. "West Nile virus ecology in sagebrush habitat and  
9 impacts on greater sage-grouse populations." *In*: S. T. Knick and J. W. Connelly  
10 (eds.), Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and  
11 its Habitats. *Studies in Avian Biology* Vol. 38:127-144. University of California Press,  
12 Berkeley.
- 13 Western Area Power Administration. 2013. Upper Great Plains Wind Energy programmatic  
14 Environmental impact Statement (Draft). DOE/EIS-0408. March 2013.
- 15 Western Governors' Association. 2014. Inventory of State and Local Governments'  
16 Conservation Initiatives for Sage-Grouse. 2013 Update. February 20, 2014. 8 Pp.
- 17 Wyoming Sage-Grouse Working Group (WSGWWG). 2003. Wyoming Greater Sage-grouse  
18 Conservation Plan. Cheyenne, Wyoming.
- 19 Wyoming Executive Order No. 2011-5. 2011. Greater Sage-Grouse Core Area Protection:  
20 Casper, Wyoming, Governor's Office, State of Wyoming. June 2, 2011.
- 21



# Chapter 8

## Acronyms and Glossary



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Administrative Draft  
Cooperating Agency Review

1 Chapter 8. Acronyms and Glossary

2 8.1 Acronyms

<u>Acronym</u>	<u>Full Phrase</u>
ACEC	area of critical environmental concern
AML	appropriate management level
AMP	allotment management plan
APD	application for permit to drill
APHIS	Animal and Plant Health Inspection Service
AQRV	air quality related values
ATV	all-terrain vehicle
AUM	animal unit-month
BAER	burn area emergency response
BDNF	Beaverhead-Deerlodge National Forest
BEA	Bureau of Economic Analysis
BER	baseline environmental report
BLM	United States Department of the Interior, Bureau of Land Management
BLS	Bureau of Labor Statistics
BMP	best management practices
BSU	Biologically Significant Unit
CA	conservation area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
COA	condition of approval
COT	Conservation Objectives Team
CSU	controlled surface use
DFO	Dillon Field Office
DOI	United States Department of the Interior
EIS	environmental impact statement
EPA	United States Environmental Protection Agency
ESA	US Endangered Species Act of 1973
ESD	Ecological Side Description
ERMA	extensive recreation management area
ERS	USDA Economic Research Service
ESR	emergency stabilization and rehabilitation
°F	Fahrenheit degrees
FERC	Federal Energy Regulatory Commission



<u>Acronym</u>	<u>Full Phrase</u>
FLPMA	Federal Land Policy and Management Act of 1976
Forest Service	United States Department of Agriculture, Forest Service
FR	<i>Federal Register</i>
FRCC	fire regime condition class
FSH	Forest Service Handbook
FSM	Forest Service Manual
FY	fiscal year
GHMA	general habitat management area
GIS	geographic information system
GOA	goals, objectives, allocations and management actions
GPS	global positioning system
GRSG	greater sage-grouse
HA	herd area
HAF	Habitat Assessment Framework
HFC	hydroflourocarbon
HFR	hazardous fuels reduction program
HMA	herd management area
HMAP	habitat management area plan
IB	BLM Information Bulletin
IDFG	Idaho Department of Fish and Game
IHMZ	important habitat management area
IM	BLM Instruction Memorandum
IPCC	Intergovernmental Panel on Climate Change
KPLA	known phosphate leasing area
LRMP	land and resource management plan
LUP	land use plan
LUPA	land use plan amendment
LWG	local working group
MBF	thousand board feet
MFP	management framework plan
MFWP	Montana Fish, Wildlife, and Parks
MOU	memorandum of understanding
MZ	management zone
N <sub>2</sub> O	nitrous oxide
N/A	not applicable
NAAQS	National Ambient Air Quality Standards

<u>Acronym</u>	<u>Full Phrase</u>
NCA	National Conservation Area
NEPA	National Environmental Policy Act of 1969
NF	not functioning
NFMA	National Forest Management Act of 1976
NHPA	National Historic Preservation Act
NHT	National Historic Trail
NLCS	National Landscape Conservation System
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NOI	notice of intent
NPS	National Park Service
NRCS	United States Department of Agriculture Natural Resources Conservation Service
NREL	National Renewable Energy Laboratory
NRHP	National Register of Historic Places
NSO	no surface occupancy
NTT	Greater Sage-Grouse National Technical Team
OHV	off-highway vehicle
ONRR	Department of Interior, Office of Natural Resources Revenue
OSC	Idaho Office of Species Conservation
PAC	priority areas for conservation
PDF	preferred design feature
PECE	policy for evaluation of conservation efforts when making listing decisions
PFC	proper functioning condition
PGH	preliminary general habitat
PHMA	priority habitat management area
PILT	Payment in Lieu of Taxes
PM <sub>2.5</sub>	particulate matter with a diameter less than or equal to 2.5 microns
PM <sub>10</sub>	particulate matter with a diameter less than or equal to 10 microns
PPH	preliminary primary habitat
RDF	required design feature
RFDS	reasonable foreseeable development scenario
RFPA	Rangeland Fire Protection Association
RHMA	restoration habitat management area
RMP	resource management plan
ROD	record of decision
ROW	right-of-way
S&Gs	standards and guidelines
SDF	suggested design feature
SFA	Sagebrush Focal Area

<u>Acronym</u>	<u>Full Phrase</u>
SGMA	Sage-Grouse Management Area
SHPO	state historic preservation officer
SO <sub>2</sub>	sulfur dioxide
SRMA	special recreation management area
SRP	special recreation permit
SUA	special use authorization
TAT	technical assistance team
TCP	traditional cultural property
TL	timing limitation
TTM	travel and transportation management
UDWR	Utah Department of Wildlife Resources
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Department of the Interior, Fish and Wildlife Service
USGS	United States Geological Survey
VDDT	Vegetation Dynamics Development Tool
VOC	volatile organic compound
VRM	visual resource management
WAFWA	Western Association of Fish and Wildlife Agencies
WGFD	Wyoming Game and Fish Department
WSA	Wilderness Study Area
WUI	wildland-urban interface
ZA	zoological area

1       **8.2 Glossary**

2       **BLM and Forest Service terms will be combined as appropriate for the public FEIS**

3       **2008 WAFWA Sage-Grouse MOU:** A memorandum of understanding among Western  
4 Association of Fish and Wildlife Agencies, US Department of Agriculture, Forest Service,  
5 US Department of the Interior, Bureau of Land Management, US Department of the  
6 Interior, Fish and Wildlife Service, US Department of the Interior, Geological Survey, US  
7 Department of Agriculture, Natural Resources Conservation Service, and the US  
8 Department of Agriculture, Farm Service Agency. The purpose of the MOU is to provide  
9 for cooperation among the participating state and federal land, wildlife management and  
10 science agencies in the conservation and management of GRSG (*Centrocercus urophasianus*)  
11 sagebrush (*Artemisia* spp.) habitats and other sagebrush-dependent wildlife throughout the

1 western United States and Canada and a commitment of all agencies to implement the 2006  
2 WAFWA Conservation Strategy.

3 **2011 Partnership MOU:** An agreement among the United States Department of Agriculture  
4 Natural Resource Conservation Service, Forest Service, United State Department of the  
5 Interior, Bureau of Land Management, and Fish and Wildlife Service. This MOU is for range  
6 management, to implement NRCS practices on adjacent federal properties.

7 **Acquired lands:** Federal lands obtained by purchase, condemnation, exchange, or gift under  
8 laws other than public land laws. Legally defined as "... land obtained by the United States  
9 through purchase or transfer from a State or private individual and normally dedicated to a  
10 specific use." McKenna v. Wallis, 200 F. Supp. 468 (1961). See also Bobby Lee Moore, et al.,  
11 72 I.D. 505 (1965).

12 **Actual use:** The amount of animal unit months consumed by livestock based on the  
13 numbers of livestock and grazing dates submitted by the livestock operator and confirmed  
14 by periodic field checks by the BLM.

15 **Additionality:** The conservation benefits of compensatory mitigation are demonstrably new  
16 and would not have resulted without the compensatory mitigation project.

17 **Adjacent:** Installation of new linear improvements parallel, near, or next to existing linear  
18 improvements.

19 **Administrative access:** A term used to describe access for resource management and  
20 administrative purposes, such as fire suppression, cadastral surveys, permit compliance, law  
21 enforcement, and military in the performance of their official duty, or other access needed to  
22 administer BLM-managed or National Forest System lands or uses.

23 **Allotment management plan:** A concisely written program of livestock grazing  
24 management, including supportive measures if required, designed to attain specific, multiple-  
25 use management goals in a grazing allotment. An AMP is prepared in consultation with the  
26 permittees, lessees, and other affected interests. Livestock grazing is considered in relation to  
27 other uses of the range and to renewable resources, such as watershed, vegetation, and  
28 wildlife. An AMP establishes seasons of use, the number of livestock to be permitted, the  
29 range improvements needed, and the grazing system.

30 **Allotment:** An area of land in which one or more livestock operators graze their livestock.  
31 Allotments generally consist of BLM-administered lands but may include National Forest  
32 System lands or other federally managed, state-owned, or private lands. An allotment may  
33 include or more separate pastures. Livestock numbers and periods of use are specified for  
34 each allotment.

35 **Ambient (noise level):** Sometimes called background noise level, reference sound level, or  
36 room noise level is the background sound pressure level at a given location, normally  
37 specified as a reference level to study a new intrusive sound source.

1 **Animal unit month:** The amount of forage necessary for the sustenance of one cow or its  
2 equivalent for a period of one month (approximately 800 pounds of air-dried material per  
3 AUM).

4 **Anthropogenic disturbances:** Human-created features include paved highways, graded  
5 gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal  
6 wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

7 **Appurtenant (minerals):** A piece of equipment (e.g., pump jack, separator, storage tank,  
8 compressor station, metering equipment) necessary for production.

9 **Area of critical environmental concern:** Special area designation established through the  
10 BLM's land use planning process (43 CFR 1610.7-2), where special management attention is  
11 needed to protect and prevent irreparable damage to important historical, cultural, or scenic  
12 values, fish and wildlife resources, or other natural systems or processes or to protect life  
13 and safety from natural hazards. The level of allowable use within an ACEC is established  
14 through the collaborative planning process. Designation of an ACEC allows for resource use  
15 limitations in order to protect identified resources or values.

16 **Associated settings:** The geographic extent of the resources, qualities, and values or  
17 landscape elements within the surrounding environment that influence the trail experience  
18 and contribute to resource protection. Settings associated with a National Scenic or Historic  
19 Trail include scenic, historic, cultural, recreation, natural (including biological, geological, and  
20 scientific), and other landscape elements (see resources, qualities, and values).

21 **Authorized/authorized use:** This is an activity (i.e., resource use) occurring on the public  
22 lands that is either explicitly or implicitly recognized and legalized by law or regulation. This  
23 term may refer to those activities occurring on the public lands for which the BLM, Forest  
24 Service, or other appropriate authority (e.g., Congress for RS 2477 rights-of-way, FERC for  
25 major interstate rights-of-way) has issued a formal authorization document (e.g., livestock  
26 grazing lease/permit, right-of-way grant, coal lease, or oil and gas permit to drill). Formally  
27 authorized uses can involve commercial and noncommercial activity, facility placement, or  
28 event. These formally authorized uses are often spatially or temporally limited. Unless  
29 constrained or bounded by statute, regulation, or an approved land use plan decision, legal  
30 activities involving public enjoyment and use of the public lands (e.g., hiking, camping, and  
31 hunting) require no formal BLM or Forest Service authorization.

32 **Avoidance/avoidance area:** These terms usually address mitigation of some activity (i.e.,  
33 resource use). Paraphrasing the CEQ Regulations (40 CFR 1508.20), avoidance means to  
34 circumvent or bypass an impact altogether by not taking a certain action, or parts of an  
35 action. Therefore, the term avoidance does not necessarily prohibit a proposed activity, but it  
36 may require the relocation of an action or the total redesign of an action to eliminate any  
37 potential impacts resulting from it.

1 **Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or  
2 parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving  
3 the proposed action to a different time or location).

4 **Baseline:** The pre-existing condition of a defined area and/or resource that can be  
5 quantified by an appropriate metric(s). During environmental reviews, the baseline is  
6 considered the affected environment that exists at the time of the review's initiation, and is  
7 used to compare predictions of the effects of the proposed action or a reasonable range of  
8 alternatives.

9 **Best management practices:** A suite of techniques that guide or may be applied to  
10 management actions to aid in achieving desired outcomes. BMPs are often developed in  
11 conjunction with land use plans, but they are not considered a planning decision unless the  
12 plans specify that they are mandatory.

13 **Biologically significant unit:** A geographical/spatial area within GRSG habitat that  
14 contains relevant and important habitats that is used as the basis for comparative calculations  
15 to support evaluation of changes to habitat. A biologically significant unit or subset of the  
16 unit is used in the calculation of the anthropogenic disturbance threshold and in the adaptive  
17 management habitat trigger.

18 The biologically significant unit is defined as:

- 19 • Idaho: All of the modeled nesting and delineated winter habitat, based on 2012 data,  
20 within priority and/or important habitat management areas within a Conservation  
21 Area.
- 22 • Montana: All of the priority and sagebrush focal management areas.

23 **Candidate species:** Species for which the US Fish and Wildlife Service has sufficient  
24 information on their status and threats to support proposing them for listing as endangered  
25 or threatened under the Endangered Species Act but for which issuance of a proposed rule  
26 is currently precluded by higher priority listing actions. Separate lists for plants, vertebrate  
27 animals, and invertebrate animals are published periodically in the *Federal Register* (from  
28 M6840, Special Status Species Manual).

29 **Casual use:** Activities ordinarily resulting in no or negligible disturbance of the public lands,  
30 resources, or improvements. For examples of rights-of-way, see 43 CFR 2801.5; for  
31 examples of locatable minerals, see 43 CFR 3809.5.

32 **Condition of approval:** Requirement under which an application for a permit to drill or  
33 sundry notice is approved.

34 **Checkerboard:** This term refers to a landownership pattern of alternating sections of  
35 federal owned lands with private or state-owned lands for 20 miles on either side of a land  
36 grant railroad (e.g., Union Pacific and Northern Pacific). On land status maps this alternating

1 ownership is either delineated by color coding or alphabetic code resulting in a checkerboard  
2 pattern.

3 **Cherry-stemmed/cherry-stemming:** This term refers to a narrow, linear, intrusion, or  
4 extrusion of a delineated block of federal lands resulting in what appears on a map as a  
5 boundary inlet or peninsula. Although this term may be used in any resource program, the  
6 most common use is in relation to dead-end road intrusions along WSA boundaries.

7 **Co-locate:** Installation of new linear improvements in or on existing linear improvements.

8 **Communication tower site:** Sites that include broadcast types of uses (e.g., television,  
9 AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g.,  
10 commercial or private mobile radio service, cellular telephone, microwave, local exchange  
11 network, passive reflector).

12 **Compensatory mitigation:** Compensating for the residual impact of a certain action or  
13 parts of an action by replacing or providing substitute resources or environments. (40 CFR  
14 1508.20)

15 **Compensatory mitigation projects:** The restoration, creation, enhancement, and/or  
16 preservation of impacted resources (adopted and modified from 33 CFR 332), such as on-  
17 the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments,  
18 land acquisitions, conservation easements).

19 **Compensatory mitigation sites:** The durable areas where compensatory mitigation  
20 projects will occur.

21 **Condition of approval:** A site-specific and enforceable requirement included in an  
22 approved application for permit to drill or sundry notice that may limit or amend the specific  
23 actions proposed by the operator. Conditions of approval minimize, mitigate, or prevent  
24 impacts on resource values or other uses of public lands.

25 **Conservation area:** Areas determined to be necessary to monitor population objectives to  
26 evaluate the disturbance density and adaptive regulatory triggers and engage adaptive  
27 management responses. Conservation Areas may contain priority, important, and general  
28 habitat management areas and sagebrush focal areas. Specifically, these areas are Mountain  
29 Valleys, Desert, West Owyhee, and Southern and Southwestern Montana.

30 **Conservation Plan:** The recorded decisions of a landowner or operator, cooperating with a  
31 conservation district, on how the landowner or operator plans, within practical limits, to use  
32 his or her land according to its capability and to treat it according to its needs for  
33 maintenance or improvement of the soil, water, animal, plant, and air resources.

34 **Conservation measures:** Undertakings to conserve, enhance, or restore GRSG habitat by  
35 reducing, eliminating, or minimizing threats to that habitat.

1 **Controlled surface use:** CSU is a category of moderate constraint stipulations that allows  
2 some use and occupancy of public land, while protecting identified resources or values. A  
3 CSU stipulation allows the BLM or Forest Service to require special operational constraints,  
4 or the surface-disturbing activity can be shifted to protect the specified resource or value.

5 **Cooperating agency:** Assists the lead federal agency in developing an environmental  
6 assessment or environmental impact statement. This can be any agency with jurisdiction by  
7 law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any tribe or  
8 federal, state, or local government jurisdiction with such qualifications may become a  
9 cooperating agency by agreement with the lead agency.

10 **Council on Environmental Quality:** An advisory council to the President of the United  
11 States established by the National Environmental Policy Act of 1969. It reviews federal  
12 programs to analyze and interpret environmental trends and information.

13 **Cultural resources:** Locations of human activity, occupation, or use. Cultural resources  
14 include archaeological, historic, or architectural sites, structures, or places with important  
15 public and scientific uses and locations of traditional cultural or religious importance to  
16 specified social or cultural groups.

17 **Cumulative effects:** The direct and indirect effects of a proposed project alternative's  
18 incremental impacts when they are added to other past, present, and reasonably foreseeable  
19 actions, regardless of who carries out the action.

20 **Decision area:** Lands and federal mineral estate within the planning area that are  
21 administered by the BLM and Forest Service.

22 **Deferred/deferred use:** To set-aside, or postpone, a particular resource use or activity on  
23 the public lands to a later time. Generally when this term is used, the period of the deferral is  
24 specified. Deferments sometimes follow the sequence timeframe of associated serial actions  
25 (e.g., action B will be deferred until action A is completed).

26 **Designated roads and trails:** Specific roads and trails identified by the BLM (or other  
27 agencies) where some type of motorized vehicle use is appropriate and allowed, either  
28 seasonally or year-long (H-1601-1, BLM Land Use Planning Handbook).

29 **Disruptive activities:** Land resource uses/activities that are likely to alter the behavior,  
30 displace, or cause excessive stress to GRSG populations occurring at a specific location  
31 and/or time. Actions that alter behavior or cause the displacement of individuals such that  
32 reproductive success is negatively affected, or an individual's physiological ability to cope  
33 with environmental stress is compromised.

34 **Diversity (species):** The number, distribution, and geographic ranges of plant and animal  
35 species including focal species and species-at-risk.

36 **Durable (protective and ecological) (Forest Service):** The administrative, legal, and  
37 financial assurances that secure and protect the conservation status of a compensatory



1 mitigation site, and the ecological benefits of a compensatory mitigation project, for at least  
2 as long as the associated impacts persist.

3 **Durability (protective and ecological) (BLM):** The maintenance of the effectiveness of a  
4 mitigation site and project for the duration of the associated impacts, which includes  
5 resource, administrative/legal, and financial considerations.

6 **Ecological site:** A distinctive kind of land with specific physical characteristics that differs  
7 from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

8 **Emergency Use:** These are activities occurring on the public lands outside the scope of  
9 normal resource use and operations and that require immediate attention. Emergency use  
10 activities are typically driven by imminent concerns for human health and safety or  
11 protection of property (e.g., wildfire suppression, HAZMAT response, and disease  
12 outbreaks). Emergency use is typically exempted from other land use restrictions, with the  
13 exercise of reasonable and prudent care.

14 **Endangered species:** Any species that is in danger of extinction throughout all or a  
15 significant portion of its range and is so designated by the Secretary of Interior, in  
16 accordance with the 1973 Endangered Species Act.

17 **Enhance:** The improvement of habitat by increasing missing or modifying unsatisfactory  
18 components and/or attributes of the habitat (e.g., road commissioning) to meet GRSG  
19 objectives.

20 **Environmental impact statement:** A detailed written statement required by the National  
21 Environmental Policy Act when an agency proposes a major federal action significantly  
22 affecting the quality of the human environment.

23 **Exception (minerals):** A case-by-case exemption from a lease stipulation. The stipulation  
24 continues to apply to all other sites within the leasehold to which the restrictive criteria  
25 apply. The authorized officer (e.g., any employee of the Forest Service to whom has been  
26 delegated the authority to perform the duties described in the applicable Forest Service  
27 manual or handbook) may grant an exception if an environmental record of review  
28 determines that the action, as proposed or conditioned, would not impair the function or  
29 utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral  
30 needs of GRSG.

31 **Exclusion area:** An area on the public lands where a certain activity is prohibited to ensure  
32 protection of other resources on the site. The term is frequently used in reference to lands  
33 and realty actions and proposals (e.g., rights-of-way), but it is not unique to lands and realty  
34 activities. This restriction is functionally analogous to the phrase “no surface occupancy”  
35 used by the oil and gas program and is applied as an absolute condition to those affected  
36 activities. The less restrictive analogous term is avoidance area.



1 **Exploration:** Active drilling and geophysical operations to determine the presence of the  
2 mineral resource or to determine the extent of the reservoir or mineral deposit.

3 **Feasible:** See technically/economically feasible.

4 **Federal Land Policy and Management Act of 1976 (FLPMA):** Public Law 94-579, which  
5 gives the BLM legal authority to establish public land policy, to establish guidelines for  
6 administering such policy, and to provide for management, protection, development, and  
7 enhancement of the public land.

8 **Federal mineral estate:** Subsurface mineral estate owned by the United States and  
9 administered by the BLM. Federal mineral estate under BLM jurisdiction is composed of  
10 mineral estate underlying BLM-administered lands, privately owned lands, and state-owned  
11 lands

12 **Fire suppression:** All activities connected with fire extinguishing operations, beginning with  
13 discovery of a fire and continuing until the fire is completely out.

14 **Fluid minerals:** Oil, gas, coal bed natural gas, and geothermal resources.

15 **Forage:** All browse and herbaceous foods that are available to grazing animals.

16 **Forage reserve:** An area that is set aside for use as needed by various permittees who might  
17 be displaced by wildfire, ESR, restoration efforts, etc. rather than having a term permit  
18 issued for grazing like a regular allotment.

19 **Free flowing:** Existing or flowing in natural condition without impoundment, diversion,  
20 straightening, riprapping, or other modification of the waterway (Section 16[b] of the Wild  
21 and Scenic Rivers Act). Designation of a wild and scenic river does not depend on the river  
22 being “naturally flowing,” (i.e., flowing without any man-made upstream or downstream  
23 manipulation). The presence of impoundments above or below the segment (including those  
24 that may regulate flow regimes within the segment) and existing minor dams or diversion  
25 structures within the study area do not necessarily render a river segment noneligible. There  
26 are segments in the national system that are downstream from major dams or located  
27 between dams.

28 **Enhance:** The improvement of habitat by increasing missing or modifying unsatisfactory  
29 components or attributes of the plant community to meet GRSG objectives.

30 **General Habitat Management Area:** Occupied (seasonal or year-round) habitat outside of  
31 priority habitat management areas and sagebrush focal areas. It includes a few active leks and  
32 fragmented or marginal habitat, such as two isolated populations of GRSG in the East Idaho  
33 Uplands and West Central Idaho. These areas have been identified by the BLM and Forest  
34 Service in coordination with respective state wildlife agencies.

35 **Grazing system:** Scheduled grazing use and nonuse of an allotment to reach identified goals  
36 or objectives by improving the quality and quantity of vegetation. This includes, but is not

1 limited to, developing pastures, utilization levels, grazing rotations, timing and duration of  
2 use periods, and necessary range improvements.

3 **Guideline (Forest Service):** A constraint on project and activity decisionmaking that allows  
4 for departure from its terms, so long as the purpose of the guideline is met. (§ 219.15(d)(3)).  
5 Guidelines are established to help achieve or maintain a desired condition or conditions, to  
6 avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR  
7 219.7(e)(1)(iv); FSH 1909.12, Chapter 20)

8 **Habitat:** An environment that meets a specific set of physical, biological, temporal, or  
9 spatial characteristics that satisfy the requirements of a plant or animal species or group of  
10 species for part or all of their life cycle.

11 **Hard triggers:** Thresholds indicating that immediate action is necessary to stop a severe  
12 deviation from GRSG conservation objectives set forth in the land and resources  
13 management plan.

14 **High-voltage transmission line:** An electrical power line that is 100 kilovolts or larger.

15 **Holder:** An individual or entity that holds a valid special use authorization.

16 **Impact:** The effect, influence, alteration, or imprint caused by an action.

17 **Important Habitat Management Area:** High value habitat and populations that provide a  
18 management buffer for the priority habitat management areas and sagebrush focal areas and  
19 connect patches of priority habitat management areas and sagebrush focal areas. The areas  
20 encompass areas of generally moderate to high conservation value habitat and/or  
21 populations and, in some conservation areas, include areas beyond those identified by  
22 USFWS as necessary to maintain redundant, representative, and resilient populations. The  
23 areas are typically adjacent to priority habitat management areas and sagebrush focal areas  
24 but generally reflect somewhat lower GRSG population status and/or reduced habitat value  
25 due to disturbance, habitat fragmentation, or other factors. No important habitat  
26 management areas are designated within the southwestern Montana conservation area.

27 **Incompatible use:** An activity that affects (hinders or obstructs) the nature and purposes of  
28 a designated National Trail (see substantial interference).

29 **Indicators:** Factors that describe resource condition and change and can help the BLM and  
30 the Forest Service determine trends over time.

31 **Integrated ranch planning:** A method for ranch planning that takes a holistic look at all  
32 elements of the ranching operations, including strategic and tactical planning, rather than  
33 approaching planning as several separate enterprises.

34 **Isolated parcel:** An individual parcel of land that may share a corner, but does not have a  
35 common border with another parcel.



1 **Invasive species (invasive plant species, invasives):** An alien species whose introduction  
2 does or is likely to cause economic or environmental harm or harm to human health. The  
3 species must cause, or be likely to cause, harm, and be exotic to the ecosystem it has infested  
4 before considered invasive.

5 **Land-locked:** This term refers to the situation when any parcel of private, state, or federal  
6 land has no legal access without crossing another ownership due to the existing land  
7 ownership pattern.

8 **Landscape:** A distinct association of land types that exhibit a unique combination of local  
9 climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human  
10 influences. Landscapes are generally of a size that the eye can comprehend in a single view.

11 **Land tenure adjustment:** This term refers to a change in landownership patterns, or legal  
12 status, to improve their administrative manageability and their usefulness to the public.

13 **Late brood rearing area:** Habitat includes mesic sagebrush and mixed shrub communities,  
14 wet meadows, and riparian habitats, as well as some agricultural lands (e.g., alfalfa fields).

15 **Lease:** A type of special use authorization (usually granted for uses other than linear rights-  
16 of-way) that is used when substantial capital investment is required and when conveyance of  
17 a conditional and transferable interest in BLM-administered or National Forest System lands  
18 is necessary or desirable to serve or facilitate authorized long-term uses, and that may be  
19 revocable and compensable according to its terms.

20 **Leasable minerals:** Those minerals or materials designated as leasable under the Mineral  
21 Leasing Act of 1920. These include energy-related mineral resources such as oil, natural gas,  
22 coal, and geothermal, and some non-energy minerals, such as phosphate, sodium, potassium,  
23 and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

24 **Lessee:** A person or entity authorized to use and occupy National Forest System land under  
25 a specific instrument identified as a lease. Forest special use leases are limited to authorize  
26 certain wireless communication uses. Leases are also used for certain mineral leasable  
27 activities.

28 **Lek:** A traditional courtship display area attended by male GRSG in or next to sagebrush-  
29 dominated habitat. A lek is designated based on observations of two or more male GRSG  
30 engaged in courtship displays. For management purposes, leks with less than five males  
31 observed strutting should be confirmed active for two years to meet the definition of a lek  
32 (Connelly et al. 2000; Connelly et al. 2003, 2004). Each state may have a slightly different  
33 definition of lek, active lek, inactive lek, occupied lek, and unoccupied leks. Regional  
34 planning will use the appropriate definition provided by the state of interest.

35 **Lek complex:** A lek or group of leks within 2.5 kilometers (1.5 miles) of each other between  
36 which male GRSG may interchange from one day to the next. Fidelity to leks has been well  
37 documented. Visits to multiple leks are most common among yearlings and less frequent for  
38 adult males, suggesting an age-related period of establishment (Connelly et al. 2004).

1       **Lek, active:** Any lek that has been attended by male GRSG during the strutting season.

2       **Lek, inactive:** Any lek where sufficient data suggests that there was no strutting activity  
3 throughout a strutting season. Absence of strutting GRSG during a single visit is insufficient  
4 documentation to establish that a lek is inactive. This designation requires documentation of  
5 one of the following scenarios:

- 6           • An absence of GRSG on the lek during at least two ground surveys separated by  
7 at least seven days. These surveys must be conducted under ideal conditions  
8 (April 1-May 7 or other appropriate date based on local conditions), no  
9 precipitation, light or no wind, half-hour before sunrise to one hour after  
10 sunrise).
- 11           • A ground check of the exact known lek site late in the strutting season (after  
12 April 15) that fails to find any sign (tracks, droppings, feathers) of strutting  
13 activity. Data collected by aerial surveys should not be used to designate inactive  
14 status as the aerial survey may actually disrupt activities.

15       **Lek, occupied:** A lek that has been active during at least one strutting season within the  
16 prior 10 years.

17       **Lek, unoccupied:** A lek that has either been destroyed or abandoned.

18       **Lek, destroyed:** A formerly active lek site and surrounding sagebrush habitat that has been  
19 destroyed and is no longer suitable for GRSG breeding.

20       **Lek, abandoned:** A lek in otherwise suitable habitat that has not been active for 10  
21 consecutive years. To be designated abandoned, a lek must be inactive (see above criteria) in  
22 at least four nonconsecutive strutting seasons spanning the 10 years. The site of an  
23 abandoned lek should be surveyed at least once every 10 years to determine whether it has  
24 been reoccupied by GRSG.

25       **Locatable minerals:** Mineral disposable under the General Mining Act of 1872, as  
26 amended, that was not excepted in later legislation. They include hardrock, placer, industrial  
27 minerals, and uncommon varieties of rock found on public domain lands.

28       **Major pipeline:** A pipeline that is 24 inches or more in outside-pipe diameter (Mineral  
29 Leasing Act of 1920 30 U.S.C. § 181; 36 CFR 251.54(f)(1)).

30       **Master development plans:** A set of information common to multiple planned wells,  
31 including drilling plans, surface use plans of operations, and plans for future production.

32       **Mineral:** Any naturally formed inorganic material, solid or fluid inorganic substance that can  
33 be extracted from the earth, any of various naturally occurring homogeneous substances (as  
34 stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained for human use,  
35 usually from the ground. Under federal laws, considered as locatable (subject to the general



1 mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to  
2 the Materials Act of 1947).

3 **Mineral materials (salable minerals):** Common varieties of sand, stone, pumice, gravel,  
4 and clay that are not obtainable under the mining or leasing laws but that can be acquired  
5 under the Materials Act of 1947, as amended. In accordance with regulations in 43 CFR Part  
6 3600, the BLM sells mineral materials to the public at fair market value but gives them free  
7 to states, counties, or other government entities for public projects. Disposal of mineral  
8 materials is subject to conformance with all applicable laws and BLM policy in BLM  
9 Handbook H-3600-1.

10 **Mining claim:** A parcel of land that a miner takes and holds for mining purposes, having  
11 acquired the right of possession by complying with the Mining Law and local laws and rules.  
12 A mining claim may contain as many adjoining locations as the locator may make or buy.  
13 There are four categories of mining claims: lode, placer, mill site, and tunnel site.

14 **Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the  
15 action and its implementation. (40 CFR 1508.20 (b))

16 **Mitigation:** Includes specific means, measures, or practices that could reduce, avoid, or  
17 eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not  
18 taking a certain action or parts of an action, minimizing the impact by limiting the degree of  
19 magnitude of the action and its implementation, rectifying the impact by repairing,  
20 rehabilitating, or restoring the affected environment, reducing or eliminating the impact over  
21 time by preservation and maintenance operations during the life of the action, and  
22 compensating for the impact by replacing or providing substitute resources or environments.

23 **Modification (oil and gas):** A fundamental change to the provisions of a lease stipulation,  
24 either temporarily or for the term of the lease. A modification may include an exemption  
25 from or alteration to a stipulated requirement. Depending on the specific modification, the  
26 stipulation may or may not apply to all other sites within the leasehold to which the  
27 restrictive criteria applied.

28 **Monitoring (plan monitoring):** The process of tracking the implementation of land use  
29 plan decisions and collecting and assessing data necessary to evaluate the effectiveness of  
30 land use planning decisions.

31 **National Conservation Area:** Area designated by Congress, generally to conserve, protect,  
32 enhance, and properly manage the resources and values for which it was designated for the  
33 benefit and enjoyment of present and future generations.

34 **National Historic Trail:** A congressionally designated trail that is an extended, long-  
35 distance trail, not necessarily managed as continuous, that follows as closely as possible and  
36 practicable the original trails or routes of travel of national historic significance. The purpose  
37 of a National Historic Trail is the identification and protection of the historic route and the  
38 historic remnants and artifacts for public use and enjoyment. A National Historic Trail is

1 managed in a manner to protect the nationally significant resources, qualities, values, and  
2 associated settings of the areas through which such trails may pass, including the primary use  
3 or uses of the trail (BLM Manual 6250, NHT Administration).

4 **National Monument:** Area designated by the president of the United States by  
5 proclamation, in accordance with the Antiquities Act of 1906, for the protection of objects  
6 of historical or scientific interest, or by Congress for the conservation, protection,  
7 restoration, or enhancement of the resources, objects, and values for which it was  
8 designated.

9 **Native plant species:** Species that were found here before European settlement, and  
10 consequently are in balance with these ecosystems because they have well developed  
11 parasites, predators, and pollinators.

12 **Nature and purposes:** The term used to describe the character, characteristics, and  
13 congressional intent for a designated National Trail, including the resources, qualities, values,  
14 and associated settings of the areas through which such trails may pass; the primary use or  
15 uses of a National Trail; and activities promoting the preservation of, public access to, travel  
16 within, and enjoyment and appreciation of National Trails.

17 **Net conservation gain:** The actual benefit or gain above baseline conditions.

18 **No surface occupancy:** A major constraint where use or occupancy of the land surface for  
19 fluid mineral exploration or development and surface-disturbing activities is prohibited to  
20 protect identified resource values. Areas identified as NSO are open to fluid mineral leasing,  
21 but surface-disturbing activities cannot be conducted on the surface of the land. Access to  
22 fluid mineral deposits would require directional drilling from outside the boundaries of the  
23 NSO. NSO areas are treated as avoidance areas for rights-of-way; no rights-of-way would be  
24 granted in NSO areas unless there were no feasible alternatives. The NSO stipulation  
25 includes stipulations that may be worded as “No Surface Use/Occupancy,” “No Surface  
26 Disturbance,” “Conditional NSO,” or “Surface Disturbance or Surface Occupancy  
27 Restriction (by location).”

28 **Notice-level mining activities:** To qualify for a notice the mining activity must 1)  
29 constitute exploration, 2) not involve bulk sampling of more than 1,000 tons of presumed  
30 ore, 3) must not exceed five acres of surface disturbance, and 4) must not occur in one of  
31 the special category lands listed in 43 CFR 3809.11(c). The notice is to be filed in the BLM  
32 field office with jurisdiction over the land involved. The notice does not need to be on a  
33 particular form but must contain the information required by 43 CFR 3809.301(b).

34 **Old-growth juniper:** Characterized by rounded tops and spreading canopies, often  
35 containing dead limbs and/or spike tops, large branches near the base of the tree, as well as  
36 furrowed, fibrous bark, and are typically host to arboreal lichens. Leader growth in the upper  
37 quarter of the tree is usually less than one inch. These trees are generally distributed on rock  
38 outcrop or rubble land soils, or other soils with coarse fragments in the soil-surface and/or



1 slopes over 12-25%, where juniper vegetation type is the climax plant community (Miller et  
2 al 2005; USDI and USGS 2007).

3 **Off-highway vehicle:** Any motorized vehicle capable of, or designed for, travel on or  
4 immediately over land, water, or other natural terrain, excluding (1) any nonamphibious  
5 registered motorboat, (2) any military, fire, emergency, or law enforcement vehicle while  
6 being used for emergency purposes, (3) any vehicle whose use is expressly authorized by the  
7 authorized officer or otherwise officially approved, (4) vehicles in official use, and (5) any  
8 combat or combat support vehicle when used for national defense (H-1601-1, BLM Land  
9 Use Planning Handbook).

10 **Off-site mitigation:** Compensating for resource impacts by replacing or providing  
11 substitute resources or habitat at a different location than the project area.

12 **Outstandingly remarkable values:** Values among those listed in Section 1(b) of the Wild  
13 and Scenic Rivers Act: “scenic, recreational, geological, fish and wildlife, historical, cultural,  
14 or other similar values.” Other values that may be considered include ecological, biological  
15 or botanical, paleontological, hydrological, traditional cultural uses, water quality, and  
16 scientific values. The Wild and Scenic Rivers Act does not further define outstandingly  
17 remarkable values. Agency resource professionals develop and interpret criteria in evaluating  
18 river values (unique, rare, or exemplary) based on professional judgment on a regional,  
19 physiographic, or geographic comparative basis.

20 **Patent:** A grant made to an individual or group conveying fee simple title to selected public  
21 lands.

22 **Permit:** A special use authorization that provides permission, without conveying an interest  
23 in land, to occupy and use National Forest System land or facilities for specified purposes,  
24 and which is both revocable and terminable.

25 **Permittee:** A person or company permitted to graze livestock on public land.

26 **Persistent woodlands:** Long-lived pinyon-juniper woodlands that typically have sparse  
27 understories and occur on poor substrates in the assessment area.

28 **Plan of operations:** A Plan of Operation is required for all mining activity conducted under  
29 the General Mining Act of 1872, as amended, if the proposed operations will likely cause  
30 significant disturbance of surface resources. The Plan of Operation describes the type of  
31 operations proposed and how they would be conducted, the type and standard of existing  
32 and proposed roads or access routes, the means of transportation to be used, the period  
33 during which the proposed activity will take place, and measures to be taken to meet the  
34 requirements for environmental protection (36 CR 228.4).

35 **Policy:** This is a statement of guiding principles, or procedures, designed and intended to  
36 influence planning decisions, operating actions, or other affairs of the BLM or Forest  
37 Service. Policies are established interpretations of legislation, executive orders, regulations, or  
38 other presidential, secretarial, or management directives.



1 **Prescribed fire:** Any fire ignited by management actions to meet specific objectives. A  
2 written, approved prescribed fire plan must exist and NEPA requirements, where applicable,  
3 must be met before ignition.

4 **Primary use or uses:** Authorized mode or modes of travel, or activities identified in the  
5 National Trails System Act, enabling legislation, or legislative history, through the trailwide  
6 comprehensive plan or approved resource management plan.

7 **Primitive Road (BLM definition):** A linear route managed for use by four-wheel drive or  
8 high clearance vehicles. Primitive roads do not normally meet any BLM road design  
9 standards.

10 **Priority Habitat Management Areas:** Areas that have been identified as having the  
11 highest conservation value to maintaining sustainable GRSG populations. These areas would  
12 include breeding, late brood-rearing, and winter concentration areas. The BLM and Forest  
13 Service have identified these areas in coordination with respective state wildlife agencies.

14 **Public domain:** The term applied to any or all of those areas of land ceded to the federal  
15 government by the original states and to such other lands as were later acquired by treaty,  
16 purchase, or cession and are disposed of only under the authority of Congress.

17 **Range improvement:** Any activity, structure, or program on or relating to rangelands that  
18 is designed to improve production of forage, change vegetative composition, control  
19 patterns of use, provide water, stabilize soil and water conditions, and provide habitat for  
20 livestock and wildlife. The term includes structures, treatment projects, and use of  
21 mechanical means to accomplish the desired results.

22 **Reclamation:** The suite of actions taken within an area affected by human disturbance, the  
23 outcome of which is intended to change the condition of the disturbed area to meet  
24 predetermined objectives or make it acceptable for certain defined resources (e.g., wildlife  
25 habitat, grazing, and ecosystem function).

26 **Reclamation plans:** Plans that guide the suite of actions taken within an area affected by  
27 human disturbance, the outcome of which is intended to change the condition of the  
28 disturbed area to meet pre-determined objectives and/or make it acceptable for certain  
29 defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

30 **Reference state:** The state where the functional capacities represented by soil/site stability,  
31 hydrologic function, and biotic integrity are performing at an optimum level under the  
32 natural disturbance regime. This state usually includes what is often referred to as the  
33 potential natural plant community.

34 **Required design features:** Required Design Features (RDFs) are required for certain  
35 activities in all GRSG habitat. RDFs establish the minimum specifications for certain  
36 activities to help mitigate adverse impacts. However, the applicability and overall  
37 effectiveness of each RDF cannot be fully assessed until the project level when the project



1 location and design are known. Because of site-specific circumstances, some RDFs may not  
2 apply to some projects (e.g., a resource is not present on a given site) and/or may require  
3 slight variations (e.g., a larger or smaller protective area). All variations in RDFs would  
4 require that at least one of the following be demonstrated in the NEPA analysis associated  
5 with the project/activity:

- 6 • A specific RDF is documented to not be applicable to the site-specific conditions of  
7 the project/activity (e.g. due to site limitations or engineering considerations).  
8 Economic considerations, such as increased costs, do not necessarily require that an  
9 RDF be varied or rendered inapplicable;
- 10 • An alternative RDF is determined to provide equal or better protection for GRSG or  
11 its habitat;
- 12 • A specific RDF will provide no additional protection to GRSG or its habitat.

13 **Residual impacts:** Impacts from an implementation-level decision that remain after  
14 applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

15 **Resource management plan:** A land use plan as prescribed by the Federal Land Policy and  
16 Management Act that establishes, for a given area of land, land-use allocations, coordination  
17 guidelines for multiple-use, objectives, and actions to be achieved.

18 **Resources, qualities, and values:** The significant scenic, historic, cultural, recreation,  
19 natural (including biological, geological, and scientific), and other landscape areas through  
20 which trails may pass, as identified in the National Trails System Act (see associated settings).

21 **Restoration:** Implementation of a set of actions that promotes plant community diversity  
22 and structure that allows plant communities to be more resilient to disturbance and invasive  
23 species over the long term. The long-term goal is to create functional high quality habitat  
24 that is occupied by GRSG. The short-term goals may be to restore the landform, soils, and  
25 hydrology and to increase the percentage of preferred vegetation, seeding of desired species,  
26 or treatment of undesired species.

27 **Restriction/restricted use:** A limitation or constraint on public land uses and operations.  
28 Restrictions can be of any kind, but most commonly apply to certain types of vehicle use,  
29 temporal or spatial constraints, or certain authorizations.

30 **Right-of-way:** Land authorized to be used or occupied for the construction, operation,  
31 maintenance, and termination of a project or facility passing over, upon, under or through  
32 such land.

33 **Road (BLM definition):** A linear route declared a road by the owner, managed for use by  
34 low-clearance vehicles having four or more wheels, and maintained for regular and  
35 continuous use.

1 **Road or trail (Forest Service definition):** A road or trail wholly or partly within or  
2 adjacent to and serving the National Forest System that the Forest Service determines is  
3 necessary for the protection, administration, and utilization of the National Forest System  
4 and the use and development of its resources.

5 **Roadless area:** Designated Forest Service-administered lands with wilderness attributes.  
6 The Forest Service restricts activities, such as road construction and reconstruction, timber  
7 cutting, and mineral activities to various degrees in order to protect roadless areas.

8 **Sagebrush Focal Area:** Areas identified by the USFWS that that represent recognized  
9 “strongholds” for GRSG that have been noted and referenced by the conservation  
10 community as having the highest densities of GRSG and other criteria important for the  
11 persistence of GRSG.

12 **Season of use:** The time during which livestock grazing is permitted on a given range area,  
13 as specified in the grazing lease.

14 **Soft triggers:** An intermediate threshold indicating that management changes are needed at  
15 the implementation level to address habitat or population losses.

16 **Special recreation management area:** Administrative units where the existing or proposed  
17 recreation opportunities and recreation setting characteristics are recognized for their unique  
18 value, importance, or distinctiveness, especially compared to other areas used for recreation.

19 **Special recreation permits:** Authorizations that allow for recreation on public lands and  
20 related waters. Issued as a means to control visitor use, protect recreational and natural  
21 resources, and provide for the health and safety of visitors. Commercial special recreation  
22 permits also are issued as a mechanism to provide a fair return for the commercial use of  
23 public lands.

24 **Special status species:** Includes proposed species, listed species, and candidate species  
25 under the ESA; also, state-listed species and BLM State Director-designated sensitive species  
26 (BLM Manual 6840, Special Status Species Management).

27 **Special use authorization:** A written permit, term permit, lease, or easement that  
28 authorizes use or occupancy of National Forest System lands and specifies the terms and  
29 conditions under which the use or occupancy may occur.

30 **Split estate:** Circumstance where the surface of a particular parcel of land is owned by a  
31 different party than the minerals underlying the surface. Split estates may have any  
32 combination of surface/subsurface owners: federal/state, federal/private, state/private, or  
33 percentage ownerships. When referring to the split estate ownership on a particular parcel of  
34 land, it is generally necessary to describe the surface/subsurface ownership pattern of the  
35 parcel.



1 **Standard (Forest Service)** - A mandatory constraint on project and activity  
2 decisionmaking, established to help achieve or maintain the desired condition or conditions,  
3 to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR  
4 219.7(e)(1) (iii)) FSH 1909.12, Chapter 20)

5 **State:** A state is composed of an integrated soil and vegetation unit having one or more  
6 biological communities that occur on a particular ecological site and that are functionally  
7 similar with respect to the three attributes (soil/site stability, hydrologic function, and biotic  
8 integrity) under natural disturbance regimes.

9 **Stipulation (general):** A condition of lease issuance that provides a level of protection for  
10 other resource values or land uses by restricting lease operations during certain times or  
11 locations or to avoid unacceptable impacts, to an extent greater than standard lease terms or  
12 regulations. A stipulation is an enforceable term of the lease contract, supersedes any  
13 inconsistent provisions of the standard lease form, and is attached to and made a part of the  
14 lease. Lease stipulations further implement the BLM's regulatory authority to protect  
15 resources or resource values. Lease stipulations are developed through the land use planning  
16 process.

17 **Stipulation (oil and gas):** A provision that modifies standard oil and gas lease terms and  
18 conditions in order to protect other resource values or land uses and is attached to and made  
19 a part of the lease.

20 **Soft trigger:** An intermediate threshold indicating that management changes are needed at  
21 the implementation level to address habitat or population losses.

22 **Stochastic:** Randomly determined event, chance event, a condition determined by  
23 predictable processes and a random element.

24 **Substantial interference:** Determination that an activity or use hinders or obstructs the  
25 nature and purposes of a designated National Trail (see nature and purposes).

26 **Surface disturbance:** Suitable habitat is considered disturbed when it is removed and  
27 unavailable for immediate GRSG use.

- 28 • Long-term removal occurs when habitat is physically removed through activities  
29 that replace suitable habitat with long-term occupancy of unsuitable habitat, such  
30 as a road, power line, well pad, or active mine. Long-term removal may also  
31 result from any activities that cause soil mixing, soil removal, and exposure of the  
32 soil to erosive processes
- 33 • Short-term removal occurs when vegetation is removed in small areas but  
34 restored to suitable habitat within less than five years of disturbance, such as a  
35 successfully reclaimed pipeline or successfully reclaimed drill hole or pit
- 36 • Suitable habitat rendered unusable due to numerous anthropogenic disturbances

- Anthropogenic surface disturbance are surface disturbances meeting the above definitions and that result from human activities

**Surface-disturbing and disruptive activities:** Actions that alter the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Examples of surface-disturbing activities are operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; and the conduct of several types of vegetation treatments (e.g., prescribed fire). Surface-disturbing activities may be either authorized or prohibited.

**Surface uses:** Activities that may be present on the surface or near-surface (e.g., pipelines), of the public lands. When administered as a use restriction (e.g., no surface occupancy), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study enclosure), or administrative sites (e.g., government ware-yard) where only authorized agency personnel are admitted.

**Tall structures:** A wide array of infrastructures (e.g., poles that support lights, telephone and electrical distribution, communication towers, meteorological towers, high-tension transmission towers, and wind turbines) that have the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

**Technically/economically feasible:** Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the BLM's sole responsibility to determine what actions are technically and economically feasible. The BLM will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit.

**Temporary/temporary use:** The opposite of the term permanent/permanent use. It is a relative term and has to be considered in the context of the resource values affected and the nature of the resource use or activity taking place. Generally, a temporary activity is considered to be one that is not fixed in place and is of short duration.

**Temporary special use permit:** A type of permit that terminates within 1 year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits. Temporary special use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

**Term permit:** An authorization to occupy and use National Forest System land, other than rights-of-way for a specified period that is both revocable and compensable according to its terms.



1 **Timeliness:** The lack of a time lag between impacts and the achievement of compensatory  
2 mitigation goals and objectives (BLM Manual Section 1794).

3 **Timely:** The conservation benefits from compensatory mitigation accruing as early as  
4 possible or before impacts have begun.

5 **Timing limitation:** Areas identified for timing limitations, a moderate constraint, are closed  
6 to fluid mineral exploration and development, surface-disturbing activities, and intensive  
7 human activity during identified time frames. This stipulation does not apply to operation  
8 and basic maintenance activities, including associated vehicle travel, unless otherwise  
9 specified. Construction, drilling, completions, and other operations considered to be  
10 intensive are not allowed. Intensive maintenance, such as workovers on wells, is not  
11 permitted. Administrative activities are allowed at the discretion of the authorized officer.  
12 TLs can overlap spatially with NSO and CSU, as well as with areas that have no other  
13 restrictions.

14 **Trail (BLM definition):** A linear route managed for human-powered, stock, or off-highway  
15 vehicle forms of transportation or for historical or heritage values. Trails are not generally  
16 managed for use by four-wheel drive or high-clearance vehicles.

17 **Transition:** A shift between two states. Transitions are not reversible by simply altering the  
18 intensity or direction of factors that produced the change. Instead, they require new inputs,  
19 such as revegetation or shrub removal. Practices such as these that accelerate succession are  
20 often expensive to apply..

21 **Travel management areas:** Polygons or delineated areas where a rational approach has  
22 been taken to classify areas as open, closed, or limited and have identified or designated a  
23 network of roads, trails, ways, and other routes that provide for public access and travel  
24 across the planning area. All designated travel routes within travel management areas should  
25 have a clearly identified need and purpose, as well as clearly defined activity types, modes of  
26 travel, and seasons or timeframes for allowable access or other limitations (BLM Manual  
27 H1601-1 Land Use Planning Handbook).

28 **Travel management system:** Planned and authorized roads, trails, and areas for motor  
29 vehicle use on National Forest System lands that are managed in a controlled, sustained  
30 manner.

31 **Unitization:** The process by which lessees may unite with each other in collectively  
32 adopting and operating under a unit plan for the development of any oil, gas, or geothermal  
33 field.

34 **Utility-scale and/or commercial energy development:** A project that is capable of  
35 producing 20 or more megawatts of electricity for distribution to customers through the  
36 electricity-transmission-grid system.

37 **Valid existing rights.** Documented, legal rights or interests in the land that allow a person  
38 or entity to use said land for a specific purpose and that are still in effect. Such rights include

1 but are not limited to fee title ownership, mineral rights, rights-of-way, easements, permits,  
2 and licenses. Such rights may have been reserved, acquired, leased, granted, permitted, or  
3 otherwise authorized under various statutes of law.

4 **Vegetation treatments:** Management practices that are designed to maintain current  
5 vegetation structure or change the vegetation structure to a different stage of development.  
6 Vegetation treatment methods may include managed fire, prescribed fire, chemical,  
7 mechanical, and seeding.

8 **Viability (Forest Service):** For purposes of the National Forest Management Act and its  
9 enabling regulations, viability is the availability of habitat that allows a species to persist on  
10 landscapes for long-periods (multi-generational) of time. It assumes that populations are  
11 abundant (sufficient numbers) and well-distributed (sufficient redundancy of populations) to  
12 provide for long-term population persistence on a landscape.

13 **Waiver (oil and gas):** Permanent exemption from a lease stipulation. The stipulation no  
14 longer applies anywhere within the leasehold.

15 **West Nile virus:** A virus that is found in temperate and tropical regions of the world and  
16 most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in  
17 humans and can be lethal to birds, including GRSG.

18 **Wild and scenic study river:** Rivers identified for study by Congress under Section 5(a) of  
19 the Wild and Scenic Rivers Act or identified for study by the Secretary of Agriculture or the  
20 Secretary of the Interior under Section 5(d)(1) of the Wild and Scenic Rivers Act. These  
21 rivers will be studied under the provisions of Section 4 of the Wild and Scenic Rivers Act.

22 **Wildcat well:** An exploratory oil well drilled in land not known to be an oil field.

23 **Wilderness characteristics:** These attributes include the area's size, its apparent  
24 naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of  
25 recreation. They may also include supplemental values. Lands with wilderness characteristics  
26 are those that have been inventoried and determined by the BLM to contain wilderness  
27 characteristics, as defined in Section 2(c) of the Wilderness Act.

28 **Wilderness Study Area:** Areas with wilderness characteristics identified and designated  
29 through the inventory and study processes authorized by Section 603 of FLPMA and, prior  
30 to 2003, through the planning process authorized by Section 202 of FLPMA.

31 **Wilderness:** A congressionally designated area of undeveloped federal land retaining its  
32 primeval character and influence, without permanent improvements or human habitation,  
33 that is protected and managed to preserve its natural conditions and that (1) generally  
34 appears to have been affected mainly by the forces of nature, with human imprints  
35 substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and  
36 unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical  
37 its preservation and use in an unimpaired condition; and (4) may also contain ecological,



1 geological, or other features of scientific, educational, scenic, or historic value. The definition  
2 is contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891, from H-6310-1,  
3 Wilderness Inventory and Study Procedures).

4 **Wildfire suppression:** An appropriate management response to wildfire, or prescribed fire  
5 that results in curtailment of fire spread and eliminates all identified threats from the  
6 particular fire.

7 **Wildland Fire:** Any nonstructure fire that occurs in the vegetation or natural fuels. Includes  
8 both prescribed fire and wildfire (NWCG Memo #024-2010 April 30, 2010,  
9 [www.nwcg.gov](http://www.nwcg.gov)).

10 **Wildland-urban interface:** The line, area or zone where structures and other human  
11 development meet or intermingle with undeveloped wildland or vegetative fuels.

12 **Winter concentration areas:** GRSG winter habitats that are occupied annually by GRSG  
13 and provide sufficient sagebrush cover and food to support birds throughout the entire  
14 winter (especially periods with above average snow cover). Many of these areas support  
15 several different breeding populations of GRSG. GRSG typically show high fidelity for these  
16 areas, and loss or fragmentation can result in significant population impacts.

17 **Withdrawal:** A withholding of an area of federal land from settlement, sale, location, or  
18 entry under some or all of the general land laws to achieve the following:

- 19 • Limit activity under those laws in order to maintain other public values in the  
20 area
- 21 • Reserve the area for a particular public purpose or program
- 22 • Transfer jurisdiction of the area from one federal agency to another

23 **Zoological area:** Roughly analogous to BLM area of critical environmental concern, this  
24 area preserves GRSG habitat next to potential ACECs found to have relevance and  
25 importance. This area would be managed to ensure consistent GRSG management and  
26 conservation across the landscape.



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# Appendix AA

## Economic Impact Analysis Methodology



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## **AA. Economic Impact Analysis Methodology**

### **AA.1 Introduction**

This appendix describes the methods and data that underlie the economic impact modeling analysis. Input-output models such as the Impact Analysis for Planning (IMPLAN) model, an economic impact analysis model, provide a quantitative representation of the production relationships between individual economic sectors. Thus, the economic modeling analysis uses information about physical production quantities and the prices and costs for goods and services. The inputs required to run the IMPLAN model are described in the following narrative and tables. The resulting estimates from the IMPLAN model, by alternative, are in **Chapter 4, Environmental Consequences, Section 4.15, Social and Economic Conditions**. The first portion of the following information describes general aspects of the IMPLAN model and how it was used to estimate economic impacts. The remaining sections provide additional detailed data used in the analysis for livestock grazing.

### **AA.2 The IMPLAN Model**

IMPLAN is a regional economic model that provides a mathematical accounting of the flow of money, goods, and services through a region's economy. The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the ripple effect (also called the multiplier effect) of changes in economic sectors that may not be directly impacted by management actions, but are linked to industries that are directly impacted. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly impacted) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production).

This analysis used IMPLAN 2011; prior to running the model, cost and price data were converted to a consistent dollar year (2011) using sector-specific adjustment factors from the IMPLAN model. However, the values in this appendix are expressed in year 2010 dollars for comparability with the data provided in the socioeconomics section in chapter 3.

The current IMPLAN model has 440 economic sectors, of which 333 are represented in the Socioeconomic Study Area counties. This analysis involved direct changes in economic activity for 15 IMPLAN economic sectors, as well as changes in all other related sectors due to the ripple effect. The IMPLAN production coefficients were modified to reflect the interaction of producing sectors in the Socioeconomic Study Areas. As a result, the calibrated model does a better job of generating multipliers and the subsequent impacts that reflect the interaction between and among the sectors in the Socioeconomic Study Area compared to a model using unadjusted national coefficients. Key variables used in the IMPLAN model were filled in using data specific to the Socioeconomic Study Area, including employment estimates, labor earnings, and total industry output.

The trade data available in the current version of IMPLAN (Version 3.0) make it possible to do multi-region analysis to track how an impact on any of the IMPLAN sectors in the study area affects production in any of the sectors in any other region of the US. For this analysis, this feature allowed the estimation of how an impact in the primary study area disperses into

the secondary study area, and how these effects in the secondary study area create additional local effects in the primary study area. As a result, it was possible to estimate not only the jobs and income generation in the primary study area, but to also estimate how the economic activity in the primary study area affected jobs and income generation in the secondary study area.

### AA.3 Livestock Grazing

Economic impacts from changes to livestock grazing are a function of the amount of forage available and the economic value of forage.

Forage availability was measured in Animal Unit Months (AUMs), with one AUM defined as the amount of forage needed to feed one cow, one horse, or five sheep for one month. Data on forage availability were obtained from BLM's Rangeland Administration System (BLM 2012a) and from the Forest Service's INFRA (infrastructure) range module (Forest Service 2013). Two types of AUM measures were used: Active AUMs and Billed AUMs. Active AUMs measure the amount of forage from land available for grazing. The Forest Service designates this measure "permitted" AUMs. Billed AUMs measure the amount of forage for which the BLM and Forest Service bill annually (i.e., the amount of forage that ranchers actually use, which is typically less than the amount of forage available). The Forest Service uses the designation "authorized" AUMs.

Data for 2011 and 2013 were used for active AUMs. BLM provided data on the breakdown of active AUMs in various GRSG habitat and non-habitat classes by alternative. For billed AUMs, data for 2000 to 2011 were used to develop a 12-year average for billed AUMs on BLM-administered lands. Under current management (Alternative A), the analysis estimated 2,047,170 total active AUMs in the Socioeconomic Study Area, with 1,190,255 active AUMs in GRSG habitat (all designated habitat [ADH]) in the Socioeconomic Study Area (BLM 2012a and Forest Service 2013).<sup>12</sup> The data on active and billed AUMs were used to determine the historical ratio of billed AUMs to active AUMs for each BLM field office. The analysis assumed a billed to active ratio of 100 percent for Forest Service lands because Forest Service has historically adjusted the number of active AUMs to correspond to the number of recently billed AUMs. **Table AA-1**, Current and Historical Annual Animal Unit Months Data, presents the current and historical data used in the analysis.

**Table AA-1**  
**Current and Historical Annual Animal Unit Months Data**

	Active AUMs	Active AUMs in ADH	Billed as Share of Active
Bruneau Field Office	109,567	98,528	78%

<sup>1</sup> Because permitted AUMs include active and suspended AUMs (in BLM terminology), this comparison of total active AUMs with ADH permitted AUMs may overestimate the loss of AUMs under Alternative C.

<sup>2</sup> When a portion of an allotment was found in GRSG habitat, only the portion with GRSG was excluded from total active AUMs, under Alternatives C (not the entire allotment).



**Table AA-1**  
**Current and Historical Annual Animal Unit Months Data**

	Active AUMs	Active AUMs in ADH	Billed as Share of Active
Burley Field Office	123,505	76,765	72%
Challis Field Office	53,570	39,935	59%
Dillon Field Office	72,637	64,283	75%
Four Rivers Field Office	118,918	43,602	81%
Jarbidge Field Office	178,271	129,014	84%
Owyhee Field Office	125,140	101,029	86%
Pocatello Field Office	68,768	40,876	86%
Salmon Field Office	55,966	37,376	80%
Shoshone Field Office	196,137	182,430	61%
Upper Snake River Field Office	140,084	126,608	67%
Beaverhead-Deerlodge National Forest	154,629	42,832	100%
Boise National Forest	59,319	9,596	100%
Caribou-Targhee National Forest	288,344	59,660	100%
Salmon-Challis National Forest	146,804	54,478	100%
Sawtooth National Forest	155,511	83,244	100%
Socioeconomic Study Area	2,047,170	1,190,255	-

Sources: Calculated based on data from BLM 2012a and Forest Service 2013.

ADH all designated habitat

AUM animal unit month

Forage availability was estimated for all alternatives. Alternatives A, B, D, E, and the Proposed Plan used the current data for active and billed AUMs (obtained as explained above). Alternative C discounted the current data to remove 100 percent of active and billed AUMs in ADH, as designated by the alternative. Alternative F discounted the current data to remove 25 percent of active and billed AUMs in ADH, as designated by the alternative. **Table AA-2**, Estimated Change in Annual Animal Unit Months by Alternative and Livestock Type, Low Impact Scenario, shows the resulting reductions in billed AUMs, calculated as the difference between the initial billed AUMs and the reduced billed AUMs under each alternative. AUMs are distinguished between those allocated to sheep, and those allocated to cattle and other animals, to allow different valuation of forage, as explained further below. The BLM and Forest Service consider these estimates to be a low-impact scenario because they do not account for the possibility that an initial reduction in AUMs on BLM-administered lands could lead to the loss of additional AUMs due to seasonal limitations in the availability of grazing areas. The possibility of additional losses in AUMs due to seasonal restrictions in the availability of grazing areas is considered in the high-impact scenario explained below.

**Table AA-2**  
**Estimated Change in Annual Animal Unit Months by Alternative and Livestock Type, Relative to Alternative A, Low Impact Scenario**

	Alternatives B, D, E, and Proposed Plan	Alternative C	Alternative F
<b>Total</b>			
Bruneau Field Office	0	-70,227	-19,528
Burley Field Office	0	-55,757	-14,252
Challis Field Office	0	-28,103	-7,026
Dillon Field Office	0	-45,766	-11,441
Four Rivers Field Office	0	-26,174	-9,036
Jarbridge Field Office	0	-107,571	-27,623
Owyhee Field Office	0	-92,142	-23,084
Pocatello Field Office	0	-38,523	-9,630
Salmon Field Office	0	-34,087	-8,522
Shoshone Field Office	0	-92,963	-26,828
Upper Snake River Field Office	0	-86,700	-21,695
Beaverhead-Deerlodge National Forest	0	-42,832	-10,708
Boise National Forest	0	-9,596	-2,399
Caribou-Targhee National Forest	0	-59,660	-14,915
Salmon-Challis National Forest	0	-54,478	-13,619
Sawtooth National Forest	0	-83,244	-20,811
Socioeconomic Study Area	0	-927,823	-241,116
<b>Cattle and Other</b>			
Bruneau Field Office	0	-70,157	-19,508
Burley Field Office	0	-50,973	-13,029
Challis Field Office	0	-27,710	-6,927
Dillon Field Office	0	-44,857	-11,213
Four Rivers Field Office	0	-24,562	-8,480
Jarbridge Field Office	0	-103,319	-26,531
Owyhee Field Office	0	-90,634	-22,706
Pocatello Field Office	0	-34,665	-8,665
Salmon Field Office	0	-33,944	-8,486
Shoshone Field Office	0	-78,244	-22,580
Upper Snake River Field Office	0	-70,327	-17,598
Beaverhead-Deerlodge National Forest	0	-57,768	-14,442
Boise National Forest	0	-9,964	-2,491
Caribou-Targhee National Forest	0	-45,984	-11,496
Salmon-Challis National Forest	0	-57,274	-14,318
Sawtooth National Forest	0	-68,865	-17,216
Socioeconomic Study Area	0	-869,247	-225,688
<b>Sheep</b>			
Bruneau Field Office	0	-70	-20

**Table AA-2**  
**Estimated Change in Annual Animal Unit Months by Alternative and Livestock Type,**  
**Relative to Alternative A, Low Impact Scenario**

	<b>Alternatives B, D, E, and Proposed Plan</b>	<b>Alternative C</b>	<b>Alternative F</b>
Burley Field Office	0	-4,784	-1,223
Challis Field Office	0	-394	-99
Dillon Field Office	0	-909	-227
Four Rivers Field Office	0	-1,612	-556
Jarbridge Field Office	0	-4,253	-1,092
Owyhee Field Office	0	-1,507	-378
Pocatello Field Office	0	-3,859	-965
Salmon Field Office	0	-144	-36
Shoshone Field Office	0	-14,719	-4,248
Upper Snake River Field Office	0	-16,373	-4,097
Beaverhead-Deerlodge National Forest	0	-2,373	-593
Boise National Forest	0	-3,527	-882
Caribou-Targhee National Forest	0	-18,046	-4,512
Salmon-Challis National Forest	0	-2,318	-580
Sawtooth National Forest	0	-19,648	-4,912
Socioeconomic Study Area	0	-94,535	-24,417

Sources: Calculated based on data from BLM 2012a and Forest Service 2013.

In addition to the low-impact scenario reflected in Table R-2, the BLM and Forest Service considered the possibility that the loss of AUMs on public lands could lead to the loss of additional AUMs due to seasonal limitations of grazing areas. This would be the case if livestock operations have no reasonable alternative to seasonal grazing on public lands. Livestock grazing on federal lands often occurs during the spring and summer seasons, with other feeding alternatives (hay) being used during fall and winter. If there are no grazing alternatives to federal lands during spring and summer, farmers may need to reduce their operations and the resulting loss of output, jobs, and earnings would be larger than that otherwise estimated. Torell et al. (2014) provide estimates of the potential impacts to a model ranch in Idaho from seasonal closures of federal lands for cattle grazing. These estimates show the number of AUMs lost on and off BLM-administered lands for each AUM lost on BLM-administered lands under various scenarios. These scenarios range from a 25 percent reduction in BLM AUMs to a complete elimination of AUMs on BLM-administered lands with the livestock operation going out of business. The estimates are based on an economic model that assumes farmers respond to the loss of availability of federal lands for grazing in several ways to maximize their profits (gross margins), including reducing the size of their operations. Based on the Torell et al. (2014) estimates, BLM and Forest Service assumed that for each BLM AUM lost under Alternative C, an additional 1.01 AUMs would be lost for a total of 2.01 AUMs lost (mid-point between the scenarios of 100



percent loss of BLM AUMs with and without closure of operations).. Under Alternative F, an additional 0.47 AUM would be lost for each reduction of BLM AUMs for a total of 1.47 AUMs (scenarios of loss of 25 percent of AUMs on BLM-administered lands). These AUM adjustment factors are based on a model Idaho ranch that relies on a total of approximately 4,620 AUMs, of which 2,098 AUMs (45%) are linked to federal land. These factors were applied only to cattle AUMs, because no similar estimate was available for sheep. **Table AA-3** shows the resulting reductions in billed AUMs, calculated as the difference between the initial billed AUMs and the reduced billed AUMs under each alternative.

**Table AA-3**  
**Estimated Change in Annual Animal Unit Months by Alternative and Livestock Type,**  
**Relative to Alternative A, High Impact Scenario**

	Alternatives B, D, E, and Proposed Plan	Alternative C	Alternative F
<b>Total</b>			
Bruneau Field Office	0	-141,086	-28,696
Burley Field Office	0	-107,239	-20,376
Challis Field Office	0	-56,091	-10,282
Dillon Field Office	0	-91,071	-16,711
Four Rivers Field Office	0	-50,982	-13,022
Jarbridge Field Office	0	-211,924	-40,093
Owyhee Field Office	0	-183,682	-33,756
Pocatello Field Office	0	-73,536	-13,703
Salmon Field Office	0	-68,371	-12,510
Shoshone Field Office	0	-171,990	-37,440
Upper Snake River Field Office	0	-157,730	-29,966
Beaverhead-Deerlodge National Forest	0	-118,487	-21,823
Boise National Forest	0	-23,555	-4,543
Caribou-Targhee National Forest	0	-110,473	-21,411
Salmon-Challis National Forest	0	-117,438	-21,628
Sawtooth National Forest	0	-158,067	-30,220
Socioeconomic Study Area	0	-1,841,721	-356,179
<b>Cattle and Other</b>			
Bruneau Field Office	0	-141,015	-28,677
Burley Field Office	0	-102,455	-19,153
Challis Field Office	0	-55,697	-10,183
Dillon Field Office	0	-90,162	-16,484
Four Rivers Field Office	0	-49,370	-12,466
Jarbridge Field Office	0	-207,671	-39,001
Owyhee Field Office	0	-182,175	-33,378

**Table AA-3**  
**Estimated Change in Annual Animal Unit Months by Alternative and Livestock Type,**  
**Relative to Alternative A, High Impact Scenario**

	<b>Alternatives B, D, E, and Proposed Plan</b>	<b>Alternative C</b>	<b>Alternative F</b>
Pocatello Field Office	0	-69,677	-12,738
Salmon Field Office	0	-68,227	-12,474
Shoshone Field Office	0	-157,271	-33,193
Upper Snake River Field Office	0	-141,356	-25,869
Beaverhead-Deerlodge National Forest	0	-116,115	-21,230
Boise National Forest	0	-20,028	-3,662
Caribou-Targhee National Forest	0	-92,427	-16,899
Salmon-Challis National Forest	0	-115,120	-21,048
Sawtooth National Forest	0	-138,419	-25,308
Socioeconomic Study Area	0	-1,747,186	-331,762
<b>Sheep</b>			
Bruneau Field Office	0	-70	-20
Burley Field Office	0	-4,784	-1,223
Challis Field Office	0	-394	-99
Dillon Field Office	0	-909	-227
Four Rivers Field Office	0	-1,612	-556
Jarbridge Field Office	0	-4,253	-1,092
Owyhee Field Office	0	-1,507	-378
Pocatello Field Office	0	-3,859	-965
Salmon Field Office	0	-144	-36
Shoshone Field Office	0	-14,719	-4,248
Upper Snake River Field Office	0	-16,373	-4,097
Beaverhead-Deerlodge National Forest	0	-2,373	-593
Boise National Forest	0	-3,527	-882
Caribou-Targhee National Forest	0	-18,046	-4,512
Salmon-Challis National Forest	0	-2,318	-580
Sawtooth National Forest	0	-19,648	-4,912
Socioeconomic Study Area	0	-94,535	-24,417

Sources: Calculated based on data from BLM 2012a, Forest Service 2013 and Torell 2014.

The economic value of forage is estimated based on the value of production associated with the forage. Values for cattle and sheep are estimated separately, with the value of forage for

other animals considered equivalent to the value for cattle. Due to price fluctuations, average per-AUM values for cattle and sheep are based on the 2002 to 2011 average value of production estimates from the US Department of Agriculture, Economic Research Service (2012). The value for cattle is \$50.37 per AUM, and the value for sheep is \$57.20 per AUM (in 2010 dollars). Including indirect and induced impacts, the per-AUM values are \$101.90 for cattle and \$127.54 for sheep in the primary study area and \$102.19 for cattle and \$127.89 for sheep in the primary and secondary study area (in 2010 dollars). **Table AA-2**, Assumptions for Analysis of Impacts on Output for Livestock Grazing, shows the economic impact assumptions for cattle and sheep. The direct economic impact is the estimated change in livestock output per AUM; IMPLAN generates the indirect and induced impacts.

**Table AA-2**  
**Assumptions for Analysis of Impacts on Output for Livestock Grazing**

Economic Impact	Cattle	Sheep
<b>Primary Study Area</b>		
Direct Economic Impact (\$/AUM)	\$50.37	\$57.20
Indirect Economic Impact (\$/AUM) <sup>1</sup>	\$44.69	\$59.61
Induced Economic Impact (\$/AUM) <sup>2</sup>	\$6.83	\$10.74
Total Economic Impact (\$/AUM)	\$101.90	\$127.54
Multiplier (Total Impact/Direct Impact)	2.02	2.23
<b>Primary and Secondary Study Area</b>		
Direct Economic Impact (\$/AUM)	\$50.37	\$57.20
Indirect Economic Impact (\$/AUM) <sup>1</sup>	\$44.92	\$59.86
Induced Economic Impact (\$/AUM) <sup>2</sup>	\$6.90	\$10.83
Total Economic Impact (\$/AUM)	\$102.19	\$127.89
Multiplier (Total Impact/Direct Impact)	2.03	2.24

Note: All dollar values are in 2010 dollars.

<sup>1</sup> Indirect impacts reflect increased demand in sectors that directly or indirectly provide supplies to the livestock industry.

<sup>2</sup> Induced impacts reflect increased demand in the consumer and government sectors.

**Table AA-3**, Assumptions for Analysis of Employment Impacts for Livestock Grazing, provides a summary of the employment impacts that would result, according to IMPLAN, based on unit changes in livestock AUMs.

**Table AA-3**  
**Assumptions for Analysis of Employment Impacts for Livestock Grazing**

Employment Impact	Cattle	Sheep
<b>Primary Study Area</b>		
Direct Employment (Jobs/1,000 AUMs)	0.000559	0.000980
Indirect Employment (Jobs/1,000 AUMs)	0.000338	0.000603
Induced Employment (Jobs/1,000 AUMs)	0.000067	0.000104
Total Employment (Jobs/1,000 AUMs)	0.000963	0.001688
Multiplier (Total Impact/Direct Impact)	1.72	1.72



**Table AA-3**  
**Assumptions for Analysis of Employment Impacts for Livestock Grazing**

Employment Impact	Cattle	Sheep
<b>Primary Study Area</b>		
Average Earnings per Job (2010 dollars)	\$36,839	\$22,890
<b>Primary and Secondary Study Area</b>		
Direct Employment (Jobs/1,000 AUMs)	0.000559	0.000980
Indirect Employment (Jobs/1,000 AUMs)	0.000338	0.000603
Induced Employment (Jobs/1,000 AUMs)	0.000067	0.000104
Total Employment (Jobs/1,000 AUMs)	0.000963	0.001688
Multiplier (Total Impact/Direct Impact)	1.72	1.72
Average Earnings per Job (2010 dollars)	\$36,904	\$22,934

Note: Direct, indirect, and induced employment impacts and average earnings per job are calculated using IMPLAN.

Output, labor, and earning impacts summarized in Table 4-71 in the economic impact section of the EIS are presented as lower and upper bound impacts. Estimates of lower bound impacts are equal to the 'low impact scenario' reductions in AUMs in Table R-2 multiplied by impact multipliers in Tables R-4 and R-5; calculations are performed for cattle and sheep separately and then added together. Estimates of upperbound impacts are equal to the 'high impact scenario' reductions in AUMs in Table R-3, and multiplied by multipliers in Tables R-4 and R-5 in a similar manner, noting that the high impact reductions in AUMs include the Torell et al. (2014) production adjustment factors as described earlier (similar adjustment factors are not available for sheep).

The IMPLAN sectors used to model an exogenous change in demand for livestock grazing were the following (IMPLAN sector numbers are shown in brackets): grain farming (2), all other crop farming (10), support activities for agriculture and forestry (19), residential structures maintenance and repairs (40), wholesale trade (319), truck transportation (335), banking (354), real estate (360), accounting (368), veterinary services (379), equipment repair and maintenance (417), and labor income (NA). Cattle grazing used the following additional sector: cattle ranching and farming (11). Sheep grazing used the following additional sectors: animal production except cattle and poultry and eggs (14) and retail-food and beverages (324).

#### AA.4 References

BLM (United States Department of the Interior, Bureau of Land Management). 2012a. Data from BLM Rangeland Administration System.

Forest Service (United States Department of Agriculture, Forest Service). 2013. ID-MT USFS Allotment AUM Data.

Torell, L.A, N. Rimbey, J. Tanaka, D. Taylor, J. Ritten, T. Foulke. 2014. Ranch-Level Economic Impacts of Altering Grazing Policies on Federal Land to Protect the Greater Sage-Grouse.

US Department of Agriculture, Economic Research Service. 2012. Commodity Costs and Returns. Internet Web site: <http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx>. Accessed in August 2012.

White, Eric M., and Darren Goodding. 2012. Estimation of National Forest Visitor Spending Averages from National Visitor Use Monitoring Round 2. Gen. Tech. Rep. PNW-GTR-XXX. Portland, OR: U.S. Department of Agriculture, Forest Service. Pacific Northwest Research Station. 98 pages.

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# Appendix B

## Required Design Features (RDFs)



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## Appendix B – Required Design Features

Required Design Features (RDFs) are required for certain activities in all GRSG habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). RDFs are continuously improving as new science and technology become available and therefore are subject to change. All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:

- A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g. due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;
- An alternative RDF is determined to provide equal or better protection for GRSG or its habitat;
- A specific RDF will provide no additional protection to GRSG or its habitat.

The following required design features (RDFs) are included for consideration and use based upon review of current science and effects analysis (circa 2014) (**Table B-1**). These may be reviewed during project evaluation and updated through plan maintenance as new information and updated scientific findings become available.

The table is organized by program area grouping the RDFs most relevant to that program. All relevant RDFs, regardless of which program they are grouped under, should be considered during project evaluation and applicable RDFs should be applied during implementation, with the exception that they would be implemented as best management practices for locatable minerals activities, to the extent allowable by law. In some cases the RDFs may not all be appropriate based on local conditions and would be assessed in the appropriate site specific NEPA analysis, these all should be considered and where determined to be beneficial to achieving GRSG habitat objectives included as part of the site specific project. In other cases additional project design criteria or best management practices could be incorporated into project implementation to address site specific concerns not fully addressed by the RDFs described here.

**Table B-1. Required Design Features**

Required Design Feature	
<b>General</b>	
1.	Solicit and consider expertise and ideas from local landowners, working groups, and other federal, state, county, and private organizations during development of projects.
2.	No repeated or sustained behavioral disturbance (e.g., visual, noise over 10 dbA at lek, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season.
3.	Avoid mechanized anthropogenic disturbance, in nesting habitat during the nesting season when implementing: 1) fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical exploration activities; 4) organized motorized recreational events.

<b>Required Design Feature</b>
4. Avoid mechanized anthropogenic disturbance during the winter, in wintering areas when implementing: 1) fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical exploration activities; 4) organized motorized recreational events.
<b>Wildfire Suppression</b>
5. Compile district-level information into state-wide sage-grouse tool boxes. Tool boxes will contain maps, listing of resource advisors, contact information, local guidance, and other relevant information for each district, which will be aggregated into a state-wide document.
6. Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics. The Fire Planning and Fuels Management Division (FA-600) hosts a webpage containing up-to-date maps, instruction memoranda, conservation measures, BMPs, and spatial data specific to fire operations and fuels management/sage-grouse interactions. These resources can be accessed at: <a href="http://web.blm.gov/internal/fire/fpfm/sg/index.html">http://web.blm.gov/internal/fire/fpfm/sg/index.html</a> . Additional BLM sage-grouse information can be found at: <a href="http://www.blm.gov/wo/st/en/prog/more/fish_wildlife_and/sage-grouse-conservation.html">http://www.blm.gov/wo/st/en/prog/more/fish_wildlife_and/sage-grouse-conservation.html</a>
7. Assign a resource advisor with sage-grouse expertise, or who has access to sage-grouse expertise, to all extended attack fires in or near sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals. Involve state wildlife agency expertise in fire operations through: <ul style="list-style-type: none"> <li>• instructing resource advisors during preseason trainings;</li> <li>• qualification as resource advisors;</li> <li>• coordination with resource advisors during fire incidents;</li> <li>• contributing to incident planning with information such as habitat features or other key data useful in fire decision making</li> </ul>
8. At the onset of an emerging wildland fire the Agency Administrators and Fire Management Officers will engage a local Resource Advisor to assess sage-grouse habitat that may be affected by the fire or suppression activities.
9. If complexity of the wildland fire warrants the activation of an Incident Management Team, locally refined information regarding important sage-grouse habitat will be relayed during in brief and continually throughout the incident.
10. On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.
11. As appropriate, utilize existing fuel breaks, such as roads or discrete changes in fuel type, as control lines in order to minimize fire spread.
12. During periods of multiple fires, ensure line officers are involved in setting priorities.
13. To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, heli-bases, etc.) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.
14. Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and all-terrain vehicles (ATV) prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.
15. Minimize cross-country vehicle travel during fire operations in sage-grouse habitat.
16. Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.
17. Utilize retardant, mechanized equipment, and other available resources to minimize burned acreage during initial attack.
18. As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.
19. Adequately document fire operation activities in sage-grouse habitat for potential follow-up coordination activities.
<b>Fuels Management</b>



<b>Required Design Feature</b>
Unless otherwise specified as part of the land use plan consider the full array of fuels management treatment types (prescribed fire, mechanical, chemical and biological) when implementing the following RDFs.
20. Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.
21. Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.
22. Use burning prescriptions which minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of annual grass invasion).
23. Ensure proposed sagebrush treatments are planned with full interdisciplinary input pursuant to NEPA and coordination with state fish and wildlife agencies, and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.
24. Where appropriate, ensure that treatments are configured in a manner that promotes use by sage-grouse.
25. Where applicable, incorporate roads and natural fuel breaks into fuel break design.
26. Power-wash all vehicles and equipment involved in fuels management activities, prior to entering the area, to minimize the introduction of undesirable and/or invasive plant species.
27. Design vegetation treatments in areas of high fire frequency which facilitate firefighter safety, reduce the potential acres burned, and reduce the fire risk to sage-grouse habitat. Additionally, develop maps for sage-grouse habitat which spatially display existing fuels treatments that can be used to assist suppression activities.
28. As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs or one of that referenced in land use planning documentation.
29. Emphasize the use of native plant species, especially those from a warmer area of the species' current range, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.
30. Remove standing and encroaching trees within at least 110 yards of occupied sage-grouse leks and other habitats (e.g., nesting, wintering and brood rearing) to reduce the availability of perch sites for avian predators, as resources permit.
31. Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.
32. Reduce the risk of vehicle- or human-caused wildfires and the spread of invasive species by installing fuel breaks and/or planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.
33. Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, etc.) to aid in controlling wildfire, should wildfire occur near PHMA or priority restoration areas (such as where investments in restoration have already been made).
34. Design treatments to provide a break in fuel continuity in large, at-risk, expanses of continuous sagebrush. Use local knowledge of fire occurrence, spread patterns, and habitat values at risk to determine the proper placement and size of the fuel break.
35. Use existing agreements with local, county, and state road departments to improve and maintain existing fuel breaks during routine road maintenance. Examples include: blading, mowing, disking, grading, and spraying roadside vegetation.
36. Form partnerships with linear right-of-way holders to maintain fuel breaks, which reduce fuel continuity and serve to protect at-risk landscapes.
37. Use existing NEPA documentation and authorities, where possible, when conducting road right-of-way maintenance. In many instances, existing authorizations for roads or linear rights-of-way contain provisions for maintenance activities that could be implemented and incorporated into a vegetation and habitat protection strategy without requiring additional NEPA analysis. Document this with a Determination of NEPA Adequacy (DNA).
38. Enter into agreements with road departments which may help fund the construction and maintenance of fuel breaks adjacent to roads, as funding permits.
39. Spatially depict the locations of existing and planned fuel breaks in a landscape fuel break map and label each vegetation polygon for reference. Offices will make these maps available to suppression resources for use in fire operations.
<b>Vegetation Treatment</b>
40. Utilize available plant species based on their adaptation to the site when developing seed mixes. (Lambert

<b>Required Design Feature</b>
2005; VegSpec).
41. Utilizing the warmer component of a species' current range when selecting native species for restoration when available (Kramer and Havens 2009).
42. Reduce annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc. (Pyke 2011).
43. Reduce density and competition of introduced perennial grasses using appropriate techniques to accomplish this reduction (Pellant and Lysne 2005).
44. Utilize techniques to introduce desired species to the site such as drill seeding, broadcast seeding followed by a seed coverage technique, such as harrowing, chaining or livestock trampling, and transplanting container or bare-root seedlings.
45. Assess existing on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider techniques to increase on-site seed production to facilitate an increase in density of desired species.
46. Use site preparation techniques that retain existing desirable vegetation.
47. Use "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources.
48. Utilize post-treatment control of annual grass and other invasive species.
49. Utilize new tools and use of new science and research as it becomes available.
50. Give higher priority to vegetation rehabilitation or manipulation projects that include: <ul style="list-style-type: none"> <li>• Sites where environmental variables contribute to improved chances for project success (Meinke et al. 2009).</li> <li>• Areas where seasonal habitat is limiting GRSG distribution and/or abundance (wintering areas, wet meadows and riparian areas, nesting areas, leks, etc.).</li> <li>• Re-establish sagebrush cover in otherwise suitable GRSG with consideration to local needs and conditions using the general priorities in the following order: <ul style="list-style-type: none"> <li>• Recently burned native areas</li> <li>• Native grassland with suitable forb component</li> <li>• Nonnative grassland with suitable forb component</li> <li>• Recently converted annual grass areas</li> <li>• Native grassland</li> <li>• Nonnative grassland</li> </ul> </li> <li>• Where desirable perennial bunchgrasses and/or forbs are deficient in existing sagebrush stands, use appropriate mechanical, aerial or other techniques to re-establish them. Examples include but are not limited to, use of a Lawson aerator with seeding, harrow or chain with seeding, drill seeding, hand planting plugs, aerial seeding or other appropriate technique.</li> <li>• Cooperative efforts that may improve GRSG habitat quality over multiple ownerships.</li> <li>• Projects that may provide connectivity between suitable habitats or expand existing good quality habitats.</li> <li>• Projects that address conifer encroachment into important GRSG habitats. In general the priority for treatment is 1) Phase 1 (<math>\leq 10\%</math> conifer cover), 2) Phase 2 (10-30%), and 3) Phase 3 (<math>&gt; 30\%</math>).</li> <li>• Replacing stands of annual grasses within otherwise good quality habitats with desirable perennial species. Other factors that contribute to the importance of the restoration project in maintaining or improving GRSG habitat.</li> </ul>
51. When conducting vegetation treatments in areas inhabited or potentially inhabited by slickspot peppergrass ( <i>Lepidium papilliferum</i> ) follow the conservation measures in the applicable conservation agreement between Idaho BLM and US Fish and Wildlife Service (most recent version dated September 2014).
<b>Lands and Realty</b>
52. Where technically and financially feasible, bury distribution powerlines and communication lines within existing disturbance.
53. Above-ground disturbance areas would be seeded with perennial vegetation as per vegetation



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management.
54. Place infrastructure in already disturbed locations where the habitat has not been fully restored.
55. Cluster disturbances, operations (fracturing stimulation, liquids gathering, etc.) and facilities as close as possible.
56. Co-locate linear facilities within one mile of existing linear facilities.
57. Micro-site linear facilities to reduce impacts to sage-grouse habitats.
58. Locate staging areas outside the Priority Habitat Management Areas to the extent possible.
59. Consider collocating powerlines, flowlines and pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW.
60. Restrict the construction of tall facilities and fences to the minimum number and amount needed.
61. Use free standing structures where possible, to limit the use of guy wires. Where guy wires are necessary and appropriate bird collision diverters would be used, if doing so would not cause a human safety risk.
62. Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.
63. Construction and development activities should conform to seasonal restrictions.
<b>Fluid Mineral Leasing</b>
64. Use directional drilling and/or multi well-pads to reduce surface disturbance.
65. Apply a phased development approach with concurrent reclamation.
66. Place liquid gathering facilities outside of PHMAs. Have no tanks at well locations within PHMAs to minimize truck traffic and perching and nesting sites for ravens and raptors.
67. Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).
68. Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.
69. Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to GRSG.
70. Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.
71. Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007, Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)
72. Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).
73. Remove or re-inject produced water to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: <ul style="list-style-type: none"> <li>• Overbuild size of ponds for muddy and non-vegetated shorelines.</li> <li>• Build steep shorelines to decrease vegetation and increase wave actions.</li> <li>• Avoid flooding terrestrial vegetation in flat terrain or low lying areas.</li> <li>• Construct dams or impoundments that restrict down slope seepage or overflow.</li> <li>• Line the channel where discharge water flows into the pond with crushed rock.</li> <li>• Construct spillway with steep sides and line it with crushed rock.</li> <li>• Treat waters with larvicides to reduce mosquito production where water occurs on the surface</li> </ul>
74. Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.
75. The BLM/Forest Service would work with proponents to limit project related noise where it would be expected to reduce functionality of habitats in Priority and Important Habitat Management Areas.
76. The BLM/Forest Service would evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate.
77. Limit noise sources that would be expected to negatively impact populations in Priority and Important Habitat Management Areas and continue to support the establishment of ambient baseline noise levels for occupied leks in Priority Habitat Management Areas.
78. As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate limitations would be implemented where

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necessary to minimize potential for noise impacts on sage-grouse core population behavioral cycles.
79. As new research is completed, new specific limitations would be coordinated with the IDFG and MT FWP and partners.
80. Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).
81. Require sage-grouse-safe fences.
82. Locate new compressor stations outside Priority Habitat Management Areas and design them to reduce noise that may be directed towards Priority Habitat Management Areas.
83. Clean up refuse (Bui et al. 2011).
84. Locate man camps outside of priority sage-grouse habitats.
85. Consider using oak (or other material) mats for drilling activities to reduce vegetation disturbance and for roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.
86. Use only closed-loop systems for drilling operations and no reserve pits.
87. Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.
<b>Roads</b>
88. Utilize existing roads, or realignments of existing routes to the extent possible.
89. Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.
90. Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.
91. Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.
92. Coordinate road construction and use among ROW or SUA holders.
93. Construct road crossings at right angles to ephemeral drainages and stream crossings.
94. Use dust abatement on roads and pads.
95. Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation.
<b>Roads Specific to Priority and Important Habitat Management Areas</b>
96. Locate roads to avoid priority areas and habitats as described in the Wildfire and Invasive Species Assessments.
97. Establish trip restrictions (Lyon and Anderson 2003) or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).
98. Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)
<b>Reclamation Activities</b>
99. Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011).
100. Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.
101. Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling and revegetating cut-and-fill slopes.
102. Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.
103. Irrigate interim reclamation if necessary for establishing seedlings more quickly.
104. Utilize mulching techniques to expedite reclamation and to protect soils.
<b>Grazing</b>
105. Avoid building new wire fences within 2 km of occupied leks (Stevens 2011). If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates.
106. Place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, out of line of sight or at least one kilometer (preferably 3 km) from occupied leks, where such structures would increase the risk of avian predation.
107. Utilize temporary fencing (e.g., ESR, drop down fencing) where feasible and appropriate to meet



<b>Required Design Feature</b>
management objectives.
108. Fence wetlands (e.g., springs, seeps, wet meadows and/or riparian areas) where appropriate, to maintain or foster progress toward Proper Functioning Condition and to facilitate management of sage-grouse habitat objectives. Where constructing fences or enclosures to improve riparian and/or upland management, incorporate fence marking or other BMPs/RDFs as appropriate.
109. During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), livestock trailing will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse. Over-nighting, watering and sheep bedding locations on public lands must be at least 1 km from occupied leks during the lekking season to reduce disturbance from sheep, human activity and guard animals.
110. Work with permittees in locating sheep over-nighting, watering and sheep bedding locations to minimize impacts to sage-grouse seasonal habitats.
111. When trailing livestock during the lekking or nesting season, use roads or existing trails, to the extent possible to reduce disturbance to roosting, lekking or nesting sage-grouse.
112. Design new spring developments in GRSG habitat to maintain or enhance the free flowing characteristics of springs and wet meadows. Modify developed springs, seeps and associated pipelines to maintain the continuity of the predevelopment riparian area within priority GRSG habitat where necessary.
113. Install ramps in new and existing livestock troughs and open water storage tanks to facilitate the use of and escape from troughs by GRSG and other wildlife.
<b>West Nile Virus</b>
114. Construct water return features and maintain functioning float valves to prohibit water from being spilled on the ground surrounding the trough and/or tank and return water to the original water source, to the extent practicable.
115. Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.
116. Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide livestock water.
117. For most spring developments or wells, mosquito breeding habitat usually is not an issue. Flowing cold (less than 50° Fahrenheit) water and steep sides of the stock tanks are not conducive for egg laying or larvae production. If flows are low, the water is warm, or moss production is an issue in the tank, mosquito breeding habitat could exist in the tank.
118. Maintenance of healthy wetlands at spring sources helps control mosquitoes and their larvae by providing habitat for natural predators such as birds, dragonflies and amphibians. Protecting the wetland at the spring source with a fence is an option to consider.
119. Clean and drain stock tanks before the season starts. If never cleaned or drained, many tanks will fill with silt or debris causing warmer water and heavy vegetation growth conducive to mosquito reproduction.
120. Draining tanks after the period of use is completed, particularly in warmer weather, also reduces potential habitat by eliminating stagnant standing water.
121. Maintain a properly functioning overflow to prevent water from flowing onto the pad and surrounding area, to eliminate or minimize pooling of water that is attractive to breeding mosquitoes.
122. Clean or deepen overflow ponds to maintain colder temperatures to reduce mosquito habitat.
123. Install and maintain float valves on stock tank fill pipes to minimize overflow
124. Harden stock tank pads to reduce tracks that can potentially hold water where mosquitoes may breed.
125. Build ponds with steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments to deter colonizing by mosquitos (Knight et al. 2003, cited in NIT report page 61).
126. Consider removing and controlling trees and shrubs to reduce shade and wind barriers on pit and reservoir shorelines if not needed for wildlife, fish, or recreational values.
127. Impoundments that remain accessible to livestock and wildlife can cause tracking and nutrient enrichment from manure which can create favorable mosquito breeding habitat. Where this is a concern, it may be desirable to fence the reservoir and pipe the water to a tank.
128. Construct dams or impoundments that minimize down-slope seepage or overflow. Seepage and overflow results in down-grade accumulation of vegetated shallow water areas that support breeding mosquitoes.

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129. On ponds and reservoirs with enough depth and volume, introduce native fish species, which feed on mosquito larvae.
130. Line the overflow of a dam's spillway with crushed rock and constructing the spillway with steep sides to preclude the accumulation of shallow water and vegetation to reduce mosquito habitat.
131. Where an existing reservoir has filled with silt, consider cleaning to reduce shallow water habitat conducive to mosquito reproduction.
132. During confirmed West Nile virus outbreaks in sage-grouse habitat, consider larvicide applications.
<b>Travel Management</b>
133. Designate or design routes to direct use away from priority areas identified in Wildfire and Invasive Species Assessments and still provide for high-quality and sustainable travel routes and administrative access, legislatively mandated requirements, and commercial needs
<b>Recreation</b>
134. Direct use away from GRSG priority areas as described in the Wildfire and Invasive Species Assessments.
135. Eliminate or minimize external food sources for corvids.
136. Avoid development of new campgrounds or recreation facilities in nesting habitat.

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# Appendix BB

## Non-Market Valuation Methods



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## **BB. Non-Market Valuation Methods**

### **BB.1 Non-Market Valuation Methods**

This section addresses economic valuation of two categories of non-market resources that are present in the study area and could potentially be affected by the alternatives. These two categories of non-market value are values of GRSG to households in the intermountain west, and value of the ranching tradition to the ranchers themselves, residents, and visitors to the region..

The economic non-market values described in this appendix are not directly comparable to regional economic indicators commonly used to describe how natural resources on public lands contribute to the regional economic indicators such as output/sales, labor income, and employment. These indicators provide valuable information to the local public as well as to regional government agencies for purposes of public service and infrastructure planning. These impacts or contributions are often referred to as distributional effects as they describe the effects to the region. However, these indicators do not represent net economic value. For example, in economic terms, labor income associated with mineral production would actually be considered a cost to the producer. Similarly, expenditures by a recreation visitor associated with a visit to public lands would be viewed by the recreationist as a cost. One last example would be the total sales generated by the sale of minerals extracted from federally owned minerals: the total sales do not reflect the net economic value since the costs associated with the extraction are not accounted for (including labor income, supplies, and equipment, as well as potentially non-market costs such as those associated with pollution). This section considers the economic value of the non-market outputs, a concept described below.

#### **BB.1.1 Total Non-Market Economic Value**

Many of the multiple uses in the study area are not bought and sold in competitive markets. For instance, many recreational visitors to public lands pay no or low admission fees, and the presence of and/or ability to view scenic landscapes, unique geological features, and wild animals such as GRSG have no “market price,” yet have value to people. In some cases people gain value from using these non-market resources, such as photographing ranch houses, old barns and bridges, collecting colorful rocks, driving backcountry roads, and other recreation on public lands; in other cases, protection of some natural resources provides both a use value (e.g., viewing ranch and agricultural land scenery, historic buildings, and wildlife) as well as a non-use value (e.g., the value some people hold for knowing that a specific natural resource exists and is protected even if they never intend to “use” or visit it).

Economists call the sum of these two values Total Economic Value. Use values typically can be consumptive use (e.g., hunting) and/or non-consumptive, such as viewing or being present on site (e.g., camping and hiking). In contrast, non-use values occur off-site to people who derive enjoyment from knowing a scenic ranching community, historic mining town, natural environment, habitat or species exists in its natural state, either for themselves (existence value) and/or future generations (bequest value). Krutilla (1967) documents the

conceptual origins of these two elements of non-use value, and Freeman (2003) provides a rigorous theoretical treatment.

Non-use or existence values can potentially be enjoyed by millions if the good or service (e.g., the presence of a specific wild species such as wild salmon or rare bird species) is of widespread interest. Thus, while the non-use value per household may much lower than a value per day received by a visitor, in total, non-use values may be quite large.

### **BB.1.2 Values Associated with Greater Sage-Grouse Populations**

Economists have long recognized that wildlife species, especially rare, threatened, and endangered species, have economic values beyond just viewing. This is supported by a series of legal decisions and technical analyses. The US Court of Appeals in 1989 first clarified that the US Department of the Interior, in assessing damages in Natural Resource Damage Assessment cases, should include what it termed as “passive use values,” that is, existence values provided to non-users of the species, as a compensable value in addition to any use value. These passive use values are also included in Oil Pollution Act damage assessments as well. The term passive values is interchangeable with the term non-use values defined previously. This ruling and subsequent analysis for Natural Resource Damage Assessment and Oil Pollution Act assessments are consistent with well-established economic theory showing that people derive value from passive use or non-use as well as active uses of resources (Krutilla 1967). Economists have devoted a great deal of conceptual and empirical work to refining concepts and developing methods to measure these passive use values.

The dominant methods are “stated preference” methods, of which the most prominent is the Contingent Valuation Method. The basic element of this method is to use a survey to construct or simulate a market or referendum for protection or improvement of a natural environment, habitat, or species, and then having the respondent indicate whether or not they would pay for an increment of protection, and if so, how much they would pay. While the method has developed a great deal of sophistication that has increased the validity of the willingness to pay responses, there is admittedly a degree of bias that can result in stated willingness to pay exceeding actual willingness to pay by a factor averaging two to three (Loomis 2011; Murphy et al. 2005; List and Gallet 2001). While not a perfect estimator of willingness to pay, the Contingent Valuation Method provides a useful means for estimating the public’s passive use values.

Numerous academic papers and even entire books have been written on the Contingent Valuation Method. Mitchell and Carson (1989) was one of the first, while Alberini and Kahn (2006) is a more recent treatment. To date there have been about 7,500 Contingent Valuation Method studies in over 130 countries (Carson 2011). A number of federal agencies have used or referenced stated preference methods, including the US Bureau of Reclamation, US Environmental Protection Agency, National Park Service, and state agencies such as the California Department of Fish and Game, Idaho Fish and Game, and Montana Fish, Wildlife, and Parks. The USFWS commissioned an original Contingent Valuation Method study of the economic values the public receives from reintroduction of wolves in the areas of Idaho, Montana, and Wyoming, and used those values in an EIS on



wolf reintroduction (USFWS 1994). The US Bureau of Reclamation, National Park Service, and Lower Elwha S'Klallam Tribe commissioned a Contingent Valuation Method study on the value of removal of the Elwha and Glines Canyon Dams (Meyer et al. 1995). The US Bureau of Reclamation also commissioned an original Contingent Valuation Method study on the values of providing stable river flows to benefit riparian vegetation, endangered species, and cultural resources. That study was cited by then-Secretary of the Interior Bruce Babbitt as a factor in selecting the more protective flow regime from Glen Canyon Dam despite it having more foregone hydroelectricity (Babbitt 1996).

The BLM and Forest Service conducted a literature search to demonstrate the potential range of values that could be associated with species that are candidates for listing as threatened or endangered, such as GRSG populations. Analysts first verified there are no existing studies on Total Economic Value or non-use valuation specific to the GRSG. This is not an uncommon occurrence, as there are dozens of rare or potentially threatened species that have not been valued despite the very high policy relevance of the species and the large magnitude of economic value at stake in these policy decisions.

The BLM and Forest Service used three criteria to identify studies that are most applicable to the current analysis: (1) whether the species valuation study was located in the same geographic region as the GRSG habitat; (2) whether the species was listed or not listed as threatened or endangered; and (3) whether the species was hunted or not (implying a mix of use and non-use values).

The primary database of articles was the recent peer-reviewed journal article by Richardson and Loomis (2009), which is a compilation of the economic values of threatened, endangered, and rare species. A literature review was also conducted to determine if there had been any recent studies on GRSG or closely related species. Unfortunately, there is not a perfect match in the literature in terms of geographic region (intermountain) and a species that is both hunted and rare. **Table BB-1**, Existing Estimates of Annual Total Economic Value of Protecting Habitat for Species Similar to GRSG, provides a summary of the studies with features most similar to the GRSG species.

As can be seen in **Table BB-1**, Existing Estimates of Annual Total Economic Value of Protecting Habitat for Species Similar to GRSG, there is one study with a geographic region overlapping the sub-region (Mexican spotted owl), and one study on a species that was hunted at the time (wild turkey). At the time of the study, the Mexican spotted owl was a threatened species under the Endangered Species Act, and respondents were told in the survey that it was a threatened species. The whooping crane, red-cockaded woodpecker, and peregrine falcon studies involved an endangered species.

All of these studies used the Contingent Valuation Method in a mail survey. Households were asked whether they would pay a specific dollar amount, with that amount varying across individuals in the sample (i.e., the valuation questions were “closed-ended,” although the wild turkey study and red-cockaded woodpecker also used an open-ended valuation question for some respondents). Researchers used the closed-ended valuation questions to generate a statistical valuation function. This valuation function exhibited internal validity:

the higher the dollar amount households were asked to pay, the lower the percentage of them that would pay that dollar amount.

**Table BB-1**  
**Existing Estimates of Annual Total Economic Value of Protecting Habitat for Species Similar to GRSG**

Region	Species	Listed	Hunted	Annual Value per Household <sup>b</sup>	Change Valued
Four Corners (AZ, CO, NM, UT)	Mexican Spotted Owl	Yes	No	\$58.49	Avoid extinction in 15 years in Four Corners region
New England	Wild Turkey	No	Yes	\$16.72 <sup>a</sup>	Avoid extinction in New England
Texas (also L.A., NYC, Chicago, Atlanta)	Whooping Crane	Yes	No	\$43.69 <sup>a</sup>	Avoid extinction
Maine	Peregrine Falcon	Yes	No	\$32.37 (one time)	Restore self-sustaining population
South Carolina & Rest of US	Red-Cockaded Woodpecker	Yes	No	\$14.69	Restore habitat to increase chance of survival to 99%

Sources: Loomis and Ekstrand 1997 (Mexican spotted owl); Stevens et al. 1991 (New England wild turkey); Bowker and Stoll 1988 (whooping crane); Kotchen and Reiling 2000 (peregrine falcon); Reaves et al. 1999 (red-cockaded woodpecker). All of these sources are as cited in Richardson and Loomis (2009).

Notes:

- a. Average of estimates from the study.
- b. As noted in the text, these stated preference values for household may have a degree of hypothetical bias that could overstate the actual monetary amount households would pay by a factor of two to three.

With the exception of the peregrine falcon study, which asked respondents to commit to a one-time payment, each survey asked respondents to pay annually to accomplish the stated goal (typically, preventing the species from going extinct in the region of interest, although this varied by study as the table shows). For the peregrine falcon and red-cockaded woodpecker, households were told that their payment would restore a self-sustaining population (i.e., one that would not go extinct).

The original wild turkey study provided an estimate of three values (in 1990 dollars) that were averaged and then adjusted to 2012 dollars using the Consumer Price Index, resulting in a value of \$16.72 per household per year. The same procedure was used to update the 1996 dollar values of the Mexican spotted owl to 2012, resulting in values of \$58.49 per household per year. The higher values for the Mexican spotted owl may be due to the large area of habitat (4.6 million acres stated in the survey and shown on a map) that would be protected in the Four Corners area by paying, and the fact the species was not a hunted species. The whooping crane values are fairly large at \$43.69 per household per year; this value represents a Total Economic Value, including both use and non-use value, as some of the sample included people who actively “used” the species (as wildlife viewers).



The study values in **Table BB-1**, Existing Estimates of Annual Total Economic Value of Protecting Habitat for Species Similar to GRSG, demonstrate that many people, or segments of the public, hold substantial value for protecting threatened and endangered species, which may carry over to the GRSG. However, additional studies would be needed to identify values specifically for GRSG protection. Given that protection is a public good available to all households in the intermountain west, the aggregate or intermountain regional value could be substantial.

### **BB.1.3 Values Associated with Grazing Land**

Public lands managed for livestock grazing provides both market values (e.g., forage for livestock) and non-market values. Many ranchers themselves value the ranching lifestyle in excess of the income generated by the ranching operations. This is evident in some ranch sales transaction data which suggests some ranch properties have sold for more than the market value of the public land forage (Bartlett et al. 2002; Taylor 2006). One of the primary reasons public lands ranchers indicate they own land is for the “tradition, values and culture” rather than primarily for profit (Tanaka et al. 2005). Many public land ranchers work elsewhere part-time and rely on the ranch for only 20 percent of their income (Hanus 2011), relying instead on outside jobs or other savings to support their ranching lifestyle. Land appreciation has also provided increased value and therefore served as an economic resource for ranchers (Tanaka et al. 2005; Torell et al. 2005). As several of these authors note, changes in public land grazing that reduce the profitability of grazing may not directly translate to withdrawal from ranching, due to the fact that economic factors are not necessarily the primary motivation for public land ranching.

Some studies have found non-market values of ranching associated with use values to residents (Mangun et al. 2005) and tourists in the form of open space and western ranch scenery (Ellingson et al. 2006). However, some others see non-market opportunity costs associated with livestock grazing that may, depending on management methods and other variables, reduce native plant species and forage for wildlife (Todres et al. 2003). The potential exists for other residents or visitors to prefer lifestyles or have lifestyle needs that are not consistent with grazing or ranching lifestyles or landscapes.

Methods available to measure the use values to residents and tourists associated with grazing land include stated preference methods similar to contingent valuation (Ellingson et al. 2006; Mangun et al. 2005). Methods for attempting to isolate any amenity values that ranchers themselves may hold include the hedonic price method. This method uses observed sale prices of ranch land as a function of the characteristics, including both conventional market factors (e.g., size of ranch and quantity of forage) but also amenity values (e.g., scenic views, presence of wildlife species, and on-site fishing or hunting opportunities) that may be provided by the ranch (Torell et al. 2005). The additional value that ranchers pay for the amenity values of the ranch provide some indication of how much they value these amenities. Using the hedonic price method to estimate a “lifestyle value” separate from the market and amenity values has yet to be done in the literature. This may be due to the fact that lifestyle values attributed to living on a ranch or ranching is present on nearly all ranch properties sold. As such, statistically it is difficult to isolate the contribution of ranching

lifestyle to differences in ranch property values as ranching lifestyle is a common feature of nearly all ranch properties sold.

#### **BB.1.4 References**

- Alberini, A., and J. Kahn. 2006. *Handbook on Contingent Valuation*. Edward Elgar, Northampton, MA.
- Babbitt, B. 1996. *Record of Decision, Operation of Glen Canyon Dam. Final Environmental Impact Statement*. US Department of the Interior, Washington, DC.
- Bartlett, T., L. A. Torell, N. Rimbey, L. van Tassell, and D. McCollum. 2002. Valuing Grazing on Public Land. *Journal of Range Management* 55: 426-438.
- Bowker, J. M., and J. R. Stoll. 1988. Use of dichotomous choice nonmarket methods to value the whooping crane resource. *American Journal of Agricultural Economics* 70, 372–381.
- Carson, R. 2011. *Contingent Valuation: A Comprehensive Bibliography and History*. Edward Elgar, Northampton, MA.
- Ellingson, L., A. Seidl, and C. J. Mucklow. 2006. *Tourists' Value of Routt County's Working Landscape, 2005: Summary Report*. EDR 0-07, Economic Development Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO. Internet Web site: <http://dare.colostate.edu/pubs/EDR/EDR06-07.pdf>.
- Freeman, M. 2003. *The Measurement of Environmental and Resource Values*. Resources for the Future Press, Washington, DC.
- Hanus, A. 2011. *Socio-Economic Profile and Analysis of Seven Oregon Counties Included in the Greater Sage-Grouse Conservation Strategy for Oregon*. Association of Oregon Counties.
- Kotchen, M., and S. Reiling. 2000. Environmental attitudes, motivations, and contingent valuation of nonuse values: a case study involving endangered species. *Ecological Economics* 32, 93–107.
- Krutilla, J. V. 1967. Conservation Reconsidered. *American Economic Review* 57: 777-786.
- List, J., and C. Gallet. 2001. What experimental protocol influences disparities between actual and hypothetical stated values? *Environmental and Resource Economics* 20: 241–254.
- Loomis, J. 2011. What's to Know about Hypothetical Bias in Stated Preference Valuation Studies. *Journal of Economic Surveys* 25(2): 363-370.





- Loomis, J., and E. Ekstrand. 1997. Economic Benefits of Critical Habitat for the Mexican Spotted Owl: A Scope Test Using a Multiple Bounded Contingent Valuation Survey. *Journal of Agricultural and Resource Economics* 22(2): 356-366.
- Mangan, N., A. Seidl, C. J. Mucklow, and D. Alpe. 2005. The Value of Ranchland to Routt County Residents 1995-2005. EDR 05-02, Economic Development Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO. Internet Web site: <http://dare.colostate.edu/pubs/EDR/EDR05-02.pdf>.
- Meyer, P. A., R. Lichtkoppler, R. B. Hamilton, D. A. Harpman, C. L. Borda, and P. M. Engel. 1995. Elwha River Restoration Project: Economic Analysis, Final Technical Report. Developed by the Project Human Effects Team. A Report to the US Bureau of Reclamation, National Park Service, and Lower Elwha S'Klallam Tribe. Davis, CA. Internet Web site: [http://digital.library.ucr.edu/cdri/documents/R264\\_Economic\\_analysis.pdf](http://digital.library.ucr.edu/cdri/documents/R264_Economic_analysis.pdf).
- Mitchell, R., and R. Carson. 1989. Using Surveys to Value Public Goods: The Contingent Valuation Method. *Resources for the Future*, Washington DC.
- Murphy, J. J., P. G. Allen, T. H. Stevens, and D. Weatherhead. 2005. A meta-analysis of hypothetical bias in stated preference valuation. *Environmental and Resource Economics* 30: 313-325.
- Reaves, D. W., R. Kramer, and T. Holmes. 1999. Does Question Format Matter? Valuing an Endangered Species. *Environmental and Resource Economics* 14: 365-383.
- Richardson, L., and J. Loomis. 2009. The Total Economic Value of Threatened, Endangered and Rare Species: An Updated Meta- Analysis, *Ecological Economics* 68: 1535-1548.
- Rosenberger, R., and J. Loomis. 2000. Using Meta-Analysis for Benefit Transfer: In-Sample Convergent Validity Tests of an Outdoor Recreation Database. *Water Resources Research*, 36(4): 1097-1107.
- Stevens, T., J. Echeverria, R. Glass, T. Hager, and T. Moore. 1991. Measuring the Existence Value of Wildlife. *Land Economics* 67(4): 390-400.
- Tanaka, J., L. A. Torell, and N. Rimbey. 2005. Who Are Public Land Ranchers and Why are They Out There? *Western Economic Forum*: 14-20. Fall 2005.
- Taylor, T. 2006. Rural Communities and Public Lands in the West: Impacts and Alternatives. University of Wyoming. USDA Research, Education and Economics Information System.
- Todres, T., A. Seidl, D. McLeod, A. Bittner, R. Coupal, and K. Inman. 2003. Preferred Public Land Use and Policy in Moffat County: Final Report of Countywide Opinion Survey. APRPR03-11. Agricultural and Resource Policy Report, Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO. Internet Web site: <http://dare.colostate.edu/pubs/ARPR/ARPR%2003-11.pdf>.

- Torrell, L. A., N. Rimbey, O. Ramirez, and D. McCollum. 2005. Income Earning Potential versus Consumptive Amenities in Determining Ranchland Values. *Journal of Agricultural and Resource Economics* 30(3): 537-560.
- US Court of Appeals, DC Circuit. 1989. *State of Ohio v. US Department of Interior* (880 F.2d. 432).
- US Environmental Protection Agency. 2000. *Guidelines for Preparing Economic Analyses*. EPA 240-R-00-003. Washington, DC.
- \_\_\_\_\_. 2009. *Net Economic Values of Wildlife-Related Recreation in 2006*. Report 2006-5. US Department of Agriculture, Washington, DC.
- US Census Bureau. 2011. *Population Estimates, Intercensal Estimates of the Resident Population for Counties: April 1, 2000 to July 1, 2010*. Internet Web site: <http://www.census.gov/popest/data/intercensal/county/CO-EST00INT-01.html>.
- US Department of Commerce. 2012. *Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income and Employment*. Internet Web site: <http://www.bea.gov/regional/index.htm>.



# Appendix C

## Seasonal Timing Restriction



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### **Appendix C – Seasonal Timing Restriction**

During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), project activities will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse.

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# Appendix D

## Fire and Invasives Assessment Tool (FIAT)



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In the Great Basin Region (WAFWA Management Zones III, IV, and V), the US Fish and Wildlife Service (2013) identified wildfire as a primary threat to Greater Sage-Grouse (GRSG) and its habitat. In particular, it identified wildfire in response to invasive annual grasses and conifer expansion. The Fire and Invasives Assessment Tool (FIAT) provides the BLM and other land management agencies with a framework for prioritizing wildfire management and GRSG habitat conservation.

Supported by US Forest Service General Technical Report 326 (Chambers et. al. 2014; see **Attachment 1**), FIAT provides the BLM and other agencies with a mechanism to identify and prioritize areas within GRSG habitat for potential treatment based on their resistance and resilience characteristics. In the cold desert ecosystem typical throughout the Great Basin, soil moisture and temperature fundamentally influence a landscape's ability to resist environmental change. These factors also influence the landscape's ability to be resilient after long-term ecosystem shifts following a disturbance event, such as wildfire. Low resistance and resilient landscapes are typically characterized by low elevations, south-facing slopes, and porous soils. These areas will likely respond differently to fuels management, wildfire, and subsequent rehabilitation compared to more resistant and resilient landscapes, such as those at higher elevations or on north-facing slopes.

At the resource management planning level, FIAT consists of the following parts:

- The identification of areas at the landscape level, based on national datasets and scientific literature, where the threat to GRSG and its habitat from conifer expansion and wildfire/invasive annual grass is highest
- The identification of regional and local areas where focused wildfire and habitat management is critical to GRSG conservation efforts
- The identification of overarching management strategies for conifer expansion and invasive annual grasses in the areas of habitat recovery/restoration, fuels management, fire operations, and post-fire rehabilitation/emergency stabilization and rehabilitation (ESR)

**Attachment 2** outlines the FIAT landscape-level framework and describes the anticipated process for implementing the resource management strategies in the BLM district office and National Forest Unit. Ultimately, the outcomes of the FIAT process will provide land managers with spatially defined priorities and management protocols for the following:

- Operational decision-making during fires
- Implementation of NEPA projects for invasive annual grass and conifer reduction, fuel breaks, and ESR efforts in GRSG habitat

**Attachment 1**—Chambers et al. 2014 report

**Attachment 2**—Greater Sage-Grouse Wildfire, Invasive Annual Grasses, and Conifer Expansion Assessment



# Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse: A Strategic Multi-Scale Approach

Jeanne C. Chambers, David A. Pyke, Jeremy D. Maestas, Mike Pellant, Chad S. Boyd, Steven B. Campbell, Shawn Espinosa, Douglas W. Havlina, Kenneth E. Mayer, and Amarina Wuenschel



Chambers, Jeanne C.; Pyke, David A.; Maestas, Jeremy D.; Pellant, Mike; Boyd, Chad S.; Campbell, Steven B.; Espinosa, Shawn; Havlina, Douglas W.; Mayer, Kenneth E.; Wuenschel, Amarina. 2014. **Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach.** Gen. Tech. Rep. RMRS-GTR-326. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 73 p.

## Abstract

This Report provides a strategic approach for conservation of sagebrush ecosystems and Greater Sage-Grouse (sage-grouse) that focuses specifically on habitat threats caused by invasive annual grasses and altered fire regimes. It uses information on factors that influence (1) sagebrush ecosystem resilience to disturbance and resistance to invasive annual grasses and (2) distribution, relative abundance, and persistence of sage-grouse populations to develop management strategies at both landscape and site scales. A sage-grouse habitat matrix links relative resilience and resistance of sagebrush ecosystems with sage-grouse habitat requirements for landscape cover of sagebrush to help decision makers assess risks and determine appropriate management strategies at landscape scales. Focal areas for management are assessed by overlaying matrix components with sage-grouse Priority Areas for Conservation (PACs), breeding bird densities, and specific habitat threats. Decision tools are discussed for determining the suitability of focal areas for treatment and the most appropriate management treatments.

**Keywords:** sagebrush habitat, Greater Sage-Grouse, fire effects, invasive annual grasses, management prioritization, conservation, prevention, restoration



**Cover photos:** Greater Sage-grouse photo by Rick McEwan; sagebrush habitat photos by Jeanne Chambers.

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## Acknowledgments

We thank the Western Association of Fish and Wildlife Agencies, Fire and Invasives Working group, for critical input into the content of the Report; Steve Knick and Steve Hanser for advice on landscape cover of sagebrush; and three anonymous reviewers for valuable comments on the manuscript. We also thank the Great Basin Landscape Conservation Cooperative for providing the expertise (Amarina Wuenschel) and support for the spatial analyses.

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# Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse: A Strategic Multi-Scale Approach

Jeanne C. Chambers, David A. Pyke, Jeremy D. Maestas, Mike Pellant, Chad S. Boyd, Steven B. Campbell, Shawn Espinosa, Douglas W. Havlina, Kenneth E. Mayer, and Amarina Wuenschel

## Introduction

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An unprecedented conservation effort is underway across 11 States in the western United States to reduce threats to Greater Sage-Grouse (*Centrocercus urophasianus*; hereafter, sage-grouse) and the sagebrush ecosystems on which they depend (fig. 1). Recent efforts were accelerated by the March 2010 determination that sage-grouse warrant protection under the Federal Endangered Species Act, and by increased emphasis on broad collaboration among state and Federal partners to proactively identify and implement actions to reverse current trends (USFWS 2010, 2013). Conservation success hinges on being able to achieve “the long-term conservation of sage-grouse and healthy sagebrush shrub and native perennial grass and forb communities by maintaining viable, connected, and well-distributed populations and habitats across their range, through threat amelioration, conservation of key habitats, and restoration activities” (USFWS 2013). While strides are being made to curtail a host of threats across the range, habitat loss and fragmentation due to wildfire and invasive plants remain persistent challenges to



Figure 1. Greater Sage-Grouse (*Centrocercus urophasianus*) (photo by Charlotte Ganskopp).

achieving desired outcomes – particularly in the western portion of the range (Miller et al. 2011; USFWS 2010; 2013). Management responses to date have not been able to match the scale of this problem. Natural resource managers are seeking coordinated approaches that focus appropriate management actions in the right places to maximize conservation effectiveness (Wisdom and Chambers 2009; Murphy et al. 2013).

Improving our ability to manage for resilience to disturbance and resistance to invasive species is fundamental to achieving long-term sage-grouse conservation objectives. Resilient ecosystems have the capacity to *regain* their fundamental structure, processes, and functioning when altered by stressors like drought and disturbances like inappropriate livestock grazing and altered fire regimes (Holling 1973; Allen et al. 2005). Species resilience refers to the ability of a species to recover from stressors and disturbances (USFWS 2013), and is closely linked to ecosystem resilience. Resistant ecosystems have the capacity to *retain* their fundamental structure, processes, and functioning when exposed to stresses, disturbances, or invasive species (Folke et al. 2004). Resistance to invasion by nonnative plants is increasingly important in sagebrush ecosystems; it is a function of the abiotic and biotic attributes and ecological processes of an ecosystem that limit the population growth of an invading species (D'Antonio and Thomsen 2004). A detailed explanation of the factors that influence resilience and resistance in sagebrush ecosystems is found in Chambers et al. 2014.

In general, species are likely to be more resilient if large populations exist in large blocks of high quality habitat across the full breadth of environmental variability to which the species is adapted (Redford et al. 2011). Because sage-grouse are a broadly distributed and often wide-ranging species that may move long-distances between seasonal habitats (Connelly et al. 2011a,b), a strategic approach that integrates both landscape prioritization and site-scale decision tools is needed. This document develops such an approach for the conservation of sagebrush habitats across the range of sage-grouse with an emphasis on the western portion of the range. In recent years, information and tools have been developed that significantly increase our understanding of factors that influence the resilience of sagebrush ecosystems and the distribution of sage-grouse populations, and that allow us to strategically prioritize management activities where they are most likely to be effective and to benefit the species. Although the emphasis of this Report is on the western portion of the sage-grouse range, the approach has management applicability to other sagebrush ecosystems.

In this report, we briefly review causes and effects of invasive annual grasses and altered fire regimes, and then discuss factors that determine resilience to disturbances like wildfire and resistance to invasive annual grasses in sagebrush ecosystems. We illustrate how an understanding of resilience and resistance, sagebrush habitat requirements for sage-grouse, and consequences that invasive annual grasses and wildfire have on sage-grouse populations can be used to develop management strategies at both landscape and site scales. A sage-grouse habitat matrix is provided that links relative resilience and resistance with habitat requirements for landscape cover of sagebrush to both identify priority areas for management and determine effective management strategies at landscape scales. An approach for assessing focal areas for sage-grouse habitat management is described that overlays Priority Areas for Conservation (PACs) and breeding bird densities with resilience and resistance and habitat suitability to spatially link sage-grouse populations with habitat conditions and risks. The use of this approach is illustrated for the western portion of the range and for a diverse area in the northeast corner of Nevada. It concludes with a discussion of the tools available for determining the suitability of focal areas for treatment and the most appropriate management treatments. Throughout the document, the emphasis is on using this approach to guide and assist fire operations, fuels management, post-fire rehabilitation, and habitat restoration activities to maintain or enhance sage-grouse habitat.



# Threats of Invasive Annual Grasses and Altered Fire Regimes to Sagebrush Ecosystems and Sage-Grouse

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## Effects on Sagebrush Ecosystems

Sage-grouse habitat loss and fragmentation due to wildfire and invasive plants are widely recognized as two of the most significant challenges to conservation of the species, particularly in the western portion of the range (Miller et al. 2011; USFWS 2010, 2013). During pre-settlement times, sagebrush-dominated ecosystems had highly variable fire return intervals that ranged from decades to centuries (Frost 1998; Brown and Smith 2000; Miller et al. 2011). At coarse regional scales, fire return intervals in sagebrush ecological types were determined largely by climate and its effects on fuel abundance and continuity. Consequently, fire frequency was higher in sagebrush types with greater productivity at higher elevations and following periods of increased precipitation than in lower elevation and less productive ecosystems (West 1983b; Mensing et al. 2006). At local scales within sagebrush types, fire return intervals likely were determined by topographic and soil effects on productivity and fuels and exhibited high spatial and temporal variability (Miller and Heyerdahl 2008).

Euro-American arrival in sagebrush ecosystems began in the mid-1800s and initiated a series of changes in vegetation composition and structure that altered fire regimes and resulted in major changes in sagebrush habitats. The first major change in fire regimes occurred when inappropriate grazing by livestock led to a decrease in native perennial grasses and forbs and effectively reduced the abundance of fine fuels (Knapp 1996; Miller and Eddleman 2001; Miller et al. 2011). Decreased competition from perennial herbaceous species, in combination with ongoing climate change and favorable conditions for woody species establishment at the turn of the twentieth century, resulted in increased abundance of shrubs (primarily *Artemisia* species) and trees, including juniper (*Juniperus occidentalis*, *J. osteosperma*) and piñon pine (*Pinus monophylla*), at mid to high elevations (Miller and Eddleman 2001; Miller et al. 2011). The initial effect of these changes in fuel structure was a reduction in fire frequency and size. The second major change in fire regimes occurred when non-native annual grasses (e.g., *Bromus tectorum*, *Taeniatherum caput-medusa*) were introduced from Eurasia in the late 1800s and spread rapidly into low to mid-elevation ecosystems with depleted understories (Knapp 1996). The invasive annual grasses increased the amount and continuity of fine fuels in many lower elevation sagebrush habitats and initiated annual grass/fire cycles characterized by shortened fire return intervals and larger, more contiguous fires (fig. 2; D'Antonio and Vitousek 1992; Brooks et al. 2004). Since settlement of the region, cheatgrass came to dominate as much as 4 million hectares (9.9 million acres) in the states of Nevada and Utah alone (fig. 3; Bradley and Mustard 2005). The final change in fire regimes occurred as a result of expansion of juniper and piñon pine trees into sagebrush types at mid to high elevations and a reduction of the grass, forb, and shrub species associated with these types. Ongoing infilling of trees is increasing woody fuels, but reducing fine fuels and resulting in less frequent fires (fig. 4; Miller et al. 2013). Extreme burning conditions (high winds, high temperatures, and low relative humidity) in high density (Phase III) stands are resulting in large and severe fires that result in significant losses of above- and below-ground organic matter (sensu Keeley 2009) and have detrimental ecosystem effects (Miller et al. 2013). Based on tree-ring analyses at several Great Basin sites, it is estimated that the extent of piñon and/or juniper woodland increased two to six fold since settlement, and most of that area will exhibit canopy closure within the next 50 years (Miller et al. 2008).



**Figure 2.** A wildfire that burned through a Wyoming big sagebrush ecosystem with an invasive annual grass understory in southern Idaho (top) (photo by Douglas J. Shinneman), and a close-up of a fire in a Wyoming big sagebrush ecosystem (bottom) (photo by Scott Schaff).



**Figure 3.** A wildfire that started in invasive annual grass adjacent to a railroad track and burned upslope into a mountain big sagebrush and Jeffrey pine ecosystem in northeast Nevada (top). A big sagebrush ecosystem that has been converted to invasive annual grass in north central Nevada (bottom) (photos by Nolan E. Preece).



**Figure 4.** Expansion of Utah juniper trees into a mountain big sagebrush ecosystem in east central Utah (top) that is resulting in progressive infilling of the trees and exclusion of native understory species (bottom) (photos by Bruce A. Roundy).

## Effects on Sage-Grouse Habitat Selection and Population Dynamics

Understanding the effects of landscape changes on sage-grouse habitat selection and population dynamics can help managers apply more strategic and targeted conservation actions to reduce risks. Two key land cover shifts resulting from invasive annual grasses and altered fire regimes are affecting the ability to achieve the range-wide goal of stable-to-increasing population trends – large-scale reduction of sagebrush cover and conversion of sagebrush ecosystems to annual grasslands.

Sage-grouse are true sagebrush obligates that require large and intact sagebrush landscapes. Consequently, wildfires occurring at the extremes of the natural range of variability that remove sagebrush, even temporarily, over large areas and over short time periods often have negative consequences for sage-grouse. Several range-wide studies have identified the proportion of sagebrush-dominated land cover as a key indicator of sage-grouse population persistence and, importantly, have revealed critical levels of sagebrush landscape cover required by sage-grouse (see Appendix 2 for a description of landscape cover and how it is derived). Knick et al. (2013) found that 90% of active leks in the western portion of the range had more than 40% landscape cover of sagebrush within a 5-km (3.1-mi) radius of leks. Another range-wide analysis documented a high risk of extirpation with <27% sagebrush landscape cover and high probability of persistence with >50% sagebrush landscape cover within 18-km (11.2-mi) of leks (Wisdom et al. 2011). Similarly, Aldridge et al. (2008) found long-term sage-grouse persistence required a minimum of 25%, and preferably at least 65%, sagebrush landscape cover at the 30-km (18.6-mi) scale. Considered collectively, cumulative disturbances that reduce the cover of sagebrush to less than a quarter of the landscape have a high likelihood of resulting in local population extirpation, while the probability of maintaining persistent populations goes up considerably as the proportion of sagebrush cover exceeds two-thirds or more of the landscape. Reduction of sagebrush cover is most critical in low to mid elevations where natural recovery of sagebrush can be very limited within timeframes important to sage-grouse population dynamics (Davies et al. 2011).

Nonnative annual grasses and forbs have invaded vast portions of the sage-grouse range, reducing both habitat quantity and quality (Beck and Mitchell 2000; Rowland et al. 2006; Miller et al. 2011; Balch et al. 2013). Due to repeated fires, some low- to mid-elevation native sagebrush communities are shifting to novel annual grassland states resulting in habitat loss that may be irreversible with current technologies (Davies et al. 2011; Miller et al. 2011; Chambers et al. 2014). At the broadest scales, the presence of non-native annual grasslands on the landscape may be influencing both sage-grouse distribution and abundance. In their analysis of active leks, Knick et al. (2013) found that most leks had very little annual grassland cover (2.2%) within a 5-km (3.1-mi) radius of the leks; leks that were no longer used had almost five times as much annual grassland cover as active leks. Johnson et al. (2011) found that lek use became progressively less as the cover of invasive annual species increased at both the 5-km (3.1-mi) and 18-km (11.2-mi) scales. Also, few leks had >8% invasive annual vegetation cover within both buffer distances.

Patterns of nest site selection also suggest local impacts of invasive annual grasses on birds. In western Nevada, Lockyer (2012) found that sage-grouse selected large expanses of sagebrush-dominated areas and, within those areas, sage-grouse selected microsites with higher shrub canopy cover and lower cheatgrass cover. Average cheatgrass cover at selected locations was 7.1% compared to 13.3% at available locations. Sage-grouse hens essentially avoided nesting in areas with higher cheatgrass cover. Kirol et al. (2012) also found nest-site selection was negatively correlated with the presence of cheatgrass in south-central Wyoming.

Sage-grouse population demographic studies in northern Nevada show that recruitment and annual survival also are affected by presence of annual grasslands at larger scales. Blomberg et al. (2012) analyzed land cover within a 5-km (3.1-mi) radius of leks and found that leks impacted by annual grasslands experienced lower recruitment than non-impacted leks, even following years of high precipitation. Leks that were not affected by invasive annual grasslands exhibited recruitment rates nearly twice as high as the population average and nearly six times greater than affected leks during years of high precipitation.

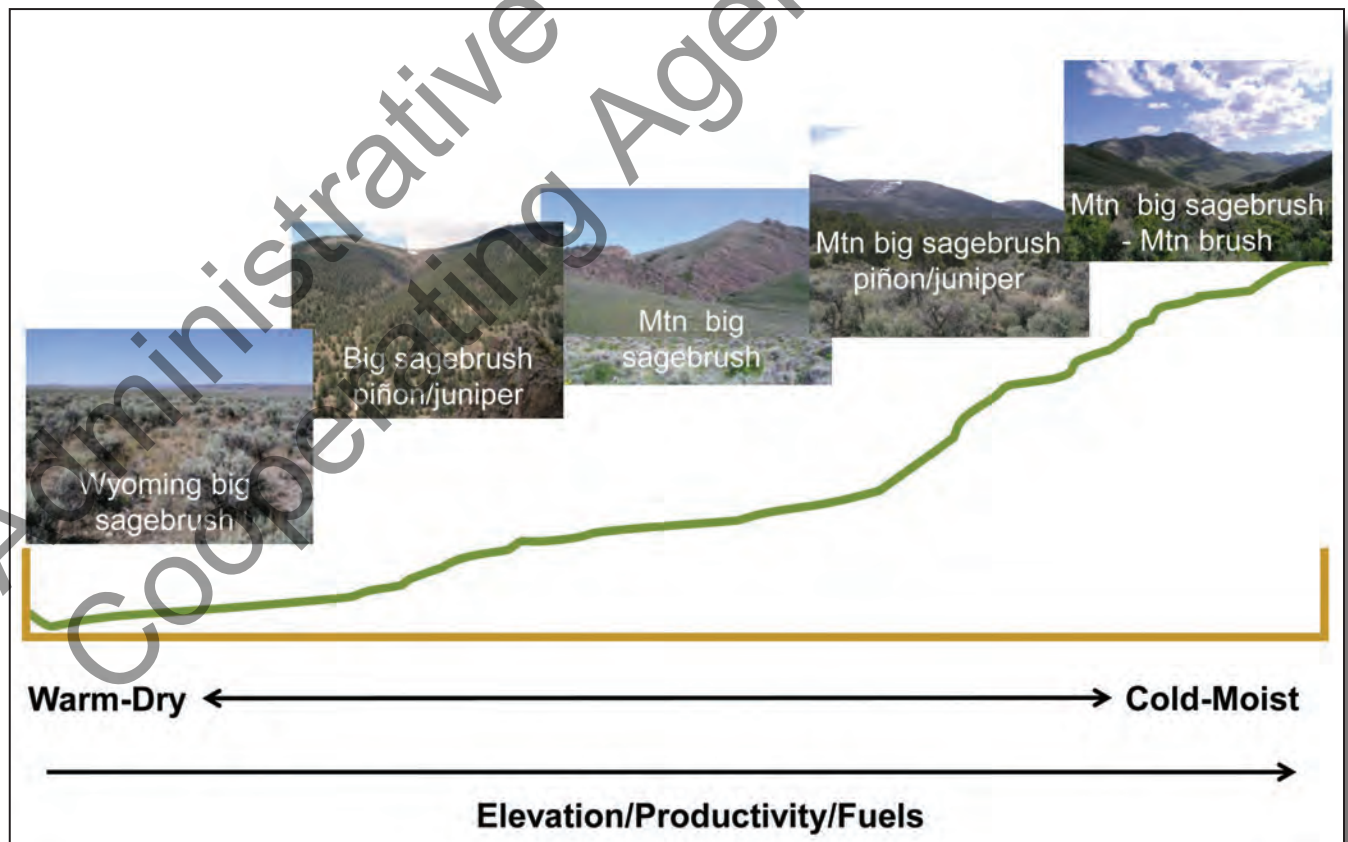
Piñon and juniper expansion at mid to upper elevations into sagebrush ecosystems also has altered fire regimes and reduced sage-grouse habitat availability and suitability over large areas with population-level consequences (Miller et al. 2011; Baruch-Mordo et al. 2013; Knick et al. 2013). Conifer expansion results in non-linear declines in sagebrush cover and reductions in perennial native grasses and forbs as conifer canopy cover increases (Miller et al. 2000) and this has direct effects on the amount of available habitat for sagebrush-obligate species. Sites in the late stage of piñon and juniper expansion and infilling (Phase III from Miller et al. 2005) have reduced fire frequency (due to decreased fine fuels), but are prone to higher severity fires (due to increased woody fuels) which significantly reduces the likelihood of sagebrush habitat recovery (fig. 5) (Bates et al. 2013). Even before direct habitat loss occurs, sage-grouse avoid or are negatively associated with conifer cover during all life stages (i.e., nesting, brood-rearing, and wintering; Doherty et al. 2008, 2010a; Atamian et al. 2010; Casazza et al. 2011). Also, sage-grouse incur population-level impacts at a very low level of conifer encroachment. The ability to maintain active leks is severely compromised when conifer canopy exceeds 4% in the immediate vicinity of the lek (Baruch-Mordo et al. 2013), and most active leks average less than 1% conifer cover at landscape scales (Knick et al. 2013).



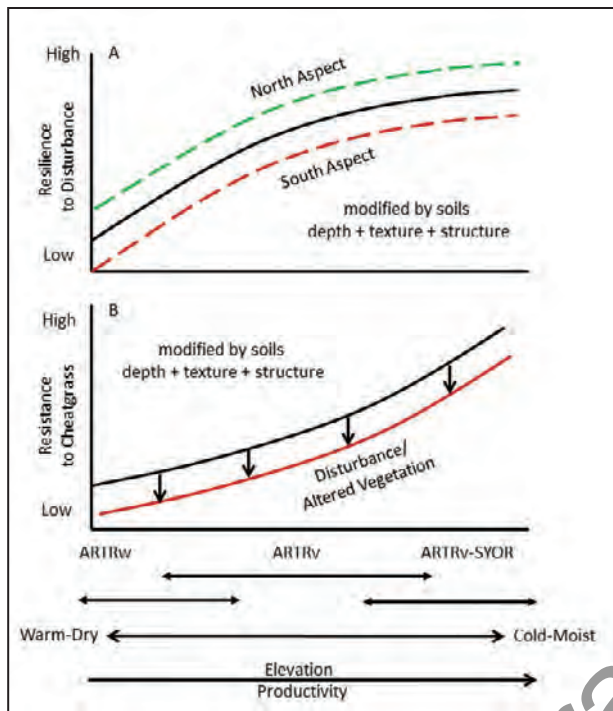
**Figure 5.** A post-burn, Phase III, singleleaf piñon and Utah juniper dominated sagebrush ecosystem in which soils are highly erosive and few understory plants remain (photo by Jeanne C. Chambers).

## Resilience to Disturbance and Resistance to Invasive Annual Grasses in Sagebrush Ecosystems

Our ability to address the changes occurring in sagebrush habitats can be greatly enhanced by understanding the effects of environmental conditions on resilience to stress and disturbance, and resistance to invasion (Wisdom and Chambers 2009; Brooks and Chambers 2011; Chambers et al. 2014). In cold desert ecosystems, resilience of native ecosystems to stress and disturbance changes along climatic and topographic gradients. In these ecosystems, Wyoming big sagebrush (*Artemisia tridentata* spp. *wyomingensis*), mountain big sagebrush (*A. t.* spp. *vaseyana*), and mountain brush types (e.g., mountain big sagebrush, snowberry [*Symphoricarpos* spp.], bitterbrush [*Purshia tridentata*]) occur at progressively higher elevations and are associated with decreasing temperatures and increasing amounts of precipitation, productivity, and fuels (fig. 6; West and Young 2000). Piñon pine and juniper woodlands are typically associated with mountain big sagebrush types, but can occur with relatively cool and moist Wyoming big sagebrush types and warm and moist mountain brush types (Miller et al. 2013). Resilience to disturbance, including wildfire, has been shown to increase along these elevation gradients (fig. 7A) (Condon et al. 2011; Davies et al. 2012; Chambers et al. 2014; Chambers et al. *in press*). Higher precipitation and cooler temperatures, coupled with greater soil development and plant productivity at mid to high elevations, can result in greater resources and more favorable environmental conditions for plant growth and reproduction (Alexander et al. 1993; Dahlgren et al. 1997). In contrast, minimal precipitation and high temperatures at low elevations result in lower resource availability for plant growth (West 1983a,b;



**Figure 6.** The dominant sagebrush ecological types that occur along environmental gradients in the western United States. As elevation increases, soil temperature and moisture regimes transition from warm and dry to cold and moist and vegetation productivity and fuels become higher.



**Figure 7. (A)** Resilience to disturbance and **(B)** resistance to cheatgrass over a typical temperature/precipitation gradient in the cold desert. Dominant ecological sites occur along a continuum that includes Wyoming big sagebrush on warm and dry sites, to mountain big sagebrush on cool and moist sites, to mountain big sagebrush and root-sprouting shrubs on cold and moist sites. Resilience increases along the temperature/precipitation gradient and is influenced by site characteristics like aspect. Resistance also increases along the temperature/precipitation gradient and is affected by disturbances and management treatments that alter vegetation structure and composition and increase resource availability (modified from Chambers et al. 2014; Chambers et al. *in press*).

Smith and Nowak 1990). These relationships also are observed at local plant community scales where aspect, slope, and topographic position affect solar radiation, erosion processes, effective precipitation, soil development and vegetation composition and structure (Condon et al. 2011; Johnson and Miller 2006).

Resistance to invasive annual grasses depends on environmental factors and ecosystem attributes and is a function of (1) the invasive species' physiological and life history requirements for establishment, growth, and reproduction, and (2) interactions with the native perennial plant community including interspecific competition and response to herbivory and pathogens. In cold desert ecosystems, resistance is strongly influenced by soil temperature and moisture regimes (Chambers et al. 2007; Meyer et al. 2001). Germination, growth, and/or reproduction of cheatgrass is physiologically limited at low elevations by frequent, low precipitation years, constrained at high elevations by low soil temperatures, and optimal at mid elevations under relatively moderate temperature and water availability (fig. 7B; Meyer et al. 2001; Chambers et al. 2007). Slope, aspect, and soil characteristics modify soil temperature and moisture and influence resistance to cheatgrass at landscape to plant community scales (Chambers et al. 2007; Condon et al. 2011; Reisner et al. 2013). Genetic variation in cheatgrass results in phenotypic traits that increase survival and persistence in populations from a range of environments, and is likely contributing to the recent range expansion of this highly inbreeding species into marginal habitats (Ramakrishnan et al. 2006; Merrill et al. 2012).

The occurrence and persistence of invasive annual grasses in sagebrush habitats is strongly influenced by interactions with the native perennial plant community (fig. 7B). Cheatgrass, a facultative winter annual that can germinate from early fall through early spring, exhibits root elongation at low soil temperatures, and has higher nutrient uptake and growth rates than most native species (Mack and Pyke 1983; Arredondo et al. 1998; James et al. 2011). Seedlings of native, perennial plant species are generally poor competitors with cheatgrass, but adults of native, perennial grasses and forbs, especially those with similar growth forms and phenology, can be highly effective competitors with the invasive annual (Booth et al. 2003; Chambers et al. 2007; Blank and Morgan 2012).



Also, biological soil crusts, which are an important component of plant communities in warmer and drier sagebrush ecosystems, can reduce germination or establishment of cheatgrass (Eckert et al. 1986; Kaltenecker et al. 1999). Disturbances or management treatments that reduce abundance of native perennial plants and biological soil crusts and increase the distances between perennial plants often are associated with higher resource availability and increased competitive ability of cheatgrass (Chambers et al. 2007; Reisner et al. 2013; Roundy et al. *in press*).

The type, characteristics, and natural range of variability of stress and disturbance strongly influence both resilience and resistance (Jackson 2006). Disturbances like overgrazing of perennial plants by livestock, wild horses, and burros and more frequent or more severe fires are typically outside of the natural range of conditions and can reduce the resilience of sagebrush ecosystems. Reduced resilience is triggered by changes in environmental factors like temperature regimes, abiotic attributes like water and nutrient availability, and biotic attributes such as vegetation structure, composition, and productivity (Chambers et al. 2014) and cover of biological soil crusts (Reisner et al. 2013). Resistance to an invasive species can change when changes in abiotic and biotic attributes result in increased resource availability or altered habitat suitability that influences an invasive species' ability to establish and persist and/or compete with native species. Progressive losses of resilience and resistance can result in the crossing of abiotic and/or biotic thresholds and an inability of the system to recover to the reference state (Beisner et al. 2003; Seastedt et al. 2008).

Interactions among disturbances and stressors may have cumulative effects (Chambers et al. 2014). Climate change already may be shifting fire regimes outside of the natural range of occurrence (i.e., longer wildfire seasons with more frequent and longer duration wildfires) (Westerling et al. 2006). Sagebrush ecosystems generally have low productivity, and the largest number of acres burned often occurs a year or two after warm, wet conditions in winter and spring that result in higher fine fuel loads (Littell et al. 2009). Thus, annual grass fire cycles may be promoted by warm, wet winters and a subsequent increase in establishment and growth of invasive winter annuals. These cycles may be exacerbated by rising atmospheric CO<sub>2</sub> concentrations, N deposition, and increases in human activities that result in soil surface disturbance and invasion corridors (Chambers et al. 2014). Modern deviations from historic conditions will likely continue to alter disturbance regimes and sagebrush ecosystem response to disturbances; thus, management strategies that rely on returning to historical or "pre-settlement" conditions may be insufficient, or even misguided, given novel ecosystem dynamics (Davies et al. 2009).

## **Integrating Resilience and Resistance Concepts With Sage-Grouse Habitat Requirements to Manage Wildfire and Invasive Annual Grass Threats at Landscape Scales**

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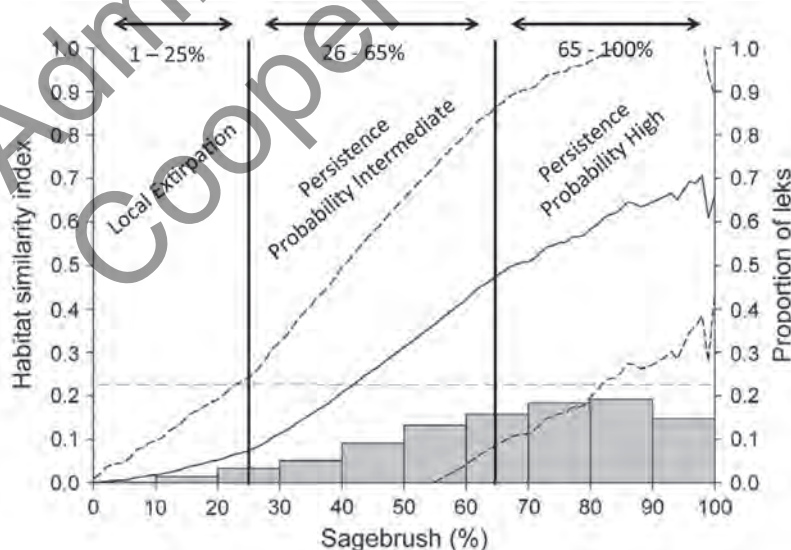
The changes in sagebrush ecosystem dynamics due to invasive annual species and longer, hotter, and drier fire seasons due to a warming climate make it unlikely that these threats can be ameliorated completely (Abatzoglou and Kolden 2011; USFWS 2013). Consequently, a strategic approach is necessary to conserve sagebrush habitat and sage-grouse (Wisdom et al. 2005; Meinke et al. 2009; Wisdom and Chambers 2009; Pyke 2011). This strategic approach requires the ability to (1) identify those locations that provide current or potential habitat for sage-grouse and (2) prioritize management actions based on the capacity of the ecosystem to respond in the desired manner and to effectively allocate resources to achieve desired objectives. Current understanding of the relationship of landscape cover of sagebrush to sage-grouse habitat provides the capacity to identify those locations on the landscape that have a high probability of

sage-grouse persistence (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). Similarly, knowledge of the relationships of environmental characteristics, specifically soil temperature and moisture regimes, to ecological types and their inherent resilience and resistance gives us the capacity to prioritize management actions based on probable effectiveness of those actions (Wisdom and Chambers 2009; Brooks and Chambers 2011; Miller et al. 2013; Chambers et al. 2014; Chambers et al. *in press*).

In this section, we discuss the use of landscape cover of sagebrush as an indicator of sage-grouse habitat, and the use of soil temperature and moisture regimes as an indicator of resilience to disturbance, resistance to invasive annual grasses and, ultimately, the capacity to achieve desired objectives. We then show how these two concepts can be coupled in a sage-grouse habitat matrix and used to determine potential management strategies at the landscape scales on which sage-grouse depends.

## Landscape Cover of Sagebrush as an Indicator of Sage-Grouse Habitat

Landscape cover of sagebrush is closely related to the probability of maintaining active sage-grouse leks, and is used as one of the primary indicators of sage-grouse habitat potential at landscape scales (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). Landscape cover of sagebrush less than about 25% has a low probability of sustaining active sage-grouse leks (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). Above 25% landscape cover of sagebrush, the probability of maintaining active sage-grouse leks increases with increasing sagebrush landscape cover. At landscape cover of sagebrush ranging from 50 to 85%, the probability of sustaining sage-grouse leks becomes relatively constant (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). For purposes of prioritizing landscapes for sage-grouse habitat management, we use 25% as the level below which there is a low probability of maintaining sage-grouse leks and 65% as the level above which there is little additional increase in the probability of sustaining active leks with further increases of landscape cover of sagebrush (fig. 8; Knick et al. 2013). Between about 25% and 65% landscape sagebrush cover, increases in landscape cover of sagebrush have a constant positive relationship with sage-grouse lek probability (fig. 8; Knick et al. 2013). Restoration and management activities that result in an increase in the amount of sagebrush dominated landscape within areas of pre-existing landscape cover between 25% and 65% likely will result in a higher probability of sage-grouse persistence, while declines in landscape cover of sagebrush likely will result in reductions in sage-grouse (Knick et al. 2013). It is important to note that



**Figure 8.** The proportion of sage-grouse leks and habitat similarity index (HSI) as related to the percent landscape cover of sagebrush. The HSI indicates the relationship of environmental variables at map locations across the western portion of the range to minimum requirements for sage-grouse defined by land cover, anthropogenic variables, soil, topography, and climate. HSI is the solid black line  $\pm$  1 SD (stippled lines). Proportion of leks are the grey bars. Dashed line indicates HSI values above which characterizes 90% of active leks (0.22). The categories at the top of the figure and the interpretation of lek persistence were added based on Aldridge et al. 2008; Wisdom et al. 2011; and Knick et al. 2013 (figure modified from Knick et al. 2013).

these data and interpretations relate only to persistence (i.e., whether or not a lek remains active) and it is likely that higher proportions of sagebrush cover or improved condition of sagebrush ecosystems may be required for population growth.

For the purposes of delineating sagebrush habitat relative to sage-grouse requirements for landscape cover of sagebrush, we calculated the percentage landscape sagebrush cover within each of the selected categories (1-25%, 26-65%, >65%) for the range of sage-grouse (fig. 9, 10). An explanation of how landscape cover of sagebrush is derived is in Appendix 2. Large areas of landscape sagebrush cover >65% are found primarily in Management Zones (MZ) II (Wyoming Basin), IV (Snake River Plains), and V (Northern Great Basin). In contrast, relatively small areas of landscape sagebrush cover >65% are located in MZ I (Great Plains), III (Southern Great Basin), VI (Columbia Basin), and VII (Colorado Plateau). Sagebrush is naturally less common in the Great Plains region compared to other parts of the range and previous work suggested that sage-grouse populations in MZ I may be more vulnerable to extirpation with further reductions in sagebrush cover (Wisdom et al. 2011). In the western portion of the range, where the threat of invasive annual grasses and wildfire is greatest, the area of sagebrush cover >65% differs among MZs. MZ III is a relatively arid and topographically diverse area in which the greatest extent of sagebrush cover >65% is in higher elevation, mountainous areas. MZs IV and V have relatively large extents of sagebrush cover >65% in relatively cooler and wetter areas, and MZs IV and VI have lower extents of sagebrush cover >65% in warmer and dryer areas and in areas with significant agricultural development. These differences in landscape cover of sagebrush indicate that different sets of management strategies may apply to the various MZs.

## Soil Temperature and Moisture Regimes as Indicators of Ecosystem Resilience and Resistance

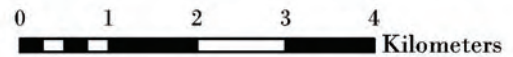
Potential resilience and resistance to invasive annual grasses reflect the biophysical conditions that an area is capable of supporting. In general, the highest potential resilience and resistance occur with *cool to cold* (frigid to cryic) soil temperature regimes and relatively *moist* (xeric to ustic) soil moisture regimes, while the lowest potential resilience and resistance occur with *warm* (mesic) soil temperatures and relatively *dry* (aridic) soil moisture regimes (Chambers et al. 2014, Chambers et al. *in press*). Definitions of soil temperature and moisture regimes are in Appendix 3. Productivity is elevated by high soil moisture and thus resilience is increased (Chambers et al. 2014); annual grass growth and reproduction is limited by cold soil temperatures and thus resistance is increased (Chambers et al. 2007). The timing of precipitation also is important because cheatgrass and many other invasive annual grasses are particularly well-adapted to Mediterranean type climates with cool and wet winters and warm and dry summers (Bradford and Lauenroth 2006; Bradley 2009). In contrast, areas that receive regular summer precipitation (ustic soil moisture regimes) often are dominated by warm and/or cool season grasses (Sala et al. 1997) that likely create a more competitive environment and result in greater resistance to annual grass invasion and spread (Bradford and Lauenroth 2006; Bradley 2009).

Much of the remaining sage-grouse habitat in MZs I (Great Plains), II (Wyoming Basin), VII (Colorado Plateau), and cool-to-cold or moist sites scattered across the range, are characterized by moderate to high resilience and resistance as indicated by soil temperature and moisture regimes (fig. 11). Sagebrush habitats across MZ I are unique from a range-wide perspective because soils are predominantly cool and ustic, or bordering on ustic as a result of summer precipitation; this soil moisture regime appears to result in higher resilience and resistance (Bradford and Lauenroth 2006).

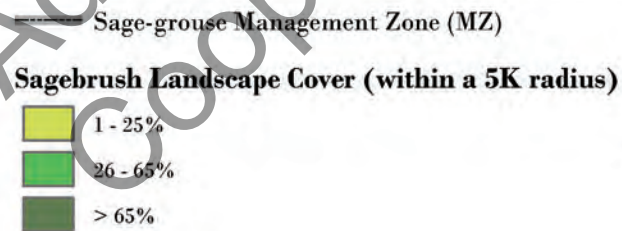
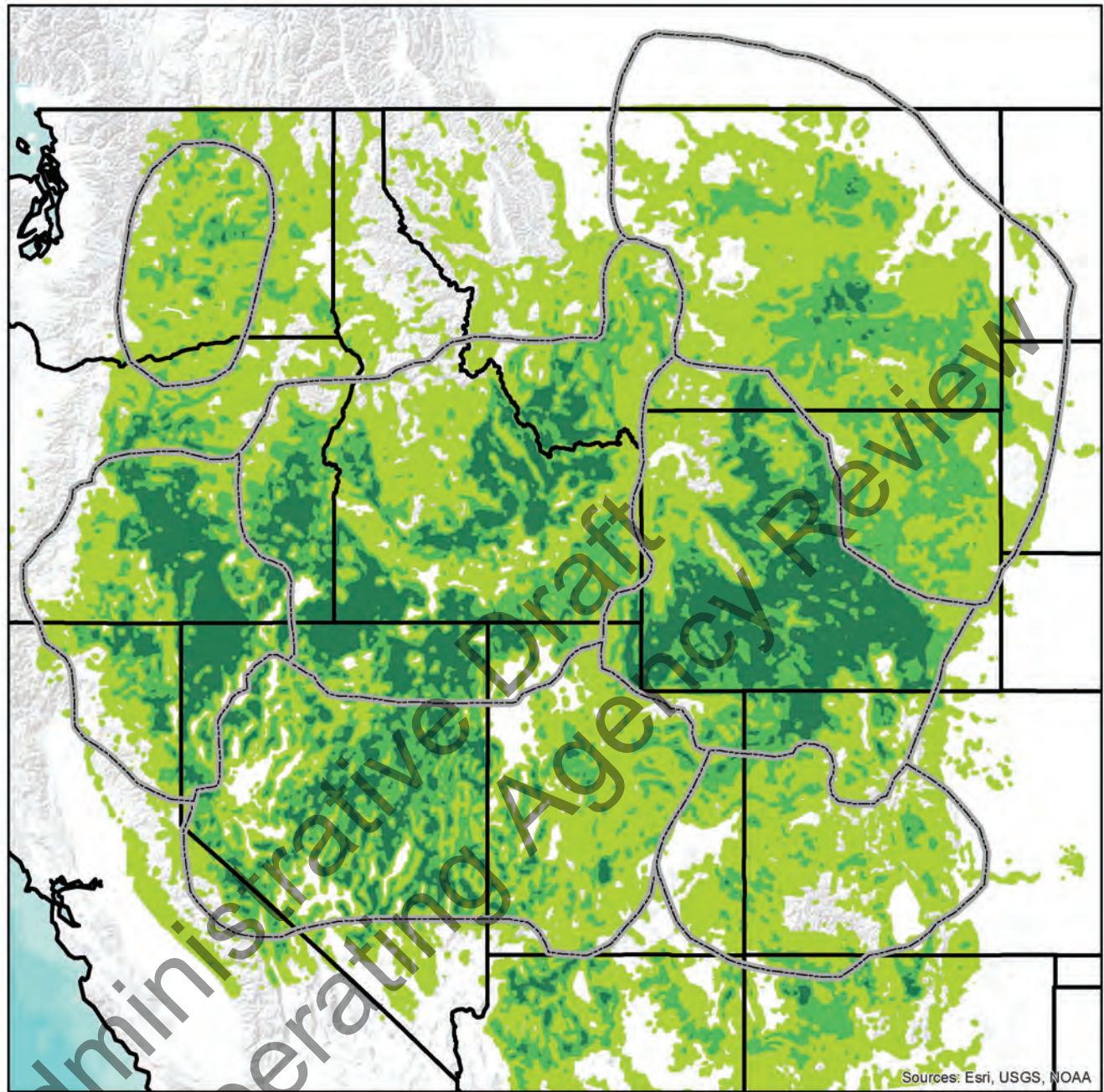


**Sagebrush Landscape Cover (within a 5K radius)**

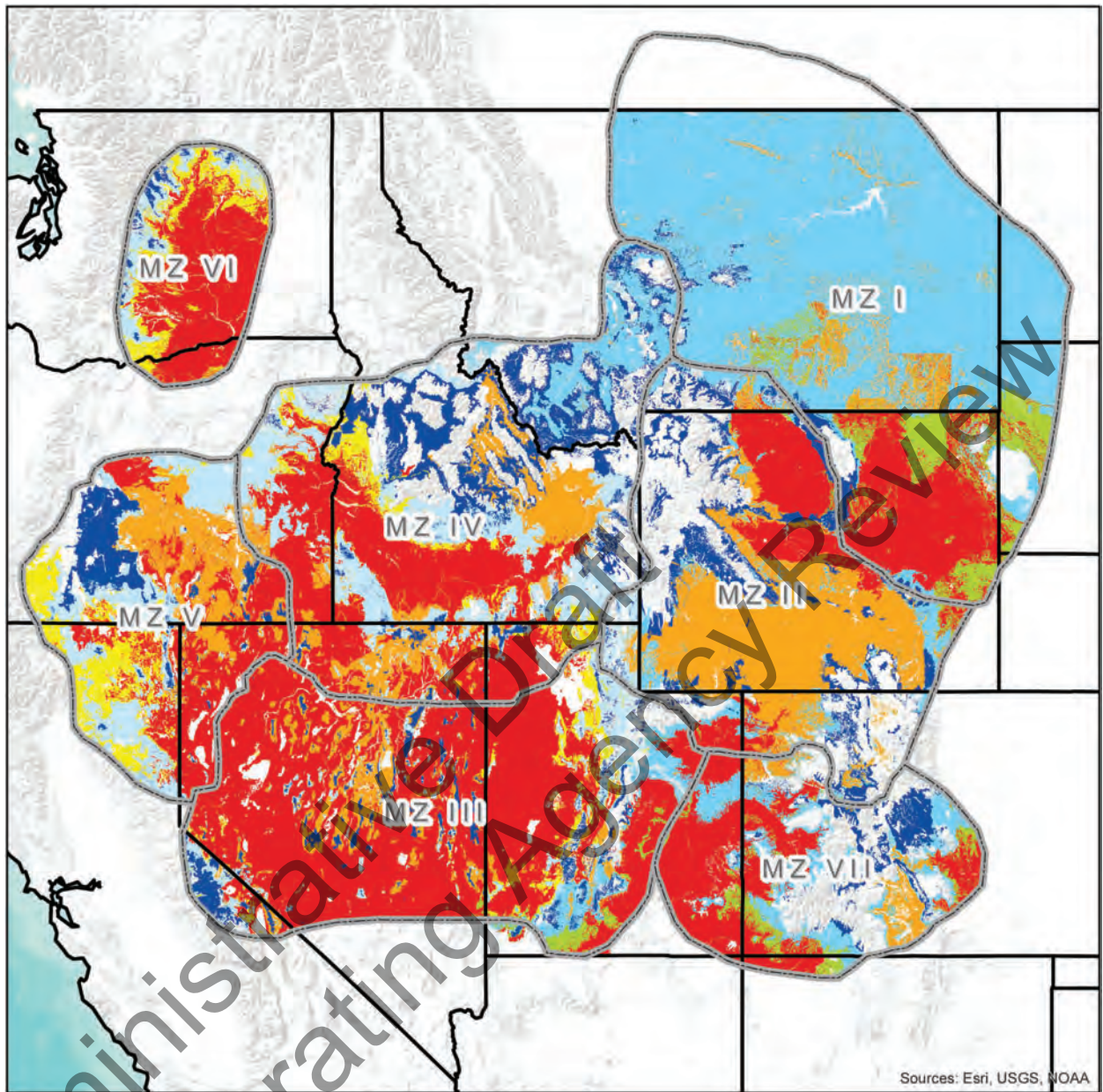
- 1 - 25%
- 26 - 65%
- > 65%



**Figure 9.** Landscape cover of sagebrush from 1-m National Agricultural Imagery (right) and the corresponding sagebrush landscape cover for the 1-25%, 26-65%, and >65% categories (left). See Appendix 2 for an explanation of how the categories are determined.



**Figure 10.** The landscape cover of sagebrush within each of three selected categories (1-25%, 26-65%, >65%) for the range of sage-grouse (Management Zones I – VII; Stiver et al. 2006). The proportion of sagebrush (USGS 2013) within each of the categories in a 5-km (3.1-mi) radius surrounding each pixel was calculated relative to other land cover types for locations with sagebrush cover.



— Sage-grouse Management Zone (MZ)

**Soil Moisture & Temperature Regime**

- Cold (Cryic)
- Cool and Moist (Frigid/Ustic)
- Cool and Moist (Frigid/ Xeric)
- Warm and Moist (Mesic/Ustic)
- Warm and Moist (Mesic/Xeric)
- Cool and Dry (Frigid/ Aridic)
- Warm and Dry (Mesic/ Aridic)
- Omitted or No Data

0 200 400 800 Kilometers

**Figure 11.** The soil temperature and moisture regimes for the range of sage-grouse (Management Zones I – VII; Stiver et al. 2006). Soil temperature and moisture classes were derived from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) (Soil Survey Staff 2014a). Gaps in that dataset were filled in with the NRCS State Soil Geographic Database (STATSGO) (Soil Survey Staff 2014b).

However, significant portions of MZs III (Southern Great Basin), much of IV (Snake River Plains), V (Northern Great Basin), and VI (Columbia Basin) are characterized largely by either warm and dry, or warm to cool and moist ecological types with moderate to low resilience and resistance (fig. 11; table 1). Areas within these MZs that have warm and dry soils are typically characterized by Wyoming big sagebrush ecosystems with low to moderately low resilience and resistance and are currently of greatest concern for sage-grouse conservation (fig. 12A). Areas with warm to cool soil temperature regimes and moist precipitation regimes are typically characterized by either Wyoming or mountain big sagebrush, have moderate to moderately low resilience and resistance,

**Table 1.** Predominant sagebrush ecological types in Sage-Grouse Management Zones III, IV, V, and VI based on soil temperature and soil moisture regimes, typical characteristics, and resilience to disturbance and resistance to invasive annual grasses (modified from Miller et al. 2014 a,b). Relative abundance of sagebrush species and composition of understory vegetation vary depending on Major Land Resource Area and ecological site type.

Ecological type	Characteristics	Resilience and resistance
Cold and Moist (Cryic/Xeric)	Ppt: 14 inches + Typical shrubs: <i>Mountain big sagebrush</i> , <i>snowfield sagebrush</i> , <i>snowberry</i> , <i>serviceberry</i> , <i>silver sagebrush</i> , and/or <i>low sagebrushes</i>	<i>Resilience</i> – <b>Moderately high</b> . Precipitation and productivity are generally high. Short growing seasons can decrease resilience on coldest sites. <i>Resistance</i> – <b>High</b> . Low climate suitability to invasive annual grasses.
Cool and Moist (Frigid/Xeric)	Ppt: 12-22 inches Typical shrubs: <i>Mountain big sagebrush</i> , <i>antelope bitterbrush</i> , <i>snowberry</i> , and/or <i>low sagebrushes</i>  Piñon pine and juniper potential in some areas	<i>Resilience</i> – <b>Moderately high</b> . Precipitation and productivity are generally high. Decreases in site productivity, herbaceous perennial species, and ecological conditions can decrease resilience. <i>Resistance</i> – <b>Moderate</b> . Climate suitability to invasive annual grasses is moderate, but increases as soil temperatures increase.
Warm and Moist (Mesic/Xeric)	Ppt: 12-16 inches Typical shrubs: <i>Wyoming big sagebrush</i> , <i>mountain big sagebrush</i> , <i>Bonneville big sagebrush</i> , and/or <i>low sagebrushes</i>  Piñon pine and juniper potential in some areas	<i>Resilience</i> – <b>Moderate</b> . Precipitation and productivity are moderately high. Decreases in site productivity, herbaceous perennial species, and ecological conditions can decrease resilience. <i>Resistance</i> – <b>Moderately low</b> . Climate suitability to invasive annual grasses is moderately low, but increases as soil temperatures increase.
Cool and Dry (Frigid/Aridic)	Ppt: 6-12 inches Typical shrubs: <i>Wyoming big sagebrush</i> , <i>black sagebrush</i> , and/or <i>low sagebrushes</i>	<i>Resilience</i> – <b>Low</b> . Effective precipitation limits site productivity. Decreases in site productivity, herbaceous perennial species, and ecological conditions further decrease resilience. <i>Resistance</i> – <b>Moderate</b> . Climate suitability to invasive annual grasses is moderate, but increases as soil temperatures increase.
Warm and Dry (Mesic/Aridic, bordering on Xeric)	Ppt: 8-12 inches Typical shrubs: <i>Wyoming big sagebrush</i> , <i>black sagebrush</i> and/or <i>low sagebrushes</i>	<i>Resilience</i> – <b>Low</b> . Effective precipitation limits site productivity. Decreases in site productivity, herbaceous perennial species, and ecological conditions further decrease resilience. Cool season grasses susceptibility to grazing and fire, along with hot dry summer fire conditions, promote cheatgrass establishment and persistence. <i>Resistance</i> – <b>Low</b> . High climate suitability to cheatgrass and other invasive annual grasses. Resistance generally decreases as soil temperature increases, but establishment and growth are highly dependent on precipitation.

and have the potential for piñon and juniper expansion (Miller et al. 2014a; Chambers et al. *in press*). Many of these areas also are of conservation concern because piñon and juniper expansion and tree infilling can result in progressive loss of understory species and altered fire regimes (Miller et al. 2013). In contrast, areas with cool to cold soil temperature regimes and moist precipitation regimes have moderately high resilience and high resistance and are likely to recover in a reasonable amount of time following wildfires and other disturbances (Miller et al. 2013) (fig. 12B)



**Figure 12.** A Wyoming big sagebrush ecosystem with warm and dry soils in southeast Oregon (top) (photo by Richard F. Miller), compared to a mountain big sagebrush ecosystem with cool and moist soils in central Nevada (bottom) (photo by Jeanne C. Chambers).



## Management Strategies Based on Landscape Cover of Sagebrush and Ecosystem Resilience and Resistance: The Sage-Grouse Habitat Matrix

Knowledge of the potential resilience and resistance of sagebrush ecosystems can be used in conjunction with sage-grouse habitat requirements to determine priority areas for management and identify effective management strategies at landscape scales (Wisdom and Chambers 2009). The sage-grouse habitat matrix (table 2) illustrates the relative resilience to disturbance and resistance to invasive annual grasses of sagebrush ecosystems in relation to the proportion of sagebrush cover on the landscape. As resilience and resistance go from high to low, as indicated by the rows in the matrix, decreases in sagebrush regeneration and abundance of perennial grasses and forbs progressively limit the capacity of a sagebrush ecosystem to recover after fire or other disturbances. The risk of annual invasives increases and the ability to successfully restore burned or otherwise disturbed areas decreases. As sagebrush cover goes from low to high within these same ecosystems, as indicated by the columns in the matrix, the capacity to provide adequate habitat cover for sage-grouse increases. Areas with less than 25% landscape cover of sagebrush are unlikely to provide adequate habitat for sage-grouse; areas with 26-65% landscape cover of sagebrush can provide habitat for sage-grouse but are at risk if sagebrush loss occurs without recovery; and areas with >65% landscape cover of sagebrush provide the necessary habitat conditions for sage-grouse to persist. Potential landscape scale management strategies can be determined by considering (1) resilience to disturbance, (2) resistance to invasive annuals, and (3) sage-grouse land cover requirements. Overarching management strategies to maintain or increase sage-grouse habitat at landscape scales based on these considerations are conservation, prevention, restoration, and monitoring and adaptive management (table 3; see Chambers et al. 2014). These strategies have been adapted for each of the primary agency programs including fire operations, fuels management, post-fire rehabilitation, and habitat restoration (table 4). Because sagebrush ecosystems occur over continuums of environmental conditions, such as soil temperature and moisture, and have differing land use histories and species composition, careful assessment of the area of concern always will be necessary to determine the relevance of a particular strategy (Pyke 2011; Chambers et al. 2014; Miller et al. 2014 a, b). The necessary information for conducting this type of assessment is found in the "Putting It All Together" section of this report.

Although the sage-grouse habitat matrix (table 2) can be viewed as partitioning land units into spatially discrete categories (i.e., landscapes or portions thereof can be categorized as belonging to one of nine categories), it is not meant to serve as a strict guide to spatial allocation of resources or to prescribe specific management strategies. Instead, the matrix should serve as a decision support tool for helping managers implement strategies that consider both the resilience and resistance of the landscape and landscape sagebrush cover requirements of sage-grouse. For example, low elevation Wyoming big sagebrush plant communities with relatively low resilience and resistance may provide important winter habitat resources for a given sage-grouse population. In a predominantly Wyoming big sagebrush area comprised of relatively low sagebrush landscape cover, a high level of management input may be needed to realize conservation benefits for sage-grouse. This doesn't mean that management activities should not be undertaken if critical or limiting sage-grouse habitat resources are present, but indicates that inputs will be intensive, potentially more expensive, and less likely to succeed relative to more resilient landscapes. It is up to the user of the matrix to determine how such tradeoffs influence management actions.

**Table 2.** Sage-grouse habitat matrix based on resilience and resistance concepts from Chambers et al. 2014, and sage-grouse habitat requirements from Aldridge et al. 2008, Wisdom et al. 2011, and Knick et al. 2013. Rows show the ecosystems relative resilience to disturbance and resistance to invasive annual grasses derived from the sagebrush ecological types in table 1 (1 = high resilience and resistance; 2 = moderate resilience and resistance; 3 = low resilience and resistance). Columns show the current proportion of the landscape (5-km rolling window) dominated by sagebrush (A = 1-25% land cover; B = 26-65% land cover; 3 = >65% land cover). Use of the matrix is explained in text. Overarching management strategies that consider resilience and resistance and landscape cover of sagebrush are in table 3. Potential management strategies specific to agency program areas, including fire operations, fuels management, post-fire rehabilitation, and habitat restoration are in table 4.

		Proportion of Landscape Dominated by Sagebrush		
		Low 1-25%	Moderate 26-65%	High >65%
High		<p>Too little sagebrush on the landscape significantly threatens likelihood of sage-grouse persistence.</p> <p><b>1A</b></p> <p>Natural sagebrush recovery is likely to occur, but if large, contiguous areas lack sagebrush, the time required for recovery may be too great.</p>	<p>Sage-grouse are sensitive to the amount of sagebrush remaining on the landscape and populations could be at-risk with additional disturbances that remove sagebrush.</p> <p><b>1B</b></p> <p>Natural sagebrush recovery is likely to occur, but certain areas may lack connectivity.</p>	<p>Sufficient sagebrush exists on the landscape and sage-grouse are highly likely to persist.</p> <p><b>1C</b></p> <p>Natural sagebrush recovery is likely to occur.</p>
		<p>Perennial herbaceous species are typically sufficient for recovery.</p> <p>Risk of annual invasives is low.</p> <p>Seeding/transplanting success is high.</p> <p>Recovery following inappropriate livestock use is often possible given changes in management.</p>		
Moderate		<p>Natural sagebrush recovery is likely on cooler and moister sites, but if large, contiguous areas lack sagebrush, the time required for recovery may be too great.</p> <p><b>2A</b></p>	<p>Natural sagebrush recovery is likely on cooler and moister sites, but certain areas may lack connectivity.</p> <p><b>2B</b></p>	<p>Natural sagebrush recovery is likely on cooler and moister sites.</p> <p><b>2C</b></p>
		<p>Perennial herbaceous species are usually adequate for recovery on cooler and moister sites.</p> <p>Risk of annual invasives is moderately high on warmer and drier sites.</p> <p>Seeding-transplanting success depends on site characteristics, and more than one intervention may be required especially on warmer and drier sites.</p> <p>Recovery following inappropriate livestock use depends on site characteristics and management.</p>		
Low		<p>Natural sagebrush recovery is not likely.</p> <p><b>3A</b></p>	<p>Natural sagebrush recovery may occur, but the time required will likely be too great and certain areas may lack connectivity.</p> <p><b>3B</b></p>	<p>Natural sagebrush recovery may occur, but the time required will likely be too great.</p> <p><b>3C</b></p>
		<p>Perennial herbaceous species are typically inadequate for recovery.</p> <p>Risk of annual invasives is high.</p> <p>Seeding/transplanting success depends on site characteristics, annual invasives, and post-treatment precipitation but is often low. More than one intervention likely will be required.</p> <p>Recovery following inappropriate livestock use is unlikely.</p>		

**Table 3.** Potential management strategies based on resilience to disturbance, resistance to annual grass invasion, and sage-grouse habitat requirements based on Aldridge et al. 2008; Wisdom et al. 2011; and Knick et al. 2013 (adapted from Chambers et al. 2014).

<b>Conserve – maintain or increase resilience to disturbance and resistance to invasive annuals in areas with high conservation value</b>	
Priorities	<ul style="list-style-type: none"> <li>Ecosystems with low to moderate resilience to fire and resistance to invasive species that still have large patches of landscape sagebrush cover and adequate perennial grasses and forbs – <i>ecological types with warm and dry and cool and dry soil temperature/moisture regimes.</i></li> <li>Ecosystems with a high probability of providing habitat for sage-grouse, especially those with &gt;65% landscape cover of sagebrush and adequate perennial herbaceous species – <i>all ecological types.</i></li> </ul>
Objective	<ul style="list-style-type: none"> <li>Minimize impacts of current and future human-caused disturbances and stressors.</li> </ul>
Activities	<ul style="list-style-type: none"> <li>Immediately suppress fire in moderate to low resilience and resistance sagebrush and wooded shrublands to prevent an invasive annual grass-fire cycle. Large sagebrush patches are high priority for protection from wildfires.</li> <li>Implement strategic fuel break networks to provide anchor points for suppression and reduce losses when wildfires escape initial attack.</li> <li>Manage livestock grazing to prevent loss of perennial native grasses and forbs and biological soil crusts and allow natural regeneration.</li> <li>Limit anthropogenic activities that cause surface disturbance, invasion, and fragmentation. (e.g., road and utility corridors, urban expansion, OHV use, and mineral/energy projects).</li> <li>Detect and control new weed infestations.</li> </ul>
<b>Prevent – maintain or increase resilience and resistance of areas with declining ecological conditions that are at risk of conversion to a degraded, disturbed, or invaded state</b>	
Priorities	<ul style="list-style-type: none"> <li>Ecosystems with moderate to high resilience and resistance – <i>ecological types with relatively cool and moist soil temperature and moisture regimes.</i> <ul style="list-style-type: none"> <li>Prioritize landscape patches that exhibit declining conditions due to annual grass invasion and/or tree expansion (e.g., at risk phase in State and Transition Models).</li> </ul> </li> <li>Ecosystems with a moderate to high probability of providing sage-grouse habitat, especially those with 26-65% landscape cover of sagebrush and adequate perennial native grasses and forbs – <i>all ecological types.</i></li> </ul>
Objectives	<ul style="list-style-type: none"> <li>Reduce fuel loads and decrease the risk of high intensity and high severity fire.</li> <li>Increase abundance of perennial native grasses and forbs and of biological soil crusts where they naturally occur.</li> <li>Decrease the longer-term risk of annual invasive grass dominance.</li> </ul>
Activities	<ul style="list-style-type: none"> <li>Use mechanical treatments like cut and leave or mastication to remove trees, decrease woody fuels, and release native grasses and forbs in warm and moist big sagebrush ecosystems with relatively low resistance to annual invasive grasses that are in the early to mid-phase of piñon and/or juniper expansion.</li> <li>Use prescribed fire or mechanical treatments to remove trees, decrease woody fuels, and release native grasses and forbs in cool and moist big sagebrush ecosystems with relatively high resistance to annual invasive grass that are in early to mid-phase of piñon and/or juniper expansion.</li> <li>Actively manage post-treatment areas to increase perennial herbaceous species and minimize secondary weed invasion.</li> <li>Consider the need for strategic fuel breaks to help constrain fire spread or otherwise augment suppression efforts.</li> </ul>
<b>Restore – increase resilience and resistance of disturbed, degraded, or invaded areas</b>	
Priorities	<ul style="list-style-type: none"> <li>Areas burned by wildfire – <i>all ecological types</i> <ul style="list-style-type: none"> <li>Prioritize areas with low to moderate resilience and resistance, and that have a reasonable expectation of recovery.</li> <li>Prioritize areas where perennial grasses and forbs have been depleted.</li> <li>Prioritize areas that experienced high severity fire.</li> </ul> </li> </ul>

(continued)

**Table 3.** (Continued).

	<ul style="list-style-type: none"> <li>• Sage-grouse habitat – <i>all ecological types</i> <ul style="list-style-type: none"> <li>○ Prioritize areas where restoration of sagebrush and/or perennial grasses is needed to create large patches of landscape cover of sagebrush or connect existing patches of sagebrush habitat.</li> <li>○ Prioritize areas with adequate landscape cover of sagebrush where restoration of perennial grasses and forbs is needed.</li> </ul> </li> <li>• Areas affected by anthropogenic activities that cause surface disturbance, invasion, and fragmentation. (e.g., road and utility corridors, urban expansion, OHV use, and mineral/energy projects) – <i>all ecological types</i>.</li> </ul>
<i>Objectives</i>	<ul style="list-style-type: none"> <li>• Increase soil stability and curtail dust.</li> <li>• Control/suppress invasive annual grasses and other invasive plants.</li> <li>• Increase landscape cover of sagebrush.</li> <li>• Increase perennial grasses and forbs and biological soil crusts where they naturally occur.</li> <li>• Reduce the risk of large fires that burn sage-grouse habitat.</li> </ul>
<i>Activities</i>	<ul style="list-style-type: none"> <li>• Use integrated strategies to control/suppress annual invasive grass and other annual invaders.</li> <li>• Establish and maintain fuel breaks or greenstrips in areas dominated by invasive annual grasses that are adjacent to areas with &gt;25% landscape sagebrush cover and adequate perennial native grasses and forbs.</li> <li>• Seed perennial grasses and forbs that are adapted to local conditions to increase cover of these species in areas where they are depleted.</li> <li>• Seed and/or transplant sagebrush to restore large patches of sagebrush cover and connect existing patches.</li> <li>• Repeat restoration treatments if they fail initially to ensure restoration success especially in warm and dry soil temperature moisture regimes where weather is often problematic for establishment.</li> <li>• Actively manage restored/rehabilitated areas to increase perennial herbaceous species and minimize secondary weed invasion.</li> </ul>
<p><b><i>Monitoring and Adaptive Management– implement comprehensive monitoring to track landscape change and management outcomes and provide the basis for adaptive management</i></b></p>	
<i>Priorities</i>	<ul style="list-style-type: none"> <li>• Regional environmental gradients to track changes in plant community and other ecosystem attributes and expansion or contraction of species ranges – <i>all ecological types</i>.</li> <li>• Assess treatment effectiveness – <i>all ecological types</i>.</li> </ul>
<i>Objectives</i>	<ul style="list-style-type: none"> <li>• Understand effects of wildfire, annual grass invasion, piñon and juniper expansion, climate change and other global stressors in sagebrush ecosystems</li> <li>• Increase understanding of the long- and short-term outcomes of management treatments.</li> </ul>
<i>Activities</i>	<ul style="list-style-type: none"> <li>• Establish a regional network of monitoring sites that includes major environmental gradients.</li> <li>• Collect pre- and post-treatment monitoring data for all major land treatments activities.</li> <li>• Collect data on ecosystem status and trends (for example, land cover type, ground cover, vegetation cover and height [native and invasive], phase of tree expansion, soil and site stability, oddities).</li> <li>• Use consistent methods to monitor indicators.</li> <li>• Use a cross-boundary approach that involves all major land owners.</li> <li>• Use a common data base for all monitoring results (e.g., Land Treatment Digital Library; <a href="http://greatbasin.wr.usgs.gov/ltl/">http://greatbasin.wr.usgs.gov/ltl/</a>).</li> <li>• Develop monitoring products that track change and provide management implications and adaptations for future management.</li> <li>• Support and improve information sharing on treatment effectiveness and monitoring results across jurisdictional boundaries (e.g., Great Basin Fire Science Delivery Project; <a href="http://www.gbfiresci.org">www.gbfiresci.org</a>).</li> </ul>

**Table 4.** Specific management strategies by agency program area for the cells within the sage-grouse habitat matrix (table 2). The rows indicate relative resilience and resistance (numbers) and the columns indicate landscape cover of sagebrush by category (letters). Resilience and resistance are based on soil temperature and moisture regimes (fig. 11) and their relationship to ecological types (table 1). Percentage of the landscape dominated by sagebrush is based on the capacity of large landscapes to support viable sage-grouse populations over the long term (fig. 8). Note that these guidelines are related to the sage-grouse habitat matrix, and do not preclude other factors from consideration when determining management priorities for program areas. The “Fire Operations” program area includes preparedness, prevention, and suppression activities.

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**High Resilience to Disturbance and Resistance to Invasive Annual Grasses (1A, 1B, 1C)**

Natural sagebrush recovery is likely to occur. Perennial herbaceous species are sufficient for recovery. Risk of invasive annual grasses is typically low.

- 
- Fire Operations**
- Fire suppression is typically third order priority, but varies with large fire risk and landscape condition (cells 1A, 1B, 1C). Scenarios requiring higher priority may include:
    - Areas of sagebrush that bridge large, contiguous expanses of sagebrush and that are important for providing connectivity for sage-grouse (cells 1B, 1C).
    - Areas where sagebrush communities have been successfully reestablished through seedings or other rehabilitation investments (cells 1A, 1B, 1C)
    - Areas with later phase (Phase III) post-settlement piñon and juniper that have high resistance to control, are subject to large and/or severe fires, and place adjacent sage-grouse habitat at risk (cells 1A, 1B).
    - All areas when critical burning environment conditions exist. These conditions may be identified by a number of products including, but not limited to: Predictive Services 7-Day Significant Fire Potential Forecasts; National Weather Service Fire Weather Watches and Red Flag Warnings; fire behavior forecasts or other local knowledge.
- 
- Fuels Management**
- Fuels management to reduce large sagebrush stand losses is a second order priority, especially in cells 1B and 1C. Management activities include:
    - Strategic placement of fuel breaks to reduce loss of large sagebrush stands by wildfire. Examples include linear features or other strategically placed treatments that serve to constrain fire spread or otherwise augment suppression efforts.
    - Tree removal in early to mid-phase (Phases I, II), post-settlement piñon and juniper expansion areas to maintain shrub/herbaceous cover and reduce fuel loads.
    - Tree removal in later phase (Phase III), post-settlement piñon and juniper areas to reduce risks of large or high severity fires. Because these areas represent non-sage-grouse habitat, prescribed fire may be appropriate on cool and moist sites, but invasive plant control and restoration of sagebrush and perennial native grasses and forbs may be necessary.
- 
- Post-Fire Rehabilitation**
- Post-fire rehabilitation is generally low priority (cells 1A, 1B, 1C). Areas of higher priority include:
    - Areas where perennial herbaceous cover, density, and species composition is inadequate for recovery.
    - Areas where seeding or transplanting sagebrush is needed to maintain habitat connectivity for sage-grouse.
    - Steep slopes and soils with erosion potential.
- 
- Habitat Restoration and Recovery**
- Restoration is typically passive and designed to increase or maintain perennial herbaceous species, biological soil crusts and landscape cover of sagebrush (cells 1A, 1B, 1C). Areas to consider for active restoration include:
    - Areas where perennial herbaceous cover density, or composition is inadequate for recovery after surface disturbance.
    - Areas where seeding or transplanting sagebrush is needed to maintain habitat connectivity for sage-grouse.

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**Moderate Resilience to Disturbance and Resistance to Invasive Annuals (2A, 2B, 2C)**

Natural sagebrush recovery is likely to occur on cooler and moister sites, but the time required may be too great if large, contiguous areas lack sagebrush. Perennial herbaceous species are usually adequate for recovery on cooler and moister sites. Risk of invasive annual grasses is moderately high on warmer and drier sites.

- 
- Fire Operations**
- Fire suppression is typically second order priority (cells 2A, 2B, 2C). Scenarios requiring higher priority may include:
    - Areas of sagebrush that bridge large, contiguous expanses of sagebrush and that are important for providing connectivity for sage-grouse (cells 2B, 2C).
- (continued)

**Table 4.** (Continued).

	<ul style="list-style-type: none"> <li>○ Areas where sagebrush communities have been successfully reestablished through seedings or other rehabilitation investments (cells 2A, 2B, 2C)</li> <li>○ Areas with later phase (Phase III), post-settlement piñon and juniper that have high resistance to control, are subject to large and/or severe fires, and place adjacent sage-grouse habitat at risk (cells 2A, 2B).</li> <li>○ Areas where annual grasslands place adjacent sage-grouse habitat at risk (cell 2A).</li> <li>○ All areas when critical burning environment conditions exist. These conditions may be identified by a number of products including, but not limited to: Predictive Services 7-Day Significant Fire Potential Forecasts; National Weather Service Fire Weather Watches and Red Flag Warnings; fire behavior forecasts or other local knowledge.</li> </ul>
<b>Fuels Management</b>	<ul style="list-style-type: none"> <li>• Fuels management to reduce large sagebrush stand losses is a first order priority, especially in cells 2B and 2C. Management activities include:             <ul style="list-style-type: none"> <li>○ Strategic placement of fuel breaks to reduce loss of large sagebrush stands by wildfire. Examples include linear features or other strategically placed treatments that serve to constrain fire spread or otherwise augment suppression efforts.</li> <li>○ Tree removal in early to mid-phase (Phase I, II), post-settlement piñon and juniper expansion areas to maintain shrub/herbaceous cover and reduce fuel loads.</li> <li>○ Tree removal in later phase (Phase III), post-settlement piñon and juniper areas to reduce risks of large or high severity fires. Because these areas represent non-sage-grouse habitat, prescribed fire may be appropriate on cool and moist sites, but restoration of sagebrush and perennial native grasses and forbs may be necessary.</li> </ul> </li> </ul>
<b>Post-Fire Rehabilitation</b>	<ul style="list-style-type: none"> <li>• Post-fire rehabilitation is generally low priority (cells 2A, 2B, 2C) in cooler and moister areas. Areas of higher priority include:             <ul style="list-style-type: none"> <li>○ Areas where perennial herbaceous cover, density, and species composition is inadequate for recovery.</li> <li>○ Areas where seeding or transplanting sagebrush is needed to maintain habitat connectivity for sage-grouse.</li> <li>○ Relatively warm and dry areas where annual invasives are expanding.</li> <li>○ Steep slopes with erosion potential.</li> </ul> </li> </ul>
<b>Habitat Restoration and Recovery</b>	<ul style="list-style-type: none"> <li>• Restoration is typically passive on cooler and moister areas and is designed to increase or maintain perennial herbaceous species, biological soil crusts, and landscape cover of sagebrush (cells 2A, 2B, 2C). Areas to consider for active restoration include:             <ul style="list-style-type: none"> <li>○ Areas where perennial herbaceous cover, density, and species composition is inadequate for recovery after surface disturbance.</li> <li>○ Areas where seeding or transplanting sagebrush is needed to maintain habitat connectivity for sage-grouse.</li> <li>○ Relatively warm and dry areas where annual invasives are expanding.</li> </ul> </li> </ul>
<b>Low Resilience to Disturbance and Resistance to Invasive Annuals (3A, 3B, 3C)</b>	
Natural sagebrush recovery is not likely. Perennial herbaceous species are typically inadequate for recovery. Risk of invasive annual grasses is high.	
<b>Fire Operations</b>	<ul style="list-style-type: none"> <li>• Fire suppression priority depends on the landscape cover of sagebrush:             <ul style="list-style-type: none"> <li>○ Areas with &lt;25% landscape cover of sagebrush are typically third order priority (cell 3A). These areas may be a higher priority if they are adjacent to intact sage-grouse habitat or are essential for connectivity.</li> <li>○ Areas with 26-65% landscape cover of sagebrush are typically second order priority (cell 3B). These areas are higher priority if they have intact understories and if they are adjacent to sage-grouse habitat.</li> <li>○ Areas with &gt;65% landscape cover of sagebrush are first order priority (cell 3C).</li> <li>○ Areas where sagebrush communities have been successfully reestablished through seedings or other rehabilitation investments (cells 3A, 3B, 3C).</li> </ul> </li> </ul>

(continued)

**Table 4.** (Continued).

<b>Fuels Management</b>	<ul style="list-style-type: none"><li>• Fuels management priority and management activities depend on the landscape cover of sagebrush:<ul style="list-style-type: none"><li>○ Areas with &lt;25% landscape cover of sagebrush are typically third order priority (cell 3A). Strategic placement of fuel breaks may be needed to reduce loss of adjacent sage-grouse habitat by wildfire. Examples include linear features or other strategically placed treatments that serve to constrain fire spread or otherwise augment suppression efforts.</li><li>○ Areas with 26-65% landscape cover of sagebrush are typically second order priority (cell 3B). These areas are higher priority if they have intact understories and if they are adjacent to sage-grouse habitat. Strategic placement of fuel breaks may be needed to reduce loss of large sagebrush stands by wildfire.</li><li>○ Areas with &gt;65% landscape cover of sagebrush are first order priority (cell 3C). Strategic placement of fuel breaks may be needed to reduce loss of large sagebrush stands by wildfire.</li><li>○ Areas where sagebrush communities have been successfully reestablished through seedings or other rehabilitation investments (cells 3A, 3B, 3C). Strategic placement of fuel breaks may be needed to protect investments from repeated loss to wildfire.</li></ul></li></ul>
<b>Post-Fire Rehabilitation</b>	<ul style="list-style-type: none"><li>• Post-fire rehabilitation priority and management activities depend on the landscape cover of sagebrush:<ul style="list-style-type: none"><li>○ Areas with &lt;25% landscape cover of sagebrush are typically third order priority (cell 3A). Exceptions include (1) sites that are relatively cool and moist and (2) areas adjacent to sage-grouse habitat where seeding can be used to increase connectivity and prevent annual invasive spread. In highly invaded areas, integrated strategies that include seeding of perennial herbaceous species and seeding and/or transplanting sagebrush will be required. Success will likely require more than one intervention due to low and variable precipitation.</li><li>○ Areas with 26-65% landscape cover of sagebrush are typically second order priority (cell 3B). Exceptions include (1) sites that are relatively cool and moist or that are not highly invaded, and (2) areas adjacent to sage-grouse habitat where seeding can be used to increase connectivity and prevent annual invasive spread. Seeding of perennial herbaceous species will be required where cover, density and species composition of these species is inadequate for recovery. Seeding and/or transplanting sagebrush as soon as possible is necessary for rehabilitating sage-grouse habitat. Success will likely require more than one intervention due to low and variable precipitation.</li><li>○ Areas with &gt;65% landscape cover of sagebrush are first order priority, especially if they are part of a larger, contiguous area of sagebrush (cell 3C). Seeding of perennial herbaceous species will be required where cover, density and species composition of these species is inadequate for recovery. Seeding and/or transplanting sagebrush as soon as possible is necessary for rehabilitating sage-grouse habitat. Success will likely require more than one intervention due to low and variable precipitation.</li></ul></li></ul>
<b>Habitat Restoration and Recovery</b>	<ul style="list-style-type: none"><li>• Restoration priority and management activities depends on the landscape cover of sagebrush:<ul style="list-style-type: none"><li>○ Areas with &lt;25% landscape cover of sagebrush are typically third order priority. Exceptions include (1) surface disturbances and (2) areas adjacent to sage-grouse habitat where seeding can be used to prevent annual invasive spread (cell 3A). In highly invaded areas, integrated strategies that include seeding of perennial herbaceous species and seeding and/or transplanting sagebrush will be required. Success will likely require more than one intervention due to low and variable precipitation.</li><li>○ Areas with 26-65% landscape cover of sagebrush are typically second order priority (cell 3B). Exceptions include (1) surface disturbances, (2) sites that are relatively cool and moist or that are not highly invaded, and (3) areas adjacent to sage-grouse habitat where seeding can be used to increase connectivity and prevent annual invasive spread. Seeding of perennial herbaceous species may be required where cover, density and species composition of these species is inadequate. Seeding and/or transplanting sagebrush as soon as possible is necessary for restoring sage-grouse habitat. Success will likely require more than one intervention due to low and variable precipitation.</li><li>○ Areas with &gt;65% landscape cover of sagebrush are first order priority, especially if they are part of a larger, contiguous area of sagebrush (cell 3C). Seeding of perennial herbaceous species may be required where cover, density, and species composition of these species is inadequate. Seeding and/or transplanting sagebrush as soon as possible is necessary for restoring sage-grouse habitat. Success will likely require more than one intervention due to low and variable precipitation.</li></ul></li></ul>

Another important consideration is that ecological processes such as wildfire can occur either within or across categories in the sage-grouse habitat matrix and it is necessary to determine the appropriate spatial context when evaluating management opportunities based on resilience and resistance and sage-grouse habitat. For example, if critical sage-grouse habitat occurs in close proximity to landscapes comprised mainly of annual grass-dominated plant communities, then fire risk to adjacent sage-grouse habitat can increase dramatically (Balch et al. 2013). In this scenario, management actions could include reducing the influence of invasive annual grasses with a strategic fuel break on the perimeter of intact sagebrush. Thus, management actions may have value to sustaining existing sage-grouse habitat, even if these measures are applied in locations that are currently not habitat; the spatial relationships of sagebrush and invasive annual grasses should be considered when prioritizing management actions and associated conservation measures.

## Informing Wildfire and Fuels Management Strategies to Conserve Sage-Grouse

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Collectively, responses to wildfires and implementation of fuels management projects are important contributors to sage-grouse conservation. Resilience and resistance concepts provide a science-based background that can inform fire operations and fuels management strategies and allocation of scarce assets during periods of high fire activity. In fire operations, firefighter and public safety is the overriding objective in all decisions. In addition, land managers consider numerous other values at risk, including the Wildland-Urban Interface (WUI), habitats, and infrastructure when allocating assets and prioritizing efforts. Resilience and resistance concepts are especially relevant for evaluating tradeoffs related to current ecological conditions and rates of recovery and possible ecological consequences of different fire management activities. For example, prioritizing initial attack efforts based on ecological types and their resilience and resistance at fire locations is a possible future application of resilience and resistance concepts. Also, fire prevention efforts can be concentrated where human ignitions have commonly occurred near intact, high quality habitats that also have inherently low resilience and resistance.

Fuels management projects are often applied to (1) constrain or minimize fire spread; (2) alter species composition; (3) modify fire intensity, severity, or effects; or (4) create fuel breaks or anchor points that augment fire management efforts (fig. 13). These activities are selectively used based on the projected ecosystem response, anticipated fire patterns, and probability of success. For example, in areas that are difficult to restore due to low to moderate resilience, fuel treatments can be placed to minimize fire spread and conserve sagebrush habitat. In cooler and moister areas with moderate to high resilience and resistance, mechanical or prescribed fire treatments may be appropriate to prevent conifer expansion and dominance. Given projected climate change and longer fire seasons across the western United States, fuels management represents a proactive approach for modifying large fire trends. Fire operations and fuels management programs contribute to a strategic, landscape approach when coupled with data that illustrate the likelihood of fire occurrence, potential fire behavior, and risk assessments (Finney et al. 2010; Oregon Department of Forestry 2013). In tandem with resilience and resistance concepts, these data can further inform fire operations and fuels management decisions.





**Figure 13.** Fuel breaks may include roads, natural features, or other management imposed treatments intended to modify fire behavior or otherwise augment suppression efforts at the time of a fire. Such changes in fuel type and arrangement may improve suppression effectiveness by modifying flame length and fire intensity, and allow fire operations to be conducted more safely. The top photo shows a burnout operation along an existing road to remove available fuels ahead of an oncoming fire and constrain overall fire growth (photo by BLM Idaho Falls District). The bottom photo shows fuel breaks located along a road, which complimented fire control efforts when a fire intersected the fuel break and road from the right (photo by Ben Dyer, BLM).

## Putting it all Together

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Effective management and restoration of sage-grouse habitat will benefit from a collaborative approach that prioritizes the best management practices in the most appropriate places. This section describes an approach for assessing focal areas for sage-grouse habitat management based on widely available data, including (1) Priority Areas for Conservation (PACs), (2) breeding bird densities, (3) habitat suitability as indicated by the landscape cover of sagebrush, (4) resilience and resistance and dominant ecological types as indicated by soil temperature and moisture regimes, and (5) habitat threats as indicated by cover of cheatgrass, cover of piñon and juniper, and by fire history. Breeding bird density data are overlain with landscape cover of sagebrush and with resilience and resistance to spatially link sage-grouse populations with habitat conditions and risks. We illustrate the use of this step-down approach for evaluating focal areas for sage-grouse habitat management across the western portion of the range, and we provide a detailed example for a diverse area in the northeast corner of Nevada that is comprised largely of PACs with mixed land ownership. The sage-grouse habitat matrix (table 2) is used as a tool in the decision process, and guidelines are provided to assist in determining appropriate management strategies for the primary agency program areas (fire operations, fuels management, post-fire rehabilitation, habitat restoration) for each cell of the matrix.

We conclude with discussions of the tools available to aid in determining the suitability of an area for treatment and the most appropriate management treatments such as ecological site descriptions and state and transition models and of monitoring and adaptive management. Datasets used to compile the maps in the following sections are in Appendix 4.

### Assessing Focal Areas for Sage-Grouse Habitat Management: Key Data Layers

**Priority areas for conservation:** The recent identification of sage-grouse strongholds, or Priority Areas for Conservation (PACs), greatly improves the ability to target management actions towards habitats expected to be critical for long-term viability of the species (fig. 14; USFWS 2013). Understanding and minimizing risks of large-scale loss of sagebrush and conversion to invasive annual grasses or piñon and juniper in and around PACs will be integral to maintaining sage-grouse distribution and stabilizing population trends. PACs were developed by individual states to identify those areas that are critical for ensuring adequate representation, redundancy, and resilience to conserve sage-grouse populations. Methods differed among states; in general, PAC boundaries were identified based on (1) sage-grouse population data including breeding bird density, lek counts, telemetry, nesting areas, known distributions, and sightings/observations; and (2) habitat data including occupied habitat, suitable habitat, seasonal habitat, nesting and brood rearing areas, and connectivity areas or corridors. Sage-grouse habitats outside of PACs also are important in assessing focal areas for management where they provide connectivity between PACs (genetic and habitat linkages), seasonal habitats that may have been underestimated due to emphasis on lek sites to define priority areas, habitat restoration and population expansion opportunities, and flexibility for managing habitat changes that may result from climate change (USFWS 2013). If PAC boundaries are adjusted, they will need to be updated for future analyses.

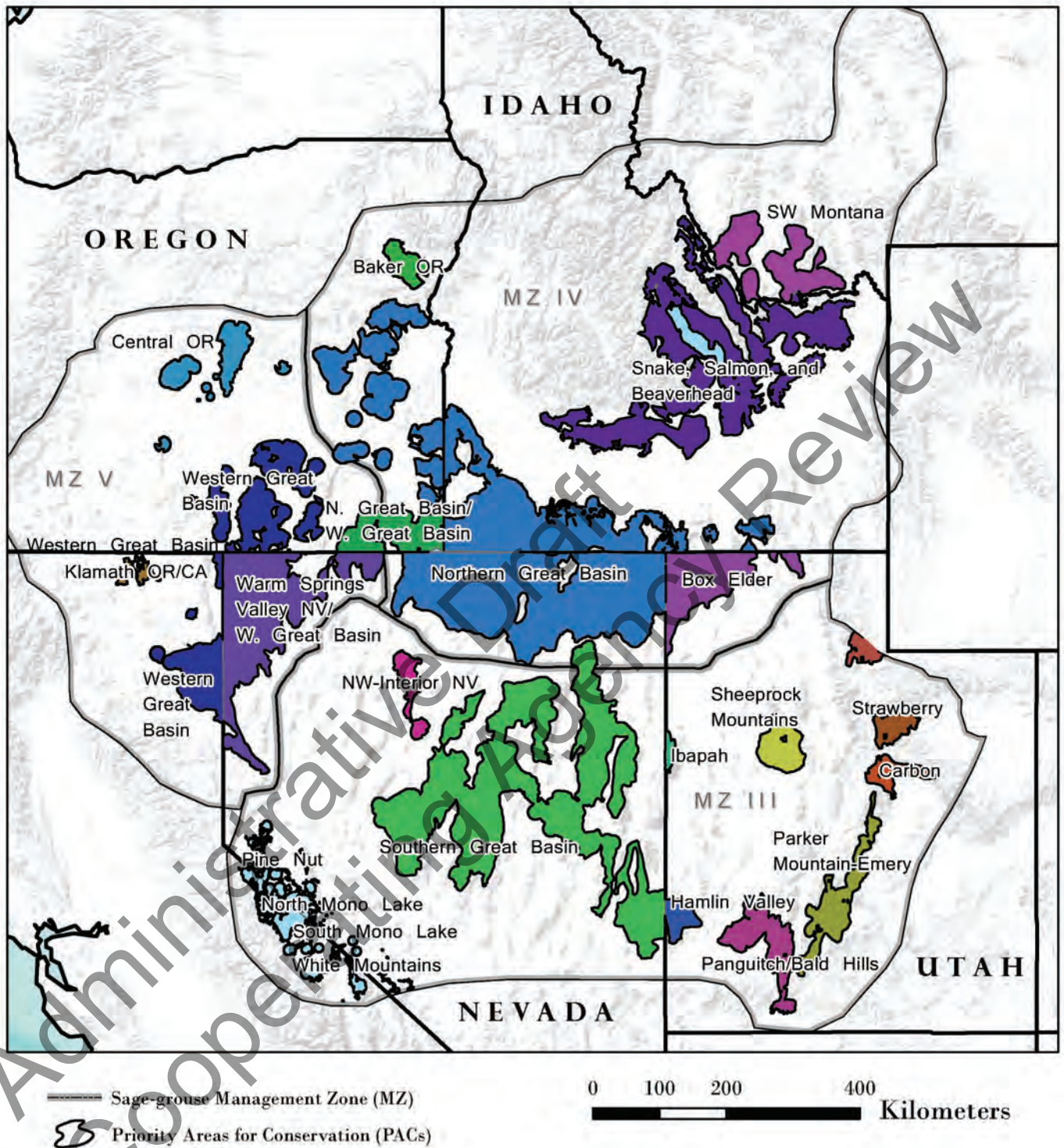
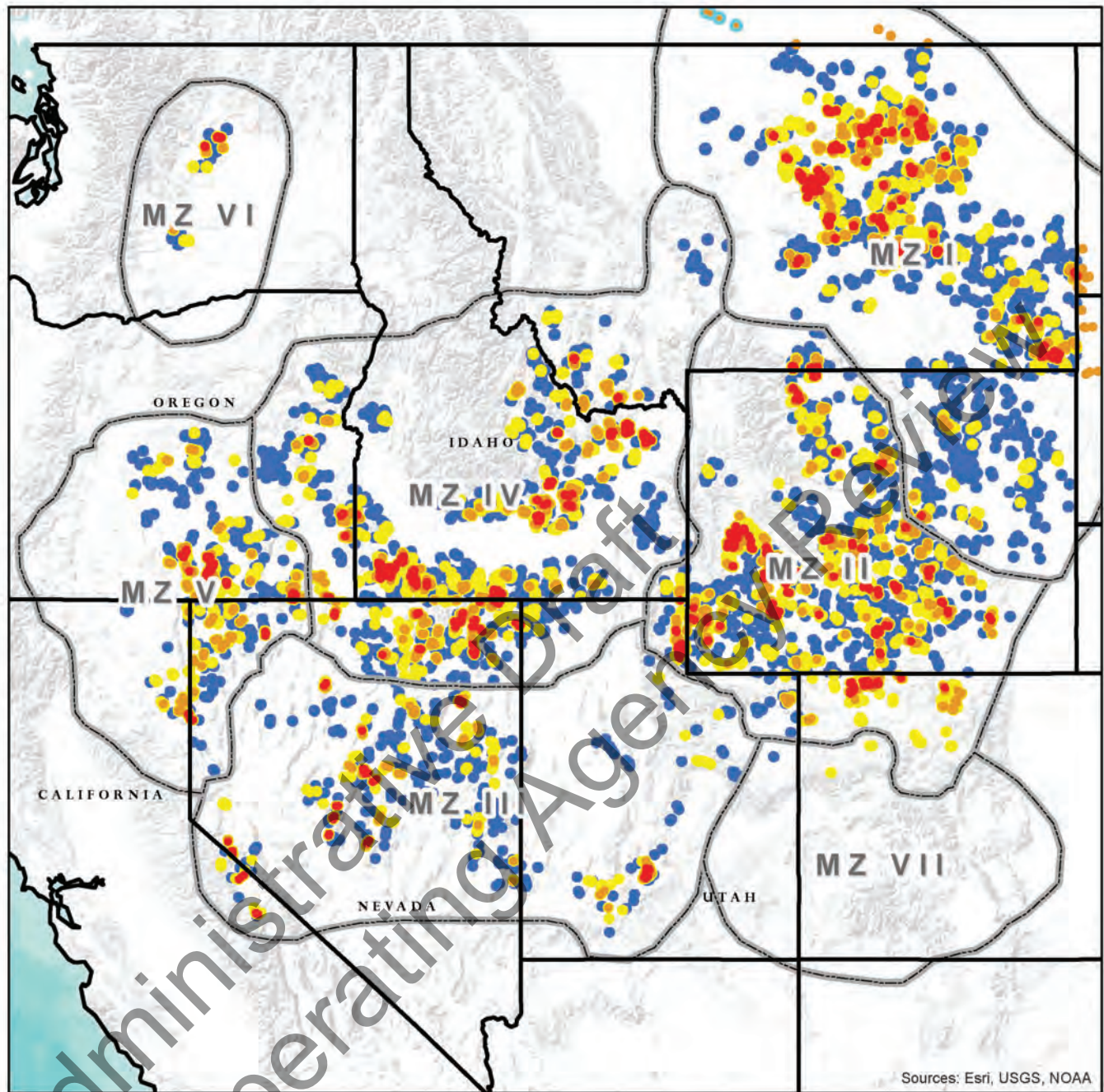


Figure 14. Priority Areas for Conservation (PACs) within the range of sage-grouse (USFWS 2013). Colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).

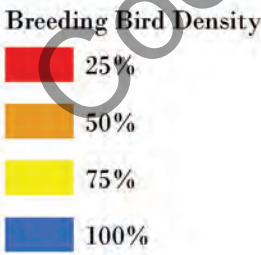
**Breeding bird density:** Range-wide breeding bird density areas provide one of the few accessible data sets for further prioritizing actions within and adjacent to PACs to maintain species distribution and abundance. Doherty et al. (2010b) developed a useful framework for incorporating population data in their range-wide breeding bird density analysis, which used maximum counts of males on leks ( $n = 4,885$ ) to delineate breeding bird density areas that contain 25, 50, 75, and 100% of the known breeding population (fig. 15). Leks were mapped according to these abundance values and buffered by a 6.4 to 8.5 km (4.0 to 5.3 mi) radius to delineate nesting areas. Findings showed that while sage-grouse occupy extremely large landscapes, their breeding distribution is highly aggregated in comparably smaller identifiable population centers; 25% of the known population occurs within 3.9% (2.9 million ha; 7.2 million ac) of the species range, and 75% of birds are within 27.0% of the species range (20.4 million ha; 50.4 million ac) (Doherty et al. 2010b). The Doherty et al. (2010b) analysis emphasized breeding habitats primarily because little broad scale data exist for summer and winter habitat use areas. Even though the current breeding bird density data provide the most comprehensive data available, they do not include all existing sage-grouse populations. Incorporating finer scale seasonal habitat use data at local levels where it is available will ensure management actions encompass all seasonal habitat requirements.

For this assessment, we chose to use State-level breeding bird density results from Doherty et al. (2010b) instead of range-wide model results to ensure that important breeding areas in MZs III, IV, and V were not underweighted due to relatively higher bird densities in the eastern portion of the range. It is important to note that breeding density areas were identified using best available information in 2009, so these range-wide data do not reflect the most current lek count information or changes in conditions since the original analysis. Also, breeding density areas should not be viewed as rigid boundaries but rather as the means to prioritize landscapes regionally where step-down assessments and actions may be implemented quickly to conserve the most birds.

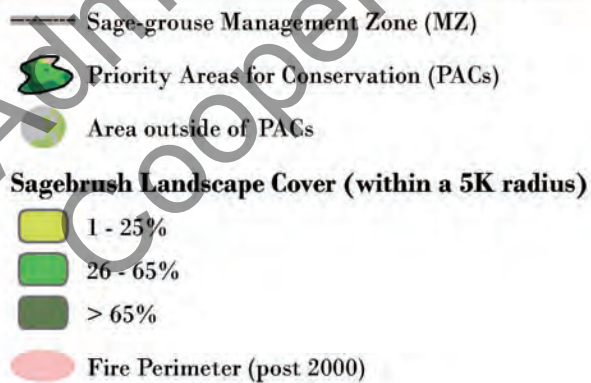
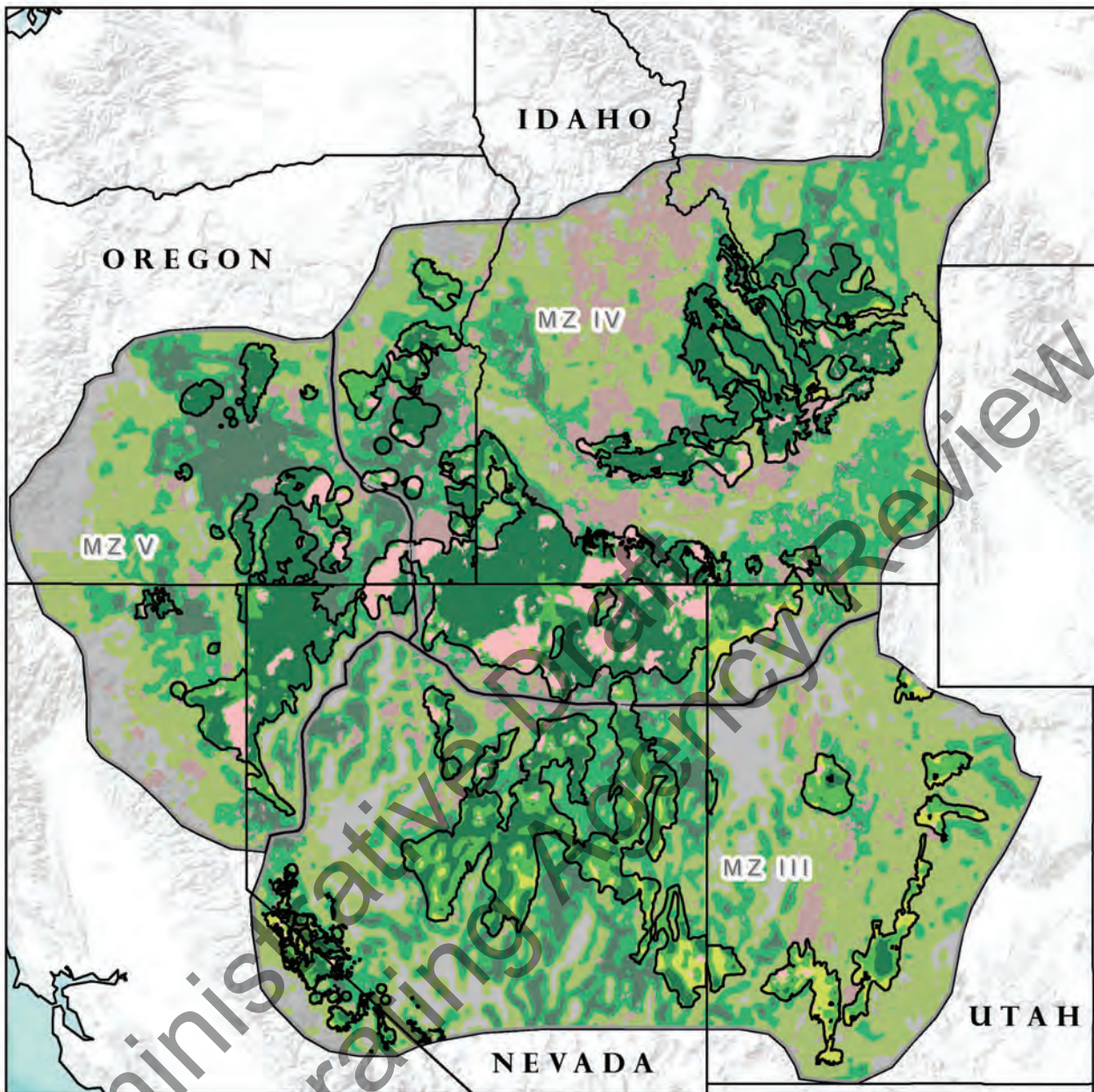
**Landscape cover of sagebrush:** Landscape cover of sagebrush is one of the key determinants of sage-grouse population persistence and, in combination with an understanding of resilience to disturbance and resistance to invasive annuals, provides essential information both for determining priority areas for management and appropriate management actions (fig. 10; tables 2 and 3). Landscape cover of sagebrush is a measure of large, contiguous patches of sagebrush on the landscape and is calculated from remote sensing databases such as LANDFIRE (see Appendix 4). We used the three cover categories of sagebrush landscape cover discussed previously to predict the likelihood of sustaining sage-grouse populations (1-25%, 25-65%, >65%). The sagebrush landscape cover datasets were created using a moving window to summarize the proportion of area (5-km [3.1-mi] radius) dominated by sagebrush surrounding each 30-m pixel and then assigned those areas to the three categories (see Appendix 2). Because available sagebrush cover from sources such as LANDFIRE does not exclude recent fire perimeters, it was necessary to either include these in the analysis of landscape cover of sagebrush or display them separately. Although areas that have burned since 2000 likely do not currently provide desired sage-grouse habitat, areas with the potential to support sagebrush ecological types can provide conservation benefits in the overall planning effort especially within long-term conservation areas like PACs. The landscape cover of sagebrush and recent fire perimeters are illustrated for the western portion of the range (fig. 16) and northeast Nevada (fig. 17).



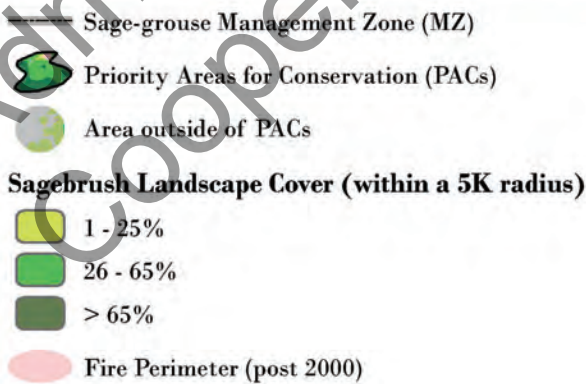
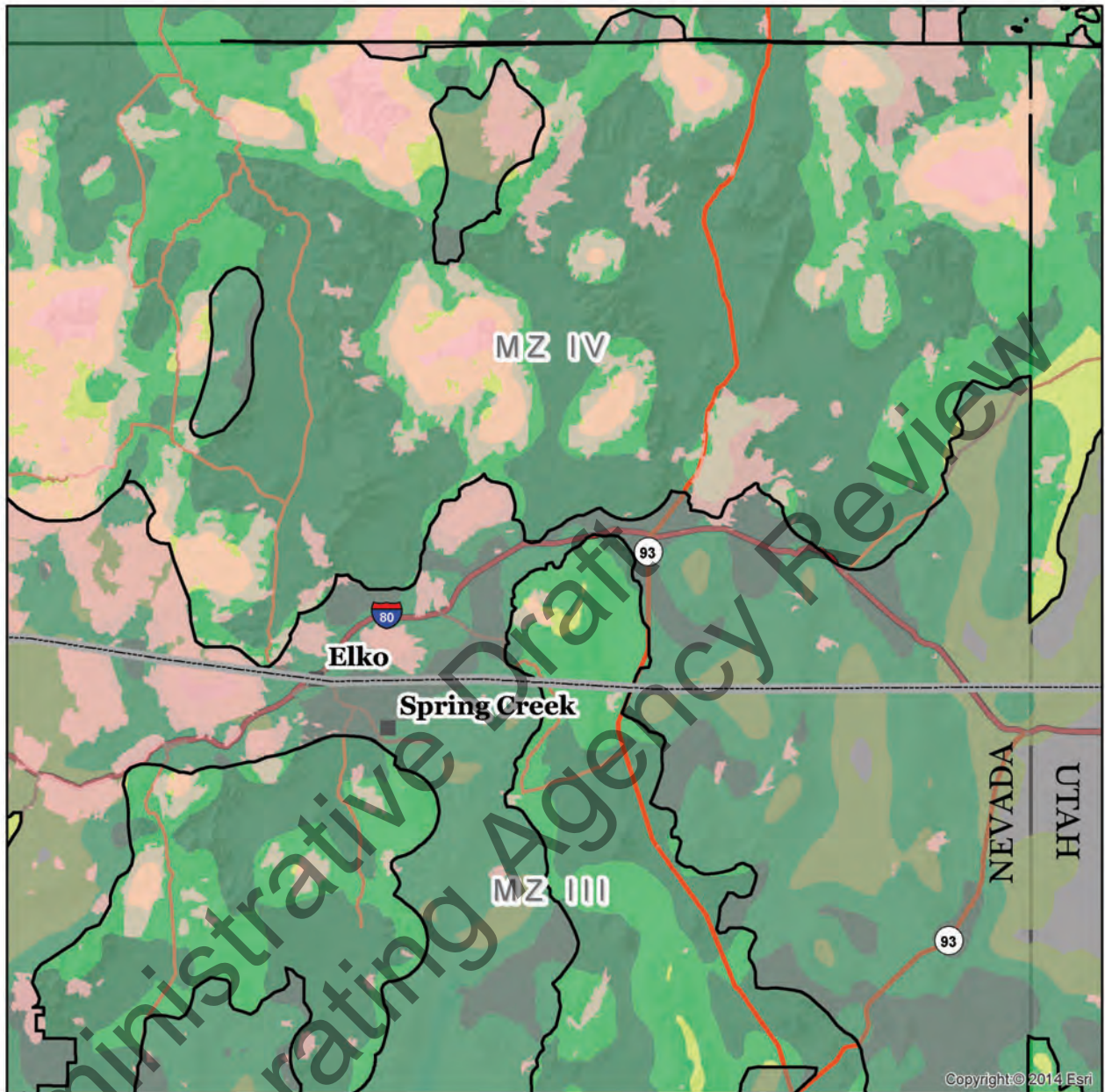
— Sage-grouse Management Zone (MZ)



**Figure 15.** Range-wide sage-grouse breeding bird densities from Doherty et al. 2010. Points illustrate breeding bird density areas that contain 25, 50, 75, and 100% of the known breeding population and are based on maximum counts of males on leks ( $n = 4,885$ ). Leks were mapped according to abundance values and buffered by 6.4 to 8.5 km (4.0 to 5.2 mi) to delineate nesting areas.



**Figure 16.** The landscape cover of sagebrush within each of three selected categories (1-25%, 26-65%, >65%) for Management Zones III, IV, and V (Stiver et al. 2006). The proportion of sagebrush (USGS 2013) within each of the categories in a 5-km (3.1-mi) radius surrounding each pixel was calculated relative to other land cover types for locations with sagebrush cover. Darker colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



**Figure 17.** The landscape cover of sagebrush within each of the selected categories (1-25%, 26-65%, >65%) for the north-eastern portion of Nevada. The proportion of sagebrush (USGS 2013) within each of the categories in a 5-km (3.1-mi) radius surrounding each pixel was calculated relative to other land cover types for locations with sagebrush cover. Darker colored polygons delineate Priority Areas for Conservation (USFWS 2013).

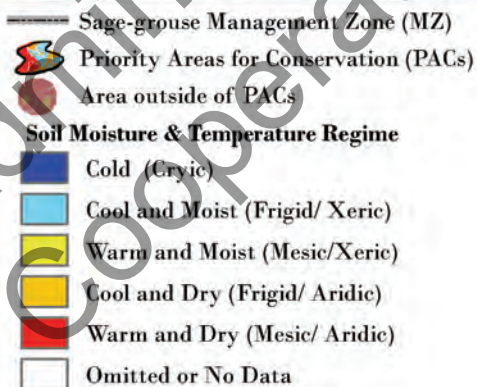
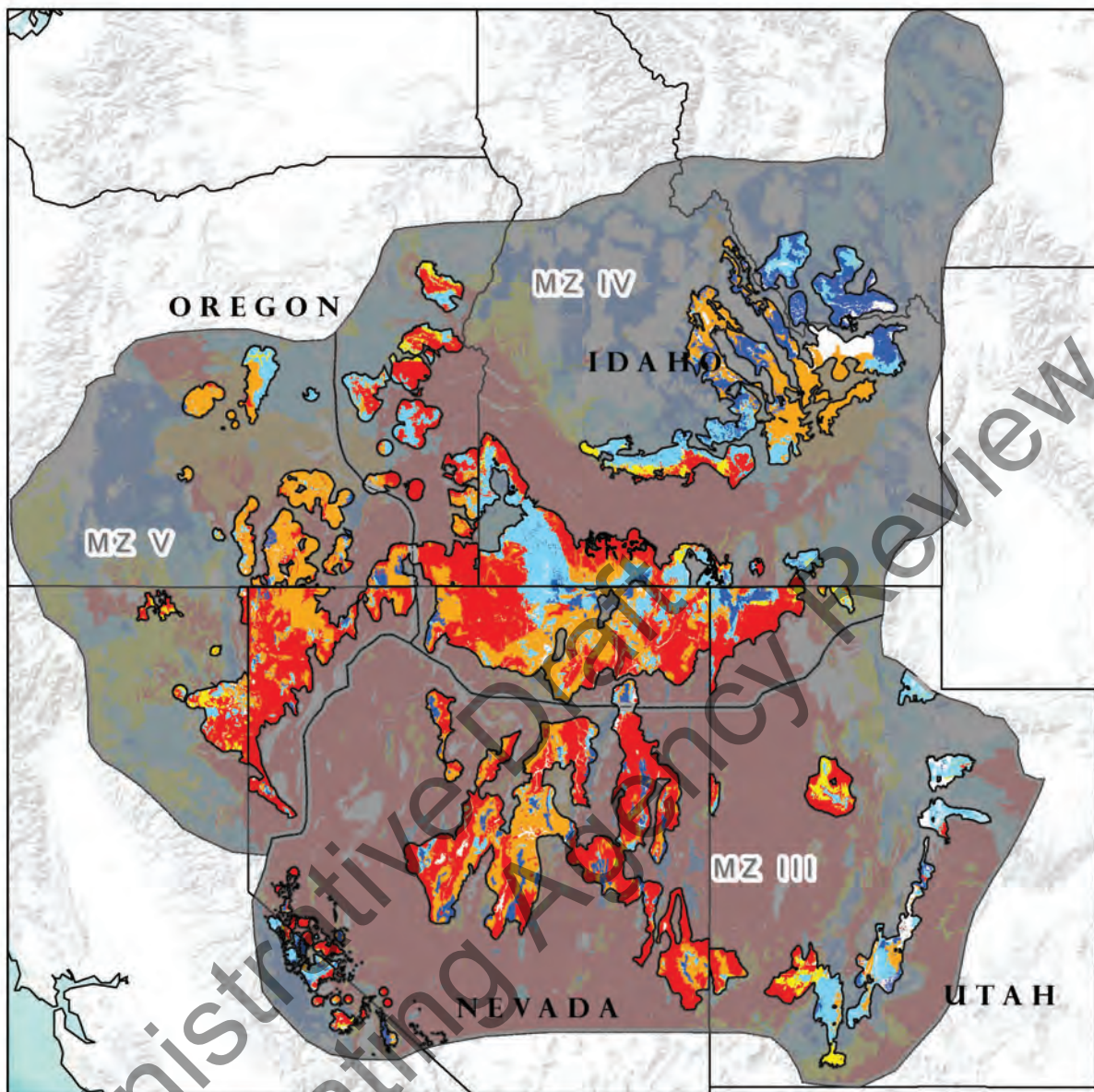
**Resilience to disturbance and resistance to annuals:** Soil temperature and moisture regimes are a strong indicator of ecological types and of resilience to disturbance and resistance to invasive annual plants (fig. 11; table 1). Resilience and resistance predictions coupled with landscape cover of sagebrush can provide critical information for determining focal areas for targeted management actions (tables 2, 3, and 4). The available data for the soil temperature and moisture regimes were recently compiled to predict resilience and resistance (see Appendix 3). These data, displayed for the western portion of the range and northeast Nevada (figs. 18 and 19), illustrate the spatial variability within the focal areas. Soil temperature and moisture regimes are two of the primary determinants of ecological types and of more detailed ecological site descriptions, which are described in the section on “Determining the Most Appropriate Management Treatments at the Project Scale.”

**Habitat threats:** Examining additional land cover data or models of invasive annual grasses and piñon and/or juniper, can provide insights into the current extent of threats in a planning area (e.g., Manier et al. 2013). In addition, evaluating data on fire occurrence and size can provide information on fire history and the rate and pattern of change within the planning area. Data layers for cheatgrass cover have been derived from Landsat imagery (Peterson 2006, 2007) and from model predictions based on species occurrence, climate variables, and anthropogenic disturbance (e.g., the Bureau of Land Management [BLM] Rapid Ecoregional Assessments [REAs]). The REAs contain a large amount of geospatial data that may be useful in providing landscape scale information on invasive species, disturbances, and vegetation types across most of the range of sage-grouse ([http://www.blm.gov/wo/st/en/prog/more/Landscape\\_Approach/reas.html](http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas.html)). Similarly, geospatial data for piñon and/or juniper have been developed for various States (e.g., Nevada and Oregon) and are becoming increasingly available rangewide. In addition, more refined data products are often available at local scales. Land managers can evaluate the available land cover datasets and select those land covers with the highest resolution and accuracy for the focal area. Land cover of cheatgrass and piñon and/or juniper and the fire history of the western portion of the range and northeast Nevada are in figures 20-25.

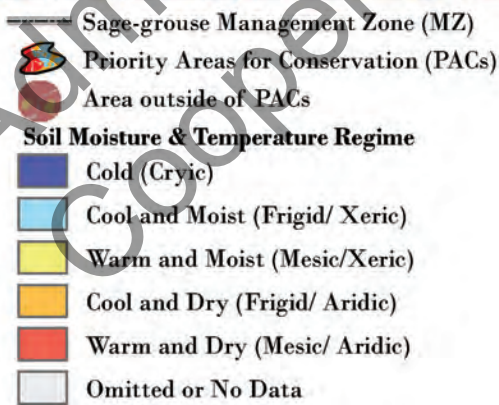
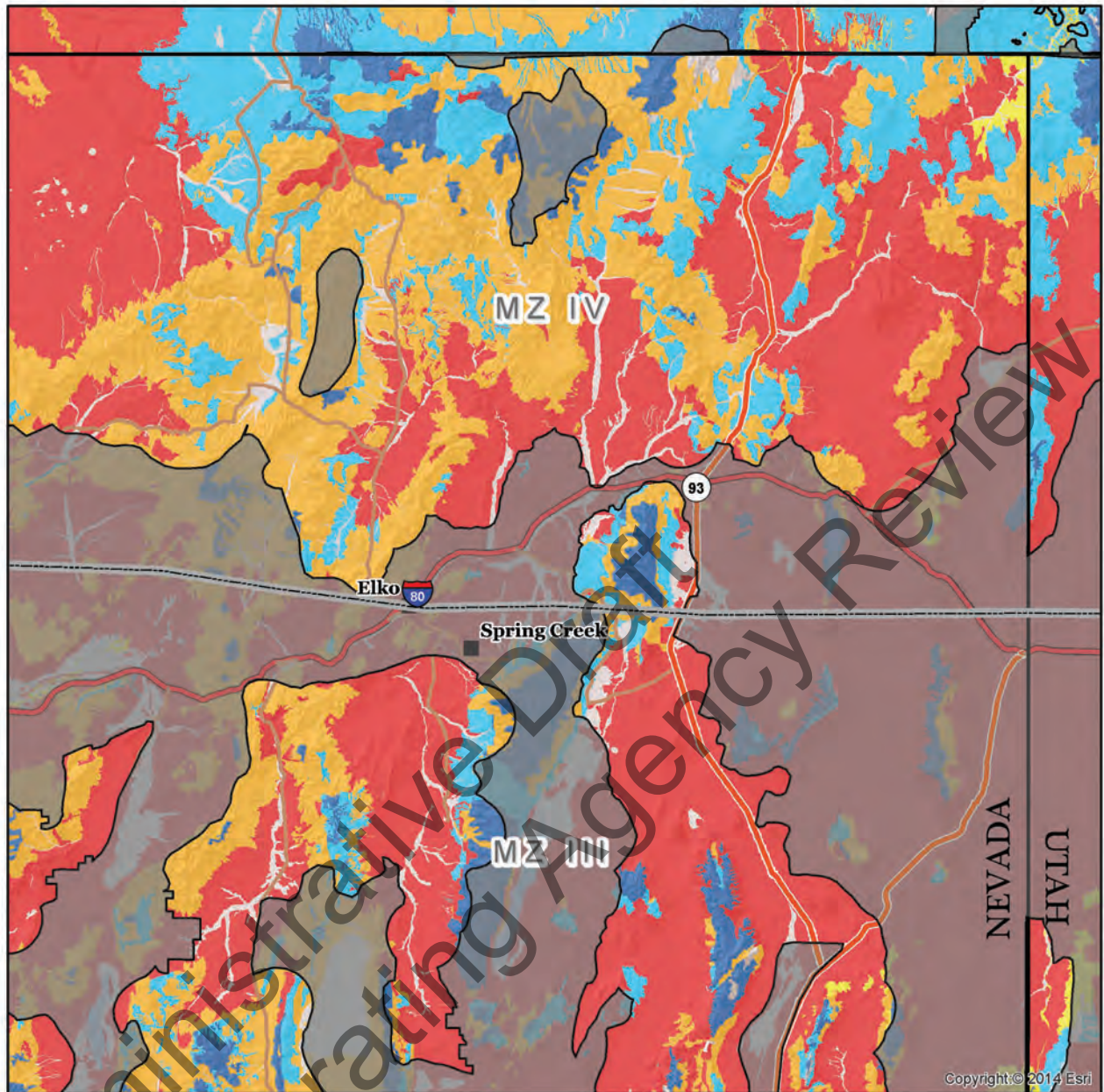
## Assessing Focal Areas for Sage-Grouse Habitat Management: Integrating Data Layers

Combining resilience and resistance concepts with sage-grouse habitat and population data can help land managers further gauge relative risks across large landscapes and determine where to focus limited resources to conserve sage-grouse populations. Intersecting breeding bird density areas with soil temperature and moisture regimes provides a spatial tool to depict landscapes with high bird concentrations that may have a higher relative risk of being negatively affected by fire and annual grasses (figs. 26, 27). For prioritization purposes, areas supporting 75% of birds (6.4 to 8.5 km [4.0 to 5.2 mi] buffer around leks) can be categorized as high density while remaining breeding bird density areas (75-100% category; 8.5-km [5.2-mi] buffer around leks) can be categorized as low density. Similarly, warm and dry types can be categorized as having relatively low resilience to fire and resistance to invasive species and all other soil temperature and moisture regimes can be categorized as having relatively moderate to high resilience and resistance. Intersecting breeding bird density areas with landscape cover of sagebrush provides another spatial component revealing large and intact habitat blocks and areas in need of potential restoration to provide continued connectivity (fig. 28).

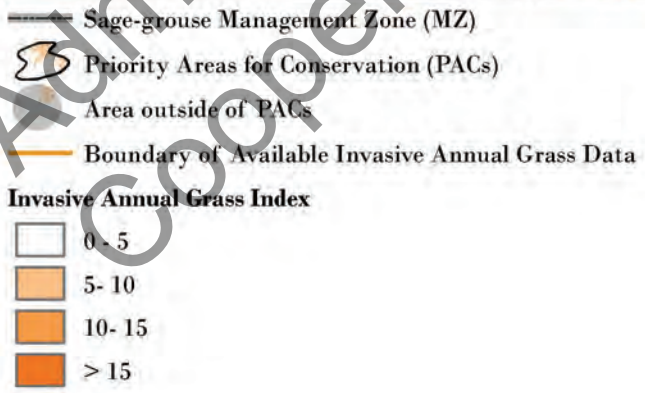
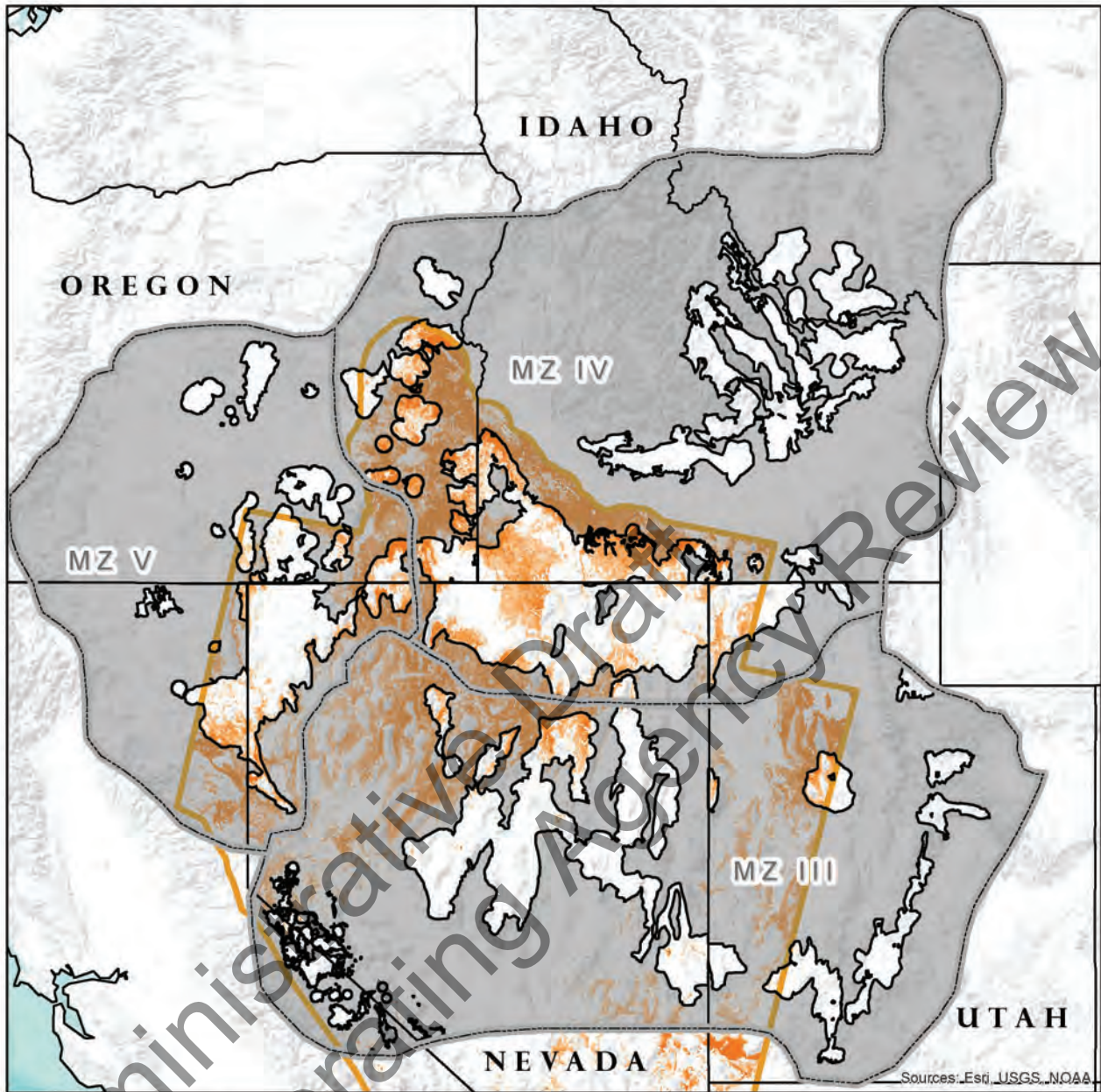




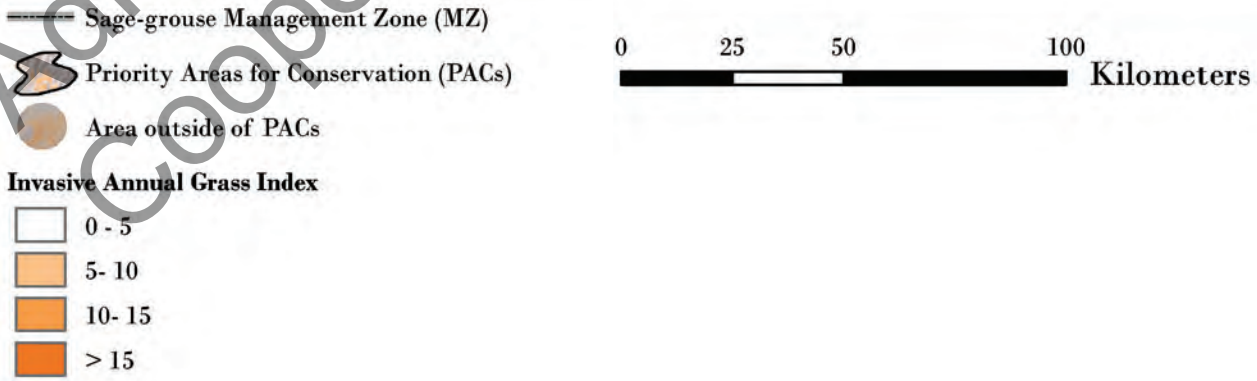
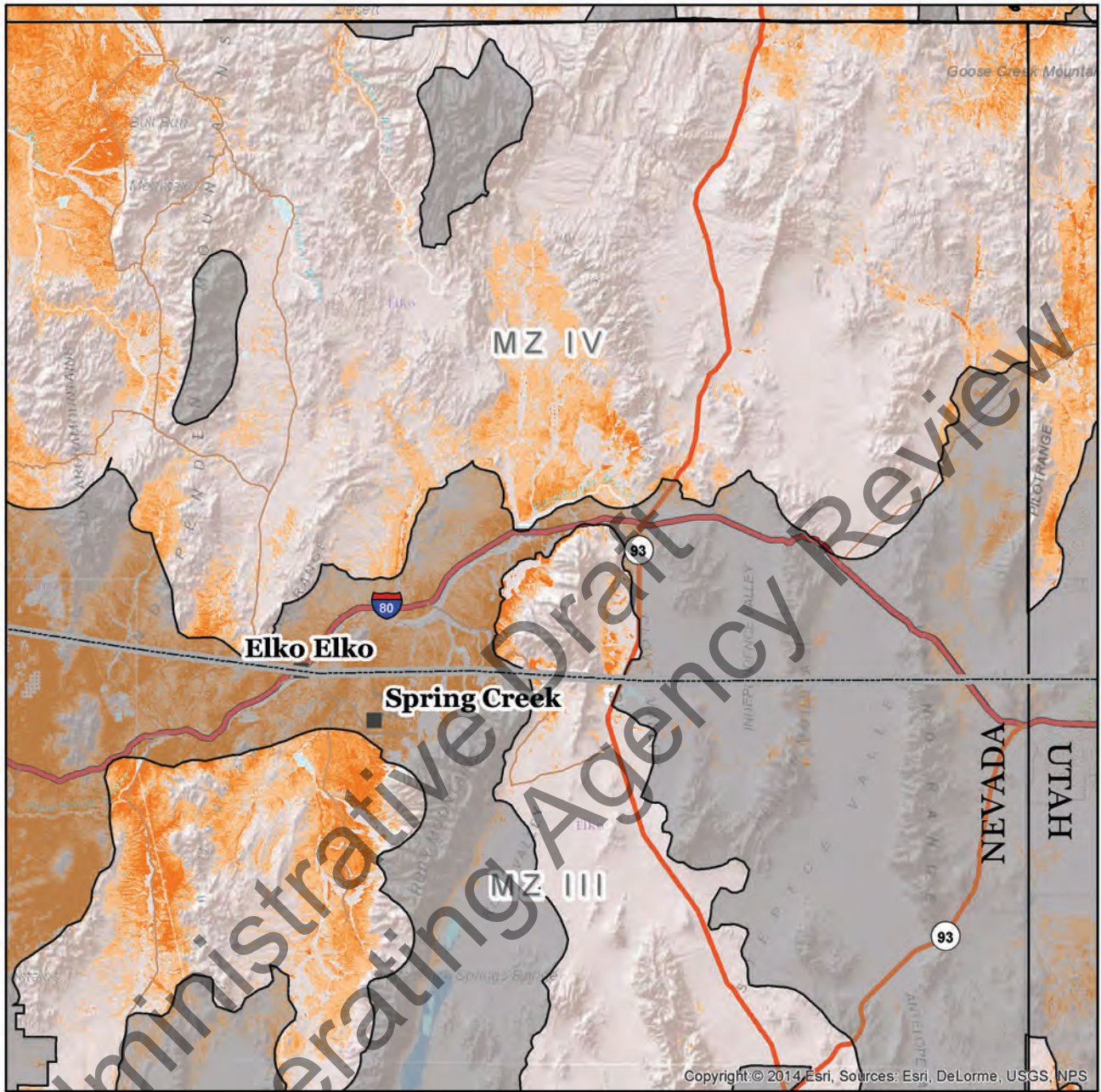
**Figure 18.** The soil temperature and moisture regimes within sage-grouse Management Zones III, IV, and V (Stiver et al. 2006). Soil temperature and moisture classes were derived from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) (Soil Survey Staff 2014a). Gaps in that dataset were filled in with the NRCS State Soil Geographic Database (STATSGO) (Soil Survey Staff 2014b). Darker colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



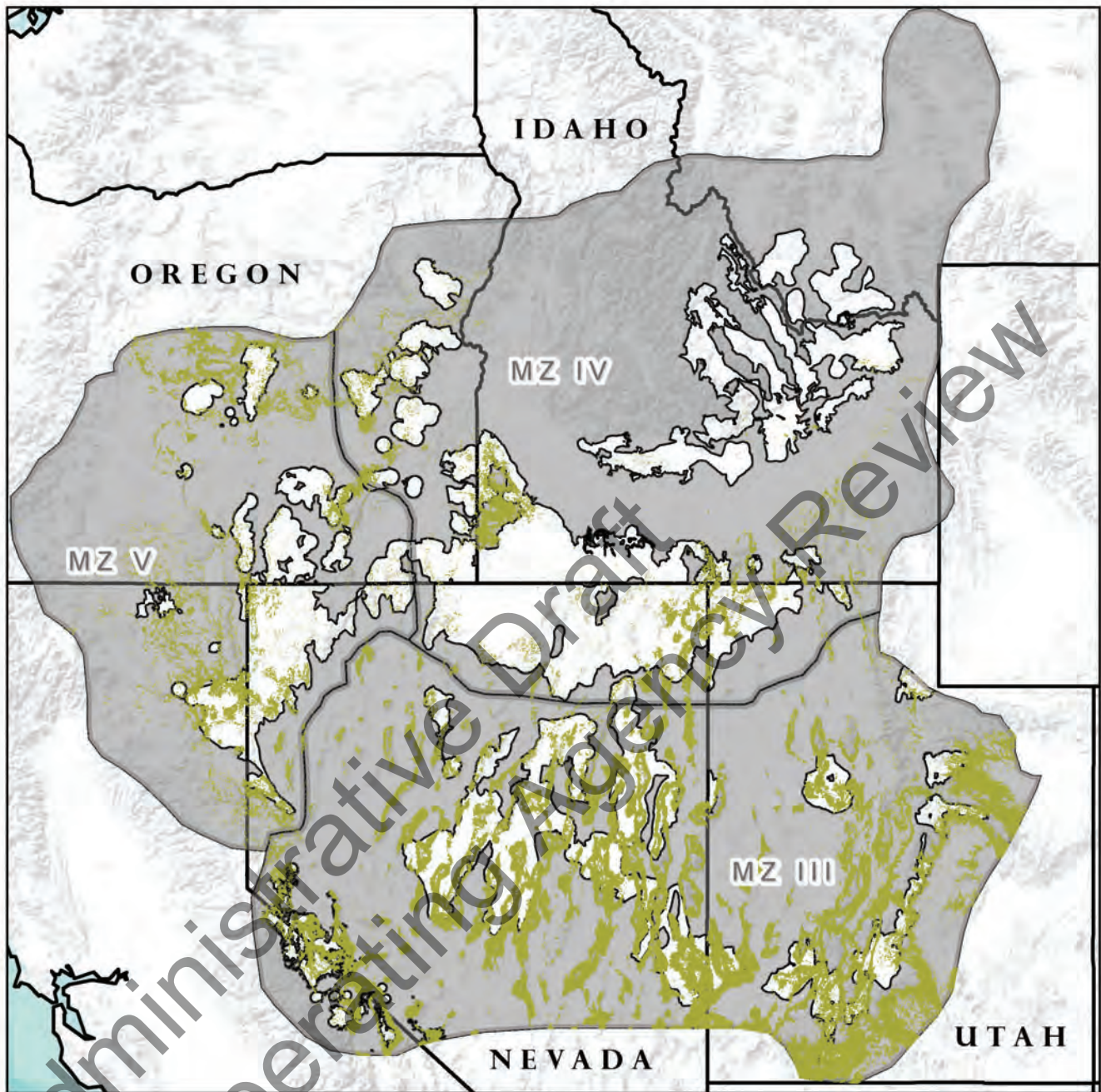
**Figure 19.** The soil temperature and moisture regimes for the northeast corner of Nevada. Soil temperature and moisture classes were derived from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) (Soil Survey Staff 2014a). Gaps in that dataset were filled in with the NRCS State Soil Geographic Database (STATSGO) (Soil Survey Staff 2014b). Darker colored polygons delineate Priority Areas for Conservation (USFWS 2013).



**Figure 20.** Invasive annual grass index for Nevada (Peterson 2006) and the Owyhee uplands (Peterson 2007) displayed for sage-grouse Management Zones III, IV, and V (Stiver et al. 2006). Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



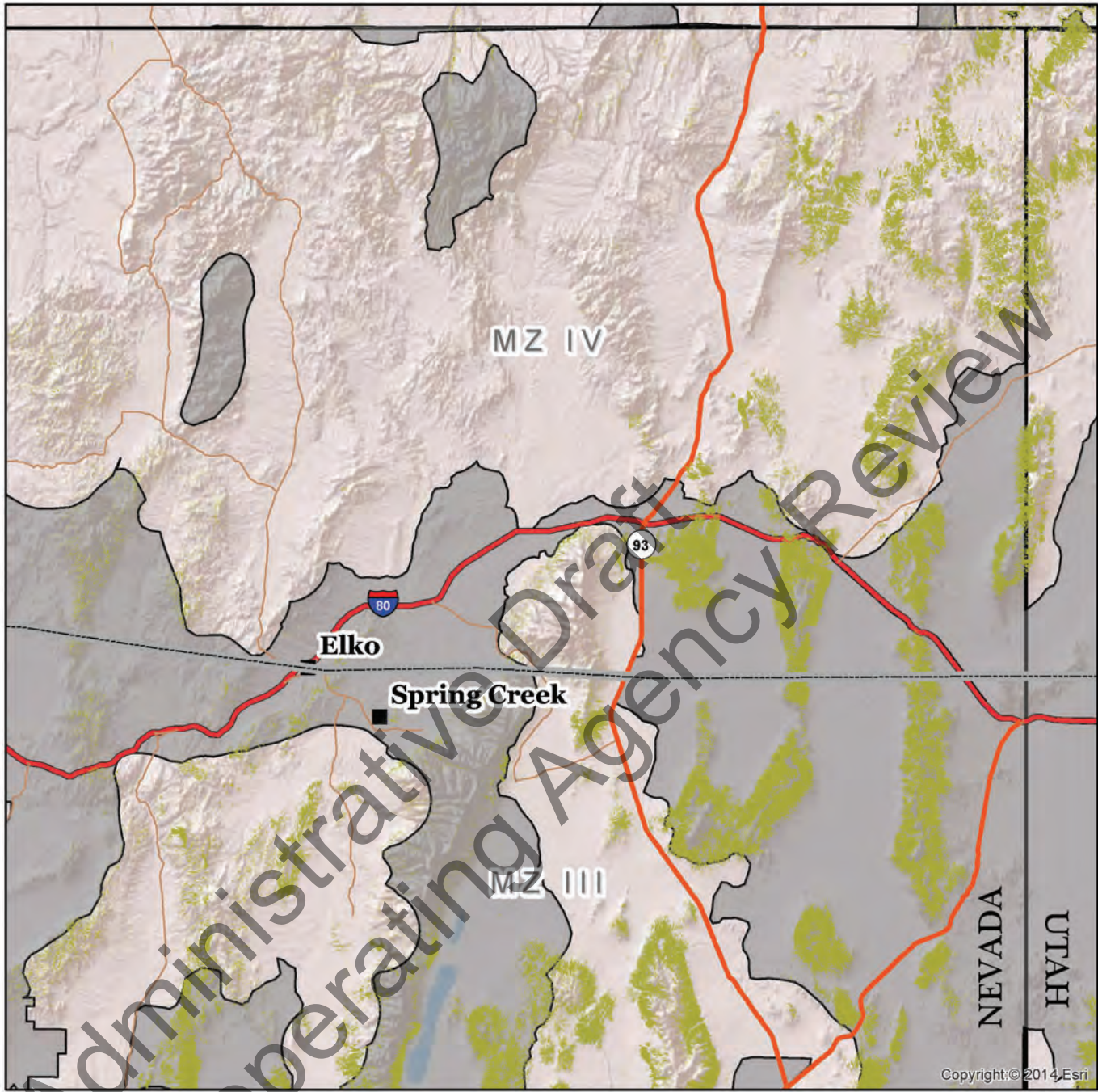
**Figure 21.** Invasive annual grass index for Nevada (Peterson 2006) and the Owhyee uplands (Peterson 2007) displayed for the northeast corner of Nevada. Lighter colored polygons delineate Priority Areas for Conservation (USFWS 2013).



- Sage-grouse Management Zone (MZ)
- ◊ Priority Areas for Conservation (PACs)
- Area outside of PACs
- ◆ Pinyon Juniper Woodland

0 100 200 400 Kilometers

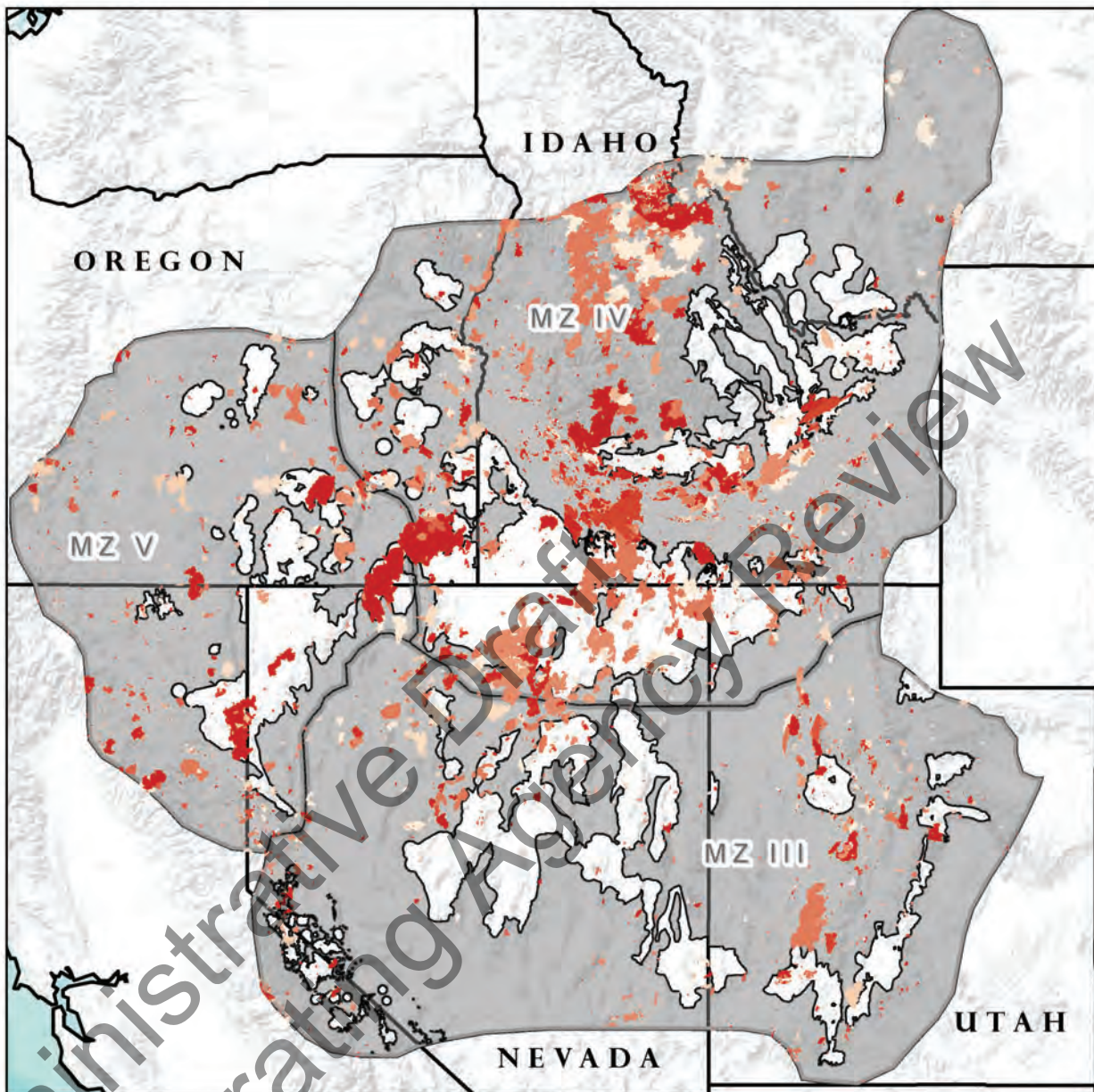
**Figure 22.** Piñon and/or juniper woodlands (USGS 2004; USGS 2013) within sage-grouse Management Zones III, IV, and V (Stiver et al. 2006). Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



- Sage-grouse Management Zone (MZ)
- Priority Areas for Conservation (PACs)
- Area outside of PACs
- ◆ Pinyon Juniper Woodland

0 25 50 100 Kilometers

**Figure 23.** Piñon and/or juniper woodlands (USGS 2004; USGS 2013) within the northeast corner of Nevada. Lighter colored polygons delineate Priority Areas for Conservation (USFWS 2013).



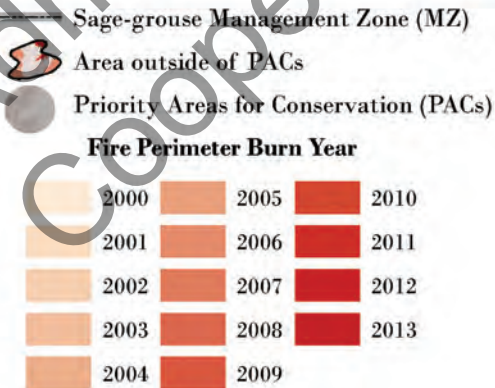
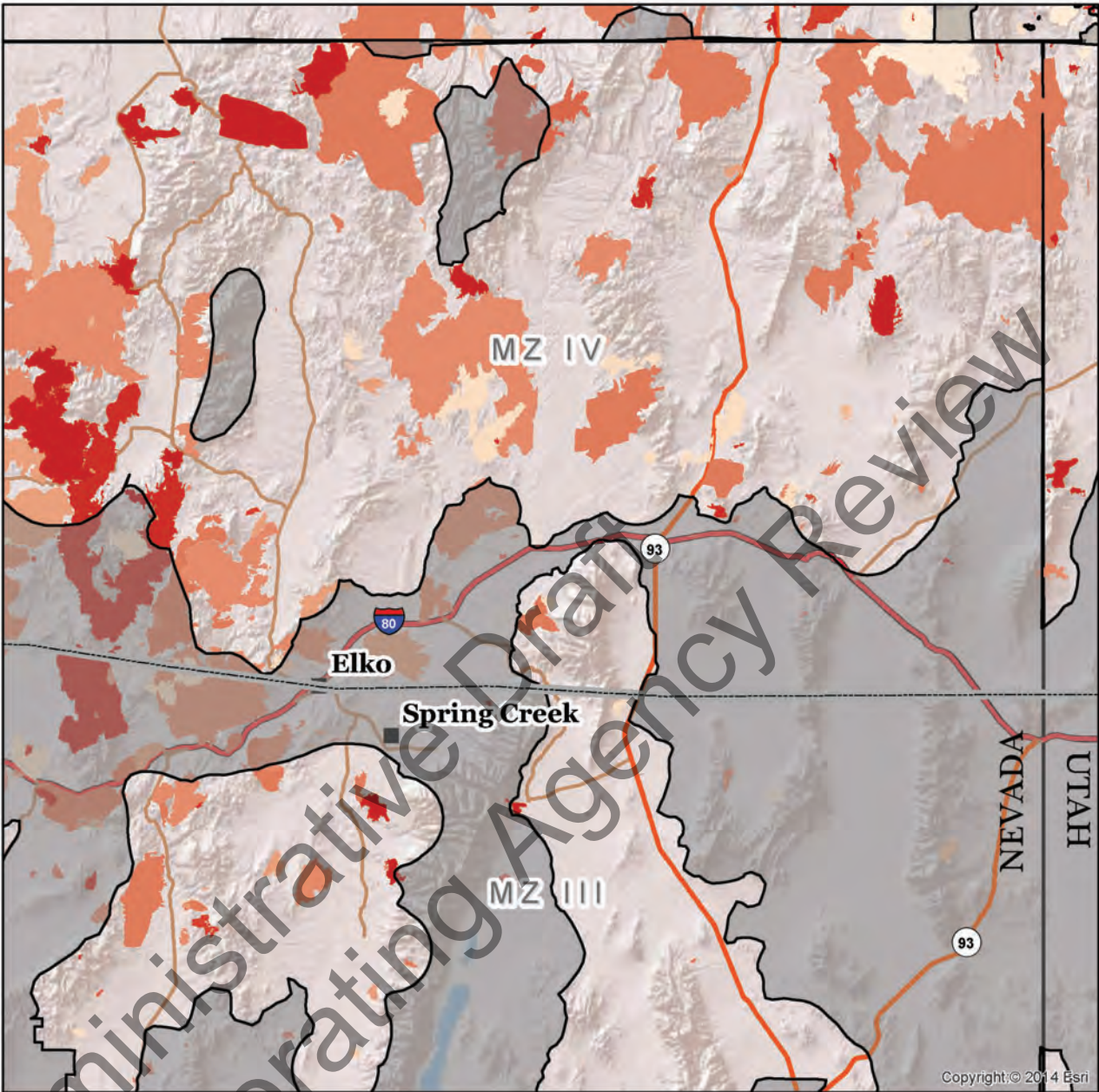
- Sage-grouse Management Zone (MZ)
- Priority Areas for Conservation (PACs)
- Area outside of PACs

0 100 200 400 Kilometers

**Fire Perimeter Burn Year**

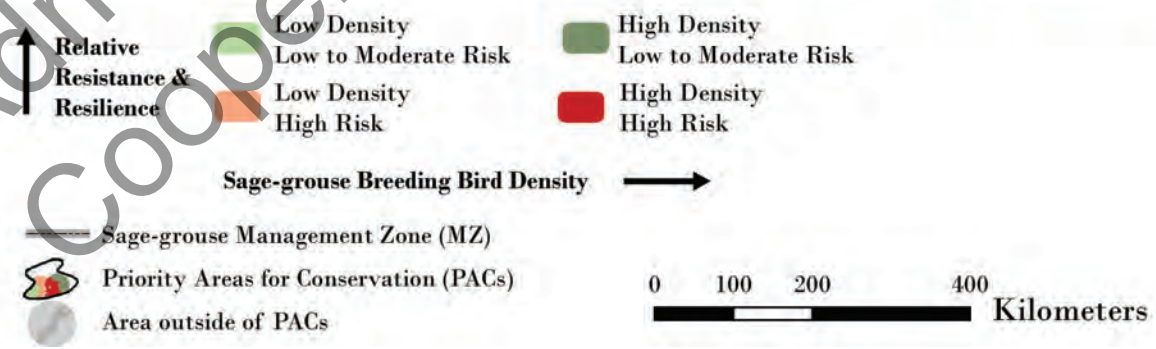
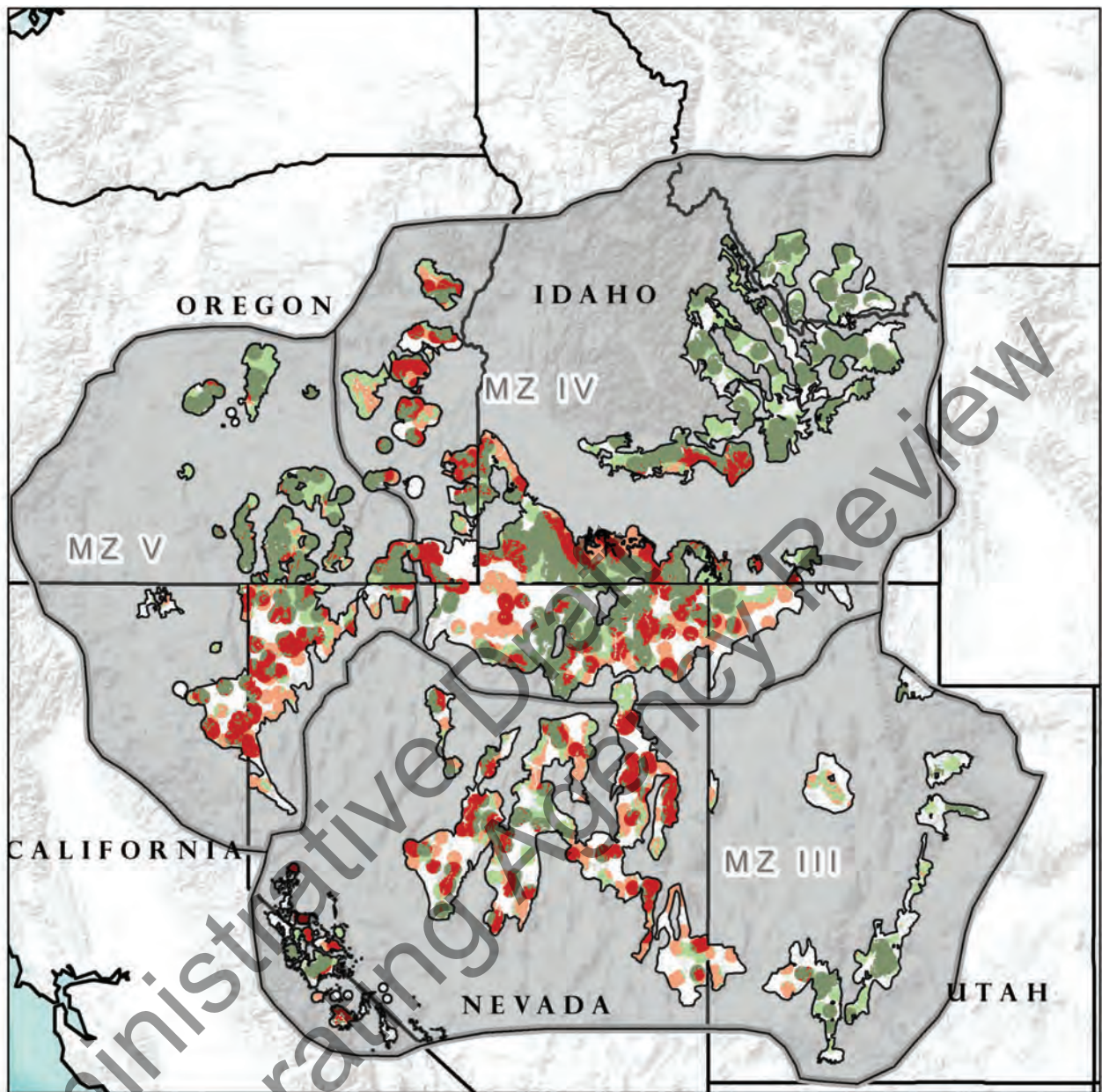
2000	2005	2010
2001	2006	2011
2002	2007	2012
2003	2008	2013
2004	2009	

**Figure 24.** Fire perimeters (Walters et al. 2011; Butler and Bailey 2013) within sage-grouse Management Zones III, IV, and V (Stiver et al. 2006). Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).

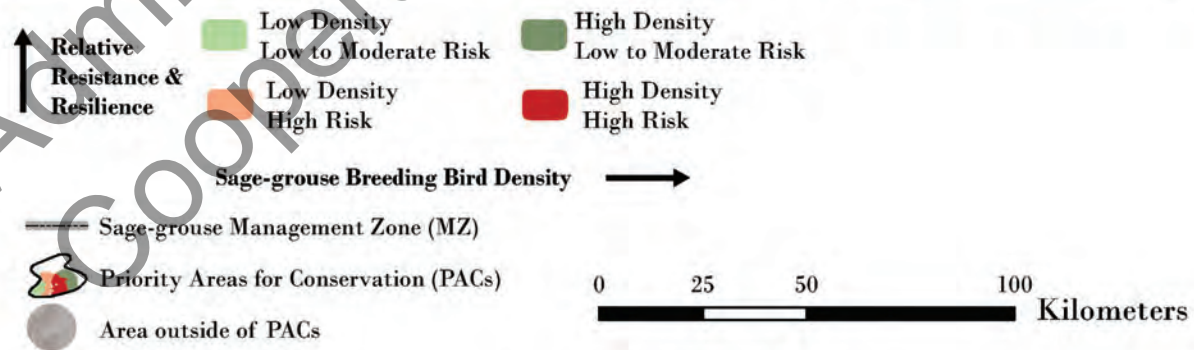
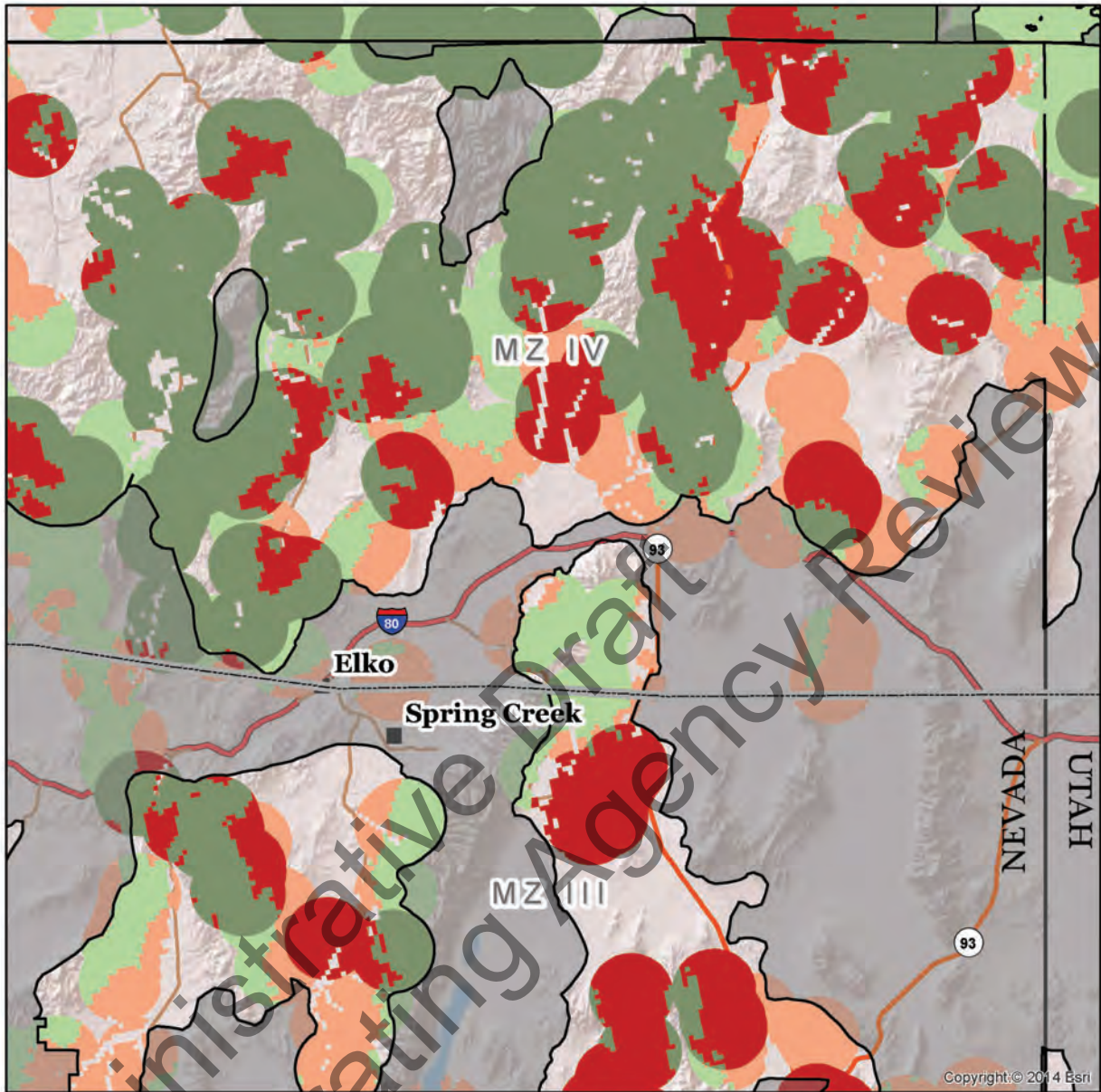


**Figure 25.** Fire perimeters (Walters et al. 2011; Butler and Bailey 2013) within the northeast corner of Nevada. Lighter colored polygons delineate Priority Areas for Conservation (USFWS 2013).

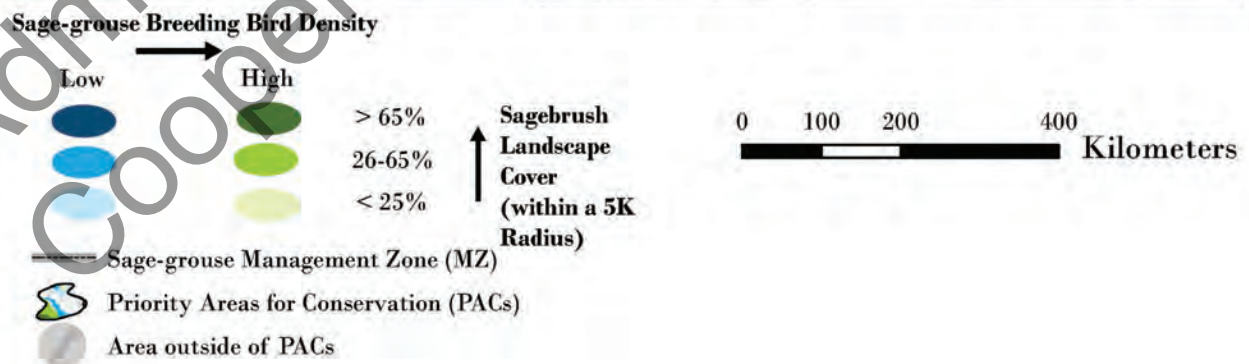
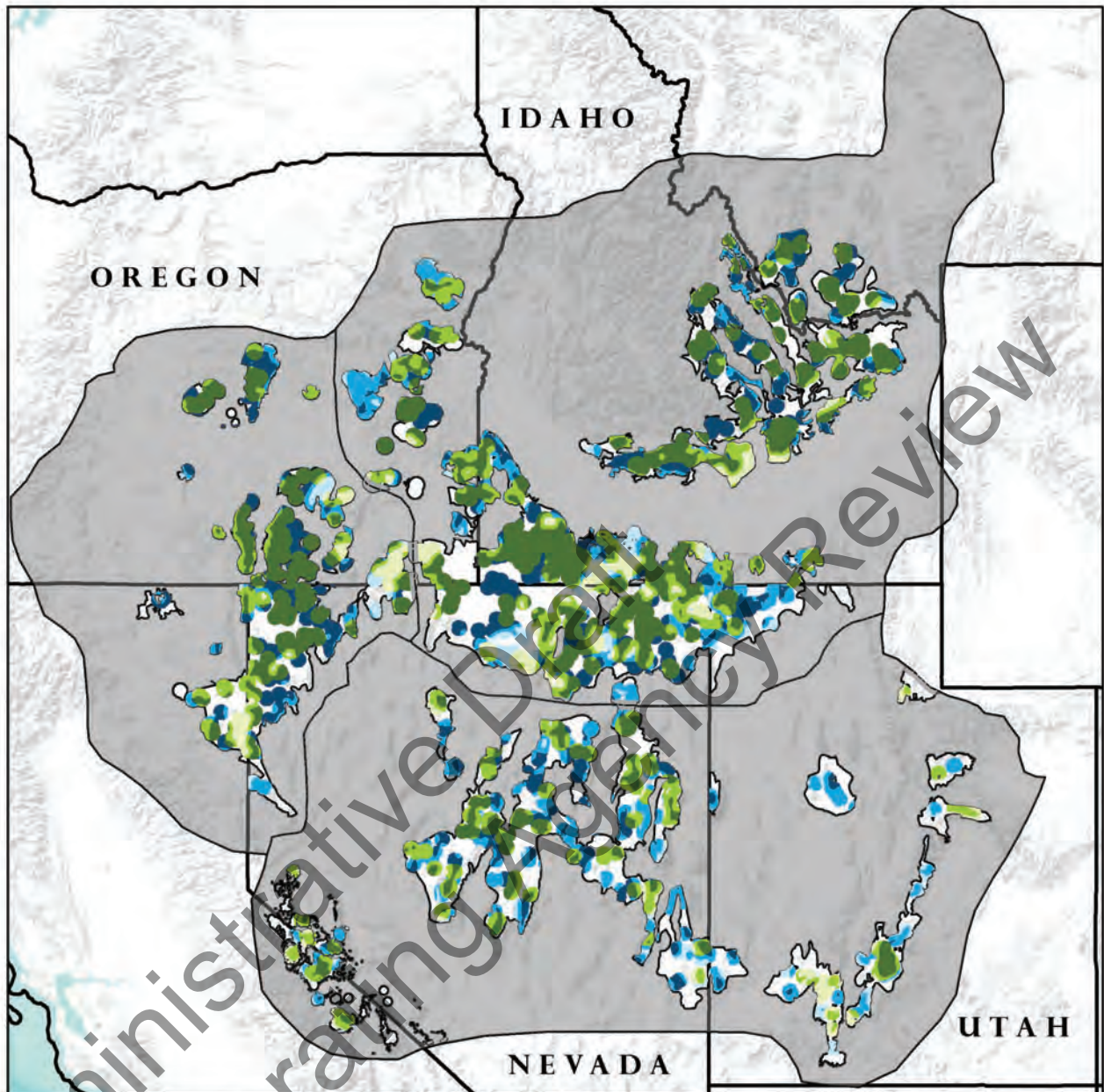




**Figure 26.** Sage-grouse breeding bird densities (Doherty et al. 2010) for high breeding bird densities (areas that contain 75% of known breeding bird populations) and low breeding bird densities (areas that contain all remaining breeding bird populations) relative to resilience and resistance within sage-grouse Management Zones III, IV, and V (Stiver et al. 2006). Relative resilience and resistance groups are derived from soil moisture and temperature classes (Soil Survey Staff 2014a, b) as described in text, and indicate risk of invasive annual grasses and wildfire. Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



**Figure 27.** Sage-grouse breeding bird densities (Doherty et al. 2010) for high breeding bird densities (areas that contain 75% of known breeding bird populations) and low breeding bird densities (areas that contain all remaining breeding bird populations) relative to resilience and resistance in the northeast corner of Nevada. Relative resilience and resistance groups are derived from soil moisture and temperature classes (Soil Survey Staff 2014a, b) as described in text, and indicate risk of invasive annual grasses and wildfire. Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).



**Figure 28.** Sage-grouse breeding bird densities (Doherty et al. 2010) for high breeding bird densities (areas that contain 75% of known breeding bird populations) and low breeding bird densities (areas that contain all remaining breeding bird populations) relative to sagebrush cover. Lighter colored polygons within Management Zones delineate Priority Areas for Conservation (USFWS 2013).

Resilience and resistance and sagebrush cover combined with bird population density data provide land managers a way to evaluate trade-offs of particular management options at the landscape scale. For example, high density, low resilience and resistance landscapes with >65% sagebrush landscape cover may require immediate attention for conservation efforts because they currently support a high concentration of birds but have the lowest potential to recover to desired conditions post-fire and to resist invasive plants when disturbed. Similarly, high density but moderate-to-high resilience and resistance landscapes with 26-65% sagebrush cover may be priorities for preventative actions like conifer removal designed to increase the proportion of sagebrush cover and maintain ecosystem resilience and resistance. Mapping relative resilience and resistance and landscape cover of sagebrush for sage-grouse breeding areas should be viewed as a component of the assessment process that can help local managers allocate resources to accelerate planning and implementation.

## Interpretations at the Management Zone (MZ) Scale: Western Portion of the Range

An examination of land cover and additional data layers for the western portion of the range reveals large differences among Management Zones (MZs) III, IV and V. MZs IV and V have larger areas with sagebrush cover >65% than MZ III (fig. 16). This may be partly explained by basin and range topography in MZ III, which is characterized by large differences in both environmental conditions and ecological types over relatively short distances. However, the cover of piñon and juniper in and adjacent to PACs in MZ III also is higher than in either MZ IV or V (fig. 22). The greater cover of piñon and juniper in MZ III appears to largely explain the smaller patches of sagebrush cover in the 26-65% and >65% categories.

Our capacity to quantify understory vegetation cover using remotely sensed data is currently limiting, but a visual examination of estimates for invasive annual grass (fig. 20; Peterson 2006, 2007) suggests a higher index (greater cover) in areas with relatively low resistance (warm soil temperatures) in all MZs (see fig. 18). This is consistent with current understanding of resistance to cheatgrass (Chambers et al. 2014; Chambers et al. *in press*). It is noteworthy that the invasive annual grass index is low for most of the central basin and range (central Nevada). Several factors may be contributing to the low index for this area including climate, the stage of piñon and juniper expansion and linked decrease in fire frequency, the relative lack of human development, and the relative lack of management treatments in recent decades (Wisdom et al. 2005; Miller et al. 2011). Not surprisingly, areas with a high annual grass index are outside or on the periphery of current PACs. However, it is likely that invasive annual grasses are present on many warmer sites and that they may increase following fire or other disturbances. In areas with low resistance to invasive annual grasses, they often exist in the understory of sagebrush ecosystems and are not detected by remote sensing platforms such as Landsat.

The number of hectares burned has been highest in MZ IV, adjacent areas in MZ V, and in areas with relatively low resilience and resistance in the northern portion of MZ III that have a high invasive annual grass index (figs. 18, 20, 24). A total of over 1.1 million hectares (2.7 million acres) burned in 2000 and 2006, while over 1.7 million hectares (4.2 million acres) burned in 2007 and 2012 and almost three quarters of these acres were in MZ IV (table 5). In some cases, these fires appear to be linked to the annual invasive grass index, but in others it clearly is not. At this point, there appears to be little relationship between cover of piñon and juniper and wildfire. Mega-fires comprised of hundreds of thousands of acres have burned in recent years, especially in MZ IV. These fires have occurred primarily in areas with low to moderate resilience and resistance and during periods with extreme burning conditions.

**Table 5.** The number of hectares (acres) burned in Management Zones III, IV, and V each year from 2000 to 2013.

Year	Management Zone III		Management Zone IV		Management Zone V		Total	
2000	155,159	(383,405)	868,118	(2,145,165)	88,871	(219,606)	1,112,148	(2,748,176)
2001	164,436	(406,330)	272,870	(674,276)	141,454	(349,541)	578,760	(1,430,147)
2002	85,969	(212,433)	100,308	(247,867)	113,555	(280,601)	299,833	(740,902)
2003	21,869	(54,038)	127,028	(313,892)	27,597	(68,192)	176,493	(436,123)
2004	20,477	(50,600)	11,344	(28,032)	13,037	(32,216)	44,858	(110,847)
2005	45,130	(111,520)	374,894	(926,382)	22,039	(54,458)	442,063	(1,092,360)
2006	198,762	(491,150)	860,368	(2,126,014)	117,452	(290,230)	1,176,582	(2,907,394)
2007	371,154	(917,140)	1,240,303	(3,064,853)	134,520	(332,406)	1,745,977	(4,314,399)
2008	14,015	(34,632)	109,151	(269,717)	43,949	(108,599)	167,115	(412,949)
2009	43,399	(107,242)	12,250	(30,271)	47,918	(118,408)	103,568	(255,921)
2010	31,597	(78,078)	280,662	(693,531)	21,940	(54,216)	334,200	(825,825)
2011	83,411	(206,114)	283,675	(700,977)	22,909	(56,608)	389,995	(963,699)
2012	203,680	(503,303)	946,514	(2,338,885)	574,308	(1,419,144)	1,724,501	(4,261,331)
2013	45,976	(113,610)	368,434	(910,419)	15,852	(39,170)	430,262	(1,063,199)
<b>Total</b>	<b>1,485,034</b>	<b>(3,669,595)</b>	<b>5,855,920</b>	<b>(14,470,281)</b>	<b>1,385,400</b>	<b>(3,423,396)</b>	<b>8,726,354</b>	<b>(21,563,271)</b>

Coupling breeding bird densities with landscape cover of sagebrush indicates that populations with low densities tend to occur in areas where sagebrush cover is in the 26-65% category, and few populations occur in areas with <25% sagebrush cover (fig. 27) (Knick et al. 2013). Combining the breeding bird densities with resilience and resistance indicates significant variability in risks among high density populations within PACs (fig. 26). A large proportion of remaining high density centers within PACs occurs on moderate-to-high resilience and resistance habitats, while low density/low resilience and resistance areas tend to occur along the periphery of PACs or are disproportionately located in MZ III and southern parts of MZ V.

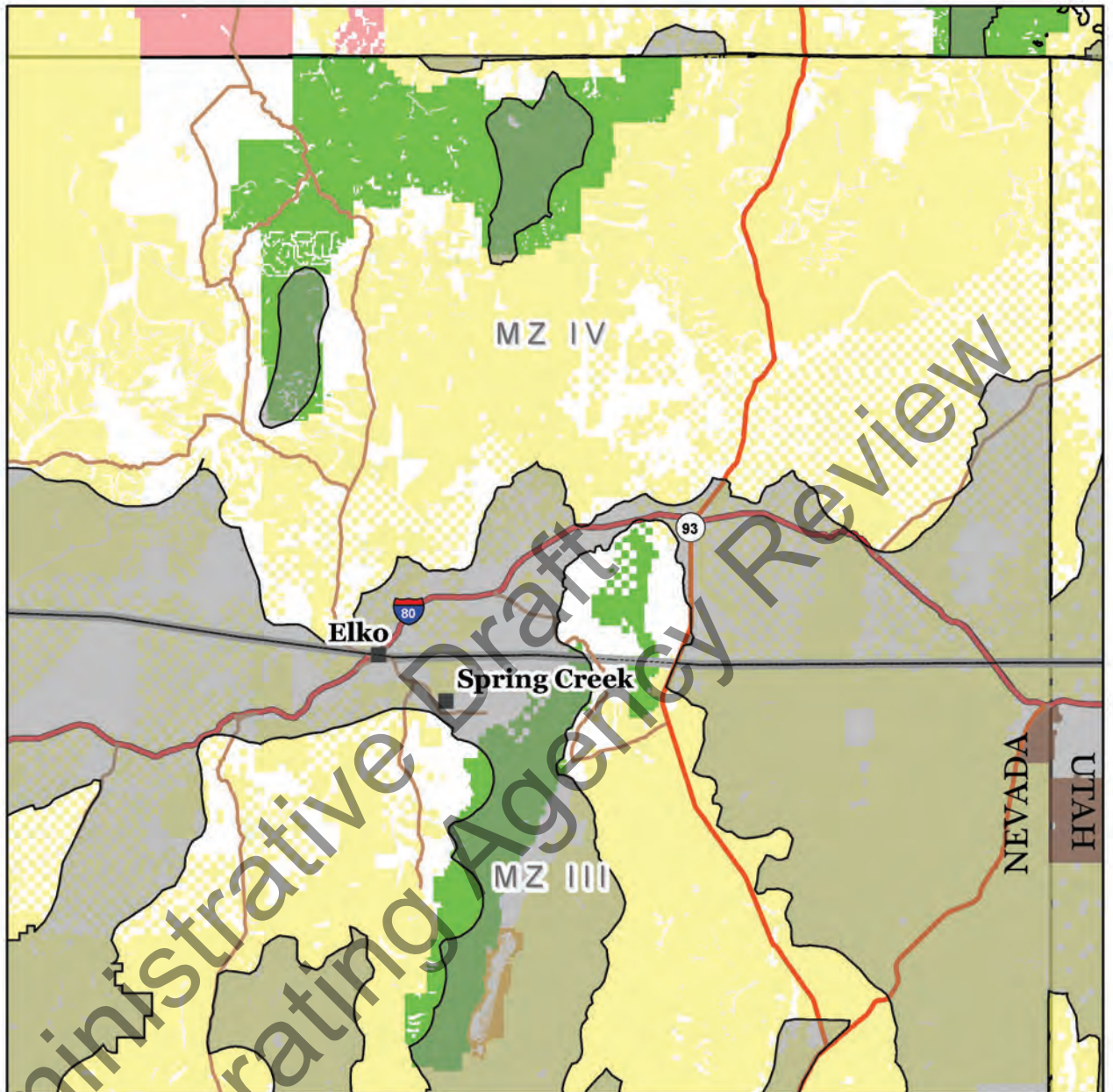
Examination of other data layers suggests that different wildfire and invasive species threats exist across the western portion of the range, and that management should target the primary threats to sage-grouse habitat within focal areas. In MZs IV and V invasive annual grasses—especially on the periphery of the PACs—and wildfire are key threats. However, recent wildfires are not necessarily linked to invasive annual grasses. This suggests that management strategies for these MZs emphasize fire operations, fuels management focused on decreasing fire spread, and integrated strategies to control annual grasses and increase post-fire rehabilitation and restoration success. Differences in piñon and/or juniper landscape cover exist among MZs with 5,131,900 ha (12,681,202 ac) in MZ III, 528,377ha (1,305,649 ac) in MZ IV, and 558,880 ha (1,381,024 ac) in MZ V. Portions of MZs IV and V are still largely in early stages of juniper expansion indicating a need to address this threat before woodland succession progresses. Because of generally low resilience and resistance in MZ III, greater emphasis is needed on habitat conservation, specifically minimizing or eliminating stressors. Also, greater emphasis on reducing cover of piñon and juniper is needed to reduce woody fuels and increase sagebrush ecosystem resilience to fire by increasing the recovery potential of native understory species.

## Interpretations at Regional and Local Land Management Scales: Northeast Nevada Example

The same land covers and data layers used to assess focal areas for sage-grouse habitat within MZs in the western portion of the species range can be used to evaluate focal areas for management in regional planning areas and land management planning units. The emphasis at the scale of the land planning area or management planning unit is on maintaining or increasing large contiguous areas of sagebrush habitat with covers in the 26-65% and especially >65% category. Resilience to disturbance and resistance to invasive annual grasses as indicated by soil temperature and moisture regimes is used to determine the most appropriate activities within the different cover categories. The sage-grouse habitat matrix in table 2 describes the capacity of areas with differing resilience and resistance to recover following disturbance and resist annual invasive grasses and provides the management implications for each of the different cover categories. Table 4 provides potential management strategies for the different sagebrush cover and resilience and resistance categories (cells) in the sage-grouse habitat matrix by agency program areas (fire operations, fuels management, post-fire rehabilitation, habitat restoration). Note that the guidelines in table 4 are related to the sage-grouse habitat matrix, and do not preclude other factors from consideration when determining management priorities for program areas.

Here, we provide an example of how to apply the concepts and tools discussed in this report by examining an important region identified in the MZ scale assessment. The northeastern corner of Nevada was selected to illustrate the diversity of sage-grouse habitat within planning areas and the need for proactive collaboration both within agencies and across jurisdictional boundaries in devising appropriate management strategies (figs. 17, 19, 21, 23, 25). This part of Nevada has large areas of invasive annual grasses and areas with piñon and juniper expansion, and it has experienced multiple large fires in the last decade. It includes a BLM Field Office, Forest Service (FS) land, State land, multiple private owners, and borders two States (fig. 29), which results in both complex ownership and natural complexity.

In the northeast corner of Nevada, an area 5,403,877 ha (13,353,271 ac) in size, numerous large fires have burned in and around PACs (fig. 25). Since 2000, a total of 1,144,317 ha (2,827,669 ac) have burned with the largest fires occurring in 2000, 2006, and 2007. This suggests that the primary management emphasis be on retaining existing areas of sagebrush in the 26-65% and especially >65% categories and promoting recovery of former sagebrush areas that have burned. Fire suppression in and around large, contiguous areas of sagebrush and also in and around successful habitat restoration or post-fire rehabilitation treatments is a first order priority. Fuels management also is a high priority and is focused on strategic placement of fuel breaks to reduce loss of large sagebrush stands by wildfire without jeopardizing existing habitat quality. Also, in the eastern portion of the area, piñon and juniper land cover comprises 471,645 ha (1,165,459 ac) (fig. 23). In this area, management priorities include (1) targeted tree removal in early to mid-phase (Phase I and II), post-settlement piñon and juniper expansion areas to maintain shrub/herbaceous cover and reduce fuel loads, and (2) targeted tree removal in later phase (Phase III) post-settlement piñon and juniper areas to reduce risk of high severity fire. In areas with moderate to high resilience and resistance, post-fire rehabilitation focuses on accelerating sagebrush establishment and recovery of perennial native herbaceous species. These areas often are capable of unassisted recovery and seeding is likely needed only in areas where perennial native herbaceous species have been depleted (Miller et al. 2013). Seeding introduced species can retard recovery of native perennial grasses and forbs that are important to sage-grouse and should be avoided in these areas (Knutson et al. 2014). Seeding or transplanting of sagebrush may be needed to accelerate establishment in focal areas.



- Sage-grouse Management Zone (MZ)
- Priority Areas for Conservation (PACs)
- Area outside of PACs

0 25 50 100 Kilometers

**Land Owner**

- Private
- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- Department of Defense (DOD) and Department of Energy (DOE)
- Fish and Wildlife Service (FWS)
- Forest Service (USFS)

**Figure 29.** Land ownership for the northeast corner of Nevada. Lighter colored polygons delineate Priority Areas for Conservation (USFWS 2013).

In areas with lower resilience and resistance and high breeding bird densities, large, contiguous areas of sagebrush with intact understories are a high priority for conservation (figs. 17, 19, 27). In these areas, emphasis is on maintaining or increasing habitat conditions by minimizing stressors and disturbance. Post-fire rehabilitation and restoration activities focus on areas that increase connectivity among existing large areas of sagebrush. Because of low and variable precipitation, more than one intervention may be required to achieve restoration or rehabilitation goals. Appropriately managing livestock, wild horse and burro use (if applicable), and recreational use in focal areas is especially important to promote native perennial grass and forb growth and reproduction and to maintain or enhance resilience and resistance.

## Determining the Most Appropriate Management Treatments at the Project Scale

Once focal areas and management priorities have been determined, potential treatment areas can be assessed to determine treatment feasibility and appropriate treatment methods. Different treatment options exist (figs. 30, 31) that differ in both suitability for a focal area and likely effectiveness. Field guides for sagebrush ecosystems and piñon and juniper expansion areas that incorporate resilience and resistance concepts are being developed to help guide managers through the process of determining both the suitability of an area for treatment and the most appropriate treatment. These guides are aligned with the different program areas and emphasize (1) fuel treatments (Miller et al. 2014a), (2) post-fire rehabilitation (Miller et al. 2014b), and (3) restoration (Pyke et al., in preparation). Additional information on implementing these types of management treatments is synthesized in Monsen et al. (2004) and Pyke (2011); additional information on treatment response is synthesized in Miller et al. (2013). In this section, we summarize the major steps in the process for determining the suitability of an area for treatment and the most appropriate treatment. We then provide an overview of two of the primary tools in the assessment process – ecological site descriptions (ESDs) and state and transition models (STMs). We conclude with a discussion of the importance of monitoring and adaptive management.

**Steps in the process:** Logical steps in the process of determining the suitability of an area for treatment and the most appropriate treatment(s) include (1) assessing the potential treatment area and identifying ecological sites, (2) determining the current successional state of the site, (3) selecting the appropriate action(s), and (4) monitoring and evaluation to determine post-treatment management. A general approach that uses questions to identify the information required in each step was developed (table 6). These questions can be modified to include the specific information needed for each program area and for treating different ecological sites. This format is used in the field guides described above.





**Figure 30.** Common vegetation treatments for sagebrush dominated ecosystems with relatively low resilience and resistance include seeding after wildfire in areas that lack sufficient native perennial grasses and forbs for recovery (top) (photo by Chad Boyd), and mowing sagebrush to reinvigorate native perennial grasses and forbs in the understory (bottom) (photo by Scott Schaff). Success of mowing treatments depends on having adequate perennial grasses and forbs on the site to resist invasive annual grasses and to promote recovery.



**Figure 31.** Vegetation treatments for sagebrush ecosystems exhibiting piñon and juniper expansion include cutting the trees with chainsaws and leaving them in place (top) (photo by Jeremy Roberts) and shredding them with a “bullhog” (middle) (photo by Bruce A. Roundy) on sites with relatively warm soils and moderately low resistance to cheatgrass. Prescribed fire (bottom) (photo by Jeanne C. Chambers) can be a viable treatment on sites with relatively cool and moist soils that have higher resilience to disturbance and resistance to invasive annual grasses. Treatment success depends on having adequate perennial grasses and forbs on the site to resist invasive annual grasses and promote recovery and will be highest on sites with relatively low densities of trees (Phase I to Phase II woodlands).

**Table 6.** General guidelines for conducting fuels management, fire rehabilitation, and restoration treatments (modified from Miller et al. 2007; Tausch et al. 2009; Pyke 2011; Chambers et al. 2013).

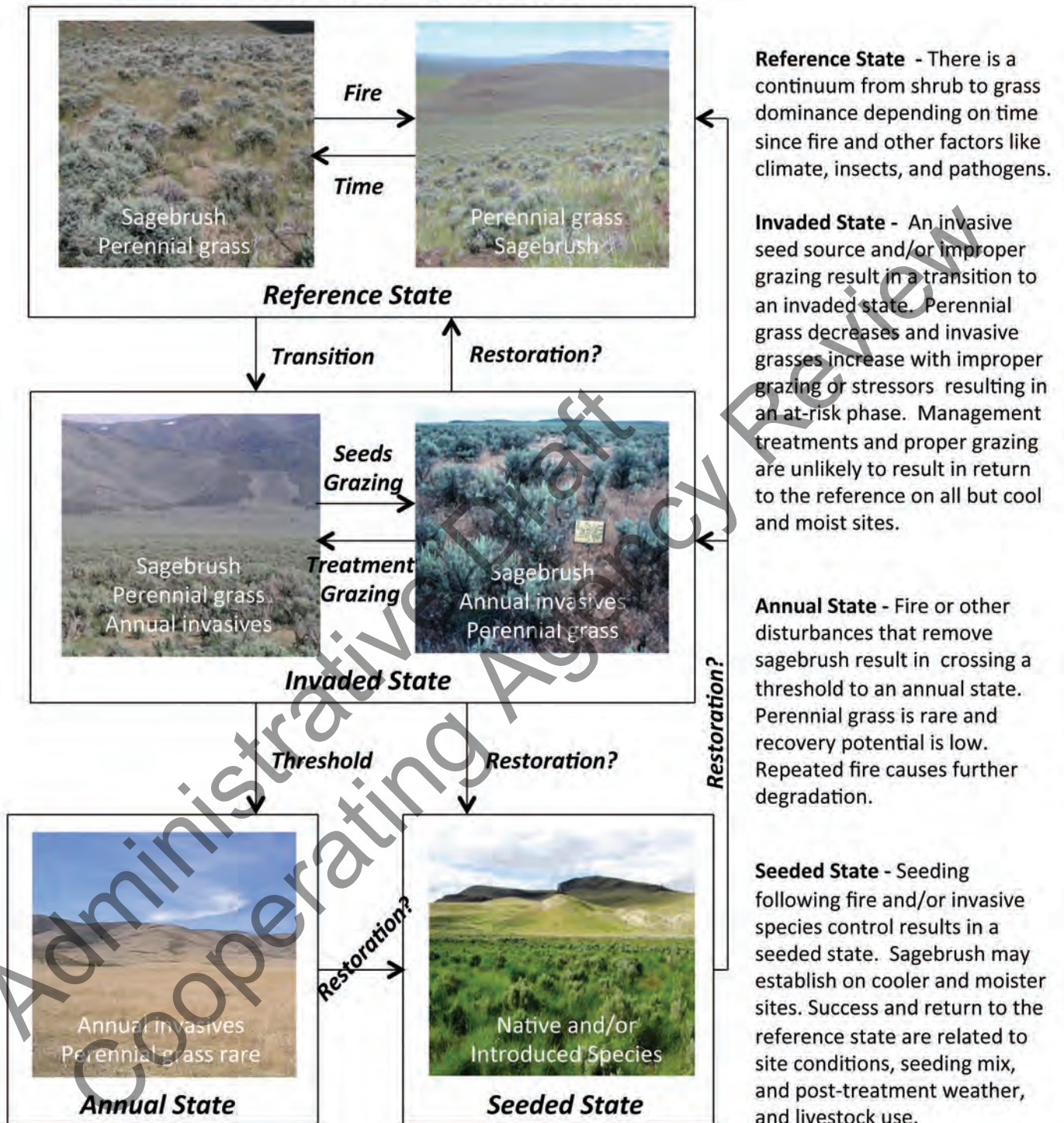
Steps in the process	Questions and considerations
I. Assess potential treatment area and identify ecological sites	<ol style="list-style-type: none"> <li>1. Where are priority areas for fuels management, fire rehabilitation or restoration within the focal area? Consider sage-grouse habitat needs and resilience and resistance.</li> <li>2. What are the topographic characteristics and soils of the area? Verify soils mapped to the location and determine soil temperature/moisture regimes. Collect information on soil texture, depth and basic chemistry for restoration projects.</li> <li>3. How will topographic characteristics and soils affect vegetation recovery, plant establishment and erosion? Evaluate erosion risk based on topography and soil characteristics.</li> <li>4. What are the potential native plant communities for the area? Match soil components to their correlated ESDs. This provides a list of potential species for the site(s).</li> </ol>
II. Determine current state of the site	<ol style="list-style-type: none"> <li>5. Is the area still within the reference state for the ecological site(s)?</li> </ol>
III. Select appropriate action	<ol style="list-style-type: none"> <li>6. How far do sites deviate from the reference state? How will treatment success be measured?</li> <li>7. Do sufficient perennial shrubs and perennial grasses and forbs exist to facilitate recovery?</li> <li>8. Are invasive species a minor component?</li> <li>9. Do invasive species dominate the sites while native life forms are missing or severely under represented? If so, active restoration is required to restore habitat.</li> <li>10. Are species from drier or warmer ecological sites present? Restoration with species from the drier or warmer sites should be considered.</li> <li>11. Have soils or other aspects of the physical environment been altered? Sites may have crossed a threshold and represent a new ecological site type requiring new site-specific treatment/restoration approaches.</li> </ol>
IV. Determine post-treatment management	<ol style="list-style-type: none"> <li>12. How long should the sites be protected before land uses begin? In general, sites with lower resilience and resistance should be protected for longer periods.</li> <li>13. How will monitoring be performed? Treatment effectiveness monitoring includes a complete set of measurements, analyses, and a report.</li> <li>14. Are adjustments to the approach needed? Adaptive management is applied to future projects based on consistent findings from multiple locations.</li> </ol>

**Ecological site descriptions:** ESDs and their associated STMs provide essential information for determining treatment feasibility and type of treatment. ESDs are part of a land classification system that describes the potential of a set of climate, topographic, and soil characteristics and natural disturbances to support a dynamic set of plant communities (Bestmeyer et al. 2009; Stringham et al. 2003). NRCS soil survey data (<http://soils.usda.gov/survey/>), including soil temperature/moisture regimes and other soil characteristics, are integral to ESD development. ESDs have been developed by the NRCS and their partners to assist land management agencies and private land owners with making resource decisions, and are widely available for the Sage-grouse MZs except where soil surveys have not been completed (for a detailed description of ESDs and access to available ESDs see: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/ecoscience/desc/>). ESDs assist managers to step-down generalized vegetation dynamics, including the concepts of resilience and resistance, to local scales. For example, variability in soil characteristics and the local environment (e.g., average annual precipitation as indicated by soil moisture regime) can strongly influence both plant community resilience to fire as well as the resistance of a plant community to invasive annual grasses after fire (table 1). Within a particular ESD, there is a similar level of resilience to disturbance and resistance to invasive annuals and this information can be used to determine the most appropriate management actions.

**State and transition models:** STMs are a central component of ecological site descriptions that are widely used by managers to illustrate changes in plant communities and associated soil properties, causes of change, and effects of management interventions (Stringham et al. 2003; Briske et al. 2005; USDA NRCS 2007) including in sagebrush ecosystems (Forbis et al. 2006; Barbour et al. 2007; Boyd and Svejcar 2009; Holmes and Miller 2010; Chambers et al. *in press*). These models use *state* (a relatively stable set of plant communities that are resilient to disturbance) and *transition* (the drivers of change among alternative states) to describe the range in composition and function of plant communities within ESDs (Stringham and others 2003; see Appendix 1 for definitions). The reference state is based on the natural range of conditions associated with natural disturbance regimes and often includes several plant communities (*phases*) that differ in dominant plant species relative to type and time since disturbance (Caudle et al. 2013). Alternative states describe new sets of communities that result from factors such as inappropriate livestock use, invasion by annual grasses, or changes in fire regimes. Changes or transitions among states often are characterized by *thresholds* that may persist over time without active intervention, potentially causing irreversible changes in community composition, structure, and function. *Restoration pathways* are used to identify the environmental conditions and management actions required for return to a previous state. Detailed STMs that follow current interagency guidelines (Caudle et al. 2013), are aligned with the ecological types (table 1), and are generally applicable to MZs III (Southern Great Basin), IV (Snake River Plains), V (Northern Great Basin), and VI (Columbia Basin) are provided in Appendix 5.

A generalized STM to illustrate the use of STMs is shown in figure 32 for the warm and dry Wyoming big sagebrush ecological type. This ecological type occurs at relatively low elevations in the western part of the range and has low to moderate resilience to disturbance and management treatments and low resistance to invasion (table 1). This type is abundant in the western portion of the range, but as the STM suggests, it is highly susceptible to conversion to invasive annual grass and repeated fire and is difficult to restore. Intact sagebrush areas remaining in the reference state within this ecological type are a high priority for conservation. Invaded states or locations with intact sagebrush that lack adequate native perennial understory are a high priority for restoration where they bridge large, contiguous areas of sagebrush. However, practical methods to accomplish this are largely experimental and/or costly and further development, including adaptive science and management, is needed.

## State and Transition Model Warm and Dry Wyoming Big Sagebrush



**Figure 32.** A state and transition model that illustrates vegetation dynamics and restoration pathways for the warm and dry, Wyoming big sagebrush ecological type. This ecological type occurs at relatively low elevations in the western part of the range and has low to moderate resilience to disturbance and management treatments and low resistance to invasion.

**Monitoring and adaptive management:** Monitoring programs designed to track ecosystem changes in response to both stressors and management actions can be used to increase understanding of ecosystem resilience and resistance, realign management approaches and treatments, and implement adaptive management (Reever-Morghan et al. 2006; Herrick et al. 2012). Information is increasing on likely changes in sagebrush ecosystems with additional stress and climate warming, but a large degree of uncertainty still exists. Currently, the NRCS National Resource Inventory is being used on private lands and is being implemented on public lands managed by BLM to monitor trends in vegetation attributes and land health at the landscape scale under the AIM (Assessment Inventory and Monitoring) strategy. Strategic placement of monitoring sites and repeated measurements of ecosystem status and trends (e.g., land cover type, ground cover, vegetation cover and height of native and invasive species, phase of tree expansion, soil and site stability, oddities) can be used to decrease uncertainty and increase effectiveness of management decisions. Ideally, monitoring sites span environmental/productivity gradients and sagebrush ecological types that characterize sage-grouse habitat. Of particular importance are (1) ecotones between ecological types where changes in response to climate are expected to be largest (Loehle 2000; Stohlgren et al. 2000), (2) ecological types with climatic conditions and soils that are exhibiting invasion and repeated fires, and (3) ecological types with climatic conditions and soils that are exhibiting tree expansion and increased fire risk. Monitoring the response of sagebrush ecosystems to management treatments, including both pre- and post-treatment data, is a first order priority because it provides information on treatment effectiveness that can be used to adjust methodologies.

Monitoring activities are most beneficial when consistent approaches are used among and within agencies to collect, analyze, and report monitoring data. Currently, effectiveness monitoring databases that are used by multiple agencies do not exist. However, several databases have been developed for tracking fire-related and invasive-species management activities. The National Fire Plan Operations and Reporting System (NF-PORS) is an interdepartmental and interagency database that accounts for hazardous fuel reduction, burned area rehabilitation and community assistance activities. To our knowledge, NF-PORS is not capable of storing and retrieving the type of effectiveness monitoring information that is needed for adaptive management. The FEAT FIREMON Integrated (FFI; <https://www.frames.gov/partner-sites/ffi/ffi-home/>) is a monitoring software tool designed to assist managers with collection, storage and analysis of ecological information. It was constructed through a complementary integration of the Fire Ecology Assessment Tool (FEAT) and FIREMON. This tool allows the user to select among multiple techniques for effectiveness monitoring. If effectiveness monitoring techniques were agreed on by the agencies, FFI does provide databases with standard structures that could be used in inter-agency effectiveness monitoring. Also, the National Invasive Species Information Management System (NISIMS) is designed to reduce redundant data entry regarding invasive species inventory, management and effectiveness monitoring with the goal of providing information that can be used to determine effective treatments for invasive species. However, NISIMS is currently available only within the BLM.

Common databases can be used by agency partners to record and share monitoring data. The Land Treatment Digital Library (LTDL [USGS 2010]) provides a method of archiving and collecting common information for land treatments and might be used as a framework for data storage and retrieval. Provided databases are relational (maintain a common field for connecting them), creating single corporate databases is not necessary. However, barriers that hinder database access within and among agencies and governmental departments may need to be lowered while still maintaining adequate data security. The LTDL has demonstrated how

this can work by accessing a variety of databases to populate useful information relating to land treatments.

For effectiveness of treatments to be easily useable for adaptive management, the agencies involved will need to agree on monitoring methods and a common data storage and retrieval system. Once data can be retrieved, similar treatment projects can be evaluated to determine how well they achieve objectives for sage-grouse habitat, such as the criteria outlined in documents like the Habitat Assessment Framework (Stiver et al. 2006). Results of monitoring activities on treatment effectiveness are most useful when shared across jurisdictional boundaries, and several mechanisms are currently in place to improve information sharing (e.g., the Great Basin Fire Science Delivery Project; [www.gbfiresci.org](http://www.gbfiresci.org)).

## References

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- Abatzoglou, J. T.; Kolden, C. A. 2011. Climate change in western US deserts: potential for increased wildfire and invasive annual grasses. *Rangeland Ecology and Management* 64:471-478.
- Aldridge, C. L.; Nielsen, S. E.; Beyer, H. L.; Boyce, M. S.; Connelly, J. W.; Knick, S. T.; Schroeder, M. A. 2008. Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions* 14:983-994.
- Alexander, E. B.; Mallory, J. I.; Colwell, W. L. 1993. Soil-elevation relationships on a volcanic plateau in the southern Cascade Range, northern California, USA. *Catena* 20:113-128.
- Allen, C. R.; Gunderson, L.; Johnson, A. R. 2005. The use of discontinuities and functional groups to assess relative resilience in complex systems. *Ecosystems* 8:958-966.
- Arredondo, J. T.; Jones, T.A.; Johnson, D. A. 1998. Seedling growth of Intermountain perennial and weedy annual grasses. *Journal of Range Management* 51:584-589.
- Atamian, M.T.; Sedinger, J.S.; Heaton, J.S.; Blomberg, E.J. 2010. Landscape-level assessment of brood rearing habitat for greater sage-grouse in Nevada. *Journal of Wildlife Management* 74: 1533-1543.
- Balch, J. K.; Bradley, B. A.; D'Antonio, C. M.; Gomez-Dans, J. 2013. Introduced annual grass increases regional fire activity across the arid western USA (1980-2009). *Global Change Biology* 19:173-183.
- Barbour, R. J.; Hemstrom, M. A.; Hayes, J. L. 2007. The Interior Northwest Landscape Analysis System: a step toward understanding integrated landscape analysis. *Landscape and Urban Planning* 80:333-344.
- Baruch-Mordo, S.; Evans, J. S.; Severson, J. P.; Naugle, D.E.; Maestas, J. D.; Kiesecker, J. M.; Falkowski, M. J.; Christian A. Hagen, C. A.; Reese, K. P. 2013. Saving sage-grouse from the trees: A proactive solution to reducing a key threat to a candidate species. *Biological Conservation* 167:233-241.
- Bates, J.D.; Sharp, R.N.; Davies, K.W. 2013. Sagebrush steppe recovery after fire varies by development phase of *Juniperus occidentalis* woodland. *International Journal of Wildland Fire* 23:117-130.
- Beck, J. L.; Mitchell, D.L. 2000. Influences of livestock grazing on sage grouse habitat. *Wildlife Society Bulletin* 28:993-1002.
- Beisner B. E.; Haydon, D. T.; Cuddington, K. 2003. Alternative stable states in ecology. *Frontiers in Ecology* 1:376-382
- Bestelmeyer, B. T.; Tugel, A. J.; Peacock, G. L. J.; Robinett, D. G.; Shaver, P. L.; Brown, J. R.; Herrick, J. E.; Sanchez, H.; Havstad, K.M. 2009. State-and transition models for heterogeneous landscapes: a strategy for development and application. *Rangeland Ecology and Management* 62:1-15
- Blank R. S.; Morgan, T. 2012. Suppression of *Bromus tectorum* L. by established perennial grasses: potential mechanisms – Part One. *Applied Environmental Soil Science* 2012: Article ID 632172. 9 p. doi:10.1155/2012/632172.
- Blomberg, E. J.; Sedinger, J. S.; Atamian, M. T.; Nonne, D. V. 2012. Characteristics of climate and landscape disturbance influence the dynamics of greater sage-grouse populations. *Ecosphere* 3(6):55. Online: <http://dx.doi.org/10.1890/ES11-00304.1>.
- Booth, M. S.; Caldwell, M. M.; Stark, J. M. 2003. Overlapping resource use in three Great Basin species: implications for community invisibility and vegetation dynamics. *Journal of Ecology* 91:36-48.
- Boyd, C. S.; Svejcar, T. J. 2009. Managing complex problems in rangeland ecosystems. *Rangeland Ecology and Management* 62:491-499.
- Bradford, J. B.; Lauenroth, W. K. 2006. Controls over invasion of *Bromus tectorum*: the importance of climate, soil, disturbance and seed availability. *Journal of Vegetation Science* 17:693-704.
- Bradley B.A. 2009. Regional analysis of the impacts of climate change on cheatgrass invasion shows potential risk and opportunity. *Global Change Biology* 15:196-208 doi: 10.1111/j.1365-2486.2008.01709.x.
- Bradley, B. A.; Mustard, J. F. 2005. Identifying land cover variability distinct from land cover change: cheatgrass in the Great Basin. *Remote Sensing of Environment* 94:204-213.

- Briske, D. D.; Fuhlendorf, S. D.; Smeins, F. E. 2005. State-and-transition models, thresholds, rangeland health: a synthesis of ecological concepts and perspectives. *Rangeland Ecology and Management* 58:1-10.
- Brooks M. L.; Chambers, J. C. 2011. Resistance to invasion and resilience to fire in desert shrublands of North America. *Rangeland Ecology and Management* 64:431–438.
- Brooks, M. L.; D'Antonio, C. M.; Richardson, D. M.; Grace, J. B.; Keeley, J. E.; DiTomaso, J. M.; Hobbs, R. J.; Pellant, M.; Pyke, D. 2004. Effects of invasive alien plants on fire regimes. *BioScience* 54:677-688.
- Brown, J. K.; Smith, J. K. 2000. Wildland fire in ecosystems: Effects of fire on flora. Gen.Tech. Rep. RMRS- GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.
- Butler, B. B.; Bailey, A. 2013. Disturbance history (Historical Wildland Fires). Updated 8/9/2013. Wildland Fire Decision Support System. Online: [https://wfdss.usgs.gov/wfdss/WFDSS\\_Data\\_Downloads.shtml](https://wfdss.usgs.gov/wfdss/WFDSS_Data_Downloads.shtml). [Accessed 5 March 2014].
- Casazza, M. L.; Coates, P. S.; Overton; C. T. 2011. Linking habitat selection and brood success in Greater Sage-Grouse. In: Sandercock, B.K.; Martin, K.; Segelbacher, G., eds. *Ecology, conservation, and management of grouse. Studies in Avian Biology* 39., Berkeley, CA: University of California Press: 151-167.
- Caudle, D.; DiBenedetto, J.; Karl, M.; Sanchez, H.; Talbot, C. 2013. Interagency ecological site handbook for rangelands. Online: <http://jornada.nmsu.edu/sites/jornada.nmsu.edu/files/InteragencyEcolSiteHandbook.pdf> [Accessed 17 June 2014].
- Chambers, J. C.; Bradley, B.A.; Brown, C.A.; D'Antonio, C.; Germino, M. J.; Hardegee, S. P.; Grace, J. B.; Miller, R. F.; Pyke, D. A. 2014. Resilience to stress and disturbance, and resistance to *Bromus tectorum* L. invasion in the cold desert shrublands of western North America. *Ecosystems* 17: 360-375
- Chambers, J.C.; Miller, R. F.; Board, D. I.; Grace, J. B.; Pyke, D. A.; Roundy, B. A.; Schupp, E. W.; Tausch, R. J. [In press]. Resilience and resistance of sagebrush ecosystems: implications for state and transition models and management treatments. *Rangeland Ecology and Management*.
- Chambers, J. C.; Pendleton, B. K.; Sada, D. W.; Ostoja, S. M.; Brooks, M. L.. 2013. Maintaining and restoring sustainable ecosystems. In: Chambers, J. C., Brooks, M. L.; Pendleton, B. K.; Raish, C. B., eds. *The Southern Nevada Agency Partnership Science and Research Synthesis: Science to support land management in southern Nevada*. Gen. Tech. Rep. RMRS-GTR-303. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station:125-154.
- Chambers, J. C.; Roundy, B. A.; Blank, R. R.; Meyer, S. E.; Whittaker, A. 2007. What makes Great Basin sagebrush ecosystems invisable by *Bromus tectorum*? *Ecological Monographs* 77:117-145.
- Condon L.; Weisberg, P. L.; Chambers, J. C. 2011. Abiotic and biotic influences on *Bromus tectorum* invasion and *Artemisia tridentata* recovery after fire. *International Journal of Wildland Fire* 20:1-8.
- Connelly, J. W.; Hagen, C. A.; Schroeder, M. A. 2011a. Characteristics and dynamics of greater sage-grouse populations. In: Knick, S.T.; Connelly J.W., eds. *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology* 38. University of California Press, Berkeley, CA: 53-68.
- Connelly, J. W.; Rinkes, E. T.; Braun, C. E. 2011b. Characteristics of greater sage-grouse habitats: a landscape species at micro and macro scales. In: Knick, S.T.; Connelly, J.W., eds. *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology* 38. University of California Press, Berkeley, CA: 69-84.
- D'Antonio C. M.; Thomsen M. 2004. Ecological resistance in theory and practice. *Weed Technology* 18:1572-1577.
- D'Antonio C. M.; Vitousek, P. M. 1992. Biological invasions by exotic grasses, the grass/fire cycle, and global change. *Annual Review of Ecology and Systematics* 23:63-87.
- Dahlgren R. A.; Boettinger, J. L.; Huntington, G. L.; Amundson, R. G. 1997. Soil development along an elevational transect in the western Sierra Nevada. *Geoderma* 78:207-236.
- Davies, K. W.; Boyd, C. S.; Beck, J. L.; Bates, J. D.; Svejcar, T. J.; Gregg, M. A. 2011. Saving the sagebrush sea: An ecosystem conservation plan for big sagebrush plant communities. *Biological Conservation* 144: 2573–2584.
- Davies, K. W.; Svejcar, T. J.; Bates, J. D. 2009. Interaction of historical and nonhistorical disturbances maintains native plant communities. *Ecological Applications* 19(6): 1536–1545.
- Davies G. M.; Bakker, J. D.; Dettweiler-Robinson, E.; Dunwiddie, P. W.; Hall, S.A.; Downs, J.; Evans, J. 2012. Trajectories of change in sagebrush-steppe vegetation communities in relation to multiple wildfires. *Ecological Applications* 22:1562-1577.
- Doherty, K. E.; Naugle, D. E.; Walker, B. L.; Graham, J. M. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Doherty, K. E.; Naugle, D. E.; Walker, B. L. 2010a. Greater Sage-Grouse Nesting Habitat: The Importance of Managing at Multiple Scales. *Journal of Wildlife Management* 74:1544-1553.



- Doherty, K. E.; Tack, J. D.; Evans, J. S.; Naugle, D. E. 2010b. Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. BLM completion report: Agreement # L10PG00911. Online: [http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning\\_and\\_Renewable\\_Resources/fish\\_wildlife\\_and/sage-grouse.Par.6386.File.dat/MOU%20on%20Greater%20Sage-Grouse.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/fish_wildlife_and/sage-grouse.Par.6386.File.dat/MOU%20on%20Greater%20Sage-Grouse.pdf) [Accessed 17 June 2014].
- Eckert, R. E.; Peterson, F. F.; Meurisse, M. S.; Stephens, J. L. 1986. Effects of soil-surface morphology on emergence and survival of seedlings in big sagebrush communities. *Journal Range Management* 39:414-420
- Finney, M. A.; McHugh, C. W.; Grenfell, I. 2010. Continental-scale simulation of burn probabilities, flame lengths, and fire size distributions for the United States. In: Viegas, D. X., ed. Fourth international conference on forest fire research; Coimbra, Portugal; 13-18 November 2010. *Associacao para o Desenvolvimento da Aerodinamica Industrial*. 12 p.
- Folke C.; Carpenter, S.; Walker, B.; Scheffer, M.; Elmqvist, T.; Gunderson, L.; Holling, C. S. 2004. Regime shifts, resilience, and biodiversity in ecosystem management. *Annual Review of Ecology, Evolution, and Systematics* 35:557-581.
- Forbis, T. A.; Provencher, L.; Frid, L.; Medlyn, G. 2006. Great Basin land management planning using ecological modeling. *Environmental Management* 38:62-83.
- Frost, C. C. 1998. Presettlement fire frequency regimes of the United States: A first approximation. In: Pruden, T. T.; Brennan, L. A., eds. *Fire in ecosystem management: shifting the paradigm from suppression to prescription*. Proceedings 20<sup>th</sup> Tall Timbers Fire Ecology Conference. Tallahassee, FL: Tall Timbers Research Station: 70-82.
- Herrick, J. E.; Duniway, M. C.; Pyke, D. A.; Bestelmeyer, B. T.; Wills, S. A.; Brown, J. R.; Karl, J. W.; Havstad, K. M. 2012. A holistic strategy for adaptive land management. *Journal of Soil and Water Conservation* 67: 105A-113A.
- Holling C. S. 1973. Resilience and stability in ecological systems. *Annual Review of Ecology and Systematics* 4:1-23.
- Holmes, A. A.; Miller, R. F. 2010. State-and-transition models for assessing grasshopper sparrow habitat use. *Journal of Wildlife Management* 74:1834-1840. doi: 10.2193/2009-417.
- Jackson S. T. 2006. Vegetation, environment, and time: The origination and termination of ecosystems. *Journal of Vegetation Science* 17:549-557.
- James, J. J.; Dretnovsky, R. A.; Monaco, T. A.; Rinella, M. J. 2011. Managing soil nitrogen to restore annual grass-infested plant communities: Effective strategy or incomplete framework? *Ecological Applications* 21:490-502
- Johnson D. D.; Miller, R. F. 2006. Structure and development of expanding western juniper woodlands as influenced by two topographic variables. *Forest Ecology and Management* 229:7-15.
- Johnson, D. H.; Holloran, M. J.; Connelly, J. W.; Hanser, S. E.; Amundson, C. L.; Knick, S. T. 2011. Influence of environmental and anthropogenic features on greater sage-grouse populations. In: Knick S. T.; Connelly, J. W., eds. *Greater sage-grouse – ecology and conservation of a landscape species and its habitats*. *Studies in Avian Biology* 38. Berkeley, CA: University of California Press: 407-450.
- Kaltenecker, J. H.; Wicklow-Howard, M.; Pellant, M. 1999. Biological soil crusts: natural barriers to *Bromus tectorum* L. establishment in the northern Great Basin, USA. In: Eldridge D.; Freudenberger D., eds. *Proceedings of the VI International Rangeland Congress; Aitkenvale, Queensland, Australia*: 109-111.
- Keeley, J. 2009. Fire intensity, fire severity and burn severity: A brief review and suggested usage. *International Journal of Wildland Fire* 18:116-126.
- Kirol, C. P.; Beck, J. L.; Dinkins, J. B.; Conover, M. R. 2012. Microhabitat selection for nesting and brood rearing by the greater sage-grouse in xeric big sagebrush. *The Condor* 114(1):75-89.
- Knapp, P. A. 1996. Cheatgrass (*Bromus tectorum*) dominance in the Great Basin Desert. *Global Environmental Change* 6:37-52.
- Knick, S. T.; Hanser, S. E.; Preston, K. L. 2013. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: Implications for population connectivity across their western range, U.S.A. *Ecology and Evolution* 3(6):1539-1551.
- Knutson, K. C.; Pyke, D. A.; Wirth, T. A.; Arkle, R. S.; Pilliod, D. S.; Brooks, M. L.; Chambers, J. C.; Grace, J. B. 2014. Long-term effects of reseeding after wildfire on vegetation composition in the Great Basin shrub steppe. *Journal of Applied Ecology*. doi: 10.1111/1365-2664.12309.
- Littell, J. S.; McKenzie, D.; Peterson, D. L.; Westerling, A. L. 2009. Climate and wildfire area burned in the western U.S. ecoprovinces, 1916-2003. *Ecological Applications* 19:1003-1021.
- Lockyer, Z. B. 2012. Greater sage-grouse (*Centrocercus urophasianus*) nest predators, nest survival, and nesting habitat at multiple spatial scales. M.S. thesis. Department of Biological Sciences, Idaho State University, Pocatello, ID.
- Loehle, C. 2000. Forest ecotone response to climate change: Sensitivity to temperature response functional forms. *Canadian Journal of Forest Research* 30: 1362-1645.
- Mack, R. N.; Pyke, D. A. 1983. Demography of *Bromus tectorum*: Variation in time and space. *Journal of Ecology* 71: 6993.

- Manier, D. J.; Wood, D. J. A.; Bowen, Z. H.; Donovan, R. M.; Holloran, M. J.; Juliusson, L. M.; Mayne, K. S.; Oyler-McCance, S. J.; Quamen, F. R.; Saher, D. J.; Titolo, A. J. 2013. Summary of science, activities, programs and policies that influence the rangewide conservation of greater sage-grouse (*Centrocercus urophasianus*). Open-File Report 2013-1098. Washington, DC: U.S. Department of the Interior, U.S. Geological Survey. 297 p.
- Meinke, C. W.; Knick, S. T.; Pyke, D. A. 2009. A spatial model to prioritize sagebrush landscapes in the Intermountain West (U.S.A.) for restoration. *Restoration Ecology* 17:652-659.
- Mensing, S.; Livingston, S.; Barker, P. 2006. Long-term fire history in Great Basin sagebrush reconstructed from macroscopic charcoal in spring sediments, Newark Valley, Nevada. *Western North American Naturalist* 66:64-77.
- Merrill K. R.; Meyer, S. E.; Coleman, C. E. 2012. Population genetic analysis of *Bromus tectorum* (Poaceae) indicates recent range expansion may be facilitated by specialist geonotypes. *American Journal of Botany* 99:529-537.
- Meyer S. E.; Garvin, S. C.; Beckstead, J. 2001. Factors mediating cheatgrass invasion of intact salt desert shrubland. In: McArthur, D. E.; Fairbanks, D. J., comps. *Shrubland ecosystem genetics and biodiversity: proceedings*. Proc. RMRS-P-21. Ogden UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station: 224-232.
- Miller, R. F.; Bates, J. D.; Svejcar, T. J.; Pierson, F. B.; Eddleman, L. E. 2005. Biology, ecology, and management of western juniper. Tech. Bull. 152. Corvallis, OR: Oregon State University, Agricultural Experiment Station.
- Miller, R.F.; Bates, J.D.; Svejcar, T.J.; Pierson, F.B.; Eddleman, L.E. 2007. Western juniper field guide: asking the right questions to select appropriate management actions. Geological Survey Circular 1321. Reston, VA: U.S. Department of the Interior, Geological Survey.
- Miller R. F.; Chambers, J. C.; Pellant, M. 2014a. A field guide to selecting the most appropriate treatments in sagebrush and piñon-juniper ecosystems in the Great Basin: Evaluating resilience to disturbance and resistance to invasive annual grasses and predicting vegetation response. Gen. Tech. Rep. RMRS-GTR-322. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Miller R. F.; Chambers, J. C.; Pellant, M. [In preparation]. A field guide for rapid assessment of post-wildfire recovery potential in sagebrush and piñon-juniper ecosystems in the Great Basin: Evaluating resilience to disturbance and resistance to invasive annual grasses and predicting vegetation response. Gen. Tech. Rep. RMRS-GTR-###. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Miller, R. F.; Chambers, J. C.; Pyke, D. A.; Pierson, F. B.; Williams, C. J. 2013. A review of fire effects on vegetation and soils in the Great Basin Region: Response and ecological site characteristics. Gen. Tech. Rep. RMRS-GTR-308. Fort Collins, CO: Department of Agriculture, Forest Service, Rocky Mountain Research Station. 136 p.
- Miller, R. F.; Eddleman, L.L. 2001. Spatial and temporal changes of sage grouse habitat in the sagebrush biome. *Bulletin* 151. Corvallis, OR: Oregon State University, Agricultural Experiment Station.
- Miller, R. F.; Heyerdahl, E. K. 2008. Fine-scale variation of historical fire regimes in sagebrush-steppe and juniper woodlands: an example from California, USA. *International Journal of Wildland Fire* 17: 245-254.
- Miller R. F.; Knick, S. T.; Pyke, D. A.; Meinke, C. W.; Hanser, S. E.; Wisdom, M. J.; Hild, A. L. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. In: Knick S. T.; Connelly, J. W. eds. *Greater sage-grouse – ecology and conservation of a landscape species and its habitats*. *Studies in Avian Biology* 38. Berkeley, CA: University of California Press: 145-185.
- Miller, R.F.; Svejcar, T.J.; Rose, J.A. 2000. Impacts of western juniper on plant community composition and structure. *Journal of Range Management* 53:574-585.
- Miller, R. F.; Tausch, R. J.; McArthur, E. D.; Johnson, D. D.; Sanderson, S. C. 2008. Age structure and expansion of piñon-juniper woodlands: A regional perspective in the Intermountain West. Res. Pap. RMRS-RP-69. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 15 p.
- Monsen, Stephen B.; Stevens, Richard; Shaw, Nancy L., comps. 2004. Restoring western ranges and wildlands. Gen. Tech. Rep. RMRS-GTR-136-vol-1, 2, and 3. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 884 p. + appendices and index.
- Murphy, T.; Naugle, D. E.; Eardley, R.; Maestas, J. D.; Griffiths, T.; Pellant, M.; Stiver, S. J. 2013. Trial by fire: Improving our ability to reduce wildfire impacts to sage-grouse and sagebrush ecosystems through accelerated partner collaboration. *Rangelands* 32:2-10.
- Oregon Department of Forestry. 2013. West wide wildfire risk assessment final report. Salem, OR: Oregon Department of Forestry. 105 p. Online: [http://www.odf.state.or.us/gis/data/Fire/West\\_Wide\\_Assessment/WWA\\_FinalReport.pdf](http://www.odf.state.or.us/gis/data/Fire/West_Wide_Assessment/WWA_FinalReport.pdf) [Accessed 17 June 2014].
- Peterson, E. B. 2006. A map of invasive annual grasses in Nevada derived from multitemporal Landsat 5 TM imagery. Carson City, NV: State of Nevada, Department of Conservation and Natural Resources, Nevada Natural Heritage Program.

- Peterson, E. B. 2007. A map of annual grasses in the Owyhee Uplands, Spring 2006, derived from multi-temporal Landsat 5 TM imagery. Carson City, NV: State of Nevada, Department of Conservation and Natural Resources, Nevada Natural Heritage Program.
- Pyke, D. A. 2011. Restoring and rehabilitating sagebrush habitats. In: Knick, S. T.; Connelly, J. W., eds. Greater sage-grouse: Ecology and conservation of a landscape species and its habitats. Studies in Avian Biology 38. Berkeley, CA: University of California Press: 531-548.
- Pyke, D. A., M. Pellant, S. T. Knick, J. L. Beck, P. S. Doescher, E. W. Schupp, J. C. Chambers, R. F. Miller, B. A. Roundy, M. Brunson, and J. D. McIver. [In preparation]. Field guide for restoration of sagebrush-steppe ecosystems with special emphasis on Greater Sage-Grouse habitat- considerations to increase the likelihood of success at local to regional levels. U.S. Geological Circular, Reston, VA.
- Ramakrishnan A. P.; Meyer, S. E.; Fairbanks, D. J.; Coleman, C. E. 2006. Ecological significance of microsatellite variation in western North American populations of *Bromus tectorum*. Plant Species Biology 21:61-73.
- Redford, K. H.; Amoto, G.; Baillie, J.; Beldomenico, P.; Bennett, E. L.; Clum, N.; Cook, R.; Fonseca, G.; Hedges, S.; Launay, F.; Lieberman, S.; Mace, G. M.; Murayama, A.; Putnam, A.; Robinson, J. G.; Rosenbaum, H.; Sanderson, E. W.; Stuart, S. N.; Thomas, P.; Thorbjarnarson, J. 2011. What does it mean to successfully conserve a (vertebrate) species? Bioscience 61:39-48.
- Reever-Morghen, K. J.; Sheley, R. L.; Svejcar, T. J. 2006. Successful adaptive management: The integration of research and management. Rangeland Ecology and Management 59:216-219.
- Reisner, M. D.; Grace, J. B.; Pyke, D. A.; Doescher, P. S. 2013. Conditions favouring *Bromus tectorum* dominance of endangered sagebrush steppe ecosystems. Journal of Applied Ecology 50:1039-1049.
- Roundy, B. A.; Young, K.; Cline, N.; Hulet, A.; Miller, R. F.; Tausch, R. J.; Chambers, J. C.; Rau, B. [In press]. Piñon-juniper reduction effects on soil temperature and water availability of the resource growth pool. Rangeland Ecology and Management.
- Rowland, M. M.; Leu, M.; Finn, S. P.; Hanser, S.; Suring, L. H.; Boys, J. M.; Meinke, C. W.; Knick, S. T.; Wisdom, M. J. 2006. Assessment of threats to sagebrush habitats and associated species of concern in the Wyoming Basins. Version 1, March 2005. Unpublished report on file at: USGS Biological Resources Discipline, Snake River Field Station, Boise, ID.
- Sala, O. E.; Lauenroth, W. K.; Gollucio, R. A. 1997. Plant functional types in temperate semi-arid regions. In: Smith, T. M.; Shugart, H. H.; Woodward, F. I., eds. Plant functional types. Cambridge, UK: Cambridge University Press: 217-233.
- Seastedt, T. R.; Hobbs, R. J.; Suding, K. N. 2008. Management of novel ecosystems: Are novel approaches required? Frontiers in Ecology and Environment 6:547-553.
- Smith, S. D.; Nowak, R. S.; 1990. Ecophysiology of plants in the Intermountain lowlands. In: Osmond, C. B.; Pitelka, L. F.; Hidy, G. M., eds. Plant Biology of the Basin and Range. Springer-Verlag: 179-242.
- Soil Survey Staff. 2014a. Soil Survey Geographic (SSURGO) Database. United States Department of Agriculture, Natural Resources Conservation Service. Online: <http://sdmdataaccess.nrcs.usda.gov/>. [Accessed 3 March 2014].
- Soil Survey Staff. 2014b. U.S. General Soil Map (STATSGO2) Database. United States Department of Agriculture, Natural Resources Conservation Service. Online: <http://sdmdataaccess.nrcs.usda.gov/>. [Accessed 3 March 2014].
- Silver, S. J.; Apa, A. D.; Bohne, J. R.; Bunnell, S. D.; Deibert, P. A.; Gardner, S. C.; Hilliard, M. A.; McCarthy, C. W.; Schroeder, M. A. 2006. Greater Sage-grouse Comprehensive Conservation Strategy. Unpublished report on file at: Western Association of Fish and Wildlife Agencies, Cheyenne, WY.
- Stohlgren, T. J.; Owen, A. J.; Lee, M. 2000. Monitoring shifts in plant diversity in response to climate change: a method for landscapes. Biodiversity and Conservation 9:165-186.
- Stringham, T. K.; Krueger, W. C.; Shaver, P. L. 2003. State and transition modeling: An ecological process approach. Journal of Range Management 56:106-113.
- Tausch, R. J.; Miller, R. R.; Roundy, B. A.; Chambers, J. C. 2009. Piñon and juniper field guide: asking the right questions to select appropriate management actions. Circular 1335. Reston, VA: U.S. Department of the Interior, U.S. Geological Survey. 94 p. Online: <http://pubs.usgs.gov/circ/1335/>. [Accessed 17 June 2014].
- USDA Natural Resources Conservation Service [USDA-NRCS]. 2007. National soil survey handbook, Title 430-VI. Online: [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2\\_054242/](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2_054242/). [Accessed 17 June 2014].
- U.S. Fish and Wildlife Service [USFWS]. 2010. Endangered and threatened wildlife and plants; 12-month findings for petitions to list the greater sage-grouse (*Centrocercus urophasianus*) as threatened or endangered; proposed rule. Fed. Register 75, 13910-14014. Online: <http://www.fws.gov/policy/library/2010/2010-5132.pdf>.
- U.S. Fish and Wildlife Service [USFWS]. 2013. Greater sage-grouse (*Centrocercus urophasianus*) conservation objectives: Final Report. Denver, CO: U.S. Fish and Wildlife Service. 91 p.

- U.S. Geological Survey (USGS). 2010. Land Treatment Digital Database. Online: <http://ltdl.wr.usgs.gov/>. [Accessed 17 June 2014].
- U.S. Geological Survey (USGS). 2013: LANDFIRE 1.2.0 Existing Vegetation Type layer. Updated 3/13/2013. Washington, DC: U.S. Department of the Interior, Geological Survey. Online: <http://landfire.cr.usgs.gov/viewer/>. [Accessed 17 June 2014].
- U.S. Geological Survey (USGS) National Gap Analysis Program. 2004. Provisional digital land cover map for the southwestern United States. Version 1.0. Logan: Utah State University, College of Natural Resources, RS/GIS Laboratory. Online: <http://earth.gis.usu.edu/swgap/landcover.html>. [Accessed 9 June 2014].
- Walters, S. P.; Schneider, N. J.; Guthrie, J. D. 2011. Geospatial Multi-Agency Coordination (GeoMAC) wildland fire perimeters, 2008. Data Series 612: Washington, DC: U.S. Department of the Interior, U.S. Geological Survey. 6 p.
- West, N.E. 1983a. Intermountain salt-desert shrubland. In: West, N.E., ed. Temperate deserts and semi-deserts. Amsterdam, The Netherlands: Elsevier Publishing Company: 375-378.
- West, N. E. 1983b. Great Basin-Colorado Plateau sagebrush semi-desert. In: West, N. E., ed. Temperate deserts and semi-deserts. Amsterdam, The Netherlands: Elsevier Publishing Company: 331-350.
- West, N. E.; Young, J. A. 2000. Intermountain valleys and lower mountain slopes. In: Barbour, M. B.; Billings, W. D., eds. North American terrestrial vegetation. Cambridge, UK: Cambridge University Press: 256-284.
- Westerling A. L.; Hidalgo, H. G.; Cayan, D. R.; Swetnam, T. W. 2006. Warming and early spring increase U.S. forest wildfire activity. *Science* 313: 940-943.
- Wisdom, M. J.; Chambers, J. C. 2009. A landscape approach for ecologically-based management of Great Basin shrublands. *Restoration Ecology* 17:740-749.
- Wisdom, M. J.; Meinke, C. W.; Knick, S. T.; Schroeder, M. A. 2011. Factors associated with extirpation of sage-grouse. In: Knick, S. T.; Connelly, J. W., eds. Greater sage-Grouse: Ecology and conservation of a landscape species and its habitats. *Studies in Avian Biology* 38. Berkeley, CA: University of California Press: 451-474.
- Wisdom, M. J.; Rowland, M. M.; Suring, L. H. eds. 2005. Habitat threats in the sagebrush ecosystem: Methods of regional assessment and applications in the Great Basin. Lawrence, KS: Alliance Communications Group, Allen Press. 301 p.

## Appendix 1. Definitions of Terms Used in This Document

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**At-Risk Community Phase** — A community phase that can be designated within the reference state and also in alternative states. This community phase is the most vulnerable to transition to an alternative state (Caudle et al. 2013).

**Community Phase** — A unique assemblage of plants and associated soil properties that can occur within a state (Caudle et al. 2013).

**Ecological Site (ES)** — An Ecological Site (ES) is a conceptual division of the landscape that is defined as a distinctive kind of land based on recurring soil, landform, geological, and climate characteristics that differs from other kinds of land in its ability to produce distinctive kinds and amounts of vegetation and in its ability to respond similarly to management actions and natural disturbances (Caudle et al. 2013).

**Ecological Site Descriptions (ESD)** — The documentation of the characteristics of an ecological site. The documentation includes the data used to define the distinctive properties and characteristics of the ecological site; the biotic and abiotic characteristics that differentiate the site (i.e., climate, topography, soil characteristics, plant communities); and the ecological dynamics of the site that describes how changes in disturbance processes and management can affect the site. An ESD also provides interpretations about the land uses and ecosystem services that a particular ecological site can support and management alternatives for achieving land management (Caudle et al. 2013).

**Ecological Type** — A category of land with a distinctive (i.e., mappable) combination of landscape elements. The elements making up an ecological type are climate, geology, geomorphology, soils, and potential natural vegetation. Ecological types differ from each other in their ability to produce vegetation and respond to management and natural disturbances (Caudle et al. 2013).

**Historical Range of Variability** — Range of variability in disturbances, stressors, and ecosystem attributes that allows for maintenance of ecosystem resilience and resistance and that can be used to provide management targets (modified from Jackson 2006).

**Resilience** — Ability of a species and/or its habitat to recover from stresses and disturbances. Resilient ecosystems regain their fundamental structure, processes, and functioning when altered by stresses like increased CO<sub>2</sub>, nitrogen deposition, and drought and to disturbances like land development and fire (Allen et al. 2005; Holling 1973).

**Resistance** — Capacity of an ecosystem to retain its fundamental structure, processes and functioning (or remain largely unchanged) despite stresses, disturbances, or invasive species (Folke et al. 2004).

**Resistance to Invasion** — Abiotic and biotic attributes and ecological processes of an ecosystem that limit the population growth of an invading species (D'Antonio and Thomsen 2004).

**Restoration Pathways** — Restoration pathways describe the environmental conditions and practices that are required for a state to recover that has undergone a transition (Caudle et al. 2013).

**State** — A state is a suite of community phases and their inherent soil properties that interact with the abiotic and biotic environment to produce persistent functional and structural attributes associated with a characteristic range of variability (adapted from Briske et al. 2008).

**State-and-Transition Model** — A method to organize and communicate complex information about the relationships between vegetation, soil, animals, hydrology, disturbances (fire, lack of fire, grazing and browsing, drought, unusually wet periods, insects and disease), and management actions on an ecological site (Caudle et al. 2013).

**Thresholds** — Conditions sufficient to modify ecosystem structure and function beyond the limits of ecological resilience, resulting in the formation of alternative states (Briske et al. 2008).

**Transition** — Transitions describe the biotic or abiotic variables or events, acting independently or in combination, that contributes directly to loss of state resilience and result in shifts between states. Transitions are often triggered by disturbances, including natural events (climatic events or fire) and/or management actions (grazing, burning, fire suppression). They can occur quickly as in the case of catastrophic events like fire or flood, or over a long period of time as in the case of a gradual shift in climate patterns or repeated stresses like frequent fires (Caudle et al. 2013).

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## Appendix 2. An Explanation of the Use of Landscape Measures to Describe Sagebrush Habitat

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Understanding landscape concepts of plant cover relative to typical management unit concepts of plant cover is important for prioritizing lands for management of sage-grouse. Ground cover measurements of sagebrush made at a management unit (for example, line-intercept measurements) should not be confused for landscape cover and may not relate well to landscape cover since the areas of examination differ vastly (square meters for management units and square kilometers for landscapes).

A landscape is defined rather arbitrarily as a large area in total spatial extent, somewhere in size between sites (acres or square miles) and regions (100,000s of square miles). The basic unit of a landscape is a patch, which is defined as a bounded area characterized by a similar set of conditions. A habitat patch, for example, may be the polygonal area on a map representing a single land cover type. Landscapes are composed of a mosaic of patches. The arrangement of these patches (the landscape configuration or pattern) has a large influence on the way a landscape functions and for landscape species, such as sage-grouse, sagebrush habitat patches are extremely important for predicting if this bird will be present within the area (Connelly et al. 2011).

Remotely sensed data of land cover is typically used to represent landscapes. These data may combine several sources of data and may include ancillary data, such as elevation, to improve the interpretation of data. These data are organized into pixels that contain a size or grain of land area. For example, Landsat Thematic Mapper spectral data used in determining vegetation cover generally have pixels that represent ground areas of 900 m<sup>2</sup> (30- x 30-m). Each pixel's spectral signature can be interpreted to determine what type of vegetation dominates that pixel. Groups of adjacent pixels with the same dominant vegetation are clustered together into polygons that form patches.

Landscape cover of sagebrush is determined initially by using this vegetation cover map, but a 'rolling window' of a predetermined size (e.g., 5 km<sup>2</sup> or 5,556 pixels that are 30- by 30-m in size) is moved across the region one pixel at a time. The central pixel of the 'window' is reassigned a value for the proportion of pixels where sagebrush is the dominant vegetation. The process is repeated until pixels within the region are completely reassigned to represent the landscape cover of sagebrush within for the region drawn from a 5 km<sup>2</sup> window.

## Appendix 3. An Explanation of Soil Temperature and Moisture Regimes Used to Describe Sagebrush Ecosystems

Soil climate regimes (temperature and moisture) are used in Soil Taxonomy to classify soils; they are important to consider in land management decisions, in part, because of the significant influence on the amounts and kinds of vegetation that soils support. Soil temperature and moisture regimes are assigned to soil map unit components as part of the National Cooperative Soil Survey program. Soil survey spatial and tabular data for the Sage-grouse Management Zones (Stiver et al. 2006) were obtained for each State within the zones at the Geospatial Data Gateway (<http://datagateway.nrcs.usda.gov/>). Gridded Soil Survey Geographic (gSSURGO) file geodatabases were used to display a 10-meter raster dataset. Multiple soil components made up a soil map unit, and soil moisture and temperature regimes were linked to individual soil map components. Soil components with the same soil moisture and temperature class regime were aggregated, and the dominant soil moisture and temperature regime within each soil map unit was used to characterize the temperature and moisture regime. Only temperature and moisture regimes applicable to sagebrush ecosystems were displayed.

Abbreviated definitions of each soil temperature and moisture regime class are listed below. Complete descriptions can be found in *Keys to Soil Taxonomy, 11th edition*, available at [ftp://ftp-fc.sc.egov.usda.gov/NSSC/Soil\\_Taxonomy/keys/2010\\_Keys\\_to\\_Soil\\_Taxonomy.pdf](ftp://ftp-fc.sc.egov.usda.gov/NSSC/Soil_Taxonomy/keys/2010_Keys_to_Soil_Taxonomy.pdf).

<b>Soil temperature regimes</b>	
Cryic (Cold)	Soils that have a mean annual soil temperature of <8 °C, and do not have permafrost, at a depth of 50 cm below the surface or at a restrictive feature, whichever is shallower.
Frigid (Cool)	Soils that have a mean annual soil temperature of <8 °C and the difference between mean summer and mean winter soil temperatures is >6 °C at a depth of 50 cm below the surface or at a restrictive feature, whichever is shallower.
Mesic (Warm)	Soils that have a mean annual soil temperature of 8-15 °C and the difference between mean summer and mean winter soil temperatures is >6 °C at a depth of 50 cm below the surface or at a restrictive feature, whichever is shallower.
<b>Soil moisture regimes</b>	
Ustic (summer precipitation)	Generally there is some plant-available moisture during the growing season, although significant periods of drought may occur. Summer precipitation allows presence of warm season plant species.
Xeric (Moist; generally mapped at >12 inches mean annual precipitation)	Characteristic of arid regions. The soil is dry for at least half the growing season and moist for less than 90 consecutive days.
Aridic (Dry; generally mapped at <12 inches mean annual precipitation)	Characteristic of arid regions. The soil is dry for at least half the growing season and moist for less than 90 consecutive days.

Note: Soil moisture regimes are further divided into moisture subclasses, which are often used to indicate soils that are transitional to another moisture regime. For example, a soil with an Aridic moisture regime and a Xeric moisture subclass may be described as “Aridic bordering on Xeric.” Understanding these gradients becomes increasingly important when making interpretations and decisions at the site scale where aspect, slope, and soils affect the actual moisture regime on that site. More information on taxonomic moisture subclasses is available at [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2\\_053576](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_053576).



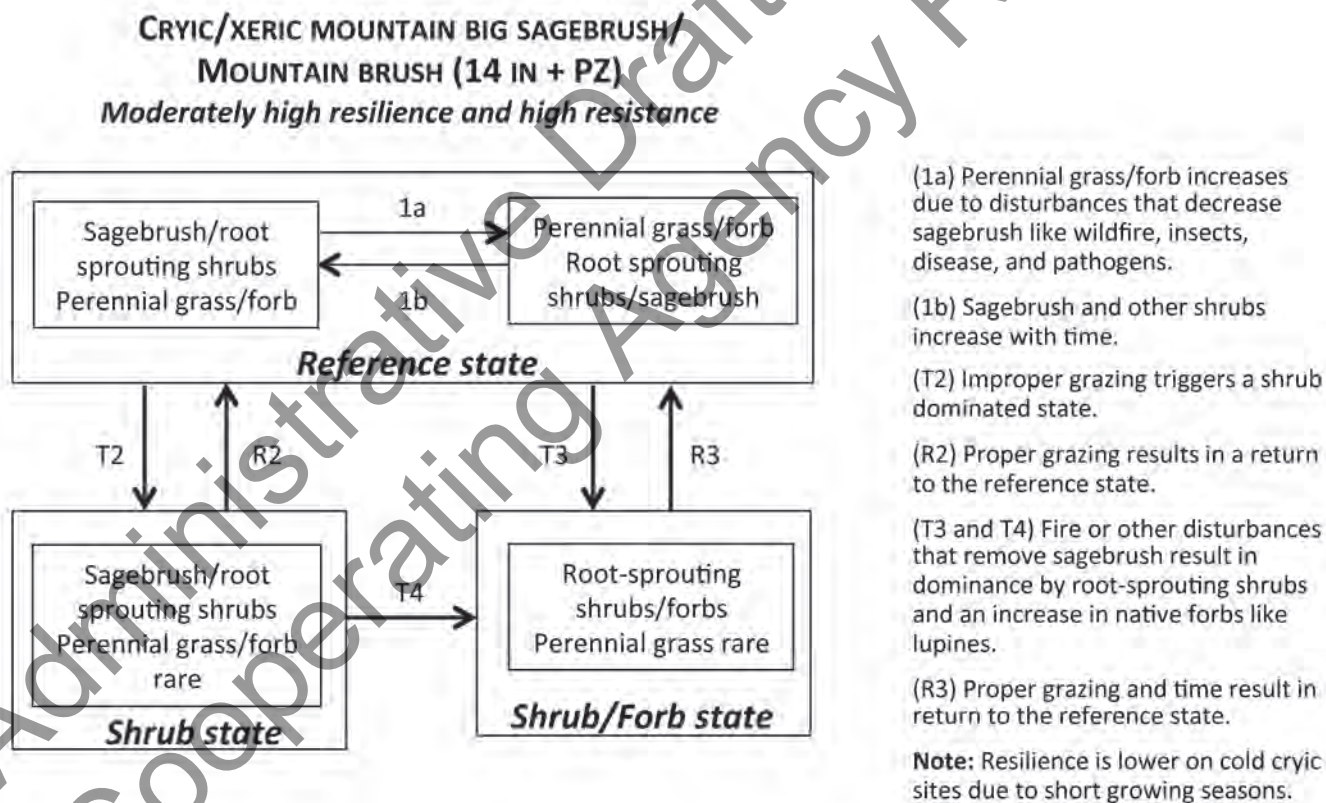
## Appendix 4. Data Sources for the Maps in This Report

Dataset	Citation	Link
Geomac fire perimeters	Walters, S.P.; Schneider, N.J.; Guthrie, J.D. 2011. Geospatial Multi-Agency Coordination (GeoMAC) wildland fire perimeters, 2008. Data Series 612. Washington, DC: U.S. Department of the Interior, U.S. Geological Survey.6 p.	<a href="http://pubs.er.usgs.gov/publication/ds612">http://pubs.er.usgs.gov/publication/ds612</a>
WFDSS fire perimeters	Butler, B. B.; Bailey, A. 2013. Disturbance history (Historical wildland fires). Updated 8/9/2013. Wildland Fire Decision Support System. Online: <a href="https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml">https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml</a> [Accessed 5 March 2014].	<a href="https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml">https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml</a> or <a href="https://wfdss.usgs.gov/wfdss/WFDSSData_Downloads.shtml">https://wfdss.usgs.gov/wfdss/WFDSSData_Downloads.shtml</a>
Piñon and juniper land cover	U.S. Geological Survey (USGS) National Gap Analysis Program. 2004. Provisional digital land cover map for the southwestern United States. Version 1.0. Logan, UT: Utah State University, College of Natural Resources, RS/ GIS Laboratory.	<a href="http://earth.gis.usu.edu/swgap/landcover.html">http://earth.gis.usu.edu/swgap/landcover.html</a>
Piñon and juniper land cover	U.S. Geological Survey (USGS). 2013: LANDFIRE 1.2.0 Existing Vegetation Type layer. Updated 3/13/2013. Washington, DC: U.S. Department of the Interior, Geological Survey. Online: <a href="http://landfire.cr.usgs.gov/viewer/">http://landfire.cr.usgs.gov/viewer/</a> . [Accessed 13 March 2014].	<a href="http://www.landfire.gov/NationalProductDescriptions21.php">http://www.landfire.gov/NationalProductDescriptions21.php</a>
Nevada invasive annual grass index	Peterson, E. B. 2006. A map of invasive annual grasses in Nevada derived from multitemporal Landsat 5 TM imagery. Carson City, NV: State of Nevada, Department of Conservation and Natural Resources, Nevada Natural Heritage Program.	<a href="http://heritage.nv.gov/node/167">http://heritage.nv.gov/node/167</a>
Owyhee upland annual grass index	Peterson, E. B. 2007. A map of annual grasses in the Owyhee Uplands, Spring 2006, derived from multitemporal Landsat 5 TM imagery. Carson City, NV: State of Nevada, Department of Conservation and Natural Resources, Nevada Natural Heritage Program.	<a href="http://heritage.nv.gov/sites/default/files/library/anngrowy_text_print.pdf">http://heritage.nv.gov/sites/default/files/library/anngrowy_text_print.pdf</a>
Soil data (SSURGO)	Soil Survey Staff. 2014a. Soil Survey Geographic (SSURGO) Database. United States Department of Agriculture, Natural Resources Conservation Service. Online: <a href="http://sdmdataaccess.nrcs.usda.gov/">http://sdmdataaccess.nrcs.usda.gov/</a> . [Accessed 3 March 2014a].	<a href="http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2_053627">http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2_053627</a>
Soil data (STATSGO)	Soil Survey Staff. 2014b. U.S. General Soil Map (STATSGO2) Database. United States Department of Agriculture, Natural Resources Conservation Service. Online: <a href="http://sdmdataaccess.nrcs.usda.gov/">http://sdmdataaccess.nrcs.usda.gov/</a> . [Accessed 3 March 2014b].	

Soil temperature and moisture regime data	Campbell, S. B. 2014. Soil temperature and moisture regime data for the range of greater sage-grouse. Data product. Portland, OR: USDA Natural Resources Conservation Service. Online: <a href="https://www.sciencebase.gov/catalog/folder/537f8be5e4b021317a872f1b?community=LC+MAP+-+Landscape+Conservation+Management+and+Analysis+Portal">https://www.sciencebase.gov/catalog/folder/537f8be5e4b021317a872f1b?community=LC+MAP+-+Landscape+Conservation+Management+and+Analysis+Portal</a> [Accessed 17 June 2014].	<a href="https://www.sciencebase.gov/catalog/folder/537f8be5e4b021317a872f1b?community=LC+MAP+-+Landscape+Conservation+Management+and+Analysis+Portal">https://www.sciencebase.gov/catalog/folder/537f8be5e4b021317a872f1b?community=LC+MAP+-+Landscape+Conservation+Management+and+Analysis+Portal</a>
Sage-grouse management zones	Stiver, S. J.; Apa, A. D.; Bohne, J. R.; Bunnell, S. D.; Deibert, P. A.; Gardner, S. C.; Hilliard, M. A.; McCarthy, C. W.; Schroeder, M. A. 2006. Greater Sage-grouse Comprehensive Conservation Strategy. Unpublished report on file at: Western Association of Fish and Wildlife Agencies, Cheyenne, WY.	
Breeding bird densities	Doherty, K. E.; Tack, J. D.; Evans, J. S.; Naugle, D. E. 2010. Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. BLM completion report: Agreement # L10PG00911.	<a href="http://scholar.google.com/scholar?q=doherty+2010+breeding+bird&amp;hl=en&amp;as_sdt=0&amp;as_vis=1&amp;oi=scholart&amp;sa=X&amp;ei=JqQbU7HUAqfD2QW8xYFY&amp;ved=0CCUQgQMwAA">http://scholar.google.com/scholar?q=doherty+2010+breeding+bird&amp;hl=en&amp;as_sdt=0&amp;as_vis=1&amp;oi=scholart&amp;sa=X&amp;ei=JqQbU7HUAqfD2QW8xYFY&amp;ved=0CCUQgQMwAA</a>
Sagebrush land cover	U.S. Geological Survey (USGS). 2013. LANDFIRE 1.2.0 Existing Vegetation Type layer. Updated 3/13/2013. Washington, DC: U.S. Department of the Interior, Geological Survey. Online: <a href="http://landfire.cr.usgs.gov/viewer/">http://landfire.cr.usgs.gov/viewer/</a> . [Accessed 13 March 2014].	<a href="http://www.landfire.gov/NationalProductDescriptions21.php">http://www.landfire.gov/NationalProductDescriptions21.php</a>

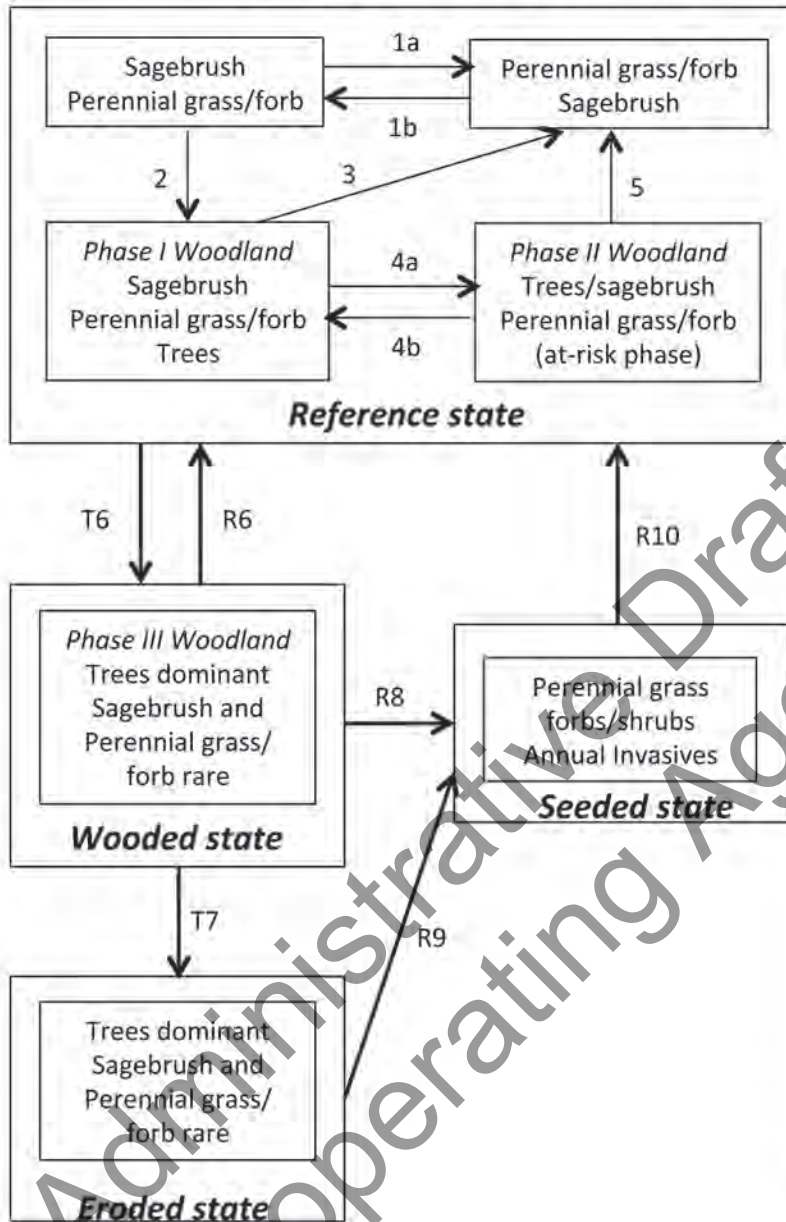
## Appendix 5. State-and-transition models (STMs) for five generalized ecological types for big sagebrush (from Chambers et al. *in press*; Miller et al. 2014 a, b)

These STMs represent groupings of ecological sites that are characterized by Wyoming or mountain big sagebrush, span a range of soil moisture/temperature regimes (warm/dry to cold/moist), and characterize a large portion of Management Zones III (Southern Great Basin), IV (Snake River Plains), V (Northern Great Basin), and VI (Columbia Basin). Large boxes illustrate states that are comprised of community phases (smaller boxes). Transitions among states are shown with arrows starting with T; restoration pathways are shown with arrows starting with R. The “at risk” community phase is most vulnerable to transition to an alternative state. Precipitation Zone is designated as PZ.



**Figure A.5A.** STM for a cryic/xeric mountain big sagebrush/mountain brush ecological type characterized by moderately high resilience and high resistance.

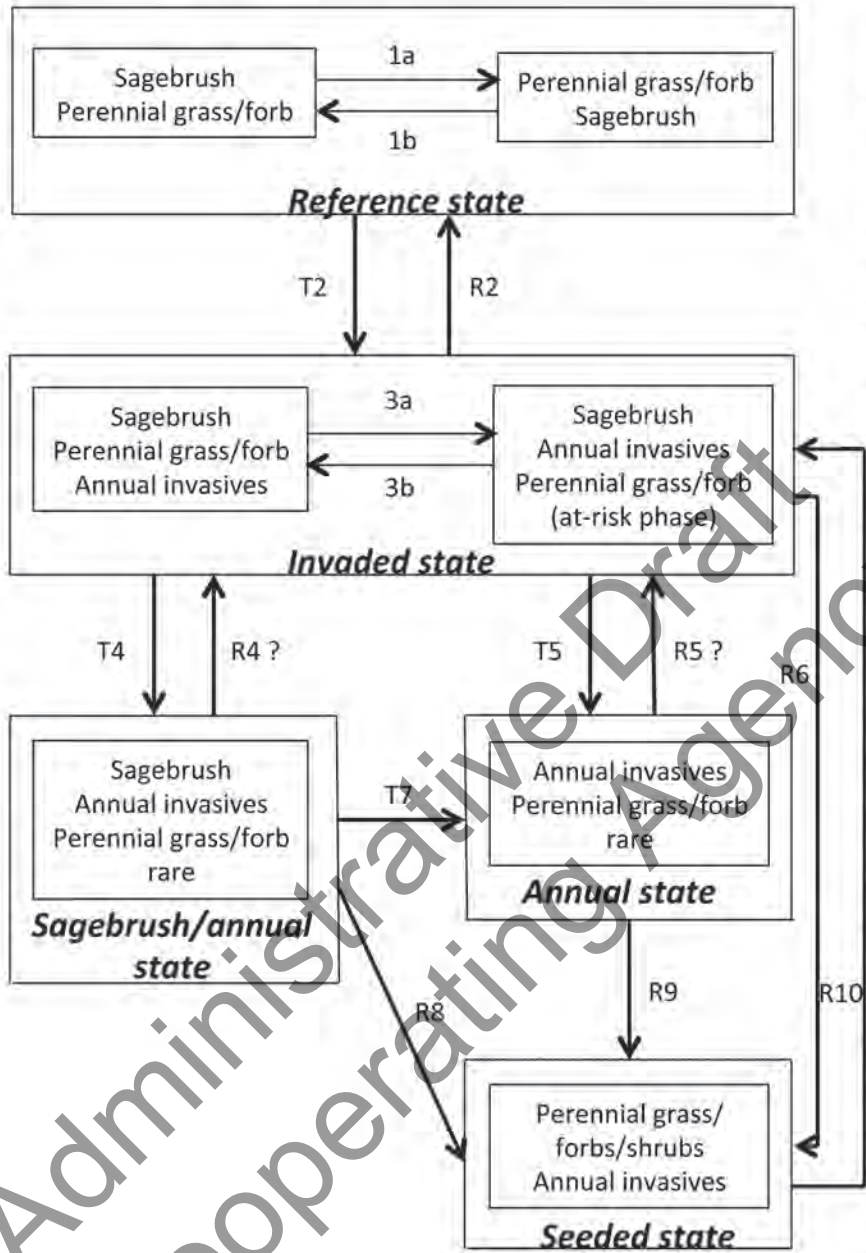
COOL FRIGID/XERIC  
MOUNTAIN BIG SAGEBRUSH (12 -14 IN + PZ)  
Piñon pine and/or juniper potential  
Moderately high resilience and resistance



(1a) Disturbances such as wildfire, insects, disease, and pathogens result in less sagebrush and more perennial grass/forb. (1b) Sagebrush increases with time . (2) Time combined with seed sources for piñon and/or juniper trigger a Phase I Woodland. (3 and 5) Fire and or fire surrogates (herbicides and/or mechanical treatments) that remove trees may restore perennial grass/forb and sagebrush dominance. (4a) Increasing tree abundance results in a Phase II woodland with depleted perennial grass/forb and shrubs and an at-risk phase. (4b) Fire surrogates (herbicides and/or mechanical treatments) that remove trees may restore perennial grass/forb and sagebrush dominance. (T6) Infilling of trees and/or improper grazing can result in a biotic threshold crossing to a wooded state with increased risk of high severity crown fires . (R6) Fire, herbicides and/or mechanical treatments that remove trees may restore perennial grass/forb and sagebrush dominance. (T7) An irreversible abiotic threshold crossing to an eroded state can occur depending on soils, slope, and understory species. (R8 and R9) Seeding after fire may be required on sites with depleted perennial grass/forb, but seeding with aggressive introduced species can decrease native perennial grass/forb. Annual invasives are typically rare. Seeded eroded states may have lower productivity. (R10) Depending on seed mix and grazing, return to the reference state may be possible if an irreversible threshold has not been crossed.

Figure A.5B. STM for a cool frigid/xeric mountain big sagebrush ecological type that has piñon pine and/or juniper potential and is characterized by moderately high resilience and resistance.

COOL MESIC TO COOL FRIGID/XERIC  
 MOUNTAIN BIG SAGEBRUSH (12-14 IN PZ)  
 Moderate resilience and resistance



(1a) Perennial grass/forb increases due to disturbances that decrease sagebrush like wildfire, insects, disease, and pathogens.

(1b) Sagebrush Increases with time .

(T2) An invasive seed source and/or improper grazing trigger an invaded state.

(R2) Proper grazing, fire, herbicides, and/or mechanical treatments may restore perennial grass/forb and sagebrush dominance with few invasives.

(3a) Perennial grass/forb decreases and sagebrush and invasives increase with improper grazing by livestock resulting in an at-risk phase. Decreases in sagebrush due to insects, disease or pathogens can further increase invasives.

(3b) Proper grazing, herbicides, or mechanical treatments that reduce sagebrush may increase perennial grass/forb and decrease invasives.

(T4) Improper grazing results in a sagebrush/annual state.

(R4) Proper grazing may facilitate return to the invaded state on cooler/wetter sites if sufficient grass/forb remains .

(T5 and T7) Fire or other disturbances that remove sagebrush result in an annual state. Perennial grass/forb are rare and recovery potential is reduced. Repeated fire can result in a biotic threshold crossing to annual dominance on warmer/drier sites, and root-sprouting shrubs may increase.

(R5) Cooler and wetter sites may return to the invaded or reference state with lack of fire, proper grazing, and favorable weather.

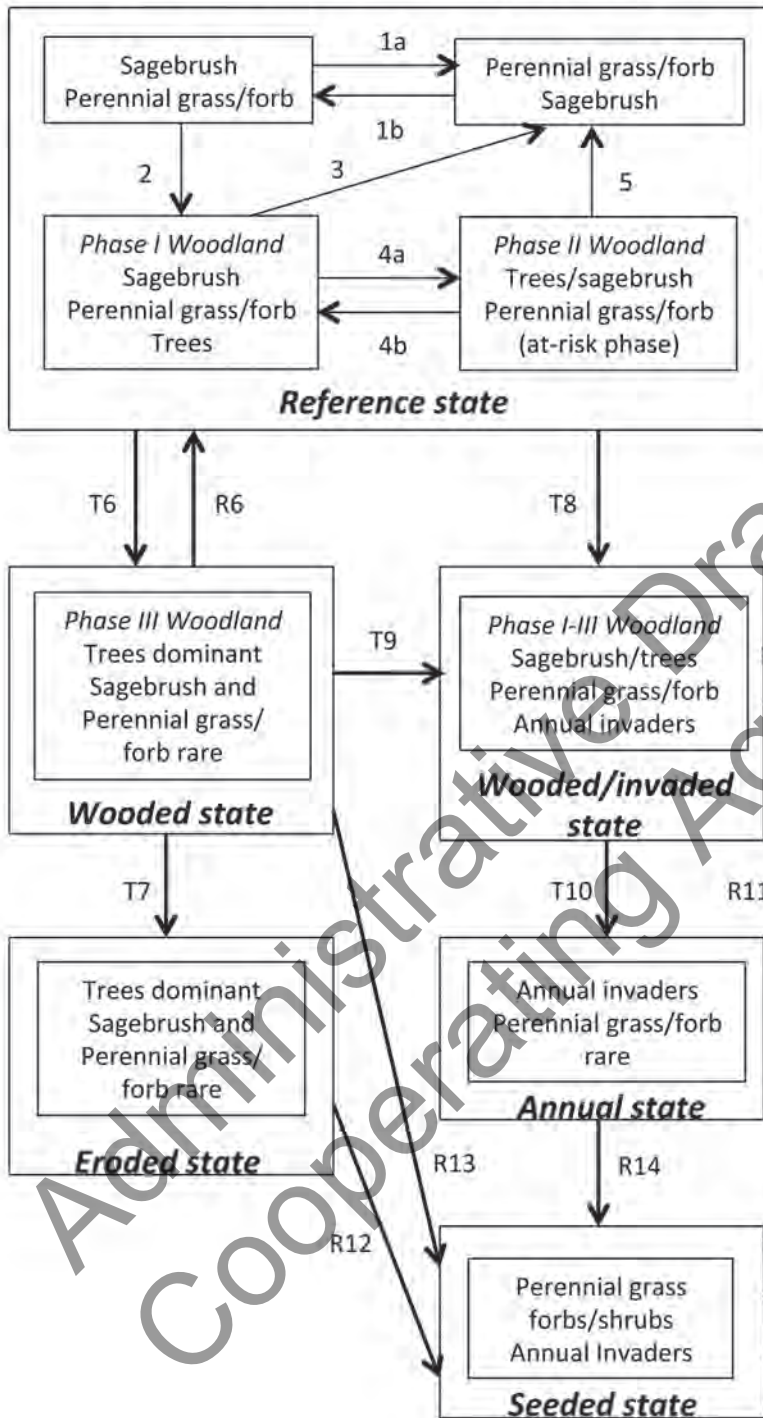
(R6, R8 and R9) Seeding following fire and/or invasive species control results in a seeded state. Sagebrush may recolonize depending on patch size, but annual invaders are still present.

(R10) Cooler and wetter sites may return to the invaded or possibly reference state depending on seeding mix, grazing and weather.

Figure A.5C. STM for a cool mesic to cool frigid/xeric mountain big sagebrush ecological type that is characterized by moderate resilience and resistance.

COOL MESIC TO WARM FRIGID/XERIC  
 BIG SAGEBRUSH (12-14 IN + PZ)  
 Piñon pine and/or juniper potential

**Moderate resilience and moderately low resistance**



(1a) Disturbances such as wildfire, insects, disease, and pathogens result in less sagebrush and more perennial grass/forb.

(1b) Sagebrush increases with time.

(2) Time combined with seed sources for piñon and/or juniper trigger a Phase I Woodland.

(3 and 5) Fire and or fire surrogates (herbicides and/or mechanical treatments) that remove trees may restore perennial grass/forb and sagebrush dominance on cooler/wetter sites. On warmer/drier sites with low perennial grass/forb abundance resistance to invasion is moderately low.

(4a) Increasing tree abundance results in a Phase II woodland with depleted perennial grass/forb and shrubs and an at-risk phase.

(4b) Fire surrogates (herbicides and/or mechanical treatments) that remove trees may restore sagebrush and perennial grass/forb dominance.

(T6) Infilling of trees and improper grazing can result in a biotic threshold crossing to a wooded state with increased risk of high severity crown fires.

(R6) Fire, herbicides and/or mechanical treatments that remove trees may restore perennial grass/forb and sagebrush dominance on cooler/wetter sites.

(T7) An irreversible abiotic threshold crossing to an eroded state can occur depending on soils, slope, and understory species.

(T8 and T9) An invasive seed source and/or improper grazing can trigger a wooded/invaded state.

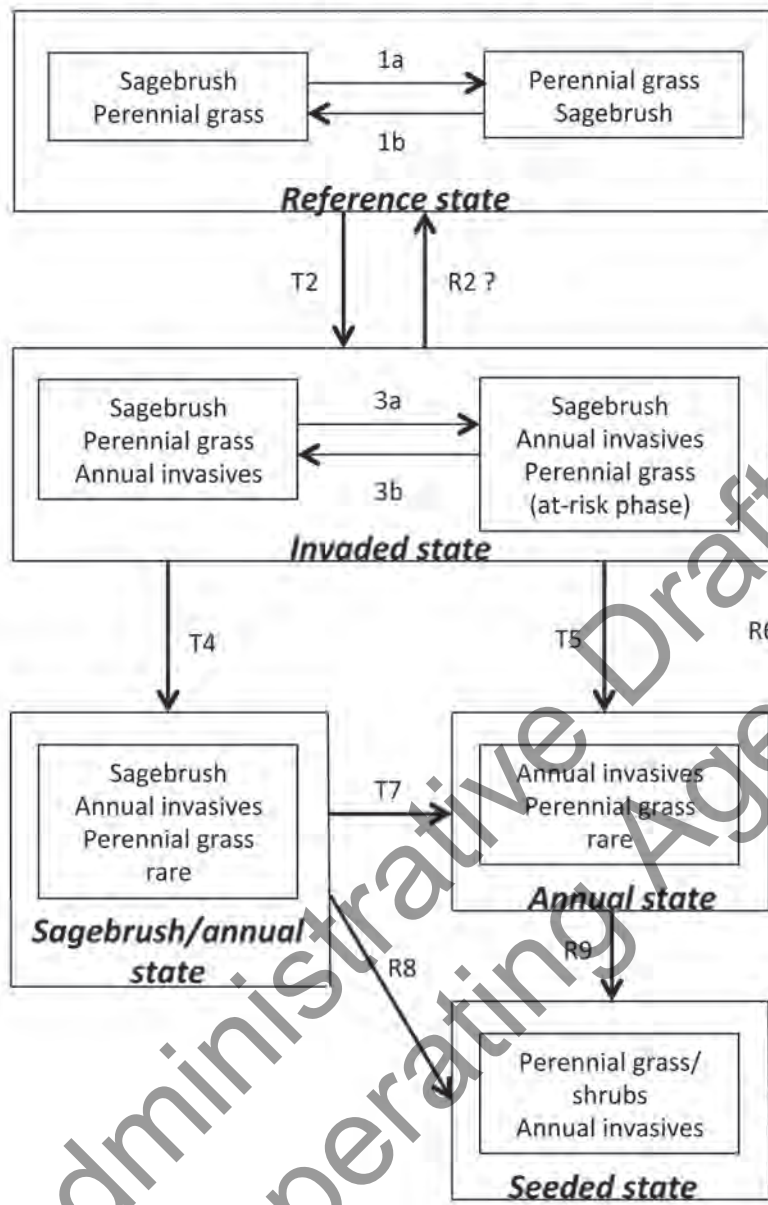
(T10) Fire or other disturbances that remove trees and sagebrush can result in a biotic threshold crossing to annual dominance on warmer/drier sites with low resilience.

(R11, R12, R13, and R14) Seeding after fire and/or invasive species control increases perennial grass/forb. Sagebrush may recolonize depending on seed sources, but annual invaders are still present. Seeded eroded states may have lower productivity.

(R15) Depending on seed mix, grazing, and level of erosion, return to the reference state may occur on cooler and wetter sites if an irreversible threshold has not been crossed.

**Figure A.5D.** STM for a cool mesic to warm frigid/xeric mountain big sagebrush ecological type type that has piñon pine and/or juniper potential and is characterized by moderate resilience and moderately low resistance.

MESIC/ARIDIC  
 WYOMING BIG SAGEBRUSH (8 TO 12 IN PZ)  
 Low to moderate resilience and low resistance



(1a) Perennial grass increases due to disturbances that decrease sagebrush like wildfire, insects, disease, and pathogens.  
 (1b) Sagebrush increases with time .  
 (T2) An invasive seed source and/or improper grazing trigger an invaded state.  
 (R2) Proper grazing, fire, herbicides and/ or mechanical treatments are unlikely to result in return to the reference state on all but the coolest and wettest sites.  
 (3a) Perennial grass decreases and both sagebrush and invasives increase with improper grazing resulting in an at-risk phase. Decreases in sagebrush due to insects, disease or pathogens can further increase invasives.  
 (3b) Proper grazing and herbicides or mechanical treatments that reduce sagebrush may restore perennial grass and decrease invaders on wetter sites (10-12"). Outcomes are less certain on drier sites (8-10") and/or low abundance of perennial grass.  
 (T4) Improper grazing triggers a largely irreversible threshold to a sagebrush/ annual state.  
 (T5 and T7) Fire or other disturbances that remove sagebrush result in an annual state. Perennial grass is rare and recovery potential is low due to low precipitation, mesic soil temperatures, and competition from annual invasives. Repeated fire can cause further degradation.  
 (R6, R8 and R9) Seeding following fire and/or invasive species control results in a seeded state. Sagebrush may recolonize depending on patch size, but annual invasives are still present.  
 (R10) Seeding effectiveness and return to the invaded state are related to site conditions, seeding mix, and post-treatment weather.

Figure A.5E. STM for a mesic/aridic Wyoming big sagebrush ecological type with low to moderate resilience and low resistance.

Administrative Draft  
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# Appendix D

## Wildfire and Invasive Species Assessments

Administrative Draft  
Cooperating Agency Review

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
WASHINGTON, D.C. 20240-0036  
<http://www.blm.gov>

August 28, 2014

In Reply Refer To:  
6711 (AD-200, FA-100) I

EMS TRANSMISSION 09/03/2014  
Instruction Memorandum No. 2014-134  
Expires: 09/30/2015

**To:** State Directors: CA, ID, NV, OR, UT

**From:** Assistant Director, Resources and Planning

**Subject:** Completion of Wildfire and Invasive Species DD: 9/8/2014 & 1/30/2015  
Assessments in Greater Sage-Grouse Habitat

**Program Areas:** Wildlife, Special Status Species, Range, Forestry, Emergency Stabilization and Rehabilitation, Riparian, Plant Conservation, Fire Operations, Fire Planning, and Fuels Management

**Purpose:** This Instruction Memorandum (IM) provides guidance for Bureau of Land Management (BLM) offices to cooperate with interagency partners to complete "Step 2" of the Wildfire and Invasive Species assessments (hereafter called FIAT assessments) for six priority landscapes in Greater sage-grouse (hereinafter "sage-grouse") habitats. These assessments will help to quantify future planned actions by the BLM to inform the US Fish and Wildlife Service's sage-grouse listing decision in 2015. The FIAT assessments are also consistent with the direction provided in the *Identification of Multi-year Funding Priorities and Consideration for Healthy Lands Focal Areas IM (WO IM-2014-124)* and the *Sage-Grouse Habitat and Wildland Fire Management IM (WO IM-2014-114)*.

**Policy/Action:** The FIAT assessments will be used to develop collaborative implementation plans that address threats to sage-grouse resulting from invasive annual grasses, wildfires, and conifer expansion in Priority Areas for Conservation (PACs). The completion of this first round of the PAC assessments within the Great Basin will inform the next phase of assessments as the BLM continues to expand into other sage-grouse habitat into 2015, including the Rocky Mountain

States as appropriate.

The State offices listed in Attachment 1 will complete "Step 2" of the FIAT assessments for six priority landscapes in cooperation with interagency partners following the schedule as defined in the Action Plan and a description of the collaboration process and team structure. Attachment 2 illustrates the names and locations of the PACs. The June 2014 FIAT Assessment (Attachment 3) completed "Step 1" of the FIAT assessment process and provides guidance for completing "Step 2".

The FIAT assessments are non-decisional in nature, and involve two steps:

**Step 1:** This step has been completed and is documented in the June 2014 FIAT Assessment protocol (Attachment 3). Step 1 identified focal habitats where management strategies will be prioritized (within or near these important habitats), patterns of resistance to invasive annual grasses and resilience after disturbance, landscape sagebrush cover, and conifer expansion within the six PACs. In addition to presenting the regional context, outcomes of Step 1 included geospatial data which define focal habitats, high density sage-grouse populations, and their intersection with threat factors. This data will be provided to state offices and appropriate field offices to use in their assessments.

**Step 2:** State and local offices will utilize Step 1 information and local data to conduct the FIAT assessments for the six PACs. As described in Attachment 3, offices will utilize Step 1 geospatial data supplemented with appropriate local data to best describe local conditions, treatment needs, and management priorities in or around focal habitats in the six PACs. Outcomes from Step 2 will include spatially identified conservation activities for the program areas of Fuels Management, Habitat Recovery/Restoration, Fire Operations, and Post-Fire Rehabilitation.

The PACs which have been identified for initial assessments include multiple land ownerships, jurisdictions, and in most cases, multiple states requiring a collaborative approach in carrying out the assessments. Partners who will contribute to FIAT assessments include, but are not limited to, National Forests, State wildlife agencies, the Natural Resources Conservation Service, the US Fish and Wildlife Service, tribes, and other local partners.

State Directors need to identify a State lead and the names of the core members of their team to Doug Havlina ([dhavlina@blm.gov](mailto:dhavlina@blm.gov)), the national lead for this effort, by September 8, 2014. The core team members are expected to participate in a

training workshop in Reno, NV September 16-18. The purpose of the workshop is to familiarize team members with the FIAT process, describe the data requirements, and provide the teams with a consistent approach to complete FIAT assessments.

**Timeframe:** This IM is effective immediately. The FIAT assessments for the six initial PACs will be completed by January 30, 2015.

**Budget Impact:** Moderate; one-time costs will be incurred as field offices complete FIAT assessments with adjoining agencies.

**Background:** The FIAT assessment process was approved by BLM leadership at the 2013 sage-grouse Federal Family meetings in Denver, Colorado and Portland, Oregon. In addition, BLM's Sage-Grouse National Policy Team approved the process in June 2014.

Wildfires, invasive annual grasses, and conifer encroachment are identified as primary threats. These threats contribute to fragmentation of habitats, large scale conversion to unsuitable plant communities, and ultimately declining sage-grouse populations. The BLM is moving towards completion of Resource Management Plan (RMP) amendments and revisions by winter 2015 to address these and other threats. While RMPs describe goals, objectives, and management actions to conserve sage-grouse, they generally lack specificity related to project prioritization, extent and location. This information is important to the 2015 USFWS listing decision. As such, FIAT assessments fulfill a key role by providing quantified descriptions of future conservation actions to inform the sage-grouse listing decision.

This assessment relies in large part on concepts of resistance to invasive annual grasses and resilience following disturbance across sage steppe environmental gradients along with sage-grouse habitat landscape cover requirements (available as a U.S. Forest Service General Technical Report at:

[http://www.fs.fed.us/rm/pubs/rmrs\\_gtr326.html](http://www.fs.fed.us/rm/pubs/rmrs_gtr326.html)

**Manual/Handbook Sections Affected:** None.

**Coordination:** This IM has been coordinated between Resources and Planning (WO200), Fire and Aviation (FA100), Fire Operations (FA300), and Fire Planning and Fuels Management (FA600).

**Contacts:** Questions may be directed to Douglas Havlina ([dhavlina@blm.gov](mailto:dhavlina@blm.gov)) Natural Resource Specialist - Fire Ecology, 208-387-5061.



Signed by:  
Edwin L. Roberson  
Assistant Director  
Resources and Planning

Authenticated by:  
Robert M. Williams  
Division of IRM Governance, WO-860

3 Attachments:

[1-Priority PACs for Initial Assessments/Fire and Invasives Assessment Action Plan \(2 pp\)](#)

[2-Map of PACs for FIAT Assessments in Management Zones III, IV, & V \(1 p\)](#)

[3-Greater Sage-Grouse Wildfire, Invasive Annual Grasses & Conifer Expansion Assessment - June 2014 \(43 pp\)](#)

Administrative Draft  
Cooperating Agency Review

Priority PACs for Initial Assessments / Fire and Invasives Assessment Action Plan

Priority PAC	BLM State Office Responsible for FIAT Completion	BLM District Offices which intersect priority PAC
Central Oregon	Oregon	Burns, OR Lakeview, OR Prineville, OR
Northern Great Basin (Includes Box Elder in Utah and Management Zone IV portion of the Northern Great Basin/Western Great Basin PAC in Southeast Oregon)	Idaho (in coordination w/ UT)	Boise, ID Burns, OR Elko, NV Idaho Falls, ID Twin Falls, ID Vale, OR West Desert, UT Winnemucca, NV
Southern Great Basin (Includes Hamlin Valley in Utah)	Nevada (in coordination w/ UT)	Battle Mountain, NV Carson City, NV Color Country, UT Elko, NV Ely, NV
Snake, Salmon, and Beaverhead	Idaho	Boise, ID Idaho Falls, ID Twin Falls, ID
Western Great Basin and Warm Springs Valley NV/Western Great Basin (Includes Management Zone V portion of the Northern Great Basin/Western Great Basin PAC in Southeast Oregon)	California	Burns, OR Carson City, NV Lakeview, OR North California, CA Vale, OR Winnemucca, NV

Fire and Invasives Assessment Action Plan

State Directors assign team members and coordinator for priority landscapes.	September 3, 2014
Initial FIAT Process Coordination Call for State leads– Process Overview; Data Coordination; Report Template of What, Where, Why (Who, When, & How and Implementation); examples of expected deliverables; Training session logistics and details.	September 8, 2014
Training Session for All *Core Team members – Nevada State Office	September 16-18, 2014
Coordination Calls with Team Leaders	Every Two Weeks Starting October 1
Initial Draft Assessment Coordination Webinar	January 5, 2015
Final Draft for Great Basin Regional Management Team Review with State Directors	January 23, 2015
Final Assessments Approved by State Directors	January 30, 2015

### **Process for Collaboration**

Priority landscapes involve multiple ownerships, jurisdictions, and in most cases, multiple states. Consequently, the affected Bureau of Land Management (BLM) State Offices will work cooperatively to complete assessments. Partners which may contribute to FIAT assessments include National Forests managed by the U.S. Forest Service within priority landscapes, the Natural Resources Conservation Service, the USFWS, tribes, State wildlife agencies, and other local partners. A specific BLM State Office has been assigned as the lead for each of the six FIAT assessments (see above).

It is imperative that the assessment teams coordinate with the teams assessing adjacent priority landscapes and appropriate FIAT Development Team members. The Western Great Basin and Warm Springs Valley NV/Western Great Basin priority landscapes will be combined into one assessment for priority consistency across the areas and process efficiency. Similarly, the Northern Great Basin assessment will include the Box Elder PAC in Utah and the Management Zone IV portion of the Northern Great Basin/Western Great Basin PAC in Southeast Oregon. The Southern Great Basin PAC assessment will include the Hamlin Valley in Utah and the Management Zone V portion of the Northern Great Basin/Western Great Basin PAC in Southeast Oregon.

A FIAT training workshop will take place at Nevada State Office in Reno Nevada on September 16-18, 2014. The outcome of the training will be to familiarize designated team members with the FIAT process, understand the data requirements and provide the teams with a consistent approach to complete the FIAT assessment.

The employees required to attend the training will include the Sage Grouse Management Zone Project Team Lead, the project zone GIS Specialist, and two other team members designated by the Project Team Lead. The structure of this team may vary slightly given the requirements of each State. Select members of the FIAT Development Team will be involved in training, technical assistance, and review as assessments are conducted. State points-of-contact will coordinate attendance with Doug Havlina, meeting coordinator, at (208) 387-5061.

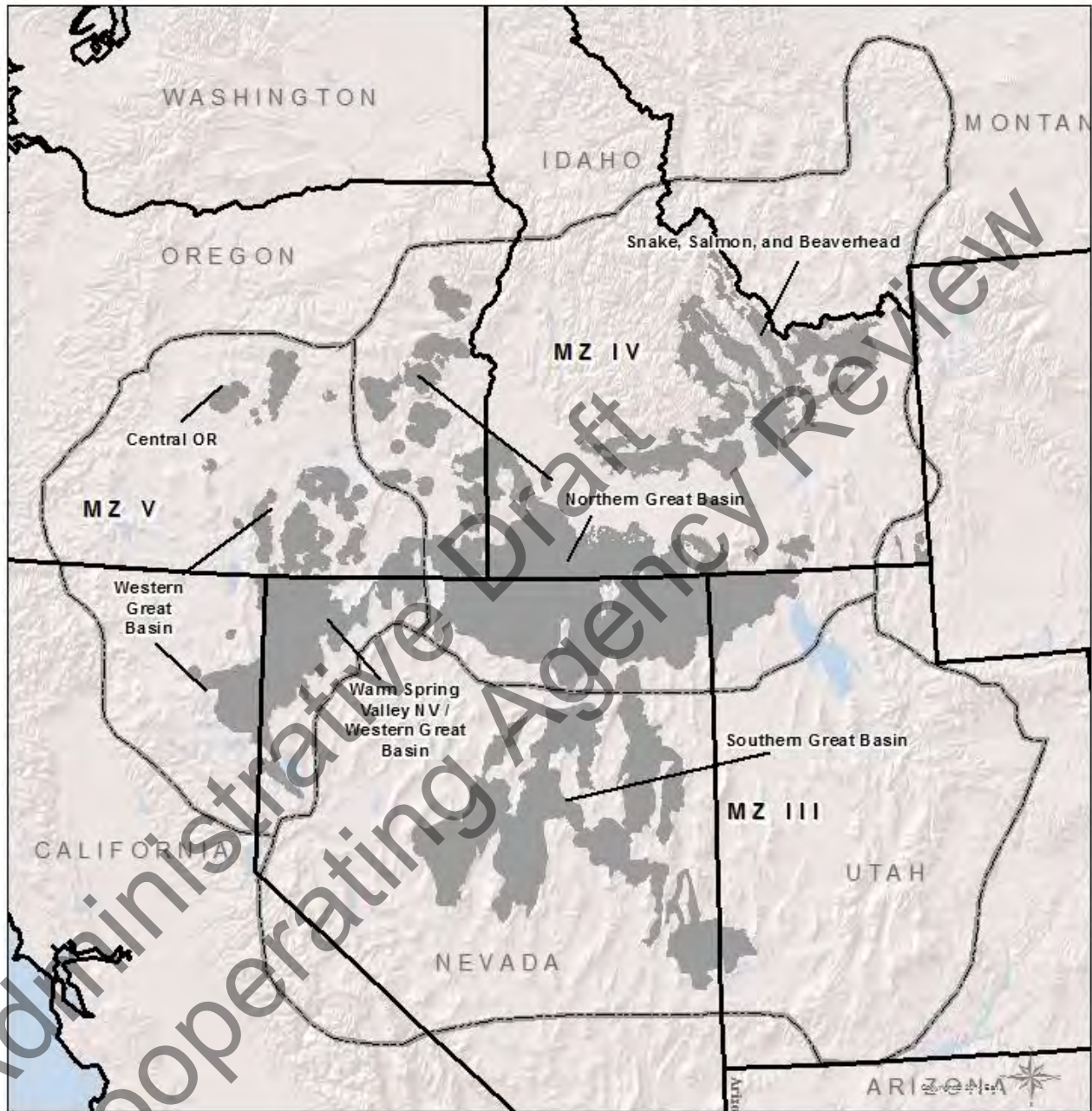
### **Core Team Structure**

The State will determine the membership of their team(s). The suggested teams should include the following positions:

1. Team Lead \*
2. GIS Specialist \*
3. Fire Planner
4. Fuels Specialist
5. Vegetation (Restoration) Specialist
6. Wildlife Biologist
7. Ecologist
8. Forester/Woodland Management Specialist
9. Writer- Editor
10. FWS Liaison
11. FS Liaison (Management Zones III & IV)
12. State Agencies
13. NRCS Liaison

\*Core team members

Map of PACs for FIAT Assessments in Management Zones III, IV, & V



Priority Landscape  
Sage-Grouse Management Zone

0 100 200 400 Kilometers

# Greater Sage-Grouse Wildfire, Invasive Annual Grasses & Conifer Expansion Assessment

June 2014



## Introduction and Background

The purpose of this assessment is to identify priority habitat areas and management strategies to reduce the threats to Greater Sage-Grouse resulting from impacts of invasive annual grasses, wildfires, and conifer expansion. The Conservation Objectives Team (COT) report (USFWS 2013) and other scientific publications identify wildfire and conversion of sagebrush habitat to invasive annual grass dominated vegetative communities as two of the primary threats to the sustainability of Greater Sage-Grouse (*Centrocercus urophasianus*, hereafter sage-grouse) in the western portion of the species range. For the purposes of this assessment protocol, invasive species are limited to, and hereafter referred to, as **invasive annual grasses** (e.g., primarily cheatgrass [*Bromus tectorum*]). Conifer expansion (also called encroachment) is also addressed in this assessment.

The United States Fish and Wildlife Service (USFWS) will consider the amelioration of impacts, location and extent of treatments, degree of fire risk reduction, locations for suppression priorities, and other proactive measures to conserve sage-grouse in their 2015 listing decision. This determination will be made based in part upon information contained in the United States (US) Department of the Interior, Bureau of Land Management (BLM) resource management plan (RMP) amendments and Forest Service land resource management plan (LRMP) amendments, including this assessment.

This assessment is based in part on National Resources Conservation Service (NRCS) soil surveys that include geospatial information on soil temperature and moisture regimes associated with resistance and resiliency properties (see following section on *Soil Temperature and Moisture Regimes*). While this assessment is applicable across the range of sage-grouse, the analysis is limited to Western Association of Fish and Wildlife Management Agencies' (WAFWA) Management Zones III, IV, and V (roughly the Great Basin region) because of the significant issues associated with invasive annual grasses and the high level of wildfires in this region. The utility of this assessment process is dependent on incorporating improved information and geospatial data as it becomes available. Although the resistance and resilience concepts have broad applications (e.g., infrastructure development), this assessment is limited to developing strategies to reduce threats to sage-grouse habitat (e.g., invasive annual grasses and wildfires).

Draft Greater Sage-Grouse Environmental Impact Statements (EISs) contain a suggested framework in the appendices ("Draft Greater Sage-Grouse Wildland Fire and Invasive Species Assessment") that provided a consistent approach to conduct these assessments. The current protocol was developed by the Fire and Invasive Species Team (FIAT), a team of wildland fire specialists and other resource specialists and managers, to specifically incorporate resistance to invasive annual grasses and resilience after disturbance principles into the assessment protocol. In October 2013, the BLM, Forest Service, and USFWS agreed to incorporate this approach into the final EISs.

The cornerstone of the FIAT protocol is recent scientific research on resistance and resilience of Great Basin ecosystems (Chambers et al. *In press*) and the USFWS-sponsored project with the Western Association of Fish and Wildlife Agencies (WAFWA) to assemble an interdisciplinary team to provide additional information on wildland fire and invasive plants and to develop strategies for addressing

these issues. This interagency collaboration between rangeland scientists, fire specialists, and sage-grouse biologists resulted in the development of a strategic, multi-scale approach for employing ecosystem resilience and resistance concepts to manage threats to sage-grouse habitats from wildfire and invasive annual grasses (Chambers et al. *In prep.* ). This paper is being published as a Forest Service Rocky Mountain Research Station General Technical Report and is available at [www.rockymountainresearchstation.fs.fed.us/publications/2016/01/01/20160101a](http://www.rockymountainresearchstation.fs.fed.us/publications/2016/01/01/20160101a). It serves as the reference and basis for the protocol described in this assessment.

The assessment process sets the stage for:

- Identifying important sage-grouse occupied habitats and baseline data layers important in defining and prioritizing sage-grouse habitats
- Assessing the resistance to invasive annual grasses and resilience after disturbance and prioritizing focal habitats for conservation and restoration
- Identifying geospatially explicit management strategies to conserve sage-grouse habitats

Management strategies are types of actions or treatments that managers typically implement to resolve resource issues. They can be divided into proactive approaches (e.g., fuels management and habitat recovery/restoration) and reactive approaches (e.g., fire operations and post-fire rehabilitation). Proactive management strategies can favorably modify wildfire behavior and restore or improve desirable habitat with greater resistance to invasive annual grasses and/or resilience after disturbances such as wildfires. Reactive management strategies are employed to reduce the loss of sage-grouse habitat from wildfires or stabilize soils and reduce impacts of invasive annual grasses in sage-grouse habitat after wildfires. Proactive management strategies will result in long-term sage-grouse habitat improvement and stability, while reactive management strategies are essential to reducing current impacts of wildfires on sage-grouse habitat, thus maintaining long-term habitat stability. Management strategies include:

#### **Proactive Strategies-**

- 1. Fuels Management** includes projects that are designed to change vegetation composition and/or structure to modify fire behavior characteristics for the purpose of aiding in fire suppression and reducing fire extent.
- 2. Habitat Restoration/Recovery**
  - a. Recovery, referred to as passive restoration (Pyke 2011), is focused on changes in land use (e.g., improved livestock grazing practices) to achieve a desired outcome where the plant community has not crossed a biotic or physical threshold.
  - b. Restoration is equivalent to active restoration (Pyke 2011) and is needed when desired species or structural groups are poorly represented in the community and reseeding, often preceded by removal of undesirable species, is required. Note: The Fuels Management program supports recovery/restoration projects through its objective to restore and maintain resilient landscapes.

#### **Reactive Strategies-**

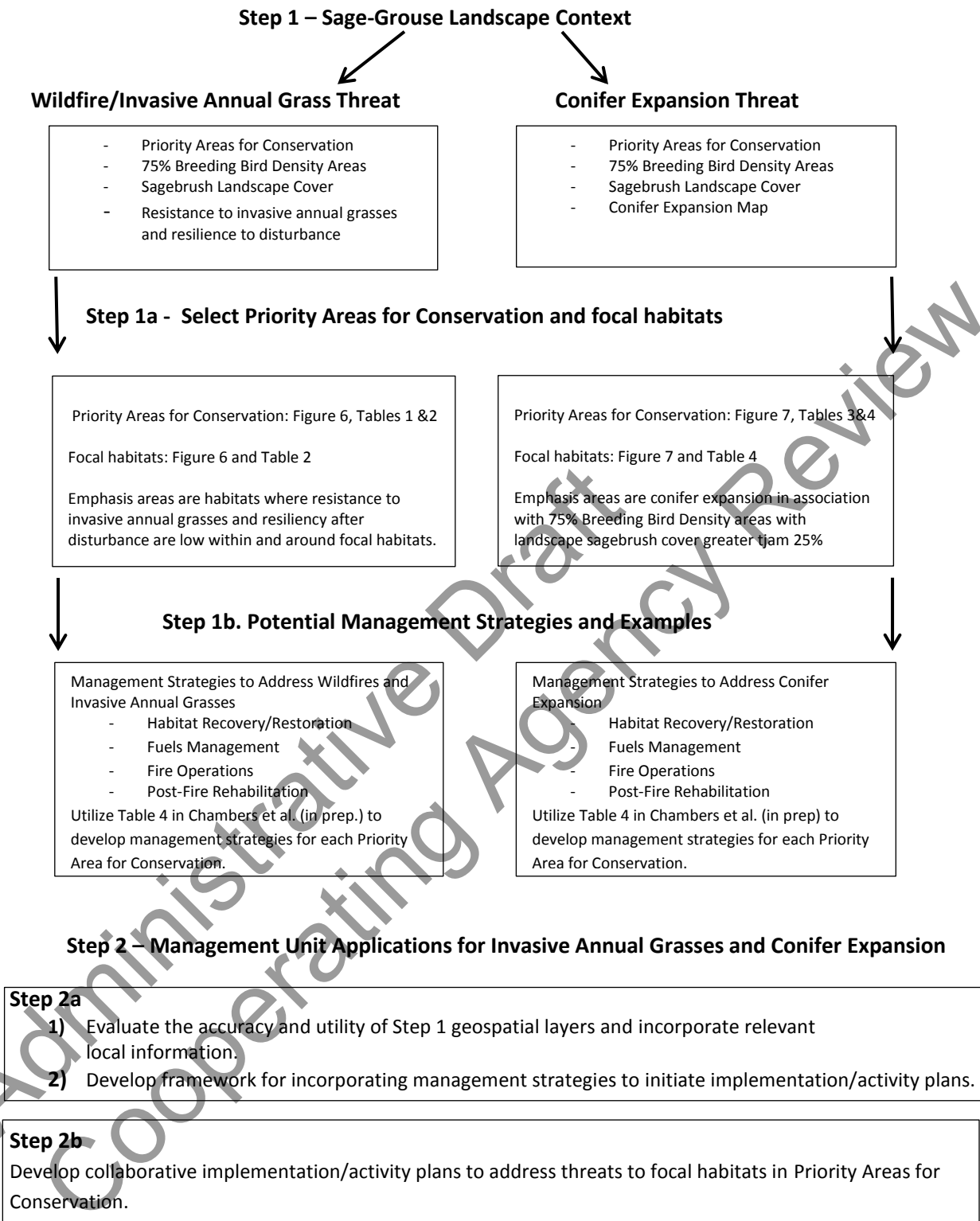
3. **Fire Operations** includes preparedness, prevention, and suppression activities. When discussing specific components of fire operations, the terms fire preparedness, fire prevention and fire suppression are used.
4. **Post-Fire Rehabilitation** includes the BLM's Emergency Stabilization and Rehabilitation (ES&R) Program and the Forest Service's Burned Area Emergency Response (BAER) Program. Policy limits application of funds from 1 to 3 years, thus treatments to restore or enhance habitat after this period of time are considered habitat recovery/restoration.

The assessment process included two steps with sub-elements. First, important Priority Areas for Conservation (PACs) and focal habitats are identified (**Step 1a**). Second, potential management **strategies** (described above) are identified to conserve or restore focal habitats threatened by wildfires, invasive annual grasses, and conifer expansion (primarily pinyon pine and/or juniper species, **Step 1b**). Focal habitats are the portions of a PAC with important habitat characteristics, bird populations, and threats (e.g., wildfires, invasive annual grasses, and conifer expansion) where this assessment will be applied. Areas adjacent to or near the focal habitats can be considered for management treatments such as fire control and fuels management if these locations can reduce wildfire impacts to focal habitats. Soil temperature and moisture regimes are used to characterize capacity for resistance to invasive annual grasses and resilience after disturbance (primarily wildfires) within focal habitats to assist in identifying appropriate management strategies, especially in areas with good habitat characteristics that have low recovery potential following disturbance. Soil moisture and temperature regime relationships have not been quantified to the same degree as for conifer expansion; however, Chambers et al. (*In prep.*) discuss preliminary correlations between these two variables.

The results of Steps 1a and 1b, along with associated geospatial data files, are available to local management units to complete Step 2 of the assessment process. Step 2 is conducted by local management units to address wildfire, invasive annual grasses, and conifer expansion in or near focal habitat areas. First, local information and geospatial data are collected and evaluated to apply and improve on Step 1 focal habitat area geospatial data (**Step 2a**). Second, focal habitat activity and implementation plans are developed and include prioritized management **tactics and treatments** to implement effective, fuels management, habitat recovery/restoration, fire operations, and post-fire rehabilitation strategies (**Step 2b**). This assessment will work best if Step 2b is done across management units (internal and externally across BLM and Forest Service administrative units and with other entities). **Figure 1**, Assessment Flow Chart, contains an illustration of the steps in the assessment process.

This analysis does not necessarily address the full suite of actions needed to maintain the current distribution and connectivity of sage-grouse habitats across the Great Basin because resources available to the federal agencies are limited at this time. Future efforts designed to maintain and connect habitats across the range will be needed as current focal areas are addressed and additional resources become available.





**Figure 1, Assessment Flow Chart**

# Step 1

The first component of the Wildfire and Invasive Annual Grasses Assessment describes the factors that collectively provide the sage-grouse landscape context. Step 1a provides this context by discussing PACs, breeding bird density (BBD), soil temperature and moisture regimes (indicators of resistance to annual grasses and resilience after disturbance), landscape sagebrush cover, and conifer expansion. See Chambers et al. (2014 in prep.) for a detailed description of Invasive Annual Grass and Wildfire threats to sage-grouse habitat. Priority PACs and focal habitats are derived from the information provided in this sage-grouse landscape context section.

## Step 1a- Sage-grouse landscape context

This component of the assessment identifies important PACs and associated focal habitats where wildfire, invasive annual grasses, and conifer expansion pose the most significant threats to sage-grouse.

The primary focus of this assessment is on sage-grouse populations across the WAFWA Management Zones III, IV, and V (**Figure 2**, Current PACs for WAFWA Management Zones III, IV, and V). Sage-grouse are considered a landscape species that require very large areas to meet their annual life history needs. Sage-grouse are highly clumped in their distribution (Doherty et al. 2010), and the amount of landscape cover in sagebrush is an important predictor of sage-grouse persistence in these population centers (Knick et al. 2013). States have used this information combined with local knowledge to identify PACs to help guide long-term conservation efforts. FIAT used data sets that were available across the three management zones as an initial step for prioritizing selected PACs and identifying focal habitats for fire and invasive annual grasses and conifer expansion assessments. These data sets (also described in Chambers et al. *In prep.* ) include:

### Priority Areas for Conservation (PACs)

PACs have been identified by states as key areas that are necessary to maintain redundant, representative, and resilient sage-grouse populations (USFWS 2013; see Figure 2). A primary objective is to minimize threats within PACs (e.g., wildfire and invasive annual grasses impacts) to ensure the long-term viability of sage-grouse and its habitats. A secondary priority is to conserve sage-grouse habitats outside of PACs since they may also be important for habitat connectivity between PACs (genetic and habitat linkages), habitat restoration and population expansion opportunities, and flexibility for managing habitat changes that may result from climate change. PACs have also been identified by the USFWS as one of the reporting geographic areas that will be considered during listing determinations for sage-grouse.

The combination of PACs with BBD data (described below) assists us in identifying connectivity between populations. PAC boundaries may be modified in the future requiring adjustments in focal habitat areas and management strategy priorities.

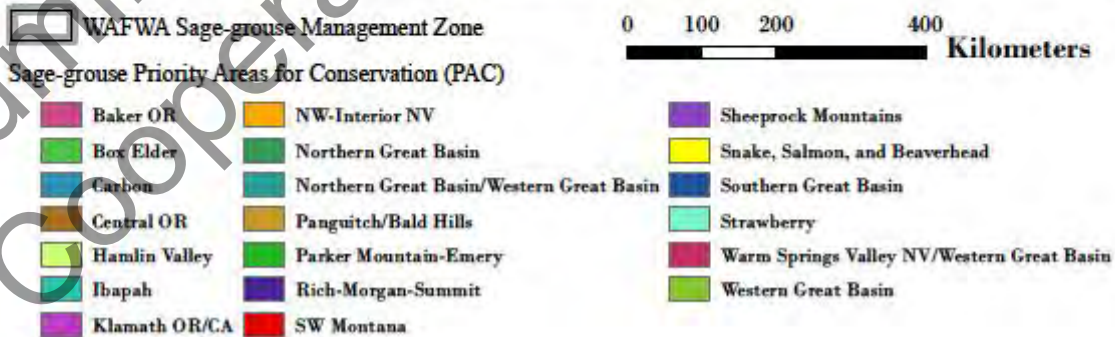
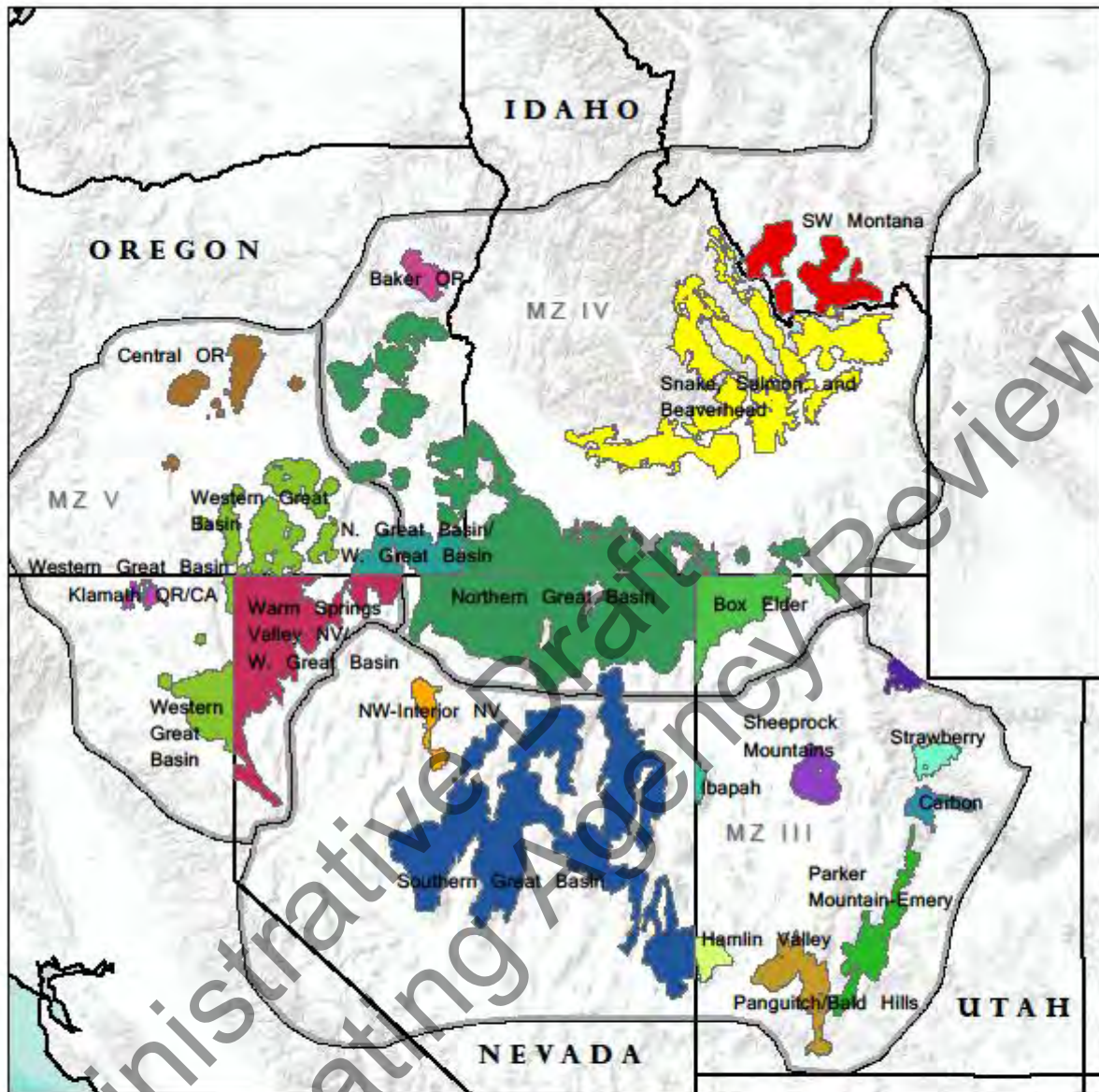


Figure 2, Current PACs for WAFWA Management Zones III, IV, and V. Bi-State sage-grouse populations were not included for this analysis and are being addressed in separate planning efforts.

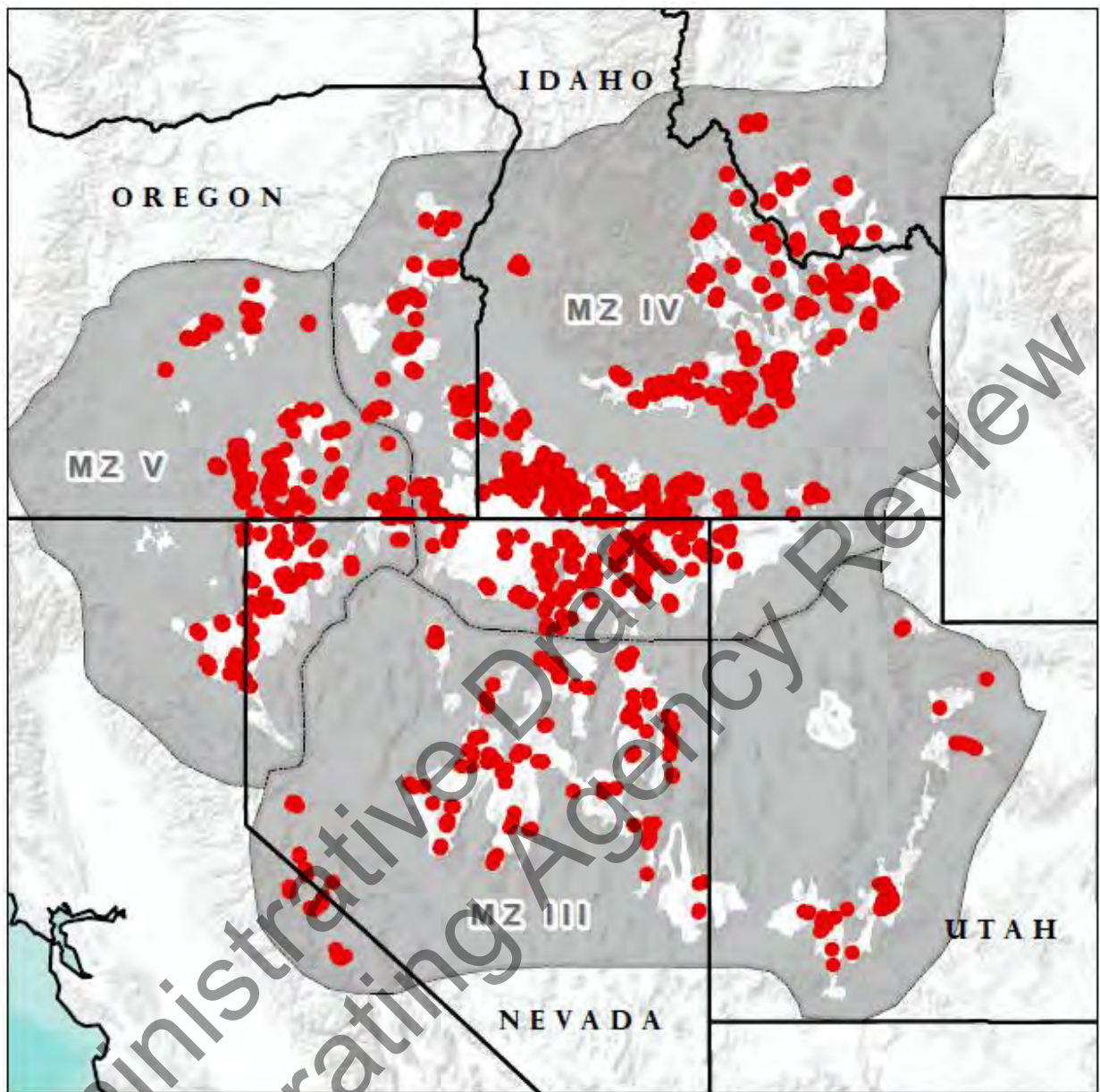
### Breeding Bird Density

Doherty et al. (2010) provided a useful framework for identifying population concentration centers in their range-wide BBD mapping. FIAT used maximum counts of males on leks (4,885 males) to delineate breeding bird density areas that contain 25, 50, 75, and 100 percent of the known breeding population. Leks were then mapped according to abundance values and buffered by 4 to 5.2 miles (6.4 to 8.5 kilometers) to delineate nesting areas. Findings showed that while sage-grouse occupy extremely large landscapes, their breeding distribution is highly aggregated in comparably smaller identifiable population centers; 25 percent of the known population occurs within 3.9 percent (7.2 million acres [2.92 million hectares]) of the species range, and 75 percent of birds are within 27 percent of the species range (50.5 million acres [20.4 million hectares]; Doherty et al. 2010). See **Figures 3**, Sage-Grouse Breeding Bird Density Thresholds.

This analysis places emphasis on breeding habitats because little broad/mid-scale data exists for associated brood-rearing (summer) and winter habitat use areas. Finer scale seasonal habitat use data should be incorporated (or, if not available studies, should be conducted) at local levels to ensure management actions encompass all seasonal habitat requirements. Federal administrative units should consult with state wildlife agencies for additional seasonal habitat information.

For this assessment, FIAT chose to use the 75 percent BBD as an indicator of high bird density areas that informed the approach used by state wildlife agencies to initially identify PACs. Range-wide BBD areas provide a means to further prioritize actions within relatively large PACs to maintain bird distribution and abundance. FIAT used state level BBD data from Doherty et al. (2010) instead of range-wide model results to ensure important breeding areas in Management Zones III, IV, and V were not underweighted due to relatively higher bird densities in the eastern portion of the range. BBD areas of 75 to 100 percent are included in Appendix 1 to provide context for local management units when making decisions concerning connectivity between populations and PACs.

Note that breeding density areas were identified using best available information in 2009, so this range-wide data does not reflect the most current lek count information and changes in conditions since the original analysis. Subsequent analysis should use the most current information available. Also, BBD areas should not be viewed as rigid boundaries but rather as a means to regionally prioritize landscapes where step down assessments and actions should be implemented quickly to conserve the most birds.



- 75% Breeding Bird Density
- Sage-grouse Management Zone
- PAC within Management Zones

0 100 200 400 Kilometers

**Figure 3, Sage-Grouse Breeding Bird Density Thresholds** for 75% of the breeding birds, Management Zones, and PACs. Breeding bird density of 75 to 100% is shown in Appendix 1 to provide context for local management units when making decisions concerning connectivity between populations and PACs.

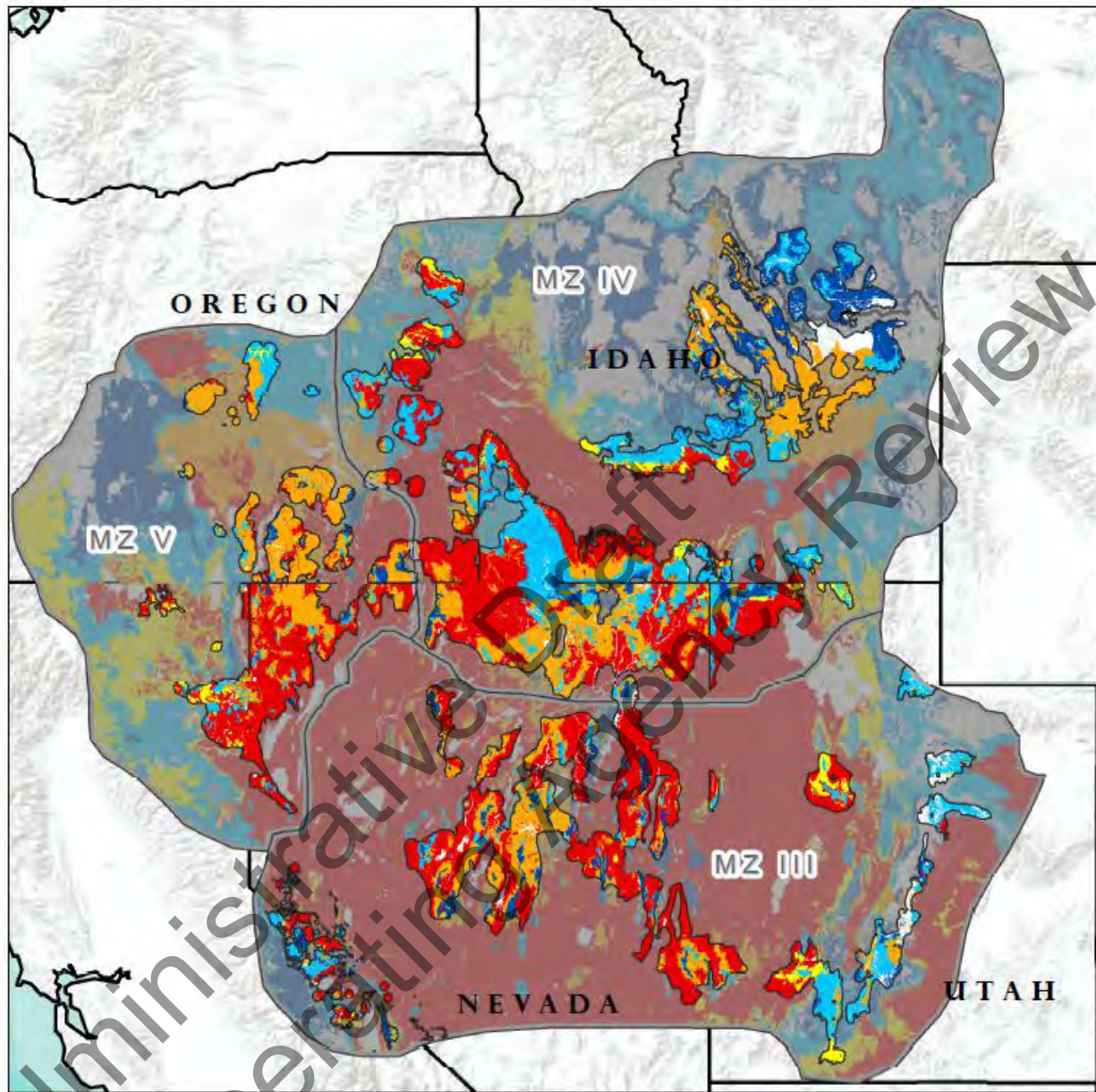
### Soil Temperature and Moisture Regimes

Invasive annual grasses and wildfires can be tied to management strategies through an understanding of resistance and resilience concepts. Invasive annual grasses has significantly reduced sage-grouse habitat throughout large portions of its range (Miller et al. 2011). While abandoned leks were linked to increased nonnative annual grass presence, active leks were associated with less annual grassland cover than in the surrounding landscape (Knick et al. 2013). Invasive annual grasses also increases fire frequency, which directly threatens sage-grouse habitat and further promotes the establishment of invasive annual grasses (Balch et al. 2013). This nonnative annual grass and fire feedback loop can result in conversion from sagebrush shrublands to annual grasslands (Davies 2011).

In cold desert shrublands, vegetation community resistance to invasive annual grasses, especially cheatgrass, and resilience following disturbance is strongly influenced by soil temperature and moisture regimes (Chambers et al. 2007; Meyer et al. 2001). Generally, cooler and moister soil temperature/moisture regimes are associated with more resilient vegetation communities as indicated by increases in vegetation productivity and ability to compete and recover from disturbance along elevation gradients (Chambers et al. 2007; Chambers et al. *in press*). Also, colder soil temperatures are associated with more resistant communities due to limitations on invasive annual grass growth and reproduction. Thus, communities with warm and dry soil temperature and moisture regimes tend to have relatively low resilience and resistance. Communities with cool and dry soil temperature and moisture regimes also can have relatively low resilience and resistance with the degree of resistance to cheatgrass depending on soil temperature (see Figure 9 in Chambers et al. *In prep.*). A continuum in resistance and resilience exists across soil temperature and moisture regimes that will need to be considered when developing implementation or activity plans in Step 2. These relationships can be used to help prioritize management actions within sage-grouse habitat using broadly available data.

To capture relative resistance and resilience to disturbance and invasive annual grasses across the landscape, soil temperature and moisture regime information (described in greater detail in Chambers et al. *In prep.*) were obtained from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) data. Where gaps in this coverage existed, the NRCS US General Soil Map (STATSGO2) data was used (Soil Survey Staff 2014; see Appendix 1). The STATSGO2 database includes soils mapped at a 1:250,000-scale; the SSURGO database includes soils mapped at the 1:20,000 scale. Interpretations made from soil temperature and moisture regimes from the STATSGO2 database will not have the same level of accuracy as those made from the SSURGO database.

Areas characterized by warm and dry soil temperature and moisture regimes (low relative resistance and resilience) were intersected with sage-grouse breeding habitat and sagebrush landscape cover to identify candidate areas (emphasis areas) for potential management actions that mitigate threats from invasive annual grasses and wildfire (**Figure 4**, Soil Moisture and Temperature Regimes for Management Zones III, IV, and V, and **Figure 5**, Intersection of High Density (75% BBD) Populations). These data layers provide the baseline information considered important in prioritizing areas where conservation and management actions could be developed to address invasive annual grasses in a scientifically defensible manner (see Table 4 in Chambers et al. *In prep.*).



-  Sage-grouse Management Zone
-  Non Priority Area for Conservation

0 100 200 400  
 Kilometers







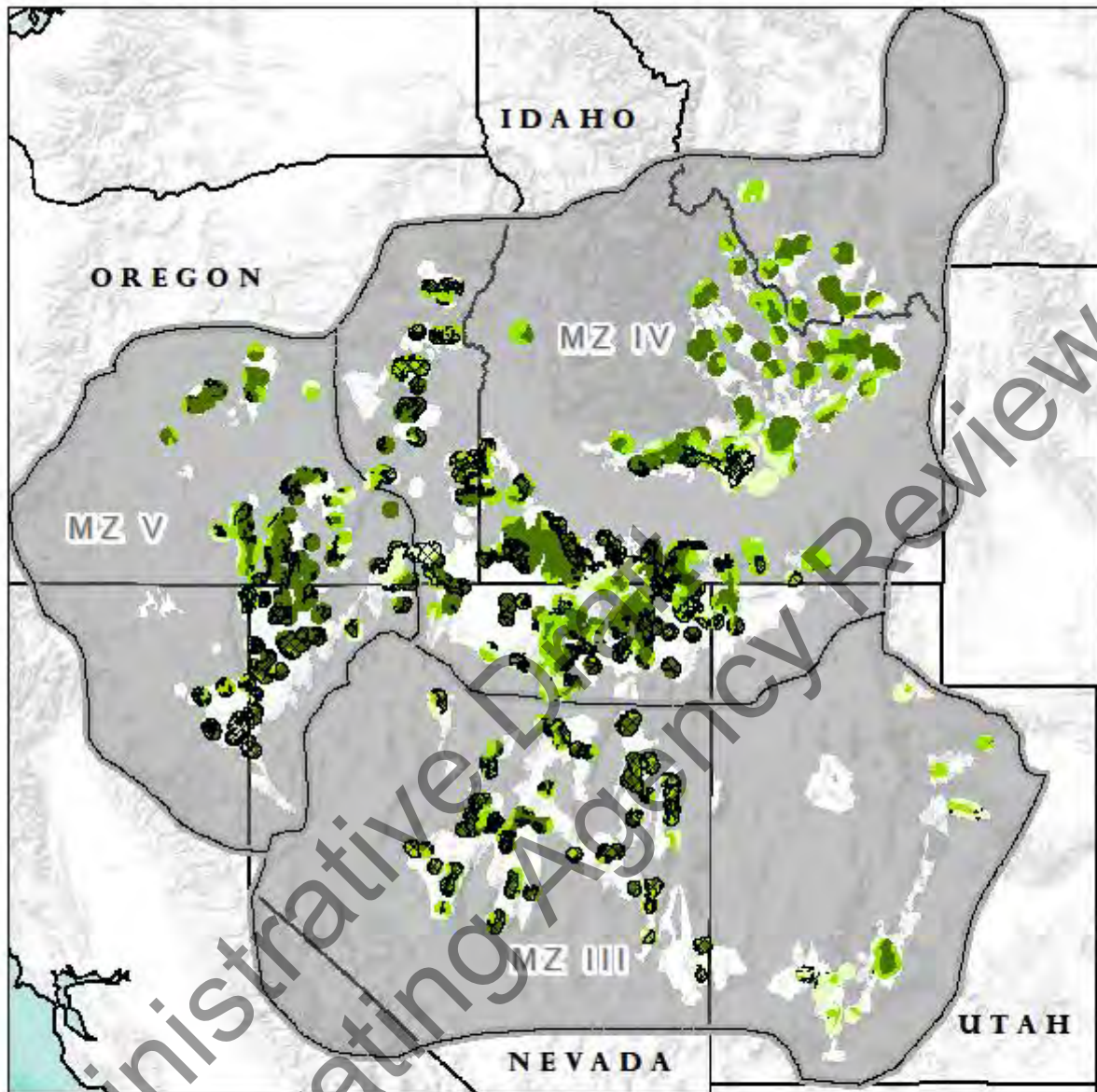
- Soil Moisture & Temperature Regime**
-  Cold and Moist (Cryic)
  -  Cool and Moist (Frigid/ Xeric)
  -  Warm and Moist (Mesic/Xeric)
  -  Cool and Dry (Frigid/ Aridic)
  -  Warm and Dry (Mesic/ Aridic)
  -  Omitted or No Data

Figure 4, Soil Moisture and Temperature Regimes for Management Zones III, IV, and V



**Figure 5, Intersection of High Density (75% BBD) Populations.** The warm and dry sites and the proportion of these habitats in the three sagebrush landscape cover classes by management zone, and PACs within the Great Basin.



### Sagebrush Landscape Cover

The amount of the landscape in sagebrush cover is closely related to the probability of maintaining active sage-grouse leks, and is used as one of the primary indicators of sage-grouse habitat potential at landscape scales (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). For purposes of prioritizing landscapes for sage-grouse habitat management, FIAT used less than or equal to 25 percent sagebrush landscape cover as a level below which there is a low probability of maintaining sage-grouse leks, and greater than or equal to 65 percent as the level above which there is a high probability of sustaining sage-grouse populations with further increases of landscape cover of sagebrush (Aldridge et al. 2008; Wisdom et al. 2011; Knick et al. 2013). Increases in landscape cover of sagebrush have a constant positive relationship with sage-grouse lek probability at between about 25 percent and 65 percent landscape sagebrush cover (Knick et al. 2013). It is important to note that these data and interpretations relate only to persistence (i.e., whether or not a lek remains active), and it is likely that higher proportions of sagebrush cover may be required for population growth.

For the purposes of delineating sagebrush habitat relative to sage-grouse requirements for landscape cover of sagebrush, FIAT calculated the percentage of landscape sagebrush cover (Landfire 2013) within a 3-mile (5-kilometer) radius of each 98-foot by 98-foot (30 meter by 30 meter) pixel in Management Zones III, IV, and V (see Appendix 2 in Chambers et al. (*In prep.*) for how landscape sagebrush cover was calculated). FIAT then grouped the percentage of landscape sagebrush cover into each of the selected categories (0 to 25 percent, 25 to 65 percent, 65 to 100 percent; **Figure 6**, Sagebrush Landscape Cover and Fire Perimeters for the Analysis Area). Landfire data was based on 2000 satellite imagery so wildfire perimeters after that date were incorporated into this layer to better reflect landscape sagebrush cover. Burned areas were assumed to fall into the 0 to 25 percent landscape cover class.

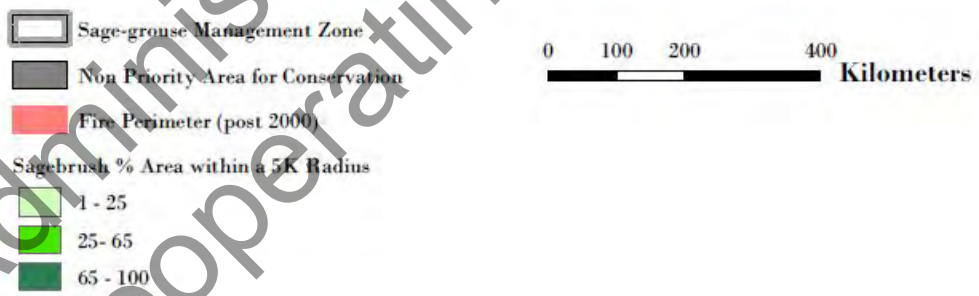
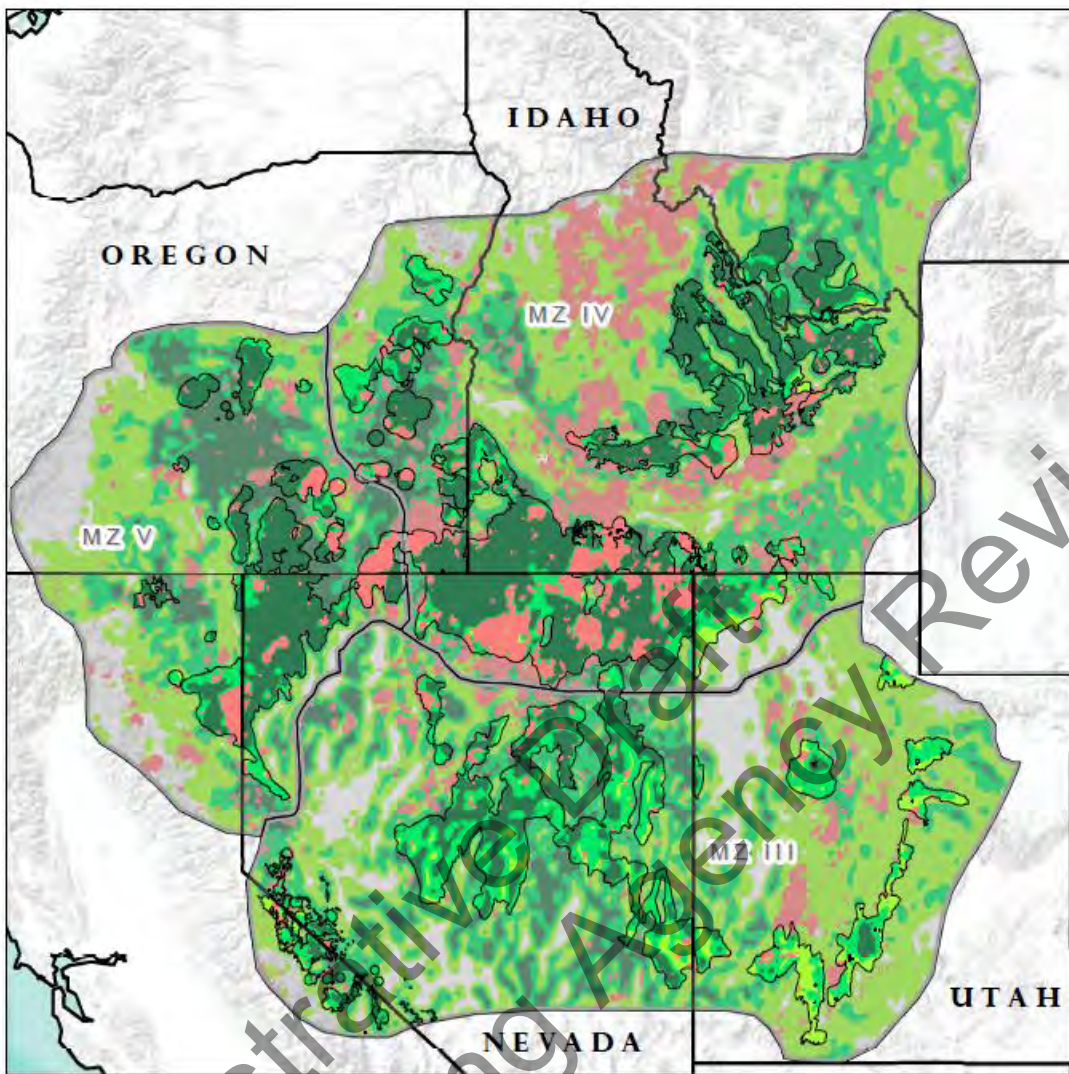


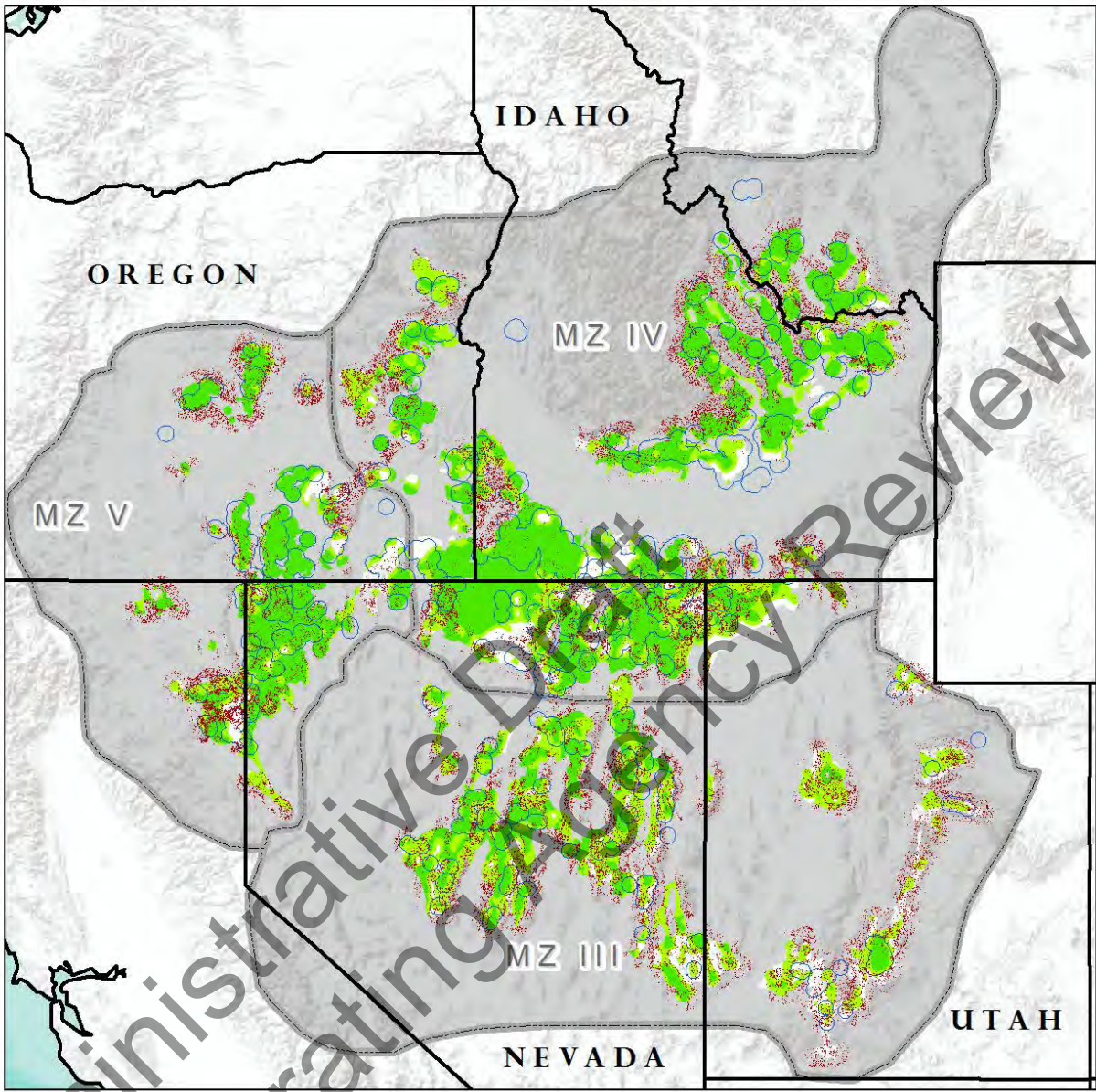
Figure 6, Sagebrush Landscape Cover and Fire Perimeters (post-2000) for the Analysis Area








### Conifer Expansion

Conifer expansion into sagebrush landscapes also directly reduces sage-grouse habitat by displacing shrubs and herbaceous understory as well as by providing perches for avian predators. Conifer expansion also leads to larger, more severe fires in sagebrush systems by increasing woody fuel loads (Miller 2013). Sage-grouse populations have been shown to be impacted by even low levels of conifer expansion (Baruch-Mordo et al. 2013). Active sage-grouse leks persist in regions of relatively low conifer woodland and are threatened by conifer expansion (Baruch-Mordo et al. 2013; Knick et al. 2013).

To estimate where sage-grouse breeding habitat faces the largest threat of conifer expansion, FIAT used a risk model developed by Manier et al. (2013) that locates regions where sagebrush landscapes occur within 250 meters of conifer woodland (**Figure 7**, Modeled Conifer Expansion for PACs with Greater Than 25% Sagebrush Landscape Cover In and Around 75% BBD). Although the model is coarse, it is available for the entirety of the three sage-grouse management zones analyzed. FIAT encourages using more accurate conifer expansion data in Step 2.

Administrative Draft  
Cooperating Agency Review



-  75% Breeding Bird Density Area
-  Conifer Expansion (risk model) surrounding PAC
-  PAC within Management Zones
-  Sage-grouse Management Zone
- Sagebrush (%) Area within a 5K Radius**
-  > 65%
-  25-65%
-  < 25%

0 100 200 400 Kilometers

Figure 7, Modeled Conifer Expansion for PACs with Greater Than 25% Sagebrush Landscape Cover In and Around 75% BBD

## Step 1a. Identifying PACs and focal habitats

A primary goal for the conservation of sage-grouse populations is the identification of important habitats needed to ensure the persistence and recovery of the species. Loss of habitat, and by inference populations, in these habitats would likely imperil the species in the Great Basin. The first objective is to protect and restore those habitats that provide assurances for retaining large well connected populations.

PACs and the 75 percent BBD maps were used to provide a first-tier stratification (e.g., focal habitats) for prioritizing areas where conservation actions could be especially important for sage-grouse populations. Although these areas are a subset of the larger sage-grouse habitats, they are readily identifiable and include habitats (e.g., breeding and nesting habitats that are considered critical for survival; Connelly et al. 2000; Holloran et al. 2005; Connelly et al. 2011) and necessary for the recovery of the species across its range.

The prioritization of habitats for conservation purposes was based on the several primary threats to remaining sage-grouse populations in the Great Basin including the loss of sagebrush habitats to wildfire and invasive annual grasses, and conifer expansion. The first, and probably the most urgent threat for sage-grouse, is the loss of sagebrush habitat due to wildfire and invasive annual species (e.g., cheatgrass; See Figure 11 in Chambers et al. [*In prep.*]). Areas of highest concern are those with low resistance to cheatgrass and low resilience after disturbance (warm/dry and some cool/dry temperature and moisture regimes sites) that are either **within or in close proximity** to remaining high density populations of sage-grouse (Figure 5). Sagebrush habitats (greater than 25 percent sagebrush landscape cover) prone to conifer expansion, particularly pinyon pine and/or juniper, are also a management concern when within or adjacent to high density sage-grouse populations (Figure 7).

Because these two threats occur primarily at different points along an elevational gradient and are associated with different soil temperature and moisture regimes, separate approaches are used to select PACs and focal habitats for each.

### **High Density Populations at Highest Risk from Wildfire and Invasive Annual Grasses**

PACs in Management Zones III, IV, and V. were evaluated on the basis of high density (75 percent) BBDs, sagebrush landscape cover, and soil temperature and moisture regimes to identify initial PACs that are a priority for assessments and associated focal habitats. **Figure 8**, High Priority PACs with High Density Sage-Grouse Populations (75% BBD), displays the results of the analysis focusing on the intersection of high density (75 percent BBD) populations, the warm and dry sites, and the proportion of these habitats in the three sagebrush landscape cover classes by management zone, and PACs within the Great Basin. **Table 1**, Relative Ranking of PACs Based on High Density (75% BBD) Populations, Warm/ Dry Sites, and Percentage of Habitat in Sagebrush Landscape Cover Classes, displays quantitative outputs of this analysis. The table allows a comparison of these data, and assists in selecting five PACs that provide the greatest contribution to high density sage-grouse populations, and the amounts (acres and proportion) within those PACs of sagebrush cover classes associated with warm and dry soil temperature and moisture regimes.

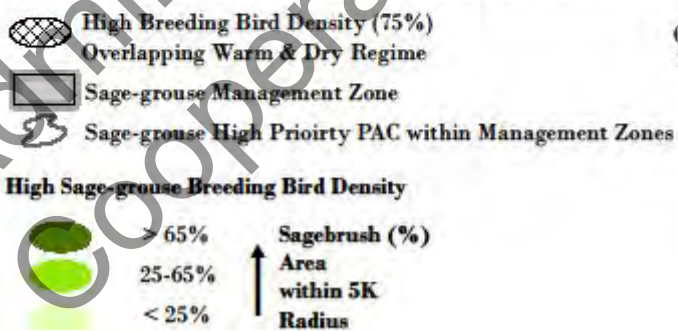
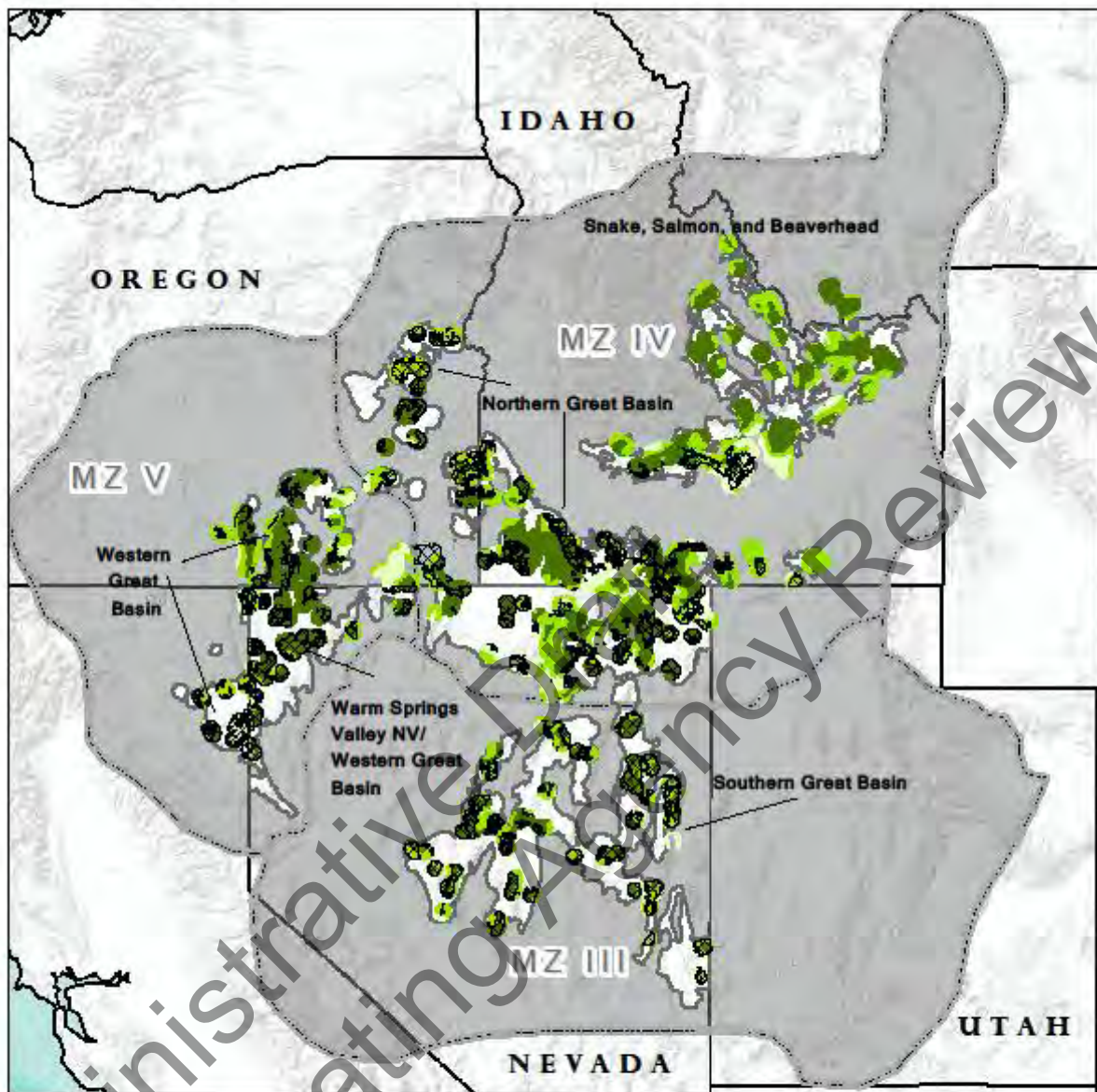


Figure 8, High Priority PACs with High Density Sage-Grouse Populations (75% BBD) sagebrush landscape cover classes, and areas with low resistance and resilience relative to wildfires and invasive annual species.

**Table 1, Relative Ranking of PACs Based on High Density (75% BBD) Populations, Warm/ Dry Sites, and Percentage of Habitat in Sagebrush Landscape Cover Classes**

Sage-grouse Management Zone	Sage-grouse Priority Area for Conservation (PAC) Name	Total PAC Acres	Breeding Bird Density (75%) Acres	Percent of Breeding Bird Density (75%) Area within PAC	Warm and Dry Soil Moisture & Temperature Regime within Breeding Bird Density (75%) Acres*		
					0-25% Sagebrush Landscape Cover	25%-65% Sagebrush Landscape Cover	65%+ Sagebrush Landscape Cover
4	Northern Great Basin	13045515	7383442	57%	179551 (2%)	674554 (9%)	1745163 (24%)
3	Southern Great Basin	9461355	3146056	33%	42596 (1%)	792780 (25%)	1062091 (34%)
4	Snake, Salmon, and Beaverhead	5477014	2823205	52%	68107 (2%)	89146 (3%)	95970 (3%)
5	Western Great Basin	3177253	2084626	66%	149399 (7%)	140141 (7%)	202767 (10%)
5	Warm Springs Valley NV/Western Great Basin	3520937	1558166	44%	31458 (2%)	207365 (13%)	741353 (48%)
4	SW Montana	1369076	659475	48%	0 (0%)	0 (0%)	0 (0%)
4	Northern Great Basin/Western Great Basin	1065124	624581	59%	114222 (18%)	85258 (14%)	116513 (19%)
5	Central OR	813699	451755	56%	0 (0%)	6211 (1%)	16463 (4%)
3	Panguitch/Bald Hills	1135785	352258	31%	6883 (2%)	5821 (2%)	0 (0%)
3	Parker Mountain-Emerly	1122491	308845	28%	0 (0%)	127 (0%)	0 (0%)
4	Box Elder	1519454	292658	19%	22 (0%)	43325 (15%)	23913 (8%)
4	Baker OR	836540	184813	55%	0 (0%)	46459 (25%)	36214 (20%)
3	NW-Interior NV	371557	108256	29%	576 (1%)	17117 (16%)	25173 (23%)
3	Carbon	355723	97734	27%	255 (0%)	180 (0%)	0 (0%)
3	Strawberry	323219	52635	16%	0 (0%)	0 (0%)	0 (0%)
3	Rich-Morgan-Summit	217033	37005	17%	0 (0%)	0 (0%)	0 (0%)
3	Hamlin Valley	341270	3244	1%	0 (0%)	139 (4%)	3105 (96%)
3	Ibapah	98574	0	0%	0 (NA)	0 (NA)	0 (NA)
3	Sheeprock Mountains	611374	0	0%	0 (NA)	0 (NA)	0 (NA)
5	Klamath OR/CA	162667	0	0%	0 (NA)	0 (NA)	0 (NA)

\* Numbers in parenthesis indicate the percent of acres relative to total acres of breeding bird density (75%)

These five PACs comprise 90 percent and 95 percent of remaining PAC sagebrush landscape cover in the 25 to 65 percent and greater than or equal to 65 percent sagebrush landscape cover classes, respectively, of the 75 percent BBD associated with low resistance/resilience habitats. The 75 percent BBD habitats in the Northern, Southern Great Basin, and Warm Spring PACs appear particularly important for two reasons. They represent a significant part of the remaining habitats for the Great Basin metapopulation, and they have the greatest amount of low resiliency habitat remaining that still functions as sage-grouse habitat.

An examination of the 5 selected PACs shows that the sum of the 75 percent BBD within these PACs is 16,995,496 acres (**Table 2**, PACs with the Highest Acres and Proportions of 75% BBD acres, and Acres and Proportions of 75% BBD Acres within the Warm/Dry Soil Temperature and Moisture Class). These are the **focal habitats**. These five PACs constitute 84 percent of the 75 percent BBD low resiliency habitats for all Management Zones III, IV, and V PACs. Within and immediately around these focal habitats, 5,751,293 acres are in high BBD areas with landscape sagebrush cover in the 25-65 percent and ≥ 65 percent classes and in the warm and dry soil temperature and moisture regimes. These are the habitats in the most danger to loss due to their low resistance to invasive annual grasses and low resilience following wildfire. Within the focal habitats in the high priority PACs, low resistance and resilience areas (cross-hatched areas in Figure 8) are a high priority (emphasis area) for implementing management strategies. Applying management strategies outside the emphasis areas are appropriate if the application of fire operations and fuels management activities will be more effective in addressing wildfire threats.

**Table 2, PACs with the Highest Acres and Proportions of 75% BBD acres, and Acres and Proportions of 75% BBD Acres within the Warm/Dry Soil Temperature and Moisture Class (see Figure 8)**

PAC	PAC Acres	Acres of 75% BBD in PAC (focal habitat)	Proportion of 75% BBD within PACs	Warm & Dry Soils within 75% BBD by Sagebrush Landscape Cover Classes Greater Than 25%*	
				25-65%	>65%
Northern Great Basin	13,045,515	7,383,442	0.57	674,517(9%)	1,745,163(24%)
Southern Great Basin	9,461,355	3,146,056	0.33	792,780(25%)	1,062,091(34%)
Snake, Salmon, and Beaverhead	5,477,014	2,823,205	0.52	89,146(3%)	95,970(3%)
Warm Springs Valley NV/Western Great Basin	3,520,937	1,558,166	0.44	207,365(13%)	741,353(48%)
Western Great Basin	3,177,253	2,084,626	0.66	140,141(7%)	202,767(10%)
<b>Total for 5 PACS</b>	<b>34,682,074</b>	<b>16,995,496</b>	<b>0.49</b>	<b>1,903,949</b>	<b>3,847,344</b>

\* This category represents the emphasis areas for applying appropriate management strategies in or near the focal habitats due to the lower probability of recovery after disturbance and higher probability of invasive annual grasses and existing wildfire threats.



## High Density Sage-Grouse Habitats at Risk from Conifer Expansion

PACs, sagebrush landscape cover, and the 75 percent BBD data were also used in conjunction with the conifer expansion data (Mainer et al. 2013) to provide an initial stratification to determine PACs where conifer removal would benefit important sagebrush habitats. Conifer expansion threats are primarily western juniper in the northern Great Basin and pinyon pine/Utah juniper in the southern Great Basin.

Figure 7 displays results of the analysis focusing on the intersection of the 75 percent BBD, and modeled conifer expansion areas within two sagebrush landscape cover classes by management zone and PACs within the Great Basin. To identify high density sage-grouse areas affected by conifer expansion, the amount and proportion of acres estimated to be affected were calculated by sagebrush cover class to assist in the identification of the focal habitats (**Table 3**). **Table 4**, displays quantitative outputs of this analysis using the 25 to 65 percent and greater than 65 percent landscape sagebrush cover classes for the PACs. Thus, **focal habitats** for addressing conifer expansion are the areas within and near conifer expansion in sagebrush landscape cover classes of 25 to 65 percent and greater than 65 percent. Conifer expansion in these two sagebrush landscape cover classes in the 75 percent BBD areas constitutes an emphasis area for treatments to address conifer expansion. Landscapes with less than 25 percent sagebrush cover may require significant additional management actions to restore sagebrush on those landscapes and therefore were considered a lower priority for this analysis. Focal habitats are identified in Table 4 and displayed in **Figure 9**.

Table 3 assists in identifying those PACs that provide the greatest contribution to high density sage-grouse populations, and the amounts (acres and proportion) within those PACs of sagebrush cover classes associated with modelled conifer expansion areas. Although there are uncertainties associated with the model, the results help managers identify specific geographic areas where treatments in conifer (pinyon and/or juniper) could benefit existing important sage-grouse populations.

The results of the screening revealed 5 PACs that contribute substantially to the 75 percent BBD habitats and are currently impacted most by conifer expansion (primarily pinyon pine and/or juniper; Table 4 and Figure 9). Four of the five PACs identified as high priority for conifer expansion treatments were also high priorities for wildfires and invasive annual grass threats. This is likely due to the size of the PACs and the relative importance of these PACs for maintaining the Great Basin sage-grouse meta-populations. As expected, the locations of high density sage-grouse habitats affected by conifer expansion differ spatially from those associated with low resilience habitats within and among the PACs, primarily due to differences in the biophysical settings (e.g., elevation and rainfall) that contribute to threats from invasive annual grasses and wildfires.

Three PACs (Snake/Salmon/Beaverhead, Southwest Montana, and Northern Great Basin/Western Great Basin) ranked high due to their relatively large proportion of high density breeding habitats (Table 3), but were not selected since the threat of conifer expansion was relatively low. One PAC, (Snake/Salmon/Beaverhead, was identified as a potential high priority area but was dismissed because results of the conifer expansion model likely overestimated impacts due to the adjacent conifer forests in this region. The COT Report also identified conifers as a “threat present but localized” in these areas, whereas, the top five PACs prioritized all have conifers identified as a widespread priority threat to address (USFWS 2013).

**Table 3, Relative Ranking of PACs Based on High Density (75% BBD) Populations, Modeled Conifer Expansion, and Percentage of Habitats in Sagebrush Landscape Cover Classes**

Sage-grouse Management Zone	Sage-grouse Priority Area for Conservation (PAC) Name	PAC acres	Breeding Bird Density (75%) Acres	Relative Proportion of Breeding Bird Density Area within PAC	Conifer Expansion (Modeled) Acres*		
					0-25% Sagebrush Landscape Cover	25%-65% Sagebrush Landscape Cover	65%+ Sagebrush Landscape Cover
4	Northern Great Basin	13045515	7383442	0.57	188502 (1%)	512949 (4%)	442480 (3%)
3	Southern Great Basin	9461355	3146056	0.33	108657 (1%)	738624 (8%)	237828 (3%)
4	Snake, Salmon, and Beaverhead	5477014	2823205	0.52	4209 (0%)	92173 (2%)	216803 (4%)
5	Western Great Basin	3177253	2084626	0.66	87963 (3%)	184618 (6%)	126177 (4%)
5	Warm Springs Valley NV/Western Great B	3520937	1558166	0.44	37148 (1%)	107025 (3%)	217101 (6%)
4	SW Montana	1369076	659475	0.48	1428 (0%)	34765 (3%)	39215 (3%)
4	Northern Great Basin/Western Great Bas	1065124	624581	0.59	12101 (1%)	2247 (0%)	6161 (1%)
5	Central OR	813699	451755	0.56	3191 (0%)	44937 (6%)	59624 (7%)
3	Panguitch/Bald Hills	1135785	352258	0.31	89141 (8%)	75157 (7%)	2563 (0%)
3	Parker Mountain-Emery	1122491	308845	0.28	84719 (8%)	83441 (7%)	7469 (1%)
4	Box Elder	1519454	292658	0.19	8531 (1%)	114376 (8%)	57645 (4%)
4	Baker OR	336540	184813	0.55	945 (0%)	15263 (5%)	195 (0%)
3	NW-Interior NV	371557	108256	0.29	7929 (2%)	29440 (8%)	11813 (3%)
3	Carbon	355723	97734	0.27	15968 (4%)	34446 (10%)	283 (0%)
3	Strawberry	323219	52635	0.16	7916 (2%)	27340 (8%)	1075 (0%)
3	Rich-Morgan-Summit	217033	37005	0.17	11685 (5%)	14280 (7%)	238 (0%)
3	Hamlin Valley	341270	3244	0.01	11321 (3%)	29960 (9%)	6243 (2%)
3	Ibapah	98574	0	0.00	195 (0%)	6770 (7%)	1039 (1%)
5	Klamath OR/CA	162667	0	0.00	1 (0%)	1533 (1%)	15302 (9%)
3	Sheeprock Mountains	611374	0	0.00	16744 (3%)	78580 (13%)	11878 (2%)

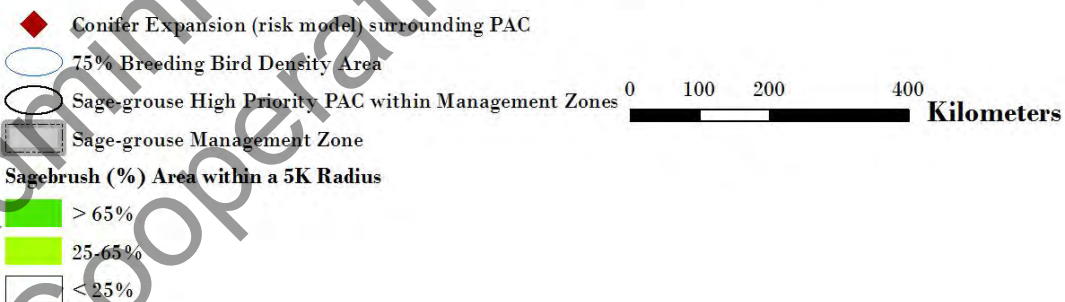
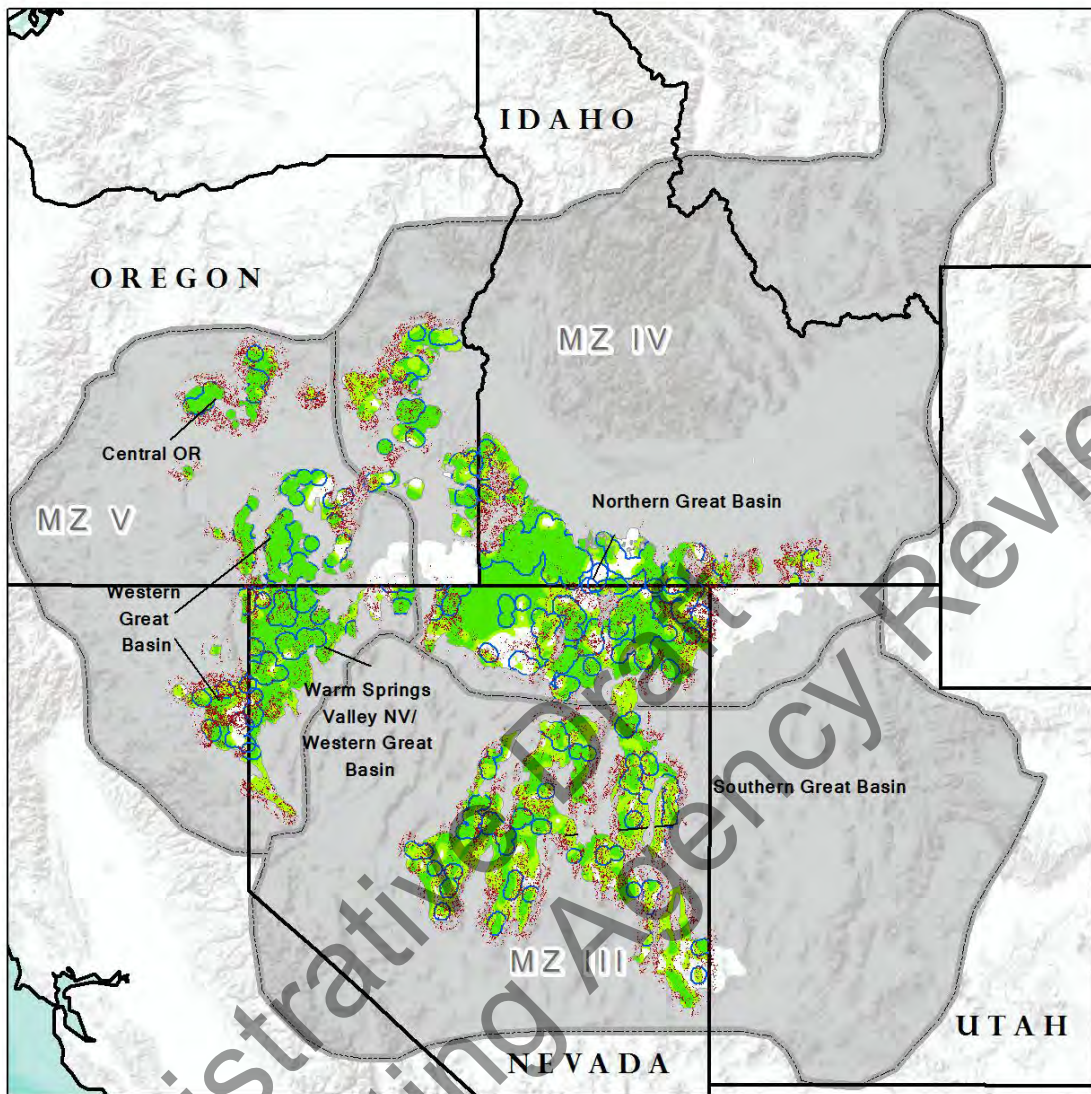
\* Numbers in parenthesis indicate the proportion of acres relative to total PAC acres

**Table 4, PACS with the Highest Acres and Proportions of 75% BBD acres and Estimated Conifer Expansion within Sagebrush Landscape Cover Classes (25-65 percent and ≥65 percent; see Figure 9)**

PAC	PAC Acres	Acres 75% BBD in PAC	Prop. 75% BBD within PACs	Conifer Expansion by Landscape Sagebrush Cover Classes 25-65% and ≥65%* Focal Habitat	
				25-65%	≥65%
Northern Great Basin	13,045,515	7,383,442	0.57	512,949 (4%)	442,480 (3%)
Southern Great Basin	9,461,355	3,146,056	0.33	738,624 (8%)	237,828 (3%)
Warm Springs Valley NV/Western Great Basin	3,520,937	1,558,166	0.44	107,025 (3%)	217,101 (6%)
Western Great Basin	3,177,253	2,084,626	0.66	184,618 (6%)	126,177 (4%)
Central Oregon	813,699	451,755	0.56	44,937 (6%)	59,624 (7%)
<b>Total for 5 PACS</b>	<b>30,018,759</b>	<b>14,624,045</b>	<b>0.49</b>	<b>1,588,153 (5%)</b>	<b>1,083,210 (4%)</b>

\*Numbers in parenthesis represent the percent of total PAC acres for each class.

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**Figure 9, Five PACs Significantly Impacted by Conifer Expansion** that contribute substantially to the 75% BBD and that have sagebrush landscape cover greater than 25%.

While the coarse-scale conifer expansion data used in this analysis likely over estimates the extent of the pinyon pine and/or juniper threat, results suggest that far fewer acres are currently affected by conifers than might be at risk from fire and invasive annual grasses impacts. Conifer expansion into sage-grouse habitats occurs at a slower rate, allowing more time for treatment, but early action may be needed to prevent population level impacts on sage-grouse (Baruch-Mordo et al. 2013). Furthermore, conifer expansion is primarily occurring on cooler and moister sites that are more resilient and where restoration is more likely to be effective (Miller et al. 2011), providing managers the opportunity to potentially offset at least some habitat loss expected to continue in less resilient ecosystems. While the available data set used to estimate conifer expansion provides only a coarse assessment of the problem, considerable efforts are currently underway to map conifers across sage-grouse range. These maps are expected to be available in the near future and should be used by land managers to better target project level conifer removal.

FIAT cautions against using the plotted locations of estimated conifer expansion for local management decisions due to the coarse-scale nature of this range-wide data set. Conifer expansion estimates are primarily provided here to aid in judging the relative scope of the threat in each PAC.

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## Step 1b. Potential Management Strategies

Potential management **strategies** (e.g., fuels management, habitat recovery/restoration, fire operations, post-fire rehabilitation) to conserve or restore Step 1 focal habitats are described below to assist local management units to initiate Step 2. These examples are illustrative and do not contain the full range of management strategies that may be required to address wildfires, invasive annual grasses, and conifer expansion within PACs and associated focal habitats. In general, the priority for applying management strategies is to first maintain or conserve intact habitat and second to strategically restore habitat (after a wildfire or proactively to reconnect habitat). Management strategies will differ when applying the protocol to:

**Wildfire and Invasive Annual Grass.** (See PACs identified in Table 2 and focal habitats shown in Figure 8). Focal habitats, as they relate to wildfires and invasive annual grasses, are defined as sage-grouse habitat in priority PACs within 75 percent BBD. Within these focal habitats, sagebrush communities with low resilience to disturbance and resistance to invasive annual grasses (warm and dry soil temperature and moisture regimes) are an emphasis area for management actions. Appendix 5 (A) in Chambers et al. (*In prep.*) includes a generalized state and transition model with an invasive annual grass component and warm and dry soil temperature and moisture regime associated with 8 to 12 inches of annual precipitation. This state and transition models is useful in developing management strategies to deal with annual grass issues as it contains useful restoration pathways.

Burn Probability is another tool that can be used to assist managers to identify the relative likelihood of large fire occurrence across the landscape within PACs and focal habitats. Burn probability raster data were generated by the Missoula Fire Lab using the large fire simulator - FSim - developed for use in the national Interagency [Fire Program Analysis \(FPA\)](#) project. FSim uses historical weather data and LANDFIRE fuel model data to simulate fires burning. Using these simulated fires, an overall burn probability is returned by FSim for each 270m pixel. The burn probability data was overlaid spatially with PACs, soil data, and shrub cover data. The majority of the high and very high burn probability acres lie within the top 5 PACs and are within areas with >25% sagebrush cover. Several of the other PACs have a greater overall percentage of the warm/dry soil regime with high/very high burn probability (northern great basin, baker, and NW interior NV) but the total acres are relatively few. Areas identified with high and very high burn probability are most likely to experience large fires given fire history, fuels, weather and topography. Results are displayed in the table 5 and Figure 10.

**Table 5, Percentages of sage-grouse PAC areas with high and very high burn probability, 75% BBD within PAC, 75% BBD and warm dry/temperature regime, and 75% BBD and warm dry/temperature and warm dry/temperature with high and very high burn probability.**

<b>Sage Grouse Management Zone</b>	<b>Sage-grouse Priority Area for Conservation (PAC) Name</b>	<b>Total PAC Acres</b>	<b>High, very high burn probability (percent of PAC acres)</b>	<b>75% BBD within PAC (percent PAC acres)</b>	<b>75% BBD and warm and dry soil/temperature regime acres (percent PAC acres)</b>	<b>75% BBD and warm and dry soil/temperature regime with high, very high burn probability (percent PAC acres)</b>
4	Northern Great basin	13,045,415	86%	57%	19%	17%
3	Southern Great Basin	9,461,355	48%	33%	20%	9%
4	Snake, Salmon, and Beaverhead	5,477,014	68%	52%	5%	4%
5	Western Great Basin	3,177,253	61%	66%	15%	12%
5	Warm Springs Valley /Western Great Basin	3,520,937	30%	44%	28%	9%
4	SW Montana	1,369,076	1%	48%	0%	0%
4	Northern Great Basin/Western Great Basin	1,065,124	82%	59%	30%	22%
5	Central Oregon	813,699	71%	56%	3%	2%
3	Panguitch/Bald Hills	1,135,785	70%	31%	1%	1%
3	Parker Mountain-Emery	1,122,491	28%	28%	0%	0%
4	Box Elder	1,519,454	61%	19%	4%	2%
4	Baker Oregon	336,540	74%	55%	25%	21%
3	NW-Interior NV	371,557	99%	29%	12%	11%
3	Carbon	355,723	22%	27%	0%	0%
3	Strawberry	323,219	26%	16%	0%	0%
3	Rich-Morgan-Summit	217,033	79%	17%	0%	0%
3	Hamlin Valley	341,270	60%	1%	1%	0%
3	Ibapah	98,574	0%	0%	0%	0%
3	Sheeprock Mountains	611,374	98%	0%	0%	0%
5	Klamath OR/CA	162,667	98%	0%	0%	0%

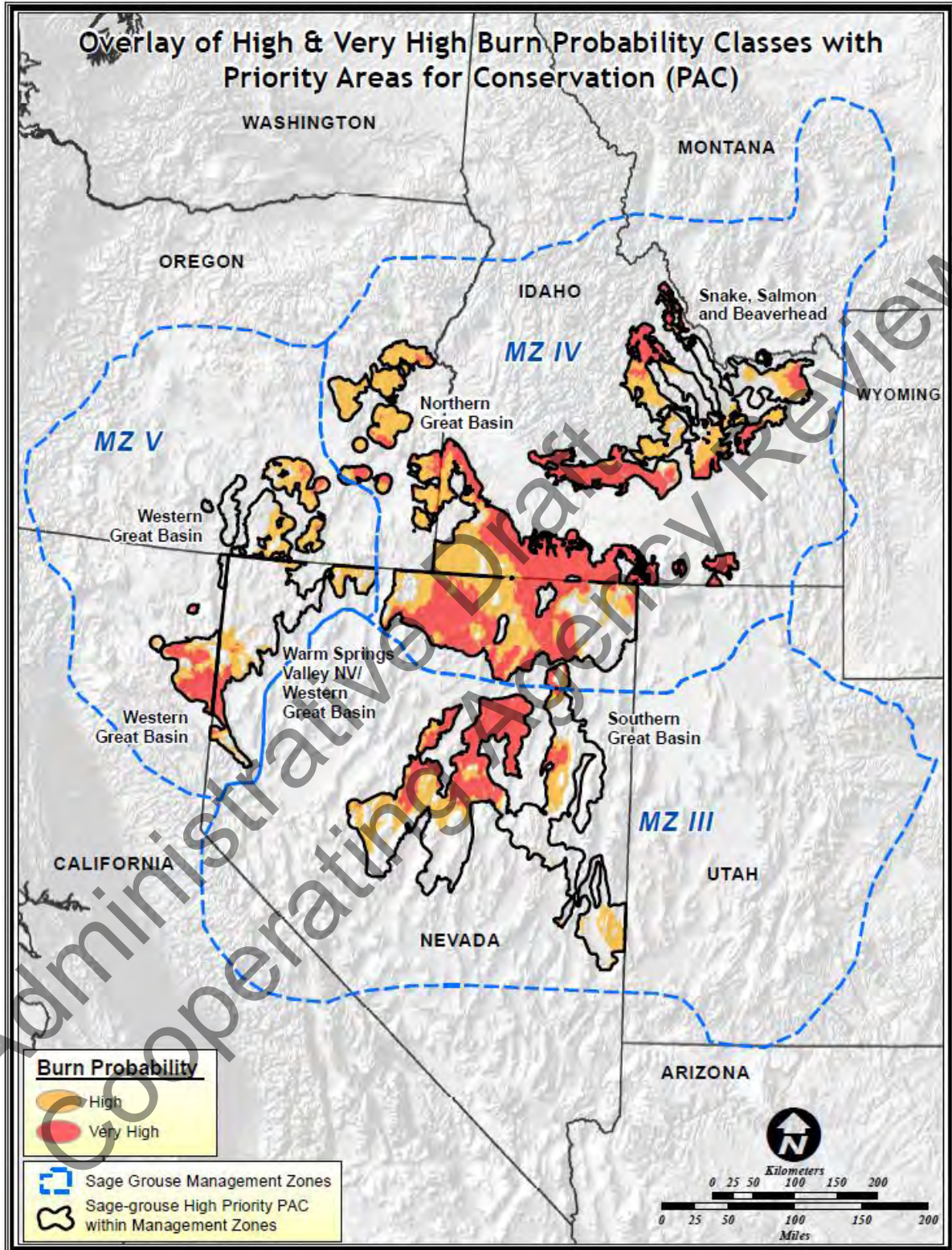


Figure 10, Burn Probability (high and very high) in priority invasive annual grass and wildfire PACs. .



**Conifer Expansion.** (See priority PACs for assessment identified in Table 4 and focal habitats shown in Figure 9). Focal habitats, as they relate to conifer expansion, are defined as sage-grouse habitat in a priority PAC with sagebrush landscape cover between 25 and 100 percent that is either near or in a conifer expansion area. The relationship between conifer expansion and resilience to disturbance and resistance to expansion is not documented to the same degree as with invasive annual grasses. However, Appendix 5 (D. and E.) in Chambers et al. (*In prep.*) includes two generalized state and transition models for conifer expansion with warm to cool and soil temperature regimes associated with precipitation ranges from 12 to 14 or more inches of annual precipitation. These state and transition models are useful in developing management strategies to deal with conifer expansion as they contain useful restoration pathways.

Chambers et al. (*In prep.*) is recommended for review at this point for information on applying resistance and resilience concepts along with sage-grouse habitat characteristics to develop management strategies to address wildfires, invasive annual grasses, and conifer expansion. The following tables are recommended for use in developing management strategies in or near focal habitats:

Table 1. Soil temperature and moisture regimes relationship to vegetation types and resistance and resilience.

Table 2. Sage-grouse habitat matrix showing the relationship between landscape sagebrush cover and resistance and resilience.

Table 3. Potential management strategies based on sage-grouse habitat requirements and resistance and resilience.

Table 4. Management strategies (fire suppression, fuels management, post-fire rehabilitation, and habitat restoration) associated with each cell in the sage-grouse habitat matrix (Table 2).

The “Putting it all together” section of the Chambers et al. (*In prep.*) also contains a case study from Northeast Nevada illustrating applications of management strategies to address the conservation, protection, and restoration of sage-grouse habitat.

To further assist in understanding Step 1b, examples of general priorities for management strategies are provided below and illustrated in Appendix 3 and 4:

1. Fuels Management: Projects that are designed to change vegetation composition and/or structure to modify potential fire behavior for the purpose of improving fire suppression effectiveness and limiting fire spread and intensity.
  - a. Identify priorities and potential measures to reduce the threats to sage-grouse habitat resulting from changes in invasive annual grasses (primary focus on exotic annual grasses and conifer encroachment) and wildland fires. Place high priority on areas dominated by invasive annual grasses that are near or adjacent to low resistance and resilience habitats that are still intact.

- b. Areas on or near perimeter of successful post-fire rehabilitation and habitat restoration projects where threats of subsequent fire are present are important for consideration.
    - c. Fuels management can be a high priority in large tracts of intact sagebrush if impacts on sage-grouse populations are minimal and outweighed by the potential benefits of reduced wildfire impacts in area being protected.
  2. Habitat Recovery/Restoration Recovery (passive restoration) is a high priority in intact sagebrush stands to improve resistance and resilience before a disturbance. For example, where understory perennial herbaceous species are limited, improved livestock grazing practices can increase the abundance of these species and promote increased resistance to annual grasses.
    - a. Habitat restoration is important where habitat connectivity issues are present within focal habitats.
    - b. Pinyon pine and/or juniper removal in Phase I and II stands adjacent to large, contiguous areas of sagebrush (greater than 25 percent sagebrush landscape cover) is a priority.
  3. Fire Operations (includes preparedness, prevention and suppression activities).
    - a. Higher priority should be placed on areas with greater than 65 percent cover than on areas with 25 to 65 percent cover, followed by 0 to 25 percent cover (these categories are continuums not discrete thresholds).
    - b. Higher priority should be placed on lower resistance/resilience habitats compared with higher resistance/resilience habitats.
    - c. Fire operations in areas restored or post-fire rehabilitation treatment where subsequent wildfires can have detrimental effect on investment and recovery of habitat are important for consideration.
    - d. Fire operations (suppression) are especially important in low elevation winter sagebrush habitat with low resistance and resiliency.
  4. Post-Fire Rehabilitation
    - a. High priority should be placed on supporting short-term natural recovery and long-term persistence in higher resistance and resiliency habitats (with appropriate management applied).
    - b. High priority should be placed on reseeding in moderate to low resistance and resiliency habitats, but only if competition from invasive annual grasses, if present, can be controlled prior to seeding.

## Step 2

Step 2 is carried out by local management units using the Step 1 geospatial data, focal habitats, and the associated management strategies. Step 2 includes evaluating the availability and accuracy of local information and geospatial data used to develop local management strategies in or near focal habitats (Step 2a).

It also involves developing focal habitat activity/implementation plans that include prioritized management tactics and treatments to implement effective fuels management, habitat recovery/restoration, fire operations, and post-fire rehabilitation (Step 2b). These activity/implementation plans will serve as the basis for NEPA analysis of site-specific projects.

## **Step 2a- Review of Step 1 Data and Incorporation of Local Information**

Evaluate the accuracy and utility of Step 1 geospatial layers for focal habitats by incorporating more accurate or locally relevant:

- Vegetation maps (especially sagebrush cover)
- Updated or higher resolution conifer expansion layers (if applicable)
- Soil survey and ecological site descriptions
- Weather station, including Remote Automatic Weather Stations, data
- PACs, focal habitats, winter habitats, sage-grouse population distributions (i.e., more recent BBD surveys)
- Maps of cheatgrass and other invasive annual grasses that degrade sage-grouse habitat
- Wildfire polygons including perimeters and unburned islands within burn polygons
- Treatment locations and success (consult US Geological Survey Land Treatment Digital Library at <http://ltdl.wr.usgs.gov/>). The Land Treatment Digital Library allows the user to search on treatment results on an ecological site basis.
- Models and tools to help inform management strategies. For example, data which characterizes wildfire potential can help identify risk to focal habitats and help plan fire suppression and fuels management strategies to address these risks.
- Rapid Ecoregional Assessments
- Land Use Plans
- Appropriate monitoring or inventory information
- Any other geospatial data or models that could improve the accuracy of the assessment process

It is essential that subregional or local information and geospatial data be subjected to a quality control assessment to ensure that it is appropriate to use in developing Step 2b activity and implementation plans. Since PACs and focal habitats usually transcend multiple administrative boundaries, a collaborative approach is highly recommended for Step 2a.

A series of questions tied to the management strategies described in the Introduction section follows to assist managers in developing the framework to complete Step 2b (development of activity/implementation plans). The questions that follow apply to the focal habitats (and buffer areas around focal areas where management strategies may be more effectively applied) and will help in developing coordinated implementation/activity plans. These questions should not limit the scope of the assessment and additional questions relative to local situations are encouraged. These questions portray the minimum degree of specificity for focal habitats in order for offices to complete Step 2a.

## Fuels Management

1. Where are the priority fuels management areas (spatially defined treatment opportunity areas that consider fire risk, fuels conditions, and focal habitats [including areas adjacent to focal habitats])?
2. Based on fire risk to focal habitats, what types of fuels treatments should be implemented to reduce this threat (for example, linear features that can be used as anchors during suppression operations)?
3. Considering resistance/resilience concepts and the landscape context from Step 1, where should treatments be applied in and around focal habitats to:
  - a. Constrain fire spread?
  - b. Reduce the extent of conifer expansion?
  - c. Augment future suppression efforts by creating fuel breaks or anchors for suppression?
4. Based on opportunities for fire to improve/restore focal habitats, what types of fuels treatments should be implemented to compliment managed wildfire by modifying fire behavior and effects?
5. Are there opportunities to utilize a coordinated fuels management approach across jurisdictional boundaries?
6. What fuel reduction techniques will be most effective that are within acceptable impact ranges of local sage-grouse populations, including but not limited to grazing, prescribed fire, chemical, and biological and mechanical treatments? Will combinations of these techniques improve effectiveness (e.g., using livestock to graze fine fuels in a mowed fuel break in sagebrush)?

## Habitat Recovery/Restoration

1. Are there opportunities for habitat restoration treatments to protect, enhance or maintain sage-grouse focal habitat especially to restore connectivity of focal area habitat?
2. Considering the resistance and resilience GIS data layer (Figure 4) and the Sage-Grouse Habitat Matrix (Chambers et al. *In prep.*; Table 2), where and why would passive or active restoration treatments be used?
3. What are the risks and opportunities of restoring habitat with low resistance and resilience including the warm/dry and cool/dry soil moisture/temperature regime areas?
4. Are there opportunities to utilize a coordinated approach across jurisdictional boundaries to effectively complete habitat restoration in focal habitats?

## Fire Operations

1. Where are priority fire management areas (spatially defined polygons having the highest need for preparedness and suppression action)?

2. Where are the greatest wildfire risks to focal habitats considering trends in fire occurrence and fuel conditions (see Figure 10)?
3. Where do opportunities exist that could enhance or improve suppression capability in and around focal habitats?
  - a) For example, increased water availability through installation of helicopter refill wells or water storage tanks.
  - b) Decreased response time through pre-positioned resources or staffing remote stations.
4. Should wildfire be managed (per land use plan objectives) for improving focal habitat (e.g., reducing conifer expansion), and if so where, and under what conditions?
5. How can fire management be coordinated across jurisdictional boundaries to reduce risk or to improve focal habitats?

### **Post-fire Rehabilitation**

1. Where are areas that are a high priority for post-fire rehabilitation to improve habitat connectivity if a wildfire occurs?
2. Which areas are more conducive (higher resistance and/or resilience) to recovery and may not need reseeding after a wildfire?
3. What opportunities to build in fire resistant fuel breaks to reduce the likelihood of future wildfires impacts on seeded or recovering areas?
4. Are there opportunities to utilize a coordinated approach across jurisdictional boundaries to implement rehabilitation practices?

The outcome of Step 2a is the assembly of the pertinent information and GIS layers to assist managers in developing implementation or activity plans to address wildfires, invasive annual grasses, and conifer expansion in focal habitats. Activity plans generally refer to plans where management of a resource is changed (livestock grazing plans) whereas implementation plans are generally associated with treatments.

### **Step 2b- Preparation of Activity/Implementation Plans**

Activity/implementation plans are prepared to implement the appropriate management strategies within and adjacent to focal habitats. Since focal habitats cross jurisdictional boundaries, it is especially important that a collaborative approach be used to develop implementation/activity plans. The process of identifying partners and creating collaborative teams to develop these plans is a function of state, regional, and local managers and is not addressed as part of this step.

Implementation/activity plans are required to:

1. Address issues in and around focal habitats related to wildfires, invasive annual grasses, and conifer expansion

2. Use resistance to invasive annual grasses and resilience after disturbance (where appropriate) as part of the selection process for implementing management strategies
3. Emphasize application of management strategies within or near focal habitats with low resistance and resilience (warm/dry and cool/dry soil moisture/temperature regimes) invasive annual grasses and wildfires
4. Use the best available local information to inform the assessment process
5. Encourage collaboration and coordination with focal habitats across jurisdictional boundaries
6. Be adaptive to changing conditions, disturbances, and modifications of PAC boundaries

FIAT recommends considering other factors, such as adaptive management for climate change, local sagebrush mortality due to aroga moth or other pests, and cheatgrass die-off areas in developing activity/implementation plans. The latter two factors could influence where and what kind of management strategies may be needed to address the loss of habitat or changes in fuel characteristics (e.g., load and flammability) associated with these mortality events.

The following recommendations are provided to assist in the preparation of activity/implementation plans:

#### **Fuels Management**

1. Spatially delineate priority areas for fuel management treatments per Step 2a information considering:
  - a. Linear fuel breaks along roads
  - b. Other linear fuel breaks to create anchor points
  - c. Prescribed burning which would meet objectives identified in the Fish and Wildlife Service's Conservation Objectives Team (COT) report
  - d. Mechanical (e.g., treatment of conifer expansion into sagebrush communities)
  - e. Other mechanical, biological, or chemical treatments
  - f. If they exist, spatially delineated areas where fuel treatments would increase the ability to use fire to improve/enhance focal habitats.
2. Identify coordination needed between renewable resource, fire management, and fuels management staff to facilitate planning and implementation of fuels treatments.
3. Quantify a projected level of treatment within or near focal habitats.
  - a. Identify treatments (projects) to be planned within or near focal habitats.
  - b. Include a priority and proposed work plan for proposed treatments.

#### **Habitat Recovery/Restoration**

1. Spatially delineate priority areas for restoration, using criteria established in Step 2a. Priority areas for restoration should be delineated by treatment methods:
  - a. Seeding priority areas
  - b. Invasive annual grasses priority treatment areas (herbicide, mechanical, biological, combination)

- c. Priority areas requiring combinations of treatments (e.g., herbicide followed by seeding).
  - d. Include tables, maps or appropriate info.
2. Identify coordination needed between renewable resource, fire management, and fuels management staff to facilitate planning and implementation of restoration treatments.
3. Include a priority or implementation schedule for proposed restoration treatment

### **Fire Operations**

1. Spatially delineate priority areas for fire suppression, based upon criteria established in Step 2a. Priority areas for fire operations should be delineated by type, such as:
  - a. Initial attack priority areas
  - b. Resource pre-positioning and staging priority areas
2. Spatially delineate areas where opportunities exist to enhance or improve suppression capability.
3. Spatially delineate areas where wildfire can be managed to achieve land use plan and COT objectives.

### **Post-Fire Rehabilitation**

1. Spatially delineate priority areas for post-fire rehabilitation using criteria in Step 2a.
2. Priority areas for post-fire rehabilitation should be based on resistance and resiliency and pre-fire landscape sagebrush cover and include consideration of:
  - a. Seeding priority areas
  - b. Invasive annual grasses priority treatment areas (herbicide, mechanical, biological (herbivory or seeding),
  - c. Priority areas requiring combinations of treatments (e.g., herbicide followed by seeding)
3. Identify coordination needed between renewable resource, fire management, and fuels management staff to facilitate planning and implementation of post-fire rehabilitation treatments.

This completes the assessment process and sets the stage for more detailed project planning and NEPA associated with implementing on-the-ground treatments and management changes.

Members of the FIAT Development and Review teams are listed in Appendix 5.

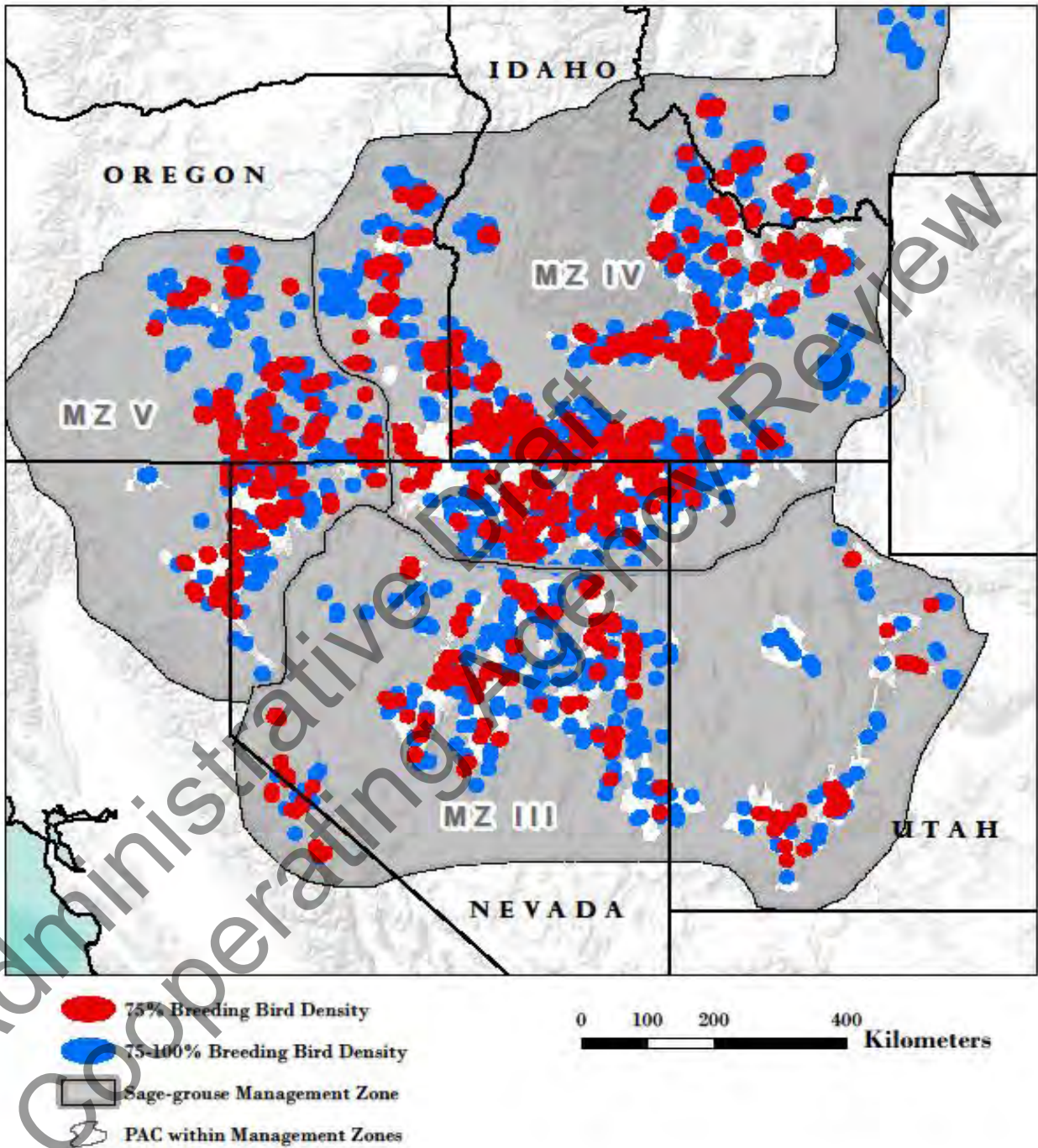
## Literature Cited:

- Aldridge, C. L.; Nielsen, S. E.; Beyer, H. L.; Boyce, M. S.; Connelly, J. W.; Knick, S. T.; Schroeder, M. A. 2008. Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions* 14:983–994.
- Balch, J. K.; Bradley, B. A.; D’Antonio, C. M.; Gomez-Dans, J. 2012. Introduced annual grass increases regional fire activity across the arid western USA (1980–2009). *Global Change Biology* 19:173–183.
- Baruch-Mordo, S.; Evans, J. S., Severson, J. P.; Naugle D.E.; Maestas, J. D.; Kiesecker, J. M.; Falkowski, M. J.; Christian A. Hagen, C. A.; Reese, K. P. 2013. Saving sage-grouse from the trees: a proactive solution to reducing a key threat to a candidate species. *Biological Conservation* 167:233–241.
- Chambers, J.C.; Miller, R. F.; Board, D. I.; Grace, J. B.; Pyke, D. A.; Roundy, B. A.; Schupp, E. W.; Tausch, R. J. Resilience and resistance of sagebrush ecosystems: implications for state and transition models and management treatments. *Rangeland Ecology and Management*. In press.
- Chambers, J. C.; Miller, R. F.; Grace, J. B.; Pyke, D. A.; Bradley, B.; Hardegree, S.; D’Antonio, C. 2014. Resilience to stress and disturbance, and resistance to *Bromus tectorum* L. invasion in the cold desert shrublands of western North America. *Ecosystems* 17: 360–375.
- Chambers, J. C.; Pyke, D. A.; Maestas, J. D.; Pellant, M.; Boyd, C. S.; Campbell, S.; Espinosa, S.; Havlina, D.; Mayer, K. E.; and Wuenschel, A. Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and sage-grouse – a strategic multi-scale approach. Fort Collins, CO, USA: U.S. Department of Agriculture, Forest Service, RMRS-GTR-###. In prep.
- Chambers, J. C.; Roundy, B. A.; Blank, R. R.; Meyer, S. E.; Whittaker, A. 2007. What makes Great Basin sagebrush ecosystems invasible by *Bromus tectorum*? *Ecological Monographs* 77:117–145.
- Connelly, J. W.; Rinkes, E. T.; Braun, C. E. 2011. Characteristics of Greater Sage-Grouse habitats: a landscape species at micro- and macroscales. In: Knick, S. T.; Connelly, J. W. Eds. *Greater sage-grouse: ecology and conservation of a landscape species and its habitats*. Studies in avian biology. Berkeley, CA, USA: University of California Press. 38:69–83.
- Connelly, J. W.; Schroeder, M. A.; Sands, A. R.; Braun, C. E. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967–985.
- Davies, K. W.; Boyd, C. S.; Beck, J. L.; Bates, J. D.; Svejcar, T. J.; Gregg, M. A. 2011. Saving the sagebrush sea: An ecosystem conservation plan for big sagebrush plant communities. *Biological Conservation* 144:2573–2584.

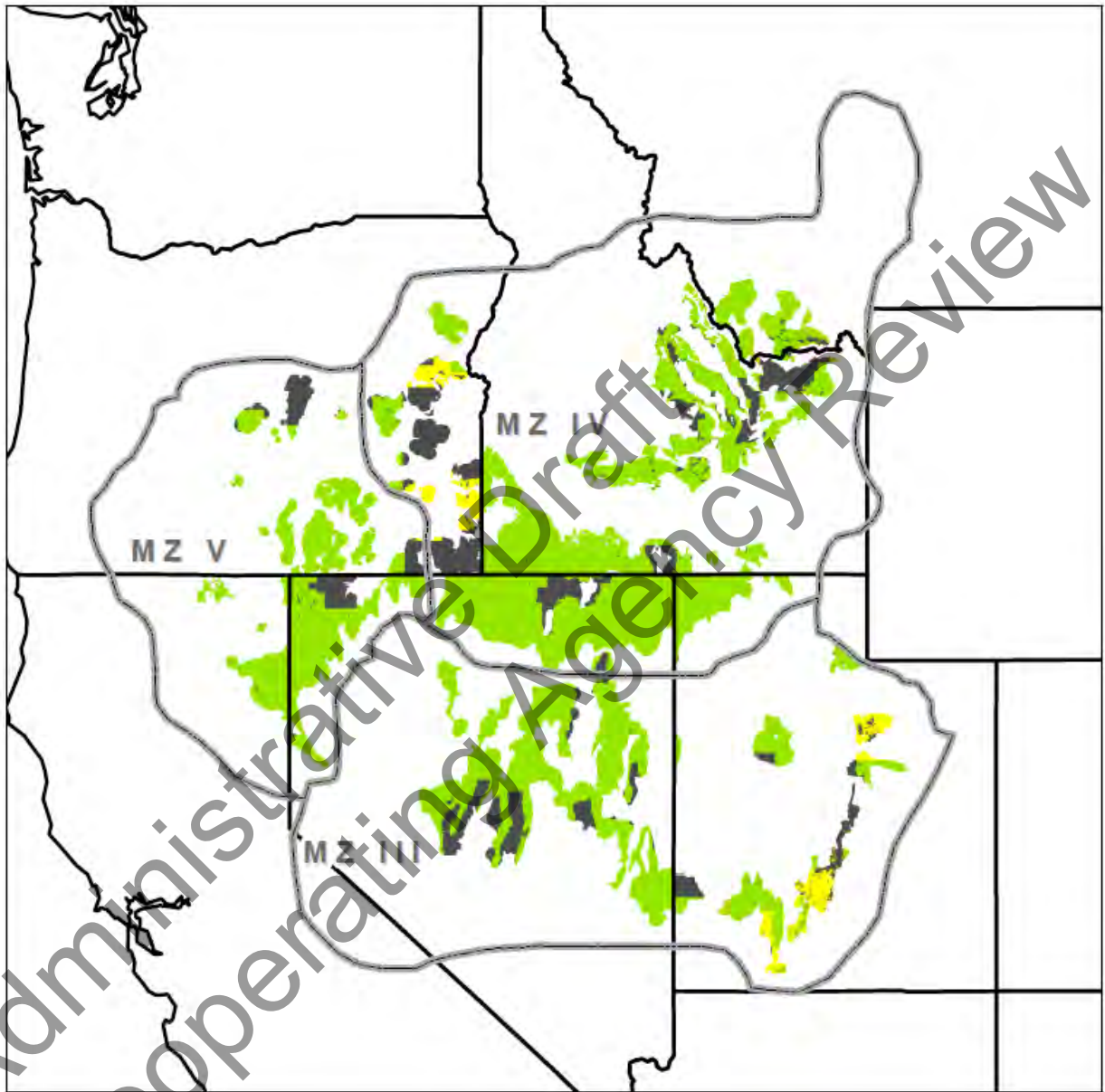



- Doherty, K.E.; Tack, J. D.; Evans, J. S.; Naugle, D. E. 2010. Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. BLM completion report: Agreement # L10PG00911.
- Holloran, M. J.; Heath, B. J.; Lyon, A. G.; Slater, S. J.; Kuipers, J. L.; Anderson, S. H. 2005. Greater Sage-Grouse nesting habitat selection and success in Wyoming. *Journal of Wildlife Management* 69:638–649.
- Knick, S. T.; Hanser, S. E.; Preston, K. L. 2013. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: implications for population connectivity across their western range, U.S.A. *Ecology and Evolution* 3(6):1539–1551.
- Manier, D.J., D.J.A. Wood, Z.H. Bowen, R.M. Donovan, M.J. Holloran, L.M. Juliusson, K.S. Mayne, S.J. Oyler-McCance, F.R. Quamen, D.J. Saher, and A.J. Titolo. 2013. Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater Sage-Grouse (*Centrocercus urophasianus*): U.S. Geological Survey Open-File Report 2013–1098, 170 p., <http://pubs.usgs.gov/of/2013/1098/>.
- Meyer S. E.; Garvin, S. C.; Beckstead, J. 2001. Factors mediating cheatgrass invasion of intact salt desert shrubland. In: McArthur, D. E.; Fairbanks, D. J. Comp. Shrubland ecosystem genetics and biodiversity: proceedings. Ogden UT: U.S. Department of Agriculture, Forest Service. RMRS-P-21. p. 224-232.
- Miller, R. F.; Chambers, J. C.; Pyke, D. A.; Pierson, F. B.; Williams, C. J. 2013. A review of fire effects on vegetation and soils in the Great Basin Region: response and ecological site characteristics. Fort Collins, CO: USA: Department of Agriculture, Forest Service. RMRS-GTR-308. 136 p.
- Miller R. F.; Knick, S. T.; Pyke, D. A.; Meinke, C. W.; Hanser, S. E.; Wisdom, M. J.; Hild, A. L. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. In: Knick S. T.; Connelly, J. W. Eds. Greater sage-grouse – ecology and conservation of a landscape species and its habitats. *Studies in avian biology* No. 38. Berkeley, CA, USA: University of California Press. 38:145-185.
- Pyke, D. A. 2011. Restoring and rehabilitating sagebrush habitats. In: Knick, S. T.; Connelly, J. W. Eds. Greater sage-grouse: ecology and conservation of a landscape species and its habitats. *Studies in avian biology*. Berkeley, CA, USA: University of California Press. 38:531-548.
- U.S. Fish and Wildlife Service [USFWS]. 2013. Greater Sage-Grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report. U.S. Fish and Wildlife Service, Denver, CO. February 2013.
- Wisdom, M. J., Meinke, C. W.; Knick, S. T.; Schroeder, M. A. 2011. Factors associated with extirpation of Sage-Grouse. In: Knick, S. T.; Connelly, J. W. Eds. Greater sage-grouse: ecology and conservation of a landscape species and its habitats. *Studies in avian biology*. Berkeley, CA, USA: University of California Press. 38:451–472.

**Appendix 1.** Sage-grouse breeding bird density thresholds for 75% and 100% of the breeding birds, Management Zones, and PACs. Breeding bird density of 75 to 100% is included in this figure to provide context for local management units when making decisions concerning connectivity between populations and PACs.





**Appendix 2.** Gaps in SSURGO soil survey data in Management Zones III, IV, and V. STATSGO2 soil survey data used to fill these gaps.




 Sage-grouse Management Zone

Data Source for Soil Surveys within PACs

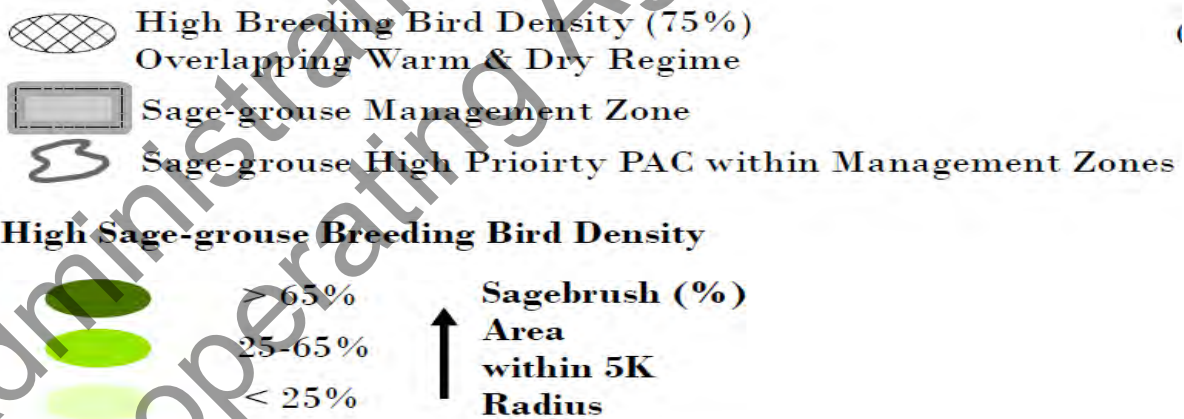
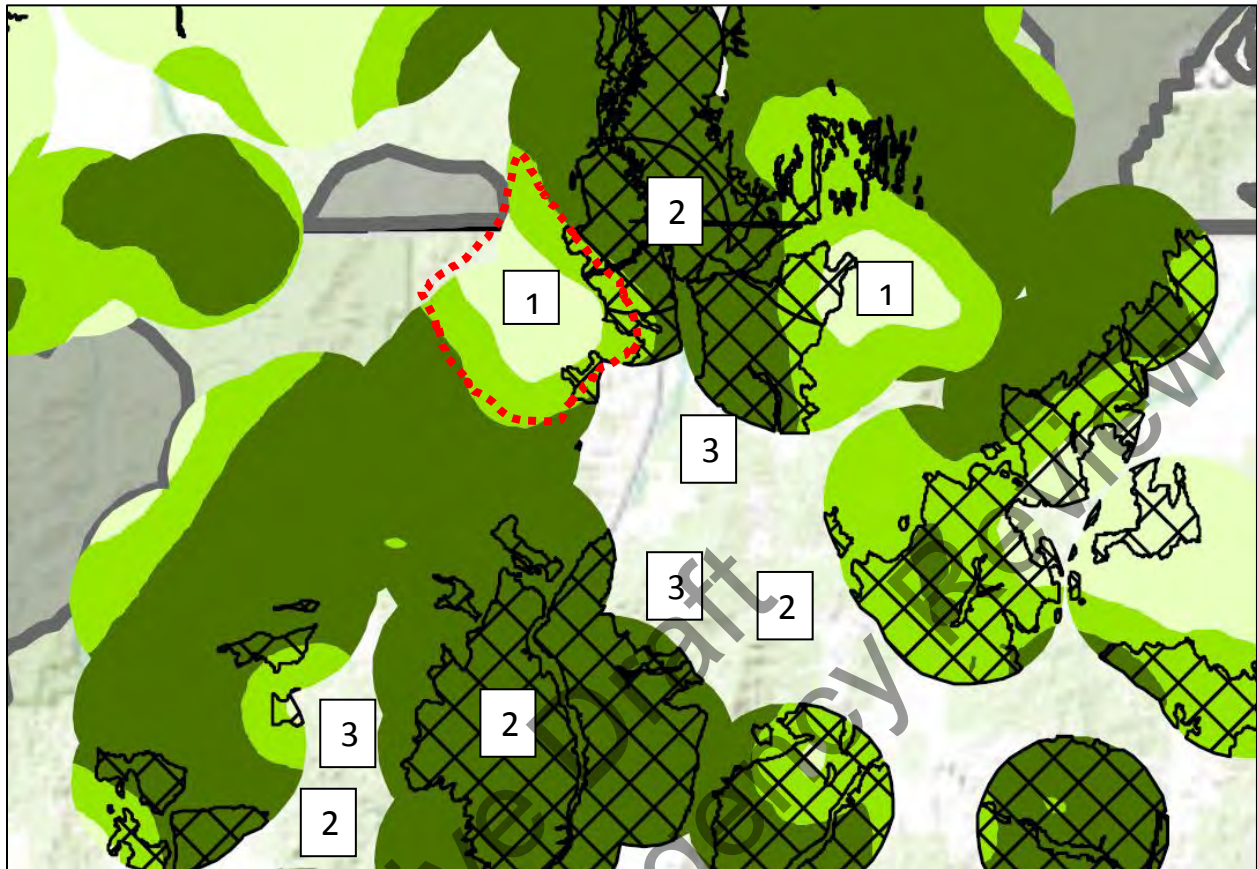
 SSURGO

 Draft SSURGO

 STATSGO

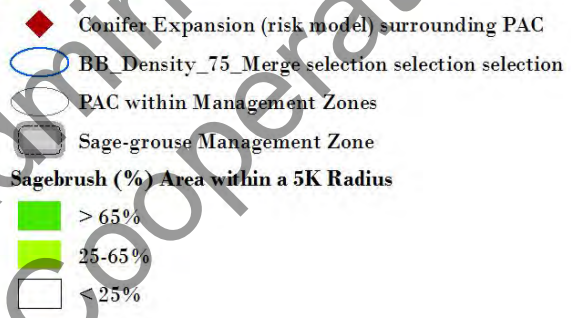
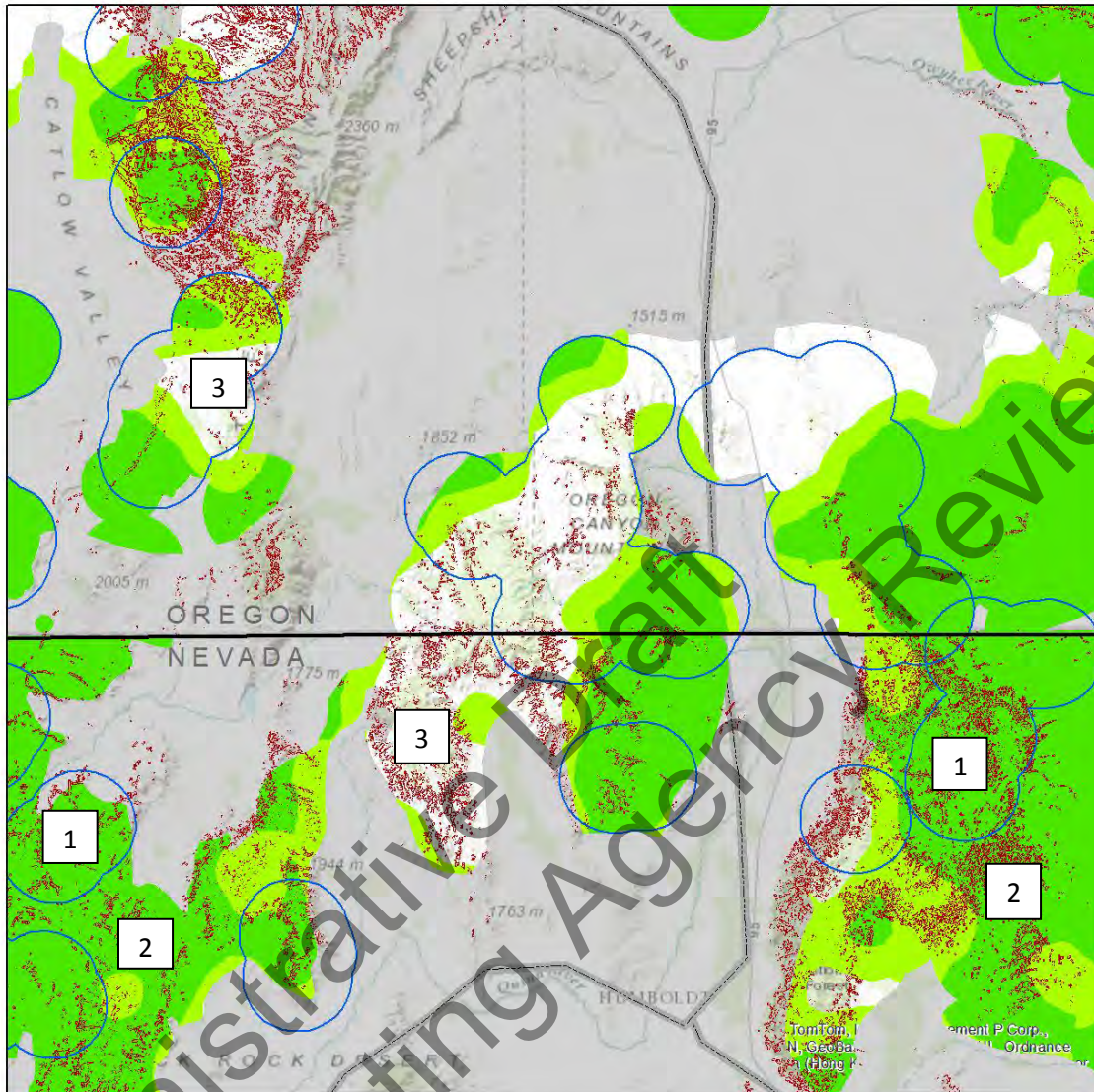
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**Appendix 3.** Example of potential management strategies applied to Wildfire/Invasive Annual Grass Scenario.



- 1** High priority for habitat restoration and post-fire rehabilitation to restore connectivity.
- 2** High priority for fire suppression within and around area given >65% sagebrush landscape cover and low resistance/resilience.
- 3** High priority for fuels management to reduce likelihood of wildfires in low resistance/resilience habitat with >65% landscape cover.

Appendix 4. Management strategy example for Western Juniper expansion.



- 1 High priority (emphasis area) for juniper control (>25% landscape sagebrush cover & 75% BBD)
- 2 Moderate priority (emphasis area) for juniper control (>25% landscape sagebrush cover)
- 3 Very low priority (<25% landscape sagebrush cover)

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# Appendix DD

## Buffers



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## Appendix DD – Buffers

### Applying Lek Buffer-Distances When Approving Actions

- *Buffer Distances and Evaluation of Impacts to Leaks*

Evaluate impacts to leaks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leaks
  - infrastructure related to energy development within 3.1 miles of leaks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leaks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leaks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leaks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leaks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leaks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA & IHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA and IMHA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.



# Appendix E

## The Greater Sage-Grouse Monitoring Framework



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**THE GREATER  
SAGE-GROUSE  
MONITORING  
FRAMEWORK**

Bureau of Land Management  
U.S. Forest Service

*Developed by  
the Interagency  
Greater  
Sage-Grouse  
Disturbance  
and Monitoring  
Subteam*

May 30, 2014

# The Greater Sage-Grouse Monitoring Framework

Developed by the Interagency Greater Sage-Grouse Disturbance and Monitoring Subteam

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## INTRODUCTION

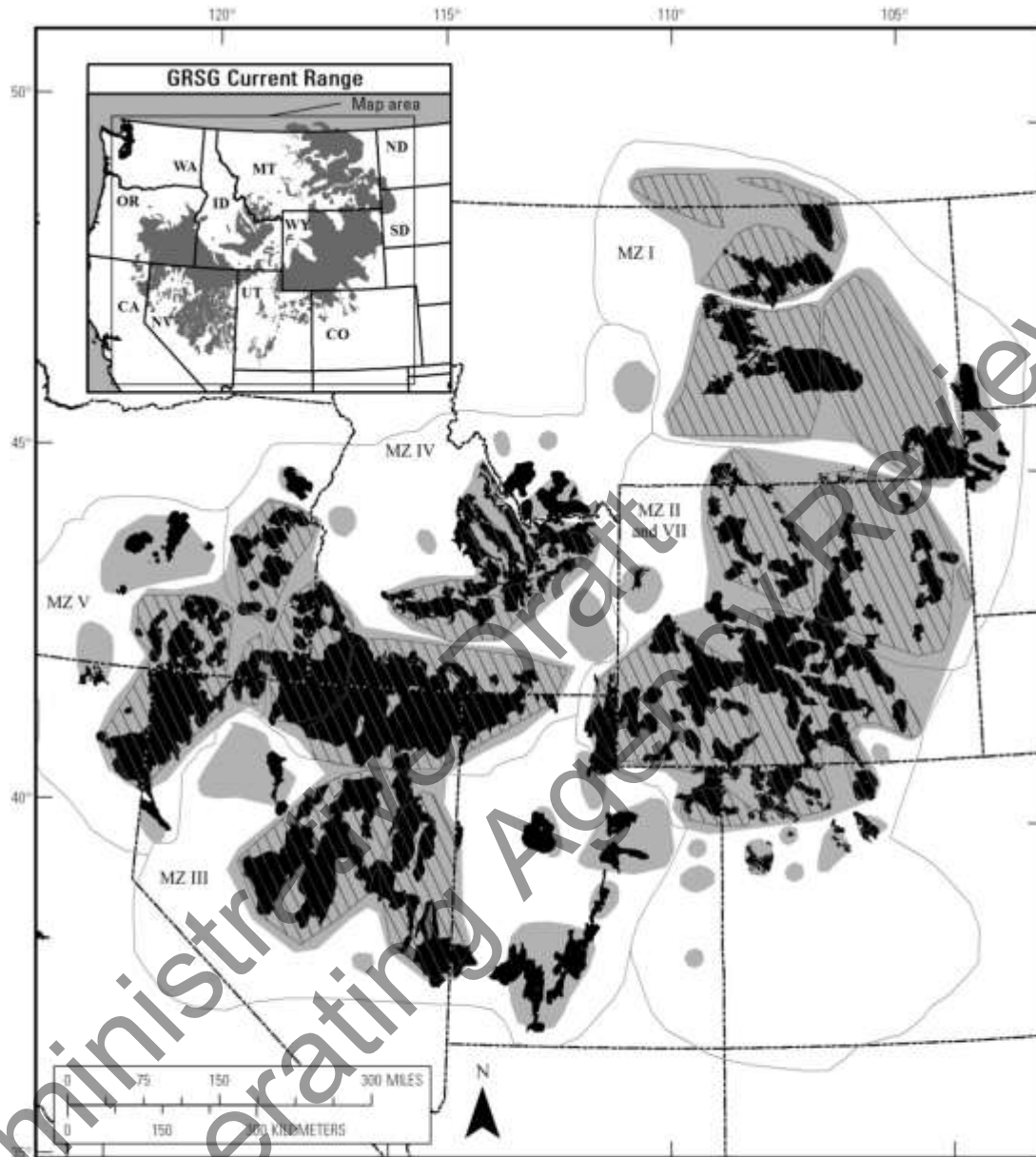
The purpose of this U.S. Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Greater Sage-Grouse Monitoring Framework (hereafter, monitoring framework) is to describe the methods to monitor habitats and evaluate the implementation and effectiveness of the BLM's national planning strategy (attachment to BLM Instruction Memorandum 2012-044), the BLM resource management plans (RMPs), and the USFS's land management plans (LMPs) to conserve the species and its habitat. The regulations for the BLM (43 CFR 1610.4-9) and the USFS (36 CFR part 209, published July 1, 2010) require that land use plans establish intervals and standards, as appropriate, for monitoring and evaluations based on the sensitivity of the resource to the decisions involved. Therefore, the BLM and the USFS will use the methods described herein to collect monitoring data and to evaluate implementation and effectiveness of the Greater Sage-Grouse (GRSG) (hereafter, sage-grouse) planning strategy and the conservation measures contained in their respective land use plans (LUPs). A monitoring plan specific to the Environmental Impact Statement, land use plan, or field office will be developed after the Record of Decision is signed. For a summary of the frequency of reporting, see Attachment A, An Overview of Monitoring Commitments. Adaptive management will be informed by data collected at any and all scales.

To ensure that the BLM and the USFS are able to make consistent assessments about sage-grouse habitats across the range of the species, this framework lays out the methodology—at multiple scales—for monitoring of implementation and disturbance and for evaluating the effectiveness of BLM and USFS actions to conserve the species and its habitat. Monitoring efforts will include data for measurable quantitative indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions. Implementation monitoring results will allow the BLM and the USFS to evaluate the extent that decisions from their LUPs to conserve sage-grouse and their habitat have been implemented. State fish and wildlife agencies will collect population monitoring information, which will be incorporated into effectiveness monitoring as it is made available.



This multiscale monitoring approach is necessary, as sage-grouse are a landscape species and conservation is scale-dependent to the extent that conservation actions are implemented within seasonal habitats to benefit populations. The four orders of habitat selection (Johnson 1980) used in this monitoring framework are described by Connelly et al. (2003) and were applied specifically to the scales of sage-grouse habitat selection by Stiver et al. (*in press*) as first order (broad scale), second order (mid scale), third order (fine scale), and fourth order (site scale). Habitat selection and habitat use by sage-grouse occur at multiple scales and are driven by multiple environmental and behavioral factors. Managing and monitoring sage-grouse habitats are complicated by the differences in habitat selection across the range and habitat use by individual birds within a given season. Therefore, the tendency to look at a single indicator of habitat suitability or only one scale limits managers' ability to identify the threats to sage-grouse

and to respond at the appropriate scale. For descriptions of these habitat suitability indicators for each scale, see “Sage-Grouse Habitat Assessment Framework: Multiscale Habitat Assessment Tool” (HAF; Stiver et al. *in press*).

Monitoring methods and indicators in this monitoring framework are derived from the current peer-reviewed science. Rangewide, best available datasets for broad- and mid-scale monitoring will be acquired. If these existing datasets are not readily available or are inadequate, but they are necessary to inform the indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions, the BLM and the USFS will strive to develop datasets or obtain information to fill these data gaps. Datasets that are not readily available to inform the fine- and site-scale indicators will be developed. These data will be used to generate monitoring reports at the appropriate and applicable geographic scales, boundaries, and analysis units: across the range of sage-grouse as defined by Schroeder et al. (2004), and clipped by Western Association of Fish and Wildlife Agencies (WAFWA) Management Zone (MZ) (Stiver et al. 2006) boundaries and other areas as appropriate for size (e.g., populations based on Connelly et al. 2004). (See Figure 1, Map of Greater Sage-Grouse range, populations, subpopulations, and Priority Areas for Conservation as of 2013.) This broad- and mid-scale monitoring data and analysis will provide context for RMP/LMP areas; states; GRSG Priority Habitat, General Habitat, and other sage-grouse designated management areas; and Priority Areas for Conservation (PACs), as defined in “Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report” (Conservation Objectives Team [COT] 2013). Hereafter, all of these areas will be referred to as “sage-grouse areas.”



**GRSG PACs, Subpopulations and Populations  
LEGEND**

-  Subpopulations
-  COT PACs
-  Populations

**Sources:**  
 Current Range: Schroeder et al., 2004  
 Populations: Connelly et al., 2004  
 Subpopulations: Connelly et al., 2004  
 PACs: USFWS COT Report, 2013

**Figure 1.** Map of Greater Sage-Grouse range, populations, subpopulations, and Priority Areas for Conservation as of 2013.

This monitoring framework is divided into two sections. The broad- and mid-scale methods, described in Section I, provide a consistent approach across the range of the species to monitor implementation decisions and actions, mid-scale habitat attributes (e.g., sagebrush availability and habitat degradation), and population changes to determine the effectiveness of the planning strategy and management decisions. (See Table 1, Indicators for monitoring implementation of the national planning strategy, RMP/LMP decisions, sage-grouse habitat, and sage-grouse populations at the broad and mid scales.) For sage-grouse habitat at the fine and site scales, described in Section II, this monitoring framework describes a consistent approach (e.g., indicators and methods) for monitoring sage-grouse seasonal habitats. Funding, support, and dedicated personnel for broad- and mid-scale monitoring will be renewed annually through the normal budget process. For an overview of BLM and USFS multiscale monitoring commitments, see Attachment A.

**Table 1.** Indicators for monitoring implementation of the national planning strategy, RMP/LMP decisions, sage-grouse habitat, and sage-grouse populations at the broad and mid scales.

	Implementation	Habitat		Population (State Wildlife Agencies)
<i>Geographic Scales</i>		Availability	Degradation	Demographics
Broad Scale: From the range of sage-grouse to WAFWA Management Zones	BLM/USFS National planning strategy goal and objectives	Distribution and amount of sagebrush within the range	Distribution and amount of energy, mining, and infrastructure facilities	WAFWA Management Zone population trend
Mid Scale: From WAFWA Management Zone to populations; PACs	RMP/LMP decisions	Mid-scale habitat indicators (HAF; Table 2 herein, e.g., percent of sagebrush per unit area)	Distribution and amount of energy, mining, and infrastructure facilities (Table 2 herein)	Individual population trend

## I. BROAD AND MID SCALES

First-order habitat selection, the broad scale, describes the physical or geographical range of a species. The first-order habitat of the sage-grouse is defined by populations of sage-grouse associated with sagebrush landscapes, based on Schroeder et al. 2004, and Connelly et al. 2004, and on population or habitat surveys since 2004. An intermediate scale between the broad and mid scales was delineated by WAFWA from floristic provinces within which similar environmental factors influence vegetation communities. This scale is referred to as the WAFWA Sage-Grouse Management Zones (MZs). Although no indicators are specific to this scale, these MZs are biologically meaningful as reporting units.

Second-order habitat selection, the mid-scale, includes sage-grouse populations and PACs. The second order includes at least 40 discrete populations and subpopulations (Connelly et al. 2004). Populations range in area from 150 to 60,000 mi<sup>2</sup> and are nested within MZs. PACs range from 20 to 20,400 mi<sup>2</sup> and are nested within population areas.

Other mid-scale landscape indicators, such as patch size and number, patch connectivity, linkage areas, and landscape matrix and edge effects (Stiver et al. *in press*) will also be assessed. The methods used to calculate these metrics will be derived from existing literature (Knick et al. 2011, Leu and Hanser 2011, Knick and Hanser 2011).

### A. Implementation (Decision) Monitoring

Implementation monitoring is the process of tracking and documenting the implementation (or the progress toward implementation) of RMP/LMP decisions. The BLM and the USFS will monitor implementation of project-level and/or site-specific actions and authorizations, with their associated conditions of approval/stipulations for sage-grouse, spatially (as appropriate) within Priority Habitat, General Habitat, and other sage-grouse designated management areas, at a minimum, for the planning area. These actions and authorizations, as well as progress toward completing and implementing activity-level plans, will be monitored consistently across all planning units and will be reported to BLM and USFS headquarters annually, with a summary report every 5 years, for the planning area. A national-level GRSG Land Use Plan Decision Monitoring and Reporting Tool is being developed to describe how the BLM and the USFS will consistently and systematically monitor and report implementation-level activity plans and implementation actions for all plans within the range of sage-grouse. A description of this tool for collection and reporting of tabular and spatially explicit data will be included in the Record of Decision or approved plan. The BLM and the USFS will provide data that can be integrated with other conservation efforts conducted by state and federal partners.

## **B. Habitat Monitoring**

The U.S. Fish and Wildlife Service (USFWS), in its 2010 listing decision for the sage-grouse, identified 18 threats contributing to the destruction, modification, or curtailment of sage-grouse habitat or range (75 FR 13910 2010). The BLM and the USFS will, therefore, monitor the relative extent of these threats that remove sagebrush, both spatially and temporally, on all lands within an analysis area, and will report on amount, pattern, and condition at the appropriate and applicable geographic scales and boundaries. These 18 threats have been aggregated into three broad- and mid-scale measures to account for whether the threat predominantly removes sagebrush or degrades habitat. (See Table 2, Relationship between the 18 threats and the three habitat disturbance measures for monitoring.) The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Energy and Mining Density (facilities and locations per unit area)

These three habitat disturbance measures will evaluate disturbance on all lands, regardless of land ownership. The direct area of influence will be assessed with the goal of accounting for actual removal of sagebrush on which sage-grouse depend (Connelly et al. 2000) and for habitat degradation as a surrogate for human activity. Measure 1 (sagebrush availability) examines where disturbances have removed plant communities that support sagebrush (or have broadly removed sagebrush from the landscape). Measure 1, therefore, monitors the change in sagebrush availability—or, specifically, where and how much of the sagebrush community is available within the range of sage-grouse. The sagebrush community is defined as the ecological systems that have the capability of supporting sagebrush vegetation and seasonal sage-grouse habitats within the range of sage-grouse (see Section I.B.1., Sagebrush Availability). Measure 2 (see Section I.B.2., Habitat Degradation Monitoring) and Measure 3 (see Section I.B.3., Energy and Mining Density) focus on where habitat degradation is occurring by using the footprint/area of direct disturbance and the number of facilities at the mid scale to identify the relative amount of degradation per geographic area of interest and in areas that have the capability of supporting sagebrush and seasonal sage-grouse use. Measure 2 (habitat degradation) not only quantifies footprint/area of direct disturbance but also establishes a surrogate for those threats most likely to have ongoing activity. Because energy development and mining activities are typically the most intensive activities in sagebrush habitat, Measure 3 (the density of active energy development, production, and mining sites) will help identify areas of particular concern for such factors as noise, dust, traffic, etc. that degrade sage-grouse habitat.

**Table 2.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring.

Note: Data availability may preclude specific analysis of individual layers. See the detailed methodology for more information.

<b>USFWS Listing Decision Threat</b>	<b>Sagebrush Availability</b>	<b>Habitat Degradation</b>	<b>Energy and Mining Density</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

The methods to monitor disturbance found herein differ slightly from methods used in Manier et al. 2013, which provided a baseline environmental report (BER) of datasets of disturbance across jurisdictions. One difference is that, for some threats, the BER data were for federal lands only. In addition, threats were assessed individually, using different assumptions from those in this monitoring framework about how to quantify the location and magnitude of threats. The methodology herein builds on the BER methodology and identifies datasets and procedures to use the best available data across the range of the sage-grouse and to formulate a consistent approach to quantify impact of the threats through time. This methodology also describes an approach to combine the threats and calculate each of the three habitat disturbance measures.

### **B.1. Sagebrush Availability (Measure 1)**

Sage-grouse populations have been found to be more resilient where a percentage of the landscape is maintained in sagebrush (Knick and Connelly 2011), which will be determined by sagebrush availability. Measure 1 has been divided into two submeasures to describe sagebrush availability on the landscape:

Measure 1a: the current amount of sagebrush on the geographic area of interest, and

Measure 1b: the amount of sagebrush on the geographic area of interest compared with the amount of sagebrush the landscape of interest could ecologically support.

Measure 1a (the current amount of sagebrush on the landscape) will be calculated using this formula: [the existing updated sagebrush layer] divided by [the geographic area of interest]. The appropriate geographic areas of interest for sagebrush availability include the species' range, WAFWA MZs, populations, and PACs. In some cases these sage-grouse areas will need to be aggregated to provide an estimate of sagebrush availability with an acceptable level of accuracy.

Measure 1b (the amount of sagebrush for context within the geographic area of interest) will be calculated using this formula: [existing sagebrush divided by [pre-EuroAmerican settlement geographic extent of lands that could have supported sagebrush]. This measure will provide information to set the context for a given geographic area of interest during evaluations of monitoring data. The information could also be used to inform management options for restoration or mitigation and to inform effectiveness monitoring.

The sagebrush base layer for Measure 1 will be based on geospatial vegetation data adjusted for the threats listed in Table 2. The following subsections of this monitoring framework describe the methodology for determining both the current availability of sagebrush on the landscape and the context of the amount of sagebrush on the landscape at the broad and mid scales.



### a. Establishing the Sagebrush Base Layer

The current geographic extent of sagebrush vegetation within the rangewide distribution of sagegrouse populations will be ascertained using the most recent version of the Existing Vegetation Type (EVT) layer in LANDFIRE (2013). LANDFIRE EVT was selected to serve as the sagebrush base layer for five reasons: 1) it is the only nationally consistent vegetation layer that has been updated multiple times since 2001; 2) the ecological systems classification within LANDFIRE EVT includes multiple sagebrush type classes that, when aggregated, provide a more accurate (compared with individual classes) and seamless sagebrush base layer across jurisdictional boundaries; 3) LANDFIRE performed a rigorous accuracy assessment from which to derive the rangewide uncertainty of the sagebrush base layer; 4) LANDFIRE is consistently used in several recent analyses of sagebrush habitats (Knick et al. 2011, Leu and Hanser 2011, Knick and Hanser 2011); and 5) LANDFIRE EVT can be compared against the geographic extent of lands that are believed to have had the capability of supporting sagebrush vegetation pre-EuroAmerican settlement [LANDFIRE Biophysical Setting (BpS)]. This fifth reason provides a reference point for understanding how much sagebrush currently remains in a defined geographic area of interest compared with how much sagebrush existed historically (Measure 1b). Therefore, the BLM and the USFS have determined that LANDFIRE provides the best available data at broad and mid scales to serve as a sagebrush base layer for monitoring changes in the geographic extent of sagebrush. The BLM and the USFS, in addition to aggregating the sagebrush types into the sagebrush base layer, will aggregate the accuracy assessment reports from LANDFIRE to document the cumulative accuracy for the sagebrush base layer. The BLM—through its Assessment, Inventory, and Monitoring (AIM) program and, specifically, the BLM’s landscape monitoring framework (Taylor et al. 2014)—will provide field data to the LANDFIRE program to support continuous quality improvements of the LANDFIRE EVT layer. The sagebrush layer based on LANDFIRE EVT will allow for the mid-scale estimation of the existing percent of sagebrush across a variety of reporting units. This sagebrush base layer will be adjusted by changes in land cover and successful restoration for future calculations of sagebrush availability (Measures 1a and 1b).

This layer will also be used to determine the trend in other landscape indicators, such as patch size and number, patch connectivity, linkage areas, and landscape matrix and edge effects (Stiver et al. *in press*). In the future, changes in sagebrush availability, generated annually, will be included in the sagebrush base layer. The landscape metrics will be recalculated to examine changes in pattern and abundance of sagebrush at the various geographic boundaries. This information will be included in effectiveness monitoring (See Section I.D., Effectiveness Monitoring).

Within the USFS and the BLM, forest-wide and field office-wide existing vegetation classification mapping and inventories are available that provide a much finer level of data than what is provided through LANDFIRE. Where available, these finer-scale products will be useful for additional and complementary mid-scale indicators and local-scale analyses (see Section II,

Fine and Site Scales). The fact that these products are not available everywhere limits their utility for monitoring at the broad and mid scale, where consistency of data products is necessary across broader geographies.

### ***Data Sources for Establishing and Monitoring Sagebrush Availability***

There were three criteria for selecting the datasets for establishing and monitoring the change in sagebrush availability (Measure 1):

- Nationally consistent dataset available across the range
- Known level of confidence or accuracy in the dataset
- Continual maintenance of dataset and known update interval

Datasets meeting these criteria are listed in Table 3, Datasets for establishing and monitoring changes in sagebrush availability.

### ***LANDFIRE Existing Vegetation Type (EVT) Version 1.2***

LANDFIRE EVT represents existing vegetation types on the landscape derived from remote sensing data. Initial mapping was conducted using imagery collected in approximately 2001. Since the initial mapping there have been two update efforts: version 1.1 represents changes before 2008, and version 1.2 reflects changes on the landscape before 2010. Version 1.2 will be used as the starting point to develop the sagebrush base layer.

Sage-grouse subject matter experts determined which of the ecological systems from the LANDFIRE EVT to use in the sagebrush base layer by identifying the ecological systems that have the capability of supporting sagebrush vegetation and that could provide suitable seasonal habitat for the sage-grouse. (See Table 4, Ecological systems in BpS and EVT capable of supporting sagebrush vegetation and capable of providing suitable seasonal habitat for Greater Sage-Grouse.) Two additional vegetation types that are not ecological systems were added to the EVT: *Artemisia tridentata* ssp. *vaseyana* Shrubland Alliance and *Quercus gambelii* Shrubland Alliance. These alliances have species composition directly related to the Rocky Mountain Lower Montane-Foothill Shrubland ecological system and the Rocky Mountain Gambel Oak-Mixed Montane Shrubland ecological system, both of which are ecological systems in LANDFIRE BpS. In LANDFIRE EVT, however, in some map zones, the Rocky Mountain Lower Montane-Foothill Shrubland ecological system and the Rocky Mountain Gambel Oak-Mixed Montane Shrubland ecological system were named *Artemisia tridentata* ssp. *vaseyana* Shrubland Alliance and *Quercus gambelii* Shrubland Alliance, respectively.

**Table 3.** Datasets for establishing and monitoring changes in sagebrush availability.

Dataset	Source	Update Interval	Most Recent Version Year	Use
BioPhysical Setting v1.1	LANDFIRE	Static	2008	Denominator for sagebrush availability
Existing Vegetation Type v1.2	LANDFIRE	Static	2010	Numerator for sagebrush availability
Cropland Data Layer	National Agricultural Statistics Service	Annual	2012	Agricultural updates; removes existing sagebrush from numerator of sagebrush availability
National Land Cover Dataset Percent Imperviousness	Multi-Resolution Land Characteristics Consortium (MRLC)	5-Year	2011 (next available in 2016)	Urban area updates; removes existing sagebrush from numerator of sagebrush availability
Fire Perimeters	GeoMac	Annual	2013	< 1,000-acre fire updates; removes existing sagebrush from numerator of sagebrush availability
Burn Severity	Monitoring Trends in Burn Severity	Annual	2012 (2-year delay in data availability)	> 1,000-acre fire updates; removes existing sagebrush from numerator of sagebrush availability except for unburned sagebrush islands

**Table 4.** Ecological systems in BpS and EVT capable of supporting sagebrush vegetation and capable of providing suitable seasonal habitat for Greater Sage-Grouse.

Ecological System	Sagebrush Vegetation that the Ecological System has the Capability of Producing
Colorado Plateau Mixed Low Sagebrush Shrubland	<i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia bigelovii</i> <i>Artemisia nova</i> <i>Artemisia frigida</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Columbia Plateau Low Sagebrush Steppe	<i>Artemisia arbuscula</i> <i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i>

Columbia Plateau Scabland Shrubland	<i>Artemisia rigida</i>
Columbia Plateau Steppe and Grassland	<i>Artemisia</i> spp.
Great Basin Xeric Mixed Sagebrush Shrubland	<i>Artemisia arbuscula</i> ssp. <i>longicaulis</i> <i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Inter-Mountain Basins Big Sagebrush Shrubland	<i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>xericensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Inter-Mountain Basins Big Sagebrush Steppe	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>xericensis</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tripartita</i> ssp. <i>tripartita</i> <i>Artemisia frigida</i>
Inter-Mountain Basins Curl-Leaf Mountain Mahogany Woodland and Shrubland	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i>
Inter-Mountain Basins Mixed Salt Desert Scrub	<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia spinescens</i>
Inter-Mountain Basins Montane Sagebrush Steppe	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia nova</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>spiciformis</i>
Inter-Mountain Basins Semi-Desert Shrub-Steppe	<i>Artemisia tridentata</i> <i>Artemisia bigelovii</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Northwestern Great Plains Mixed Grass Prairie	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia frigida</i>
Northwestern Great Plains Shrubland	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	<i>Artemisia tridentata</i>
Rocky Mountain Lower Montane-Foothill Shrubland	<i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia frigida</i>
Western Great Plains Floodplain Systems	<i>Artemisia cana</i> ssp. <i>cana</i>
Western Great Plains Sand Prairie	<i>Artemisia cana</i> ssp. <i>cana</i>
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	<i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tripartita</i> ssp. <i>rupicola</i>
<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> Shrubland Alliance (EVT only)	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
<i>Quercus gambelii</i> Shrubland Alliance (EVT only)	<i>Artemisia tridentata</i>

### ***Accuracy and Appropriate Use of LANDFIRE Datasets***

Because of concerns over the thematic accuracy of individual classes mapped by LANDFIRE, all ecological systems listed in Table 4 will be merged into one value that represents the sagebrush base layer. With all ecological systems aggregated, the combined accuracy of the sagebrush base layer (EVT) will be much greater than if all categories were treated separately.

LANDFIRE performed the original accuracy assessment of its EVT product on a map zone basis. There are 20 LANDFIRE map zones that cover the historical range of sage-grouse as defined by Schroeder (2004). (See Attachment B, User and Producer Accuracies for Aggregated Ecological Systems within LANDFIRE Map Zones.) The aggregated sagebrush base layer for monitoring had user accuracies ranging from 57.1% to 85.7% and producer accuracies ranging from 56.7% to 100%.

*LANDFIRE EVT data are not designed to be used at a local level.* In reports of the percent sagebrush statistic for the various reporting units (Measure 1a), the uncertainty of the percent sagebrush will increase as the size of the reporting unit gets smaller. LANDFIRE data should never be used at the 30m pixel level (900m<sup>2</sup> resolution of raster data) for any reporting. The smallest geographic extent for using the data to determine percent sagebrush is at the PAC level; for the smallest PACs, the initial percent sagebrush estimate will have greater uncertainties compared with the much larger PACs.

### ***Agricultural Adjustments for the Sagebrush Base Layer***

The dataset for the geographic extent of agricultural lands will come from the National Agricultural Statistics Service (NASS) Cropland Data Layer (CDL) (<http://www.nass.usda.gov/research/Cropland/Release/index.htm>). CDL data are generated annually, with estimated producer accuracies for “large area row crops ranging from the mid 80% to mid-90%,” depending on the state ([http://www.nass.usda.gov/research/Cropland/sarsfaqs2.htm#Section3\\_18.0](http://www.nass.usda.gov/research/Cropland/sarsfaqs2.htm#Section3_18.0)). Specific information on accuracy may be found on the NASS metadata website (<http://www.nass.usda.gov/research/Cropland/metadata/meta.htm>). CDL provided the only dataset that matches the three criteria (nationally consistent, known level of accuracy, and periodically updated) for use in this monitoring framework and represents the best available agricultural lands mapping product.

The CDL data contain both agricultural classes and nonagricultural classes. For this effort, and in the baseline environmental report (Manier et al. 2013), nonagricultural classes were removed from the original dataset. The excluded classes are:

Barren (65 & 131), Deciduous Forest (141), Developed/High Intensity (124), Developed/Low Intensity (122), Developed/Med Intensity (123), Developed/Open Space (121), Evergreen Forest (142), Grassland Herbaceous (171), Herbaceous Wetlands (195), Mixed Forest (143), Open

Water (83 & 111), Other Hay/Non Alfalfa (37), Pasture/Hay (181), Pasture/Grass (62), Perennial Ice/Snow (112), Shrubland (64 & 152), Woody Wetlands (190).

The rule set for adjusting the sagebrush base layer for agricultural lands (and for updating the base layer for agricultural lands in the future) is that once an area is classified as agriculture in any year of the CDL, those pixels will remain out of the sagebrush base layer even if a new version of the CDL classifies that pixel as one of the nonagricultural classes listed above. The assumption is that even though individual pixels may be classified as a nonagricultural class in any given year, the pixel has not necessarily been restored to a natural sagebrush community that would be included in Table 4. A further assumption is that once an area has moved into agricultural use, it is unlikely that the area would be restored to sagebrush. Should that occur, however, the method and criteria for adding pixels back into the sagebrush base layer would follow those found in the sagebrush restoration monitoring section of this monitoring framework (see Section I.B.1.b., Monitoring Sagebrush Availability).

#### ***Urban Adjustments for the Sagebrush Base Layer***

The National Land Cover Database (NLCD) (Fry et al. 2011) includes a percent imperviousness dataset that was selected as the best available dataset to be used for urban adjustments and monitoring. These data are generated on a 5-year cycle and are specifically designed to support monitoring efforts. Other datasets were evaluated and lacked the spatial specificity that was captured in the NLCD product. Any new impervious pixel in NLCD will be removed from the sagebrush base layer through the monitoring process. Although the impervious surface layer includes a number of impervious pixels outside of urban areas, this is acceptable for the adjustment and monitoring for two reasons. First, an evaluation of national urban area datasets did not reveal a layer that could be confidently used in conjunction with the NLCD product to screen impervious pixels outside of urban zones. This is because unincorporated urban areas were not being included, thus leaving large chunks of urban pixels unaccounted for in this rule set. Second, experimentation with setting a threshold on the percent imperviousness layer that would isolate rural features proved to be unsuccessful. No combination of values could be identified that would result in the consistent ability to limit impervious pixels outside urban areas. Therefore, to ensure consistency in the monitoring estimates, all impervious pixels will be used.

#### ***Fire Adjustments for the Sagebrush Base Layer***

Two datasets were selected for performing fire adjustments and updates: GeoMac fire perimeters and Monitoring Trends in Burn Severity (MTBS). An existing data standard in the BLM requires that all fires of more than 10 acres are to be reported to GeoMac; therefore, there will be many small fires of less than 10 acres that will not be accounted for in the adjustment and monitoring attributable to fire. Using fire perimeters from GeoMac, all sagebrush pixels falling

within the perimeter of fires less than 1,000 acres will be used to adjust and monitor the sagebrush base layer.

For fires greater than 1,000 acres, MTBS was selected as a means to account for unburned sagebrush islands during the update process of the sagebrush base layer. The MTBS program (<http://www.mtbs.gov>) is an ongoing, multiyear project to map fire severity and fire perimeters consistently across the United States. One of the burn severity classes within MTBS is an unburned to low-severity class. This burn severity class will be used to represent unburned islands of sagebrush within the fire perimeter for the sagebrush base layer. Areas within the other severity classes within the fire perimeter will be removed from the base sagebrush layer during the update process. Not all wildfires, however, have the same impacts on the recovery of sagebrush habitat, depending largely on soil moisture and temperature regimes. For example, cooler, moister sagebrush habitat has a higher potential for recovery or, if needed, restoration than does the warmer, dryer sagebrush habitat. These cooler, moister areas will likely be detected as sagebrush in future updates to LANDFIRE.

#### ***Conifer Encroachment Adjustment for the Sagebrush Base Layer***

Conifer encroachment into sagebrush vegetation reduces the spatial extent of sage-grouse habitat (Davies et al. 2011, Baruch-Mordo et al. 2013). Conifer species that show propensity for encroaching into sagebrush vegetation resulting in sage-grouse habitat loss include various juniper species, such as Utah juniper (*Juniperus osteosperma*), western juniper (*Juniperus occidentalis*), Rocky Mountain juniper (*Juniperus scopulorum*), pinyon species, including singleleaf pinyon (*Pinus monophylla*) and pinyon pine (*Pinus edulis*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), and Douglas fir (*Pseudotsuga menziesii*) (Gruell et al. 1986, Grove et al. 2005, Davies et al. 2011).

A rule set for conifer encroachment was developed to adjust the sagebrush base layer. To capture the geographic extent of sagebrush that is likely to experience conifer encroachment, ecological systems within LANDFIRE EVT version 1.2 (NatureServe 2011) were identified if they had the capability of supporting both the conifer species (listed above) and sagebrush vegetation. Those ecological systems were deemed to be the plant communities with conifers most likely to encroach into sagebrush vegetation. (See Table 5, Ecological systems with conifers most likely to encroach into sagebrush vegetation.) Sagebrush vegetation was defined as including sagebrush species or subspecies that provide habitat for the Greater Sage-Grouse and that are included in the HAF. (See Attachment C, Sagebrush Species and Subspecies Included in the Selection Criteria for Building the EVT and BpS Layers.) An adjacency analysis was conducted to identify all sagebrush pixels that were directly adjacent to these conifer ecological systems, and these pixels were removed from the sagebrush base layer.

**Table 5.** Ecological systems with conifers most likely to encroach into sagebrush vegetation.

EVT Ecological Systems	Coniferous Species and Sagebrush Vegetation that the Ecological System has the Capability of Producing
Colorado Plateau Pinyon-Juniper Woodland	<i>Pinus edulis</i> <i>Juniperus osteosperma</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia bigelovii</i> <i>Artemisia pygmaea</i>
Columbia Plateau Western Juniper Woodland and Savanna	<i>Juniperus occidentalis</i> <i>Pinus ponderosa</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia rigida</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
East Cascades Oak-Ponderosa Pine Forest and Woodland	<i>Pinus ponderosa</i> <i>Pseudotsuga menziesii</i> <i>Artemisia tridentata</i> <i>Artemisia nova</i>
Great Basin Pinyon-Juniper Woodland	<i>Pinus monophylla</i> <i>Juniperus osteosperma</i> <i>Artemisia arbuscula</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	<i>Pinus ponderosa</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Rocky Mountain Foothill Limber Pine-Juniper Woodland	<i>Juniperus osteosperma</i> <i>Juniperus scopulorum</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i>
Rocky Mountain Poor-Site Lodgepole Pine Forest	<i>Pinus contorta</i> <i>Pseudotsuga menziesii</i> <i>Pinus ponderosa</i> <i>Artemisia tridentata</i>
Southern Rocky Mountain Pinyon-Juniper Woodland	<i>Pinus edulis</i> <i>Juniperus monosperma</i> <i>Artemisia bigelovii</i> <i>Artemisia tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Southern Rocky Mountain Ponderosa Pine Woodland	<i>Pinus ponderosa</i> <i>Pseudotsuga menziesii</i>



	<i>Pinus edulis</i> <i>Pinus contorta</i> <i>Juniperus</i> spp. <i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
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***Invasive Annual Grasses Adjustments for the Sagebrush Base Layer***

There are no invasive species datasets from 2010 to the present (beyond the LANDFIRE data) that meet the three criteria (nationally consistent, known level of accuracy, and periodically updated) for use in the determination of the sagebrush base layer. For a description of how invasive species land cover will be incorporated in the sagebrush base layer in the future, see Section I.B.1.b., Monitoring Sagebrush Availability.

***Sagebrush Restoration Adjustments for the Sagebrush Base Layer***

There are no datasets from 2010 to the present that could provide additions to the sagebrush base layer from restoration treatments that meet the three criteria (nationally consistent, known level of accuracy, and periodically updated); therefore, no adjustments were made to the sagebrush base layer calculated from the LANDFIRE EVT (version 1.2) attributable to restoration activities since 2010. Successful restoration treatments before 2010 are assumed to have been captured in the LANDFIRE refresh.

**b. Monitoring Sagebrush Availability**

***Monitoring Sagebrush Availability***

Sagebrush availability will be updated annually by incorporating changes to the sagebrush base layer attributable to agriculture, urbanization, and wildfire. The monitoring schedule for the existing sagebrush base layer updates is as follows:

***2010 Existing Sagebrush Base Layer*** = [Sagebrush EVT] minus [2006 Imperviousness Layer] minus [2009 and 2010 CDL] minus [2009/10 GeoMac Fires that are less than 1,000 acres] minus [2009/10 MTBS Fires that are greater than 1,000 acres, excluding unburned sagebrush islands within the perimeter] minus [Conifer Encroachment Layer]

***2012 Existing Sagebrush Update*** = [2010 Existing Sagebrush Base Layer] minus [2011 Imperviousness Layer] minus [2011 and 2012 CDL] minus [2011/12 GeoMac Fires < 1,000 acres] minus [2011/12 MTBS Fires that are greater than 1,000 acres, excluding unburned sagebrush islands within the perimeter]

***Monitoring Existing Sagebrush post 2012*** = [Previous Existing Sagebrush Update Layer] minus [Imperviousness Layer (if new data are available)] minus [Next 2 years of CDL] minus [Next 2 years of GeoMac Fires < 1,000 acres] minus [Next 2 years of MTBS Fires that are greater than

1,000 acres, excluding unburned sagebrush islands within the perimeter] plus  
[restoration/monitoring data provided by the field]

### ***Monitoring Sagebrush Restoration***

Restoration after fire, after agricultural conversion, after seedings of introduced grasses, or after treatments of pinyon pine and/or juniper are examples of updates to the sagebrush base layer that can add sagebrush vegetation back into sagebrush availability in the landscape. When restoration has been determined to be successful through rangewide, consistent, interagency fine- and site-scale monitoring, the polygonal data will be used to add sagebrush pixels back into the broad- and mid-scale sagebrush base layer.

### ***Measure 1b: Context for Monitoring the Amount of Sagebrush in a Geographic Area of Interest***

Measure 1b describes the amount of sagebrush on the landscape of interest compared with the amount of sagebrush the landscape of interest could ecologically support. Areas with the potential to support sagebrush were derived from the BpS data layer that describes sagebrush pre-EuroAmerican settlement (v1.2 of LANDFIRE).

The identification and spatial locations of natural plant communities (vegetation) that are believed to have existed on the landscape (BpS) were constructed based on an approximation of the historical (pre-EuroAmerican settlement) disturbance regime and how the historical disturbance regime operated on the current biophysical environment. BpS is composed of map units that are based on NatureServe (2011) terrestrial ecological systems classification.

The ecological systems within BpS used for this monitoring framework are those ecological systems that are capable of supporting sagebrush vegetation and of providing seasonal habitat for sage-grouse (Table 4). Ecological systems selected included sagebrush species or subspecies that are included in the HAF and listed in Attachment C.

The BpS layer does not have an associated accuracy assessment, given the lack of any reference data. Visual inspection of the BpS data, however, reveals inconsistencies in the labeling of pixels among LANDFIRE map zones. The reason for these inconsistencies is that the rule sets used to map a given ecological system will vary among map zones based on different physical, biological, disturbance, and atmospheric regimes of the region. These variances can result in artificial edges in the map. Metrics will be calculated, however, at broad spatial scales using BpS potential vegetation type, not small groupings or individual pixels. Therefore, the magnitude of these observable errors in the BpS layer will be minor compared with the size of the reporting units. Since BpS will be used to identify broad landscape patterns of dominant vegetation, these inconsistencies will have only a minor impact on the percent sagebrush availability calculation. *As with the LANDFIRE EVT, LANDFIRE BpS data are not designed to be used at a local level. LANDFIRE data should never be used at the 30m pixel level for reporting.*

In conclusion, sagebrush availability data will be used to inform effectiveness monitoring and initiate adaptive management actions as necessary. The 2010 estimate of sagebrush availability will serve as the base year, and an updated estimate for 2012 will be reported in 2014 after all datasets become available. The 2012 estimate will capture changes attributable to wildfire, agriculture, and urban development. Subsequent updates will always include new fire and agricultural data and new urban data when available. Restoration data that meet the criteria for adding sagebrush areas back into the sagebrush base layer will be factored in as data allow. Given data availability, there will be a 2-year lag (approximately) between when the estimate is generated and when the data used for the estimate become available (e.g., the 2014 sagebrush availability will be included in the 2016 estimate).

### ***Future Plans***

Geospatial data used to generate the sagebrush base layer will be available through the BLM's EGIS web portal and geospatial gateway or through the authoritative data source. Legacy datasets will be preserved so that trends may be calculated. Additionally, accuracy assessment data for all source datasets will be provided on the portal either spatially, where applicable, or through the metadata. Accuracy assessment information was deemed vital to help users understand the limitation of the sagebrush estimates; it will be summarized spatially by map zone and will be included in the portal.

LANDFIRE plans to begin a remapping effort in 2015. This remapping has the potential to improve the overall quality of data products greatly, primarily through the use of higher-quality remote sensing datasets. Additionally, the BLM and the Multi-Resolution Land Characteristics Consortium (MRLC) are working to improve the accuracy of vegetation map products for broad- and mid-scale analyses through the Grass/Shrub mapping effort. The Grass/Shrub mapping effort applies the Wyoming multiscale sagebrush habitat methodology (Homer et al. 2009) to depict spatially the fractional percent cover estimates for five components rangewide and West-wide. These five components are percent cover of sagebrush vegetation, percent bare ground, percent herbaceous vegetation (grass and forbs combined), annual vegetation, and percent shrubs. A benefit of the design of these fractional cover maps is that they facilitate monitoring "within" class variation (e.g., examination of declining trend in sagebrush cover for individual pixels). This "within" class variation can serve as one indicator of sagebrush quality that cannot be derived from LANDFIRE's EVT information. The Grass/Shrub mapping effort is not a substitute for fine-scale monitoring but will leverage fine-scale data to support the validation of the mapping products. An evaluation will be conducted to determine if either dataset is of great enough quality to warrant replacing the existing sagebrush layers. At the earliest, this evaluation will occur in 2018 or 2019, depending on data availability.

## **B.2. Habitat Degradation Monitoring (Measure 2)**

The measure of habitat degradation will be calculated by combining the footprints of threats identified in Table 2. The footprint is defined as the direct area of influence of “active” energy and infrastructure; it is used as a surrogate for human activity. Although these analyses will try to summarize results at the aforementioned meaningful geographic areas of interest, some may be too small to report the metrics appropriately and may be combined (smaller populations, PACs within a population, etc.). Data sources for each threat are found in Table 6, Geospatial data sources for habitat degradation. Specific assumptions (inclusion criteria for data, width/area assumptions for point and line features, etc.) and methodology for each threat, and the combined measure, are detailed below. All datasets will be updated annually to monitor broad- and mid-scale year-to-year changes and to calculate trends in habitat degradation to inform adaptive management. A 5-year summary report will be provided to the USFWS.

### **a. Habitat Degradation Datasets and Assumptions**

#### ***Energy (oil and gas wells and development facilities)***

This dataset will compile information from three oil and gas databases: the proprietary IHS Enerdeq database, the BLM Automated Fluid Minerals Support System (AFMSS) database, and the proprietary Platts (a McGraw-Hill Financial Company) GIS Custom Data (hereafter, Platts) database of power plants. Point data from wells active within the last 10 years from IHS and producing wells from AFMSS will be considered as a 5-acre (2.0ha) direct area of influence centered on the well point, as recommended by the BLM WO-300 (Minerals and Realty Management). Plugged and abandoned wells will be removed if the date of well abandonment was before the first day of the reporting year (i.e., for the 2015 reporting year, a well must have been plugged and abandoned by 12/31/2014 to be removed). Platts oil and gas power plants data (subset to operational power plants) will also be included as a 5-acre (2.0ha) direct area of influence.

***Additional Measure: Reclaimed Energy-related Degradation.*** This dataset will include those wells that have been plugged and abandoned. This measure thereby attempts to measure energy-related degradation that has been reclaimed but not necessarily fully restored to sage-grouse habitat. This measure will establish a baseline by using wells that have been plugged and abandoned within the last 10 years from the IHS and AFMSS datasets. Time lags for lek attendance in response to infrastructure have been documented to be delayed 2–10 years from energy development activities (Harju et al. 2010). Reclamation actions may require 2 or more years from the Final Abandonment Notice. Sagebrush seedling establishment may take 6 or more years from the point of seeding, depending on such variables as annual precipitation, annual temperature, and soil type and depth (Pyke 2011). This 10-year period is conservative and assumes some level of habitat improvement 10 years after plugging. Research by Hemstrom et al. (2002), however,

proposes an even longer period—more than 100 years—for recovery of sagebrush habitats, even with active restoration approaches. Direct area of influence will be considered 3 acres (1.2ha) (J. Perry, personal communication, February 12, 2014). This additional layer/measure could be used at the broad and mid scale to identify areas where sagebrush habitat and/or potential sagebrush habitat is likely still degraded. This layer/measure could also be used where further investigation at the fine or site scale would be warranted to: 1) quantify the level of reclamation already conducted, and 2) evaluate the amount of restoration still required for sagebrush habitat recovery. At a particular level (e.g., population, PACs), these areas and the reclamation efforts/success could be used to inform reclamation standards associated with future developments. Once these areas have transitioned from reclamation standards to meeting *restoration* standards, they can be added back into the sagebrush availability layer using the same methodology as described for adding restoration treatment areas lost to wildfire and agriculture conversion (see Monitoring Sagebrush Restoration in Section I.B.1.b., Monitoring Sagebrush Availability). This dataset will be updated annually from the IHS dataset.

### ***Energy (coal mines)***

Currently, there is no comprehensive dataset available that identifies the footprint of active coal mining across all jurisdictions. Therefore, point and polygon datasets will be used each year to identify coal mining locations. Data sources will be identified and evaluated annually and will include at a minimum: BLM coal lease polygons, U.S. Energy Information Administration mine occurrence points, U.S. Office of Surface Mining Reclamation and Enforcement coal mining permit polygons (as available), and U.S. Geological Survey (USGS) Mineral Resources Data System mine occurrence points. These data will inform where active coal mining may be occurring. Additionally, coal power plant data from Platts power plants database (subset to operational power plants) will be included. Aerial imagery will then be used to digitize manually the active coal mining and coal power plants surface disturbance in or near these known occurrence areas. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to locate (generally at 1:50,000 and below) and digitize (generally at 1:10,000 and below) active coal mine and power plant direct area of influence. Coal mine location data source and imagery date will be documented for each digitized coal polygon at the time of creation. Subsurface facility locations (polygon or point location as available) will also be collected if available, included in density calculations, and added to the active surface activity layer as appropriate (if an actual direct area of influence can be located).

### ***Energy (wind energy facilities)***

This dataset will be a subset of the Federal Aviation Administration (FAA) Digital Obstacles point file. Points where “Type\_” = “WINDMILL” will be included. Direct area of influence of these point features will be measured by converting to a polygon dataset as a direct area of

influence of 3 acres (1.2ha) centered on each tower point. See the BLM's "Wind Energy Development Programmatic Environmental Impact Statement" (BLM 2005). Additionally, Platts power plants database will be used for transformer stations associated with wind energy sites (subset to operational power plants), also with a 3-acre (1.2ha) direct area of influence.

### ***Energy (solar energy facilities)***

This dataset will include solar plants as compiled with the Platts power plants database (subset to operational power plants). This database includes an attribute that indicates the operational capacity of each solar power plant. Total capacity at the power plant was based on ratings of the in-service unit(s), in megawatts. Direct area of influence polygons will be centered over each point feature representing 7.3ac (3.0ha) per megawatt of the stated operational capacity, per the report of the National Renewable Energy Laboratory (NREL), "Land-Use Requirements for Solar Power Plants in the United States" (Ong et al. 2013).

### ***Energy (geothermal energy facilities)***

This dataset will include geothermal wells in existence or under construction as compiled with the IHS wells database and power plants as compiled with the Platts database (subset to operational power plants). Direct area of influence of these point features will be measured by converting to a polygon dataset of 3 acres (1.2ha) centered on each well or power plant point.

### ***Mining (active developments; locatable, leasable, saleable)***

This dataset will include active locatable mining locations as compiled with the proprietary InfoMine database. Aerial imagery will then be used to digitize manually the active mining surface disturbance in or near these known occurrence areas. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to locate (generally at 1:50,000 and below) and digitize (generally at 1:10,000 and below) active mine direct area of influence. Mine location data source and imagery date will be documented for each digitized polygon at the time of creation. Currently, there are no known compressive databases available for leasable or saleable mining sites beyond coal mines. Other data sources will be evaluated and used as they are identified or as they become available. Point data may be converted to polygons to represent direct area of influence unless actual surface disturbance is available.

### ***Infrastructure (roads)***

This dataset will be compiled from the proprietary Esri StreetMap Premium for ArcGIS. Dataset features that will be used are: Interstate Highways, Major Roads, and Surface Streets to capture most paved and "crowned and ditched" roads while not including "two-track" and 4-wheel-drive routes. These minor roads, while not included in the broad- and mid-scale monitoring, may support a volume of traffic that can have deleterious effects on sage-grouse leks. It may be

appropriate to consider the frequency and type of use of roads in a NEPA analysis for a proposed project. This fine- and site-scale analysis will require more site-specific data than is identified in this monitoring framework. The direct area of influence for roads will be represented by 240.2ft, 84.0ft, and 40.7ft (73.2m, 25.6m, and 12.4m) total widths centered on the line feature for Interstate Highways, Major Roads, and Surface Streets, respectively (Knick et al. 2011). The most current dataset will be used for each monitoring update. *Note: This is a related but different dataset than what was used in BER (Manier et al. 2013). Individual BLM/USFS planning units may use different road layers for fine- and site-scale monitoring.*

### ***Infrastructure (railroads)***

This dataset will be a compilation from the Federal Railroad Administration Rail Lines of the USA dataset. Non-abandoned rail lines will be used; abandoned rail lines will not be used. The direct are of influence for railroads will be represented by a 30.8ft (9.4m) total width (Knick et al. 2011) centered on the non-abandoned railroad line feature.

### ***Infrastructure (power lines)***

This line dataset will be derived from the proprietary Platts transmission lines database. Linear features in the dataset attributed as “buried” will be removed from the disturbance calculation. Only “In Service” lines will be used; “Proposed” lines will not be used. Direct area of influence will be determined by the kV designation: 1–199 kV (100ft/30.5m), 200–399 kV (150ft/45.7m), 400–699 kV (200ft/61.0m), and 700-or greater kV (250ft/76.2m) based on average right-of-way and structure widths, according to BLM WO-300 (Minerals and Realty Management).

### ***Infrastructure (communication towers)***

This point dataset will be compiled from the Federal Communications Commission (FCC) communication towers point file; all duplicate points will be removed. It will be converted to a polygon dataset by using a direct area of influence of 2.5 acres (1.0ha) centered on each communication tower point (Knick et al. 2011).

### ***Infrastructure (other vertical structures)***

This point dataset will be compiled from the FAA’s Digital Obstacles point file. Points where “Type\_” = “WINDMILL” will be removed. Duplicate points from the FCC communication towers point file will be removed. Remaining features will be converted to a polygon dataset using a direct area of influence of 2.5 acres (1.0ha) centered on each vertical structure point (Knick et al. 2011).

### ***Other Developed Rights-of-Way***

Currently, no additional data sources for other rights-of-way have been identified; roads, power lines, railroads, pipelines, and other known linear features are represented in the categories

described above. The newly purchased IHS data do contain pipeline information; however, this database does not currently distinguish between above-ground and underground pipelines. If additional features representing human activities are identified, they will be added to monitoring reports using similar assumptions to those used with the threats described above.

#### **b. Habitat Degradation Threat Combination and Calculation**

The threats targeted for measuring human activity (Table 2) will be converted to direct area of influence polygons as described for each threat above. These threat polygon layers will be combined and features dissolved to create one overall polygon layer representing footprints of active human activity in the range of sage-grouse. Individual datasets, however, will be preserved to indicate which types of threats may be contributing to overall habitat degradation.

This measure has been divided into three submeasures to describe habitat degradation on the landscape. Percentages will be calculated as follows:

Measure 2a. Footprint by geographic area of interest: Divide area of the active/direct footprint by the total area of the geographic area of interest (% disturbance in geographic area of interest).

Measure 2b. Active/direct footprint by historical sagebrush potential: Divide area of the active footprint that coincides with areas with historical sagebrush potential (BpS calculation from habitat availability) within a given geographic area of interest by the total area with sagebrush potential within the geographic area of interest (% disturbance on potential historical sagebrush in geographic area of interest).

Measure 2c. Active/direct footprint by current sagebrush: Divide area of the active footprint that coincides with areas of existing sagebrush (EVT calculation from habitat availability) within a given geographic area of interest by the total area that is current sagebrush within the geographic area of interest (% disturbance on current sagebrush in geographic area of interest).

#### **B.3. Energy and Mining Density (Measure 3)**

The measure of density of energy and mining will be calculated by combining the locations of energy and mining threats identified in Table 2. This measure will provide an estimate of the intensity of human activity or the intensity of habitat degradation. The number of energy facilities and mining locations will be summed and divided by the area of meaningful geographic areas of interest to calculate density of these activities. Data sources for each threat are found in Table 6. Specific assumptions (inclusion criteria for data, width/area assumptions for point and line features, etc.) and methodology for each threat, and the combined measure, are detailed



below. All datasets will be updated annually to monitor broad- and mid-scale year-to-year changes and 5-year (or longer) trends in habitat degradation.

**Table 6.** Geospatial data sources for habitat degradation (Measure 2).

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**a. Energy and Mining Density Datasets and Assumptions**

***Energy (oil and gas wells and development facilities)***

(See Section I.B.2., Habitat Degradation Monitoring.)

***Energy (coal mines)***

(See Section I.B.2., Habitat Degradation Monitoring.)

***Energy (wind energy facilities)***

(See Section I.B.2., Habitat Degradation Monitoring.)

***Energy (solar energy facilities)***

(See Section I.B.2., Habitat Degradation Monitoring.)

***Energy (geothermal energy facilities)***

(See Section I.B.2., Habitat Degradation Monitoring.)

***Mining (active developments; locatable, leasable, saleable)***

(See Section I.B.2., Habitat Degradation Monitoring.)

**b. Energy and Mining Density Threat Combination and Calculation**

Datasets for energy and mining will be collected in two primary forms: point locations (e.g., wells) and polygon areas (e.g., surface coal mining). The following rule set will be used to calculate density for meaningful geographic areas of interest including standard grids and per polygon:

- 1) Point locations will be preserved; no additional points will be removed beyond the methodology described above. Energy facilities in close proximity (an oil well close to a wind tower) will be retained.
- 2) Polygons will not be merged, or features further dissolved. Thus, overlapping facilities will be retained, such that each individual threat will be a separate polygon data input for the density calculation.
- 3) The analysis unit (polygon or 640-acre section in a grid) will be the basis for counting the number of mining or energy facilities per unit area. Within the analysis unit, all point features will be summed, and any individual polygons will be counted as one (e.g., a coal mine will be counted as one facility within population). Where polygon features overlap multiple units (polygons or pixels), the facility will be counted as one in each unit where the polygon occurs (e.g., a polygon crossing multiple 640-acre

sections would be counted as one in each 640-acre section for a density per 640-acre-section calculation).

- 4) In methodologies with different-sized units (e.g., MZs, populations, etc.) raw facility counts will be converted to densities by dividing the raw facility counts by the total area of the unit. Typically this will be measured as facilities per 640 acres.
- 5) For uniform grids, raw facility counts will be reported. Typically this number will also be converted to facilities per 640 acres.
- 6) Reporting may include summaries beyond the simple ones above. Zonal statistics may be used to smooth smaller grids to help display and convey information about areas within meaningful geographic areas of interest that have high levels of energy and/or mining activity.
- 7) Additional statistics for each defined unit may also include adjusting the area to include only the area with the historical potential for sagebrush (BpS) or areas currently sagebrush (EVT).

Individual datasets and threat combination datasets for habitat degradation will be available through the BLM's EGIS web portal and geospatial gateway. Legacy datasets will be preserved so that trends may be calculated.

### **C. Population (Demographics) Monitoring**

State wildlife management agencies are responsible for monitoring sage-grouse populations within their respective states. WAFWA will coordinate this collection of annual population data by state agencies. These data will be made available to the BLM according to the terms of the forthcoming Greater Sage-Grouse Population Monitoring Memorandum of Understanding (MOU) (2014) between WAFWA and the BLM. The MOU outlines a process, timeline, and responsibilities for regular data sharing of sage-grouse population and/or habitat information for the purposes of implementing sage-grouse LUPs/amendments and subsequent effectiveness monitoring. Population areas were refined from the "Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report" (COT 2013) by individual state wildlife agencies to create a consistent naming nomenclature for future data analyses. These population data will be used for analysis at the applicable scale to supplement habitat effectiveness monitoring of management actions and to inform the adaptive management responses.

### **D. Effectiveness Monitoring**

Effectiveness monitoring will provide the data needed to evaluate BLM and USFS actions toward reaching the objective of the national planning strategy (BLM IM 2012-044)—to conserve sage-grouse populations and their habitat—and the objectives for the land use planning

area. Effectiveness monitoring methods described here will encompass multiple larger scales, from areas as large as the WAFWA MZ to the scale of this LUP. Effectiveness data used for these larger-scale evaluations will include all lands in the area of interest, regardless of surface ownership/management, and will help inform where finer-scale evaluations are needed, such as population areas smaller than an LUP or PACs within an LUP (described in Section II, Fine and Site Scales). Data will also include the trend of disturbance within these areas of interest to inform the need to initiate adaptive management responses as described in the land use plan.

Effectiveness monitoring reported for these larger areas provides the context to conduct effectiveness monitoring at finer scales. This approach also helps focus scarce resources to areas experiencing habitat loss, degradation, or population declines, without excluding the possibility of concurrent, finer-scale evaluations as needed where habitat or population anomalies have been identified through some other means.

To determine the effectiveness of the sage-grouse national planning strategy, the BLM and the USFS will evaluate the answers to the following questions and prepare a broad- and mid-scale effectiveness report:

- 1) Sagebrush Availability and Condition:
  - a. What is the amount of sagebrush availability and the change in the amount and condition of sagebrush?
  - b. What is the existing amount of sagebrush on the landscape and the change in the amount relative to the pre-EuroAmerican historical distribution of sagebrush (BpS)?
  - c. What is the trend and condition of the indicators describing sagebrush characteristics important to sage-grouse?
- 2) Habitat Degradation and Intensity of Activities:
  - a. What is the amount of habitat degradation and the change in that amount?
  - b. What is the intensity of activities and the change in the intensity?
  - c. What is the amount of reclaimed energy-related degradation and the change in the amount?
- 3) What is the population estimation of sage-grouse and the change in the population estimation?
- 4) How are the BLM and the USFS contributing to changes in the amount of sagebrush?
- 5) How are the BLM and the USFS contributing to disturbance?

The compilation of broad- and mid-scale data (and population trends as available) into an effectiveness monitoring report will occur on a 5-year reporting schedule (see Attachment A), which may be accelerated to respond to critical emerging issues (in consultation with the USFWS and state wildlife agencies). In addition, effectiveness monitoring results will be used to identify emerging issues and research needs and inform the BLM and the USFS adaptive

management strategy (see the adaptive management section of this Environmental Impact Statement).

To determine the effectiveness of the sage-grouse objectives of the land use plan, the BLM and the USFS will evaluate the answers to the following questions and prepare a plan effectiveness report:

- 1) Is this plan meeting the sage-grouse habitat objectives?
- 2) Are sage-grouse areas within the LUP meeting, or making progress toward meeting, land health standards, including the Special Status Species/wildlife habitat standard?
- 3) Is the plan meeting the disturbance objective(s) within sage-grouse areas?
- 4) Are the sage-grouse populations within this plan boundary and within the sage-grouse areas increasing, stable, or declining?

The effectiveness monitoring report for this LUP will occur on a 5-year reporting schedule (see Attachment A) or more often if habitat or population anomalies indicate the need for an evaluation to facilitate adaptive management or respond to critical emerging issues. Data will be made available through the BLM's EGIS web portal and the geospatial gateway.

### **Methods**

At the broad and mid scales (PACs and above) the BLM and the USFS will summarize the vegetation, disturbance, and (when available) population data. Although the analysis will try to summarize results for PACs within each sage-grouse population, some populations may be too small to report the metrics appropriately and may need to be combined to provide an estimate with an acceptable level of accuracy. Otherwise, they will be flagged for more intensive monitoring by the appropriate landowner or agency. The BLM and the USFS will then analyze monitoring data to detect the trend in the amount of sagebrush; the condition of the vegetation in the sage-grouse areas (MacKinnon et al. 2011); the trend in the amount of disturbance; the change in disturbed areas owing to successful restoration; and the amount of new disturbance the BLM and/or the USFS has permitted. These data could be supplemented with population data (when available) to inform an understanding of the correlation between habitat and PACs within a population. This overall effectiveness evaluation must consider the lag effect response of populations to habitat changes (Garton et al. 2011).

*Calculating Question 1, National Planning Strategy Effectiveness:* The amount of sagebrush available in the large area of interest will use the information from Measure 1a (I.B.1., Sagebrush Availability) and calculate the change from the 2012 baseline to the end date of the reporting period. To calculate the change in the amount of sagebrush on the landscape to compare with the historical areas with potential to support sagebrush, the information from Measure 1b (I.B.1., Sagebrush Availability) will be used. To calculate the trend in the condition of sagebrush at the mid scale, three sources of data will be used: the BLM's Grass/Shrub mapping effort (Future Plans in Section I.B.1., Sagebrush Availability); the results from the calculation of the landscape

indicators, such as patch size (described below); and the BLM's Landscape Monitoring Framework (LMF) and sage-grouse intensification effort (also described below). The LMF and sage-grouse intensification effort data are collected in a statistical sampling framework that allows calculation of indicator values at multiple scales.

Beyond the importance of sagebrush availability to sage-grouse, the mix of sagebrush patches on the landscape at the broad and mid scale provides the life requisite of space for sage-grouse dispersal needs (see the HAF). The configuration of sagebrush habitat patches and the land cover or land use between the habitat patches at the broad and mid scales also defines suitability. There are three significant habitat indicators that influence habitat use, dispersal, and movement across populations: the size and number of habitat patches, the connectivity of habitat patches (linkage areas), and habitat fragmentation (scope of unsuitable and non-habitats between habitat patches). The most appropriate commercial software to measure patch dynamics, connectivity, and fragmentation at the broad and mid scales will be used, along with the same data layers derived for sagebrush availability.

The BLM initiated the LMF in 2011 in cooperation with the Natural Resources Conservation Service (NRCS). The objective of the LMF effort is to provide unbiased estimates of vegetation and soil condition and trend using a statistically balanced sample design across BLM lands. Recognizing that sage-grouse populations are more resilient where the sagebrush plant community has certain characteristics unique to a particular life stage of sage-grouse (Knick and Connelly 2011, Stiver et al. *in press*), a group of sage-grouse habitat and sagebrush plant community subject matter experts identified those vegetation indicators collected at LMF sampling points that inform sage-grouse habitat needs. The experts represented the Agricultural Research Service, BLM, NRCS, USFWS, WAFWA, state wildlife agencies, and academia. The common indicators identified include: species composition, foliar cover, height of the tallest sagebrush and herbaceous plant, intercanopy gap, percent of invasive species, sagebrush shape, and bare ground. To increase the precision of estimates of sagebrush conditions within the range of sage-grouse, additional plot locations in occupied sage-grouse habitat (Sage-Grouse Intensification) were added in 2013. The common indicators are also collected on sampling locations in the NRCS National Resources Inventory Rangeland Resource Assessment (<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/?&cid=stelprdb1041620>).

The sage-grouse intensification baseline data will be collected over a 5-year period, and an annual sage-grouse intensification report will be prepared describing the status of the indicators. Beginning in year 6, the annual status report will be accompanied with a trend report, which will be available on an annual basis thereafter, contingent on continuation of the current monitoring budget. This information, in combination with the Grass/Shrub mapping information, the mid-scale habitat suitability indicator measures, and the sagebrush availability information will be used to answer Question 1 of the National Planning Strategy Effectiveness Report.

*Calculating Question 2, National Planning Strategy Effectiveness:* Evaluations of the amount of habitat degradation and the intensity of the activities in the area of interest will use the information from Measure 2 (Section I.B.2., Habitat Degradation Monitoring) and Measure 3 (Section I.B.3., Energy and Mining Density). The field office will collect data on the amount of reclaimed energy-related degradation on plugged and abandoned and oil/gas well sites. The data are expected to demonstrate that the reclaimed sites have yet to meet the habitat restoration objectives for sage-grouse habitat. This information, in combination with the amount of habitat degradation, will be used to answer Question 2 of the National Planning Strategy Effectiveness Report.

*Calculating Question 3, National Planning Strategy Effectiveness:* The change in sage-grouse estimated populations will be calculated from data provided by the state wildlife agencies, when available. This population data (Section I.C., Population [Demographics] Monitoring) will be used to answer Question 3 of the National Planning Strategy Effectiveness Report.

*Calculating Question 4, National Planning Strategy Effectiveness:* The estimated contribution by the BLM or the USFS to the change in the amount of sagebrush in the area of interest will use the information from Measure 1a (Section I.B.1., Sagebrush Availability). This measure is derived from the national datasets that remove sagebrush (Table 3). To determine the relative contribution of BLM and USFS management, the current Surface Management Agency geospatial data layer will be used to differentiate the amount of change for each management agency for this measure in the geographic areas of interest. This information will be used to answer Question 4 of the National Planning Strategy Effectiveness Report.

*Calculating Question 5, National Planning Strategy Effectiveness:* The estimated contribution by the BLM or the USFS to the change in the amount of disturbance in the area of interest will use the information from Measure 2a (Section I.B.2., Monitoring Habitat Degradation) and Measure 3 (Section I.B.3., Energy and Mining Density). These measures are all derived from the national disturbance datasets that degrade habitat (Table 6). To determine the relative contribution of BLM and USFS management, the current Surface Management Agency geospatial data layer will be used to differentiate the amount of change for each management agency for these two measures in the geographic areas of interest. This information will be used to answer Question 5 of the National Planning Strategy Effectiveness Report.

Answers to the five questions for determining the effectiveness of the national planning strategy will identify areas that appear to be meeting the objectives of the strategy and will facilitate identification of population areas for more detailed analysis. Conceptually, if the broad-scale monitoring identifies increasing sagebrush availability and improving vegetation conditions, decreasing disturbance, and a stable or increasing population for the area of interest, there is evidence that the objectives of the national planning strategy to maintain populations and their habitats have been met. Conversely, where information indicates that sagebrush is decreasing and vegetation conditions are degrading, disturbance in sage-grouse areas is increasing, and/or

populations are declining relative to the baseline, there is evidence that the objectives of the national planning strategy are not being achieved. Such a determination would likely result in a more detailed analysis and could be the basis for implementing more restrictive adaptive management measures.

With respect to the land use plan area, the BLM and the USFS will summarize the vegetation, disturbance, and population data to determine if the LUP is meeting the plan objectives. Effectiveness information used for these evaluations includes BLM/USFS surface management areas and will help inform where finer-scale evaluations are needed, such as seasonal habitats, corridors, or linkage areas. Data will also include the trend of disturbance within the sage-grouse areas, which will inform the need to initiate adaptive management responses as described in the land use plan.

*Calculating Question 1, Land Use Plan Effectiveness:* The condition of vegetation and the allotments meeting land health standards (as articulated in “BLM Handbook 4180-1, Rangeland Health Standards”) in sage-grouse areas will be used to determine the LUP’s effectiveness in meeting the vegetation objectives for sage-grouse habitat set forth in the plan. The field office/ranger district will be responsible for collecting this data. In order for this data to be consistent and comparable, common indicators, consistent methods, and an unbiased sampling framework will be implemented following the principles in the BLM’s AIM strategy (Taylor et al. 2014; Toevs et al. 2011; MacKinnon et al. 2011), in the BLM’s Technical Reference “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005), and in the HAF (Stiver et al. *in press*) or other approved WAFWA MZ-consistent guidance to measure and monitor sage-grouse habitats. This information will be used to answer Question 1 of the Land Use Plan Effectiveness Report.

*Calculating Question 2, Land Use Plan Effectiveness:* Sage-grouse areas within the LUP that are achieving land health stands (or, if trend data are available, that are making progress toward achieving them)—particularly the Special Status Species/wildlife habitat land health standard—will be used to determine the LUP’s effectiveness in achieving the habitat objectives set forth in the plan. Field offices will follow directions in “BLM Handbook 4180-1, Rangeland Health Standards,” to ascertain if sage-grouse areas are achieving or making progress toward achieving land health standards. One of the recommended criteria for evaluating this land health standard is the HAF indicators.

*Calculating Question 3, Land Use Plan Effectiveness:* The amount of habitat disturbance in sage-grouse areas identified in this LUP will be used to determine the LUP’s effectiveness in meeting the plan’s disturbance objectives. National datasets can be used to calculate the amount of disturbance, but field office data will likely increase the accuracy of this estimate. This information will be used to answer Question 3 of the Land Use Plan Effectiveness Report.



*Calculating Question 4, Land Use Plan Effectiveness:* The change in estimated sage-grouse populations will be calculated from data provided by the state wildlife agencies, when available, and will be used to determine LUP effectiveness. This population data (Section I.C., Population [Demographics] Monitoring) will be used to answer Question 4 of the Land Use Plan Effectiveness Report.

Results of the effectiveness monitoring process for the LUP will be used to inform the need for finer-scale investigations, initiate adaptive management actions as described in the land use plan, initiate causation determination, and/or determine if changes to management decisions are warranted. The measures used at the broad and mid scales will provide a suite of characteristics for evaluating the effectiveness of the adaptive management strategy.

## **II. FINE AND SITE SCALES**

Fine-scale (third-order) habitat selected by sage-grouse is described as the physical and geographic area within home ranges during breeding, summer, and winter periods. At this level, habitat suitability monitoring should address factors that affect sage-grouse use of, and movements between, seasonal use areas. The habitat monitoring at the fine and site scale (fourth order) should focus on indicators to describe seasonal home ranges for sage-grouse associated with a lek or lek group within a population or subpopulation area. Fine- and site-scale monitoring will inform LUP effectiveness monitoring (see Section I.D., Effectiveness Monitoring) and the hard and soft triggers identified in the LUP's adaptive management section.

Site-scale habitat selected by sage-grouse is described as the more detailed vegetation characteristics of seasonal habitats. Habitat suitability characteristics include canopy cover and height of sagebrush and the associated understory vegetation. They also include vegetation associated with riparian areas, wet meadows, and other mesic habitats adjacent to sagebrush that may support sage-grouse habitat needs during different stages in their annual cycle.

As described in the Conclusion (Section III), details and application of monitoring at the fine and site scales will be described in the implementation-level monitoring plan for the land use plan.

The need for fine- and site-scale-specific habitat monitoring will vary by area, depending on proposed projects, existing conditions, habitat variability, threats, and land health. Examples of fine- and site-scale monitoring include: habitat vegetation monitoring to assess current habitat conditions; monitoring and evaluation of the success of projects targeting sage-grouse habitat enhancement and/or restoration; and habitat disturbance monitoring to provide localized disturbance measures to inform proposed project review and potential mitigation for project impacts. Monitoring plans should incorporate the principles outlined in the BLM's AIM strategy (Toevs et al. 2011) and in "AIM-Monitoring: A Component of the Assessment, Inventory, and Monitoring Strategy" (Taylor et al. 2014). Approved monitoring methods are:

- “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011);
- The BLM’s Technical Reference “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005); and,
- “Sage-Grouse Habitat Assessment Framework: Multiscale Assessment Tool” (Stiver et al. *in press*).

Other state-specific disturbance tracking models include: the BLM’s Wyoming Density and Disturbance Calculation Tool (<http://ddct.wygisc.org/>) and the BLM’s White River Data Management System in development with the USGS. Population monitoring data (in cooperation with state wildlife agencies) should be included during evaluation of the effectiveness of actions taken at the fine and site scales.

Fine- and site-scale sage-grouse habitat suitability indicators for seasonal habitats are identified in the HAF. The HAF has incorporated the Connelly et al. (2000) sage-grouse guidelines as well as many of the core indicators in the AIM strategy (Toevs et al. 2011). There may be a need to develop adjustments to height and cover or other site suitability values described in the HAF; any such adjustments should be ecologically defensible. To foster consistency, however, adjustments to site suitability values at the local scale should be avoided unless there is strong, scientific justification for making those adjustments. That justification should be provided. WAFWA MZ adjustments must be supported by regional plant productivity and habitat data for the floristic province. If adjustments are made to the site-scale indicators, they must be made using data from the appropriate seasonal habitat designation (breeding/nesting, brood-rearing, winter) collected from sage-grouse studies found in the relevant area and peer-reviewed by the appropriate wildlife management agency(ies) and researchers.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in sage-grouse designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat (see Section I.D., Effectiveness Monitoring).

### III. CONCLUSION

This Greater Sage-Grouse Monitoring Framework was developed for all of the Final Environmental Impact Statements involved in the sage-grouse planning effort. As such, it describes the monitoring activities at the broad and mid scales and provides a guide for the BLM and the USFS to collaborate with partners/other agencies to develop the land use plan- specific monitoring plan.

### IV. THE GREATER SAGE-GROUSE DISTURBANCE AND MONITORING SUBTEAM MEMBERSHIP

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Frank Quamen (BLM-NOC)	Renee Chi (BLM-UT)
David Wood (BLM-NOC)	Sandra Brewer (BLM-NV)
Vicki Herren (BLM-NOC)	Glenn Frederick (BLM-OR)
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Michael “Sherm” Karl (BLM-NOC)	Dalinda Damm (USFS)
Emily Kachergis (BLM-NOC)	Rob Mickelsen (USFS)
Doug Havlina (BLM-NIFC)	Tim Love (USFS)
Mike Pellant (BLM-GBRI)	Pam Bode (USFS)
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Administrative Draft  
Cooperating Agency Review

## LITERATURE CITED

Baruch-Mordo, S., J.S. Evans, J.P. Severson, D.E. Naugle, J.D. Maestas, J.M. Kiesecker, M.J. Falkowski, C.A. Hagen, and K.P. Reese. 2013. Saving sage-grouse from the trees: A proactive solution to reducing a key threat to a candidate species. *Biological Conservation* 167:233–241.

Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation assessment of Greater Sage-Grouse and sagebrush habitats. Unpublished report. Western Association of Fish and Wildlife Agencies, Cheyenne, WY. Available at [http://sagemap.wr.usgs.gov/docs/Greater\\_Sage-grouse\\_Conservation\\_Assessment\\_060404.pdf](http://sagemap.wr.usgs.gov/docs/Greater_Sage-grouse_Conservation_Assessment_060404.pdf).

Connelly, J.W., K.P. Reese, and M.A. Schroeder. 2003. Monitoring of Greater Sage-Grouse habitats and populations. Station Bulletin 80. College of Natural Resources Experiment Station, University of Idaho, Moscow, ID.

Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967–985.

Davies, K.W., C.S. Boyd, J.L. Beck, J.D. Bates, T.J. Svejcar, and M.A. Gregg. 2011. Saving the sagebrush sea: An ecosystem conservation plan for big sagebrush plant communities. *Biological Conservation* 144:2573–2584.

Fry, J.A., G. Xian, S. Jin, J.A. Dewitz, C.G. Homer, L. Yang, C.A. Barnes, N.D. Herold, and J.D. Wickham. 2011. Completion of the 2006 National Land Cover Database for the conterminous United States. *PE&RS* 77(9):858–864.

Garton, E.O., J.W. Connelly, J.S. Horne, C.A. Hagen, A. Moser, and M. Schroeder. 2011. Greater Sage-Grouse population dynamics and probability of persistence. *In* *Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats*, edited by S.T. Knick and J.W. Connelly, 293–382. *Studies in Avian Biology*, vol. 38. University of California Press, Berkeley, CA.

Grove, A.J., C.L. Wambolt, and M.R. Frisina. 2005. Douglas-fir's effect on mountain big sagebrush wildlife habitats. *Wildlife Society Bulletin* 33:74–80.

Gruell, G.E., J.K. Brown, and C.L. Bushey. 1986. Prescribed fire opportunities in grasslands invaded by Douglas-fir. State-of-the-art guidelines. General Technical Report INT-198. U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, UT. 19pp.

Harju, S.M., M.R. Dzialak, R.C. Taylor, L.D. Hayden-Wing, J.B. Winstead. 2010. Thresholds and time lags in effects of energy development on Greater Sage-Grouse populations. *Journal of Wildlife Management* 74(3):437–448.

Hemstrom, M. A., M. J. Wisdom, M. M. Rowland, B. Wales, W. J. Hann, and R. A. Gravenmier. 2002. Sagebrush-steppe vegetation dynamics and potential for restoration in the Interior Columbia Basin, USA. *Conservation Biology* 16:1243–1255.

Homer, C.G., C.L. Aldridge, D.K. Meyer, M.J. Coan, and Z.H. Bowen. 2009. Multiscale sagebrush rangeland habitat modeling in southwest Wyoming: U.S. Geological Survey Open-File Report 2008–1027. 14pp.

Johnson, D.H. 1980. The comparison of usage and availability measurements for evaluating resource preference. *Ecology* 61:65–71.

Knick, S.T., and J.W. Connelly (editors). 2011. Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats. *Studies in Avian Biology*, vol. 38. University of California Press, Berkeley, CA.

Knick, S.T., and S.E. Hanser. 2011. Connecting pattern and process in greater sage-grouse populations and sagebrush landscapes. *In* Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats, edited by S.T. Knick and J.W. Connelly, 383–405. *Studies in Avian Biology*, vol. 38. University of California Press, Berkeley, CA.

Knick, S.T., S.E. Hanser, R.F. Miller, D.A. Pyke, M.J. Wisdom, S.P. Finn, E.T. Rinkes, and C.J. Henny. 2011. Ecological influence and pathways of land use in sagebrush. *In* Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats, edited by S.T. Knick and J.W. Connelly, 203–251. *Studies in Avian Biology*, vol. 38. University of California Press, Berkeley, CA.

LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013, June – last update.) U.S. Department of the Interior, U.S. Geological Survey. [Online.] Available at: <http://landfire.cr.usgs.gov/viewer/> [2013, May 8].

Leu, M., and S.E. Hanser. 2011. Influences of the human footprint on sagebrush landscape patterns: implications for sage-grouse conservation. *In* Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats, edited by S.T. Knick and J.W. Connelly, 253–271. *Studies in Avian Biology*, vol. 38. University of California Press, Berkeley, CA.

MacKinnon, W.C., J.W. Karl, G.R. Toevs, J.J. Taylor, M. Karl, C.S. Spurrier, and J.E. Herrick. 2011. BLM core terrestrial indicators and methods. Tech Note 440. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.

Manier, D.J., D.J.A Wood, Z.H. Bowen, R.M. Donovan, M.J. Holloran, L.M. Juliusson, K.S. Mayne, S.J. Oyler-McCance, F.R. Quamen, D.J. Saher, and A.J. Titolo. 2013. Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater Sage-Grouse (*Centrocercus urophasianus*): U.S. Geological Survey Open-File Report 2013–1098. 170pp.

NatureServe. 2011. International ecological classification standard: Terrestrial ecological classifications. NatureServe Central Databases, Arlington, VA. Data current as of July 31, 2011.

Ong, S., C. Campbell, P. Denholm, R. Margolis, and G. Heath. 2013. Land-use requirements for solar power plants in the United States. National Renewable Energy Laboratory, U.S. Department of Energy Technical Report NREL/TP-6A20-56290. 39pp. Available at <http://www.nrel.gov/docs/fy13osti/56290.pdf>.

Pellant, M., P. Shaver, D.A. Pyke, and J.E. Herrick. 2005. Interpreting indicators of rangeland health, version 4. Technical Reference 1734-6. U.S. Department of the Interior, Bureau of Land Management, National Science and Technology Center, Denver, CO. BLM/WO/ST-00/001+1734/REV05. 122pp.

Perry, J. Personal communication. February 12, 2014.

Pyke, D.A. 2011. Restoring and rehabilitating sagebrush habitats. *In* Greater Sage-Grouse: Ecology and conservation of a landscape species and its habitats, edited by S.T. Knick and J.W. Connelly, 531–548. Studies in Avian Biology, vol. 38. University of California Press, Berkeley, CA.

Schroeder, M.A., C.L. Aldridge, A.D. Apa, J.R. Bohne, C.E. Braun, S.D. Bunnell, J.W. Connelly, P.A. Deibert, S.C. Gardner, M.A. Hilliard, G.D. Kobriger, S.M. McAdam, C.W. McCarthy, J.J. McCarthy, D.L. Mitchell, E.V. Rickerson, and S.J. Stiver. 2004. Distribution of sage-grouse in North America. *Condor* 106: 363–376.

Stiver, S.J., A.D. Apa, J.R. Bohne, S.D. Bunnell, P.A. Deibert, S.C. Gardner, M.A. Hilliard, C.W. McCarthy, and M.A. Schroeder. 2006. Greater Sage-Grouse comprehensive conservation strategy. Unpublished report. Western Association of Fish and Wildlife Agencies, Cheyenne, WY. Available at <http://www.wafwa.org/documents/pdf/GreaterSage-grouseConservationStrategy2006.pdf>.

Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl. *In press*. Sage-grouse habitat assessment framework: Multiscale habitat assessment tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies. Technical Reference. U.S. Department of the Interior, Bureau of Land Management, Denver, CO.

Taylor, J., E. Kachergis, G. Toevs, J. Karl, M. Bobo, M. Karl, S. Miller, and C. Spurrier. 2014. AIM-monitoring: A component of the BLM assessment, inventory, and monitoring strategy. Tech Note 445. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.

Toevs, G.R., J.J. Taylor, C.S. Spurrier, W.C. MacKinnon, M.R. Bobo. 2011. Bureau of Land Management assessment, inventory, and monitoring strategy: For integrated renewable resources management. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.

U.S. Department of Agriculture. National Agricultural Statistics Service Cropland Data Layer. {YEAR}. Published crop-specific data layer [online]. USDA-NASS, Washington, D.C. Available at <http://nassgeodata.gmu.edu/CropScape/>(accessed {DATE}; verified {DATE}).

United States Department of the Interior, Bureau of Land Management. 2001. Handbook H-4180-1, Release 4-107. Rangeland health standards handbook. Available at [http://www.blm.gov/style/medialib/blm/wo/Information\\_Resources\\_Management/policy/blm\\_handbook.Par.61484.File.dat/h4180-1.pdf](http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.61484.File.dat/h4180-1.pdf).

U.S. Department of the Interior, Bureau of Land Management. 2005. Wind Energy Development Programmatic Environmental Impact Statement (EIS). BLM Washington Office, Washington, D.C.

U.S. Department of the Interior, Bureau of Land Management. 2011. BLM national Greater Sage-Grouse land use planning strategy. Instruction Memorandum No. 2012-044. BLM Washington Office, Washington, D.C.

U.S. Department of the Interior, Fish and Wildlife Service. 2010. Endangered and threatened wildlife and plants; 12-month findings for petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as threatened or endangered. Proposed Rule. Federal Register 75: 13910–14014 (March 23, 2010).

U.S. Department of the Interior, Fish and Wildlife Service. 2013. Greater Sage-grouse (*Centrocercus urophasianus*) conservation objectives: Final report. U.S. Fish and Wildlife Service, Denver, CO.



**Attachment A. An Overview of Monitoring Commitments**

	Broad and Mid Scales					Fine and Site Scales
	Implementation	Sagebrush Availability	Habitat Degradation	Population	Effectiveness	
<b>How will the data be used?</b>	Track and document implementation of land use plan decisions and inform adaptive management	Track changes in land cover (sagebrush) and inform adaptive management	Track changes in disturbance (threats) to sage-grouse habitat and inform adaptive management	Track trends in sage-grouse populations (and/or leks; as determined by state wildlife agencies) and inform adaptive management	Characterize the relationship among disturbance, implementation actions, and sagebrush metrics and inform adaptive management	Measure seasonal habitat, connectivity at the fine scale, and habitat conditions at the site scale, calculate disturbance, and inform adaptive management
<b>Who is collecting the data?</b>	BLM FO and USFS Forest	NOC and NIFC	National datasets (NOC), BLM FOs, and USFS Forests as applicable	State wildlife agencies through WAFWA	Comes from other broad- and mid-scale monitoring types, analyzed by the NOC	BLM FO and SO, USFS Forests and RO (with partners)
<b>How often are the data collected, reported, and made available to USFWS?</b>	Collected and reported annually; summary report every 5 years	Updated and changes reported annually; summary report every 5 years	Collected and changes reported annually; summary report every 5 years	State data reported annually per WAFWA MOU; summary report every 5 years	Collected and reported every 5 years (coincident with LUP evaluations)	Collection and trend analysis ongoing, reported every 5 years or as needed to inform adaptive management
<b>What is the spatial scale?</b>	Summarized by LUP with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by MZ and LUP with flexibility for reporting by other units (e.g., PAC)	Variable (e.g., projects and seasonal habitats)
<b>What are the potential personnel and budget impacts?</b>	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment	At a minimum, current skills and capacity must be maintained; data management costs are TBD	At a minimum, current skills and capacity must be maintained; data layer purchase cost are TBD	No additional personnel or budget impacts for the BLM or the USFS	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment

<b>Who has primary and secondary responsibilities for reporting?</b>	1) BLM FO & SO; USFS Forest & RO 2) BLM & USFS Planning	1) NOC 2) WO	1) NOC 2) BLM SO, USFS RO, & appropriate programs	1) WAFWA & state wildlife agencies 2) BLM SO, USFS RO, NOC	1) Broad and mid scale at the NOC, LUP at BLM SO, USFS RO	1) BLM FO & USFS Forests 2) BLM SO & USFS RO
<b>What new processes/tools are needed?</b>	National implementation datasets and analysis tools	Updates to national land cover data	Data standards and rollup methods for these data	Standards in population monitoring (WAFWA)	Reporting methodologies	Data standards data storage; and reporting

FO (field office); NIFC (National Interagency Fire Center); NOC (National Operations Center); RO (regional office); SO (state office); TBD (to be determined); WO (Washington Office)

**Attachment B.** User and Producer Accuracies for Aggregated Ecological Systems within LANDFIRE Map Zones

<b>LANDFIRE Map Zone Name</b>	<b>User Accuracy</b>	<b>Producer Accuracy</b>	<b>% of Map Zone within Historical Schroeder</b>
Wyoming Basin	76.9%	90.9%	98.5%
Snake River Plain	68.8%	85.2%	98.4%
Missouri River Plateau	57.7%	100.0%	91.3%
Grand Coulee Basin of the Columbia Plateau	80.0%	80.0%	89.3%
Wyoming Highlands	75.3%	85.9%	88.1%
Western Great Basin	69.3%	75.4%	72.9%
Blue Mountain Region of the Columbia Plateau	85.7%	88.7%	72.7%
Eastern Great Basin	62.7%	80.0%	62.8%
Northwestern Great Plains	76.5%	92.9%	46.3%
Northern Rocky Mountains	72.5%	89.2%	42.5%
Utah High Plateaus	81.8%	78.3%	41.5%
Colorado Plateau	65.3%	76.2%	28.8%
Middle Rocky Mountains	78.6%	73.3%	26.4%
Cascade Mountain Range	57.1%	88.9%	17.3%
Sierra Nevada Mountain Range	0.0%	0.0%	12.3%
Northwestern Rocky Mountains	66.7%	60.0%	7.3%
Southern Rocky Mountains	58.6%	56.7%	7.0%
Northern Cascades	75.0%	75.0%	2.6%
Mogollon Rim	66.7%	100.0%	1.7%
Death Valley Basin	0.0%	0.0%	1.2%

There are two anomalous map zones with 0% user and producer accuracies, attributable to no available reference data for the ecological systems of interest.

*User accuracy* is a map-based accuracy that is computed by looking at the reference data for a class and determining the percentage of correct predictions for these samples. For example, if I select any sagebrush pixel on the classified map, what is the probability that I'll be standing in a sagebrush stand when I visit that pixel location in the field? *Commission Error* equates to including a pixel in a class when it should have been excluded (i.e., commission error = 1 – user's accuracy).

*Producer accuracy* is a reference-based accuracy that is computed by looking at the predictions produced for a class and determining the percentage of correct predictions. In other words, if I know that a particular area is sagebrush (I've been out on the ground to check), what is the probability that the digital map will correctly identify that pixel as sagebrush? *Omission Error* equates to excluding a pixel that should have been included in the class (i.e., omission error = 1 – producer's accuracy).

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**Attachment C. Sagebrush Species and Subspecies Included in the Selection Criteria for Building the EVT and BpS Layers**

- *Artemisia arbuscula* subspecies *longicaulis*
- *Artemisia arbuscula* subspecies *longiloba*
- *Artemisia bigelovii*
- *Artemisia nova*
- *Artemisia papposa*
- *Artemisia pygmaea*
- *Artemisia rigida*
- *Artemisia spinescens*
- *Artemisia tripartita* subspecies *rupicola*
- *Artemisia tripartita* subspecies *tripartita*
- *Tanacetum nuttallii*
- *Artemisia cana* subspecies *bolanderi*
- *Artemisia cana* subspecies *cana*
- *Artemisia cana* subspecies *viscidula*
- *Artemisia tridentata* subspecies *wyomingensis*
- *Artemisia tridentata* subspecies *tridentata*
- *Artemisia tridentata* subspecies *vaseyana*
- *Artemisia tridentata* subspecies *spiciformis*
- *Artemisia tridentata* subspecies *xericensis*
- *Artemisia tridentata* variety *pauciflora*
- *Artemisia frigida*
- *Artemisia pedatifida*

# Appendix EE

## Comparison between Proposed Plan and Co- Preferred Alternatives



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Appendix EE – Comparison between Proposed Plan and Co-Preferred Alternatives

Resource and Habitat Identifier				Alternative D <sup>1</sup> (DEIS Co-Preferred Alternative)	Alternative E <sup>1</sup> (DEIS Co-Preferred Alternative)	Proposed Plan <sup>1</sup>
<b>Lands and Realty</b> Major ROWs	Alt. D	Alt. E	Proposed Plan			
	PPMA	CHZ	PHMA	Exclusion	Avoidance	Avoidance
	PMMA	IHZ	IHMA	Avoidance	Avoidance	Avoid Screening Process
	PGMA	GHZ	GHMA	Avoidance	Open	Open (Avoidance Montana)
Minor ROWs	PPMA	CHZ	PHMA	Avoidance	Avoidance (Avoidance or Exclusion as described in the NO Action Montana)	Avoidance
	PMMA	IHZ	IHMA	Avoidance	Avoidance (Avoidance or Exclusion as described in the NO Action Montana)	Avoidance
	PGMA	GHZ	GHMA	Avoidance	Open (Avoidance or Exclusion as described in the NO Action Montana)	Open
Utility Corridors (existing)	PPMA	CHZ	PHMA	Open	Open	Open
	PMMA	IHZ	IHMA	Open	Open	Open
	PGMA	GHZ	GHMA	Open	Open	Open
Utility Corridors (New)	PPMA	CHZ	PHMA	NA	NA	Existing Open
	PMMA	IHZ	IHMA	NA	NA	Existing Open
	PGMA	GHZ	GHMA	NA	NA	Existing Open
Land Tenure	PPMA	CHZ	PHMA	Retention	NA	Retention
	PMMA	IHZ	IHMA	Retention	NA	Retention
	PGMA	GHZ	GHMA	Retention	NA	Exchange Only
<b>Solar</b>	PPMA	CHZ	PHMA	Exclusion	Avoidance	Exclusion
	PMMA	IHZ	IHMA	Avoidance	Avoidance	Avoidance
	PGMA	GHZ	GHMA	Open	Open	Open – Idaho Avoidance - Montana
<b>Wind</b>	PPMA	CHZ	PHMA	Exclusion	Avoidance	Exclusion
	PMMA	IHZ	IHMA	Avoidance	Avoidance	Avoidance
	PGMA	GHZ	GHMA	Open	Open	Open – Idaho

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Resource and Habitat Identifier				Alternative D <sup>1</sup> (DEIS Co-Preferred Alternative)	Alternative E <sup>1</sup> (DEIS Co-Preferred Alternative)	Proposed Plan <sup>1</sup>
						Avoidance - Montana
<b>Minerals</b>						
<u>Fluid Minerals</u>						
Oil and Gas	N/A	N/A	SFA	N/A	N/A	NSO no exception
	PPMA	CHZ	PHMA	Open	Open	NSO
	PMMA	IHZ	IHMA	Open	Open	NSO
	PGMA	GHZ	GHMA	Open	Open	Open
Geothermal <sup>1</sup>	N/A	N/A	SFA	N/A	N/A	NSO no exceptions
	PPMA	CHZ	PHMA	Open	Open	NSO
	PMMA	IHZ	IHMA	Open	Open	NSO
	PGMA	GHZ	GHMA	Open	Open	Open
<u>Locatable</u>	N/A	N/A	SFA	N/A	N/A	Proposed Withdrawal
	PPMA	CHZ	PHMA	Open	Open	Open
	PMMA	IHZ	IHMA	Open	Open	Open
	PGMA	GHZ	GHMA	Open	Open	Open
<u>Saleable</u>	PPMA	CHZ	PHMA	Closed to new	Open	Closed
	PMMA	IHZ	IHMA	Closed to new	Open	Open
	PGMA	GHZ	GHMA	Open	Open	Open
<u>Non-energy</u>	PPMA	CHZ	PHMA	Closed	Open	Closed
	PMMA	IHZ	IHMA	Closed	Open	Open
	PGMA	GHZ	GHMA	Open	Open	Open
<b>Livestock Grazing</b>	N/A	N/A	SFA	N/A	N/A	Prioritized permit renewal
	PPMA	CHZ	PHMA	Available	Available	Available
	PMMA	IHZ	IHMA	Available	Available	Available
	PGMA	GHZ	GHMA	Available	Available	Available
<b>Travel and Transportation</b>	PPMA	CHZ	PHMA	Limited	Limited	Limited
	PMMA	IHZ	IHMA	Limited	Limited	Limited
	PGMA	GHZ	GHMA	Limited	Limited	Limited
<b>Wild Horse and</b>	PPMA	CHZ	PHMA	Available	N/A	Prioritized permit renewal

Resource and Habitat Identifier				Alternative D <sup>1</sup> (DEIS Co-Preferred Alternative)	Alternative E <sup>1</sup> (DEIS Co-Preferred Alternative)	Proposed Plan <sup>1</sup>
<b>Burro</b>	PMMA	IHZ	IHMA	Available	N/A	Available
	PGMA	GHZ	GHMA	Available	N/A	Available

<sup>1</sup> Montana designates PHMA and GHMA under Alternatives D, E, and the Proposed Plan

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# Appendix F

## Key Habitat Map Update Process



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## **Appendix F – Idaho Key Habitat Map Update Process and Provisions for Addressing GRSG documented in New Areas Outside Priority, Important and General Habitat Management Areas**

### **Modifications to Priority, Important and General Habitat Management Areas:**

The BLM and FS have worked closely with the State of Idaho and USFWS in using the best available science to delineate GRSG occupancy in Idaho to the extent possible, as reflected in the boundaries of the Priority, Important and General Habitat Management Areas (PHMA, IHMA, GHMA) identified in this Plan. These management areas will be reviewed and updated approximately every 5 years. Prior to a specific 5-year update, however, it is possible that due to progress toward conservation and habitat restoration, vegetation succession or new information arising from scientific studies or targeted surveys, additional areas of occupied GRSG habitat may be identified, occurring outside the three management areas. Such new areas of occupancy must be based on sound science (e.g., telemetry, formal habitat assessments documenting GRSG usage etc.) and represent an occupied seasonal habitat. They must not be based solely on random or occasional observations of GRSG. In these areas GRSG habitat on BLM and/or FS lands will be managed in accordance with Required Design Features, seasonal restrictions and/or BMPs deemed appropriate by BLM or FS for that area. During the 5-year map update, formal designation of these new areas as PHMA, IHMA or GHMA will be considered by BLM/FS in coordination with the State of Idaho and USFWS along with other recommendations for modification to existing PHMA, IHMA or GHMA areas.

### **Modifications to the Key Habitat Map:**

The Idaho GRSG Key habitat map displays several broad vegetation classes relevant to GRSG conservation and habitat restoration, that underlie and help inform the Priority, Important and General Habitat Management Areas. These vegetation classes include Key habitat, perennial grasslands, annual grasslands and conifer encroachment areas, and have been utilized in GRSG conservation in Idaho since 2000.

As directed in IM ID-2013-010, Idaho BLM annually updates the Key Habitat map. The purpose of this Instruction Memorandum (IM) is to request updates to the Idaho Sage-grouse Habitat Planning Map. The update is needed to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. This update is also intended to capture additional edits recommended by the field offices, sage-grouse Local Working Groups (LWG), or agency partners in sage-grouse conservation.

**Factors to Consider During Edits:** The following factors are applicable to land of any ownership status for which the Bureau of Land Management (BLM) data are available, or for which data or other information are provided by non-BLM partners. If such new data are unavailable, or not provided by partners, retain the existing spatial data in the dataset:

1. Wildfires that have occurred in the most recent calendar year fire season on land administered by the BLM and on land not administered by the BLM.
2. Vegetation management projects that have been completed within key habitat or potential restoration areas of sage-grouse planning areas. This includes activities

such as burned area rehabilitation seeding projects, sagebrush thinning/reduction, conifer thinning/reduction, restoration of annual grasslands, new fuel breaks, etc. However, only consider those treatment areas completed and where a change in habitat classification has occurred (e.g., from annual grassland to perennial grassland; perennial grassland to key habitat, etc.). Areas planned for treatment or in the process of treatment (e.g., cheatgrass chemical treatment is completed, but seeding is pending) should not be included until an observed change in habitat category is achieved.

3. Changes in habitat status resulting from vegetation succession, such as perennial grasslands that have transitioned to key habitat due to increased sagebrush cover.
4. Habitat mapping errors or omissions that have been identified in the existing Idaho Sage-grouse Habitat Planning Map and other edits recommended by sage-grouse conservation partners, as appropriate. For this item, it is crucial that BLM field office biologists or an alternate staff specialist coordinate closely with their agency partners, especially the UFSFS and the Idaho Department of Fish and Game (IDFG), to actively solicit and resolve additional suggested edits that we may not be aware of. Those edits must also be incorporated into the respective BLM office's update submission. This is vital to ensure that the update is completed efficiently and as collaboratively as possible.
5. Since the Idaho Sage-grouse Habitat Planning Map is intended for use by all conservation partners in Idaho, it is important that we maintain a seamless coverage across land ownerships. In that regard, when editing, do not clip out BLM (or non-BLM land) on the basis of land ownership. Rather, make edits based on vegetation boundaries only, using the best available information and professional judgment. If you have uncertainties about accuracies for certain areas, document that in the metadata as appropriate.
6. Based on discussions during map updates in recent years, we will again use a 10.0 acre minimum polygon size for wildfires since data are readily available to that scale. For vegetation treatments, we will also use a minimum area of 10 acres. For sagebrush or other vegetation patches (e.g., key habitat, perennial grassland, annual grassland, conifer encroachment), delineate habitat to the extent you have data, recognizing that some offices may have more recent, finer resolution data than others.
7. Areas that have recently burned, for which the field has little or no information as to habitat status, should be classified as "recent burn." Efforts to document the general habitat status in these areas should be made the following field season if possible, in preparation for the next map update. The field may also attribute 2013 fires as perennial grassland or annual grassland, as appropriate.



8. Sage-grouse habitat polygon descriptions relevant to this IM include key habitat, perennial grassland, annual grassland, and conifer encroachment potential restoration areas.
  - o Key habitat includes areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year.
  - o Perennial grassland can be reclassified as key habitat once average sagebrush canopy cover is at least 10 percent.
  - o Annual grassland areas may be reclassified as perennial grassland once a restoration, fuels treatment or related project, such as an Emergency Stabilization and Rehabilitation (ES&R) seeding, is considered successful (i.e., seeded perennial species have successfully established).
  - o Conifer encroachment areas may be reclassified as key habitat following treatment of conifers if sagebrush cover is at least 10 percent and there is a perennial understory. They can also be reclassified as perennial grasslands if native perennial herbaceous species are dominant or if an associated restoration seeding is successful.
9. Field offices must ensure that original project-level data utilized in this update, including Global Positioning System data files, spatial, tabular and metadata associated with specific vegetation treatments, restoration projects, ES&R projects, etc., are archived at the field level and readily accessible in the event of future data calls.

# Appendix G

## Anthropogenic Disturbance And Adaptive Management



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## Appendix G – Anthropogenic Disturbance and Adaptive Management

### Part I – Baseline Map and Description of Development

The **biologically significant units (BSUs)** are geographical/spatial areas within Greater Sage-grouse habitat that contains relevant and important habitats which is used as the basis for comparative calculations to support evaluation of changes to habitat. The BSUs include all land ownerships for evaluation, although application of the anthropogenic disturbance cap is specific only to BLM and Forest Service lands. The BSUs are used in the evaluation of anthropogenic disturbance and in the adaptive management habitat trigger.

For the Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment EIS the biologically significant units are defined as:

***Idaho: All of the modeled nesting<sup>1</sup> and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas<sup>2</sup>***

***Montana: All of the Priority Habitat Management Area***

These BSUs form the geographic basis for the calculation of anthropogenic disturbance and in the soft and hard adaptive management habitat triggers.

While the BSUs define the geographic extent and scale of the Subregion's landscape that will be considered in evaluating anthropogenic disturbance and the adaptive management habitat triggers, how disturbance and habitat triggers are calculated differ since anthropogenic disturbance and habitat loss affect Greater Sage-grouse differently (Knick et al. 2013).

The BSU is the total area (acreage) of nesting and wintering habitat within Priority or Important Habitat Management Areas, separately, by each Conservation Area. For Idaho this results in 8 BSUs, 2 each within the Idaho Conservation Areas – 1 in Priority Habitat Management Areas and 1 in Important Habitat Management Areas. There is 1 BSU in southwest Montana and 1 BSU for the Utah portion of the Sawtooth National Forest (Raft River BSU). There are a total of 10 BSUs within the Idaho and Southwestern Montana Subregion as shown in Map-G-1.

In developing these BSUs it was determined at the subregional level that data from these units must be compatible with aggregation to the PAC and WAFWA Management Zone levels, in order to meet FWS needs. In addition, BSUs must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also

<sup>1</sup> Modeled nesting habitat is defined as those areas of Priority or Important Habitat Management Areas within 6.2 miles of 2011 active leks.

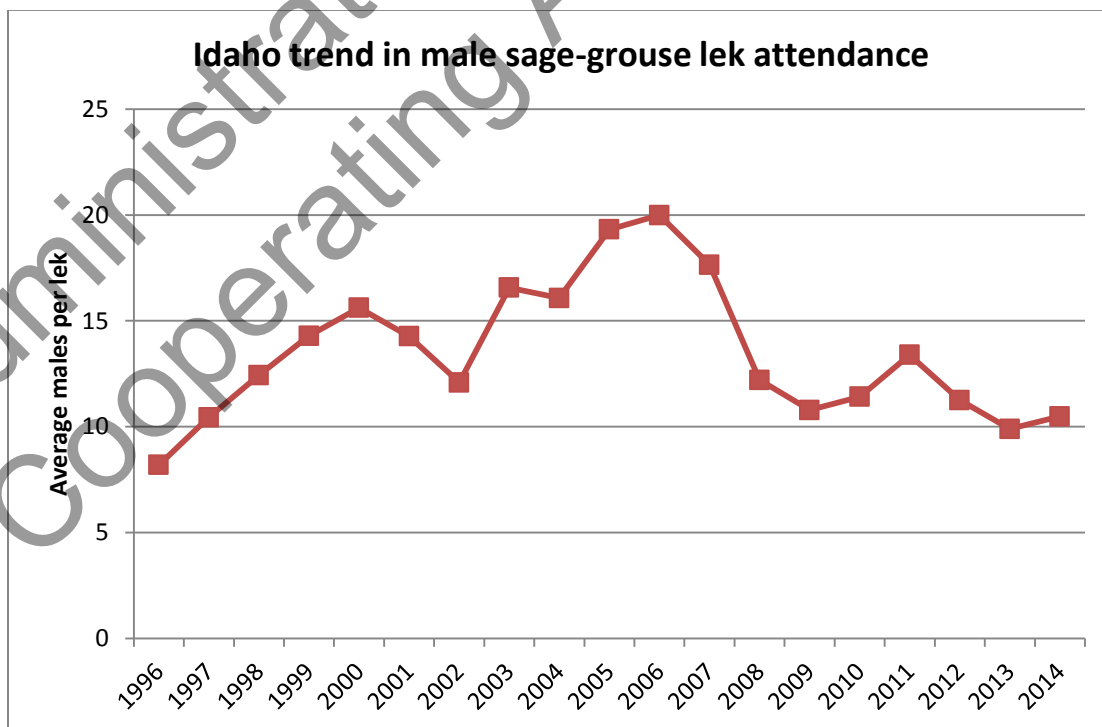
<sup>2</sup> The Utah portion of the Sawtooth National Forest is calculated separately for the Southern Conservation area.

acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

The application of these calculations requires certain assumptions and associated baseline values which set an appropriate benchmark for future comparison.

For the adaptive management evaluation in Idaho the baseline year for comparison of both the population and habitat values is set at 2011. Sage-grouse have been monitored by counting males on leks since the 1950's (IDFG files). Average male lek attendance (statewide average) reached a low point in 1996 (IDFG in file). A more consistent and intensified survey of leks began with the annual monitoring of all 78 lek routes across southern Idaho in 1996. Average male lek attendance has fluctuated since 1996 (Figure G-1) in response to favorable or unfavorable conditions (e.g. weather, habitat improvements or loss, and West Nile virus). Peaks were in 2000, 2006, and 2011 with low points in 2002 and 2009. The increase in male lek attendance after previous declines indicates that sage-grouse populations can rebound over a relatively short time frame (e.g. 5 years) given desirable conditions. The baseline was set at 2011 because the average number of males is approximately the medium (8 higher and 7 lower years) of the counts between 1996-2011. At the statewide scale, the 2011 baseline allows 10% and 20% population triggers to be above the second lowest point in 2009. Application of the trigger at a smaller (Conservation Area) scale is a more conservative approach that will indicate potential trends sooner than if applied at the state-wide scale.

Figure G-1. Idaho Trend in Male Sage-grouse Lek Attendance.

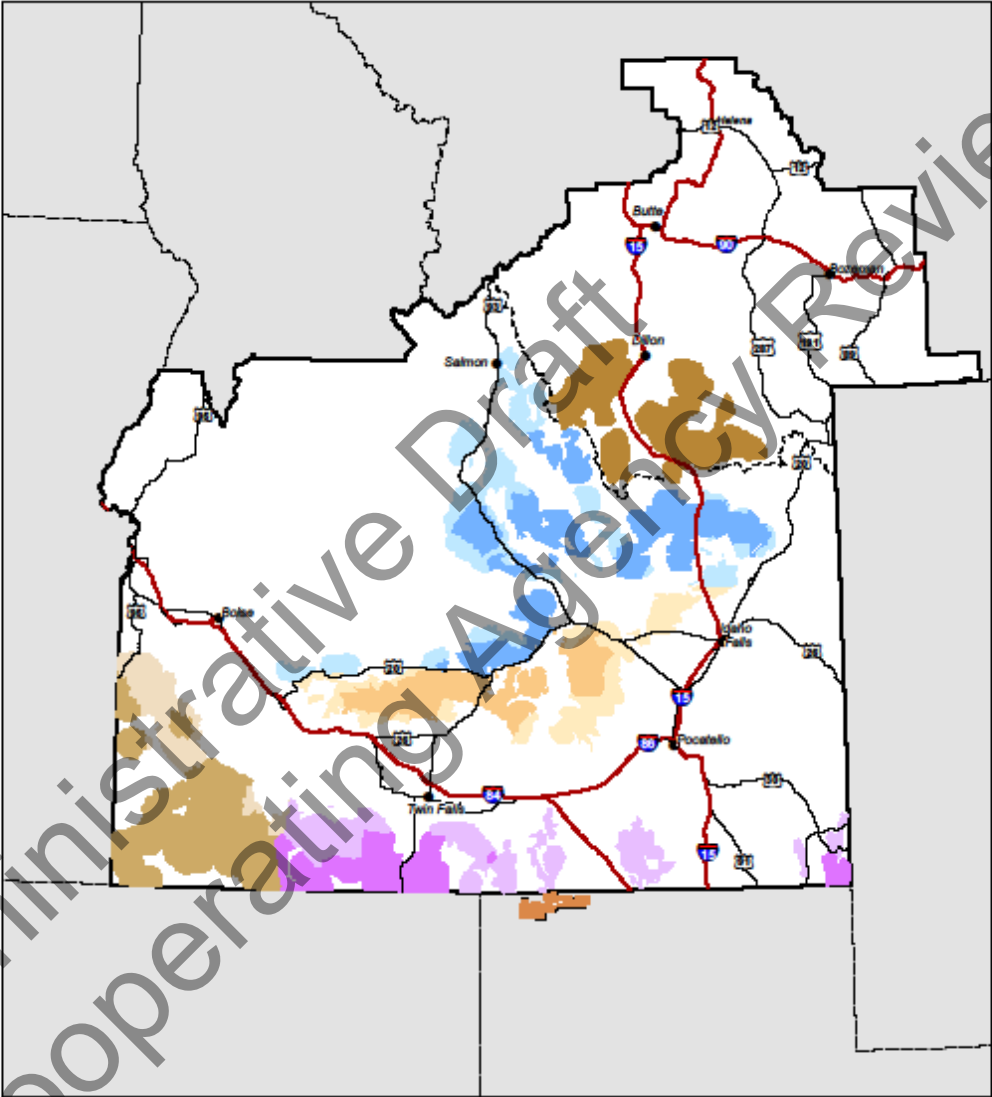


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Map-G-1

Biologically Significant Unit



- Idaho Desert Conservation Area - Core
- Idaho Desert Conservation Area - Important
- Idaho Mountain Valleys Conservation Area - Core
- Idaho Mountain Valleys Conservation Area - Important
- Idaho Southern Conservation Area - Core
- Idaho Southern Conservation Area - Important
- Idaho West Owyhee Conservation Area - Core
- Idaho West Owyhee Conservation Area - Important
- Raft River - Core
- SW Montana Conservation Area - Core
- Analysis Boundary

## Part II – Anthropogenic Disturbance Calculation

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). The 18 threats have been aggregated into three measures:

- Sagebrush Availability (percent of sagebrush per unit area)
- Habitat Degradation (percent of human activity per unit area)
- Density of Energy and Mining (facilities and locations per unit area)

Habitat Degradation and Density of Energy and Mining will be evaluated under the Disturbance Cap and Density Cap respectively and are further described in this appendix. The three measures, in conjunction with other information, will be considered during the NEPA process for projects authorized or undertaken by the BLM.

### Disturbance Cap:

This land use plan has incorporated a 3% disturbance cap within Greater Sage-Grouse (GRSG) Priority Habitat Management Areas (PHMAs) and the subsequent land use planning actions if the cap is met:

*For Idaho and Montana, if the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA (or IHMA in Idaho) Habitat Management Areas in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within GRSG PHMAs and IHMAs in any given BSU until the disturbance has been reduced to less than the cap. As measured according to the Monitoring Framework (Appendix G) for the intermediate scale.*

*For Idaho, if the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area (Appendix G) in a PHMA (or IHMA in Idaho), then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.).*

*For Montana, if the 3 percent disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMAs, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.) will be permitted by*

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*BLM within PHMA in a project analysis area until the disturbance has been reduced to less than the cap. If the BLM determines that the State of Montana has adopted a GRSG Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational Density Disturbance Calculation Tool, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within a project analysis area.*

The disturbance cap applies to the PHMA within both the Biologically Significant Units (BSU) and at the project authorization scale. For the BSUs, west-wide habitat degradation (disturbance) data layers (Table 1) will be used at a minimum to calculate the amount of disturbance and to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented. Locally collected disturbance data will be used to determine if the disturbance cap has been exceeded for project authorizations, and may also be used to calculate the amount of disturbance in the BSUs.

Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities will be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

Formulas for calculations of the amount of disturbance in the PHMA in a BSU and or in a proposed project area are as follows:

- For the BSUs:

$$\% \text{ Degradation Disturbance} = \frac{\text{(combined acres of the 12 degradation threats}^1\text{)}}{\text{(acres of all lands within the PHMAs in a BSU)}} \times 100.$$

- For the Project Analysis Area:

$$\% \text{ Degradation Disturbance} = \frac{\text{(combined acres of the 12 degradation threats}^1\text{ plus the 7 site scale threats}^2\text{)}}{\text{(acres of all lands within the PHMA in the project analysis area)}} \times 100.$$

<sup>1</sup> see Table 1. <sup>2</sup> see Table 2

The denominator in the disturbance calculation formula consists of all acres of lands classified as PHMA within the analysis area (BSU or project area). Areas that are not sage-grouse seasonal habitats, or are not currently supporting sagebrush cover (e.g., due to wildfire), are not excluded

from the acres of PHMA in the denominator of the formula. Information regarding sage-grouse seasonal habitats, sagebrush availability, and areas with the potential to support sage-grouse populations will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.

Density Cap:

This land use plan has also incorporated a cap on the density of energy and mining facilities at an average of one facility per 640 acres in the PHMA in a project authorization area. If the disturbance density in the PHMA in a proposed project area is on average less than 1 facility per 640 acres, the analysis will proceed through the NEPA process incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1 facility per 640 acres, the proposed project will either be deferred until the density of energy and mining facilities is less than the cap or co-located it into existing disturbed area (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.). Facilities included in the density calculation (Table 3) are:

- Energy (oil and gas wells and development facilities)
- Energy (coal mines)
- Energy (wind towers)
- Energy (solar fields)
- Energy (geothermal)
- Mining (active locatable, leasable, and saleable developments)

Project Analysis Area Method for Permitting Surface Disturbance Activities:

- Determine potentially affected occupied leks by placing a four mile boundary around the proposed area of physical disturbance related to the project. All occupied leks located within the four mile project boundary and within PHMA will be considered affected by the project.
- Next, place a four mile boundary around each of the affected occupied leks.
- The PHMA within the four mile lek boundary and the four mile project boundary creates the project analysis area for each individual project. If there are no occupied leks within the four-mile project boundary, the project analysis area will be that portion of the four-mile project boundary within the PHMA.
- Digitize all existing anthropogenic disturbances identified in Table 1 and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use existing local data if available.

- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

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Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
Energy (oil & gas)	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
Energy (coal)	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Energy (wind)	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
Energy (solar)	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
Energy (geothermal)	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Mining	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
Infrastructure (roads)	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
Infrastructure (railroads)	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
Infrastructure (power lines)	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
Infrastructure (communication)	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven site scale features considered threats to sage-grouse included in the disturbance calculation for project authorizations.

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol> <p>Definitions:</p> <ol style="list-style-type: none"> <li>1. <b>Coalbed Methane and other Energy-related Retention Ponds</b> – The footprint boundary will follow the fenceline and includes the area within the fenceline surrounding the impoundment. If the pond is not fenced, the impoundment itself is the footprint. Other infrastructure associated with the containment ponds (roads, well pads, etc.) will be captured in other disturbance categories.</li> <li>2. <b>Meteorological Towers</b> – This feature includes long-term weather monitoring and temporary meteorological towers associated with short-term wind testing. The footprint boundary includes the area underneath the guy wires.</li> <li>3. <b>Nuclear Energy Facilities</b> – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.</li> <li>4. <b>Airport Facilities and Infrastructure (public and private)</b> –The footprint boundary of will follow the boundary of the airport or heliport and includes mowed areas, parking lots, hangars, taxiways, driveways, terminals, maintenance facilities, beacons and related features. Indicators of the boundary, such as distinct land cover changes, fences and perimeter roads, will be used to encompass the entire airport or heliport.</li> <li>5. <b>Military Range Facilities &amp; Infrastructure</b> – The footprint boundary will follow the outer edge of the disturbed areas around buildings and includes undisturbed areas within the facility’s perimeter.</li> <li>6. <b>Hydroelectric Plants</b> – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.</li> <li>7. <b>Recreation Areas &amp; Facilities</b> – This feature includes all sites/facilities larger than 0.25 acres in size. The footprint boundary will include any undisturbed areas within the site/facility.</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		

Energy (oil and gas wells and development facilities)	X	X
Energy (coal mines)	X	X
Energy (wind towers)	X	X
Energy (solar fields)	X	X
Energy (geothermal)	X	X
Mining (active locatable, leasable, and saleable developments)	X	X
Infrastructure (roads)	X	
Infrastructure (railroads)	X	
Infrastructure (power lines)	X	
Infrastructure (communication towers)	X	
Infrastructure (other vertical structures)	X	
Other developed rights-of-way	X	

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

#### ***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance (see Part V for definitions):

5 Linear transportation features identified as roads that have a maintenance intensity of 3 or

Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

Non-Disturbance

The following items would not count as disturbance:



Linear transportation features identified as trails.  
Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.  
Linear transportation features identified as primitive routes.  
Linear disturbances.

### ***Derivation of the Disturbance Formula -***

There is no definitive and scientifically proven formula to determine impact to GRSG from disturbance described in current research. However, Knick et al. (2013) did describe certain relationships between GRSG and anthropogenic disturbance that have been used, in conjunction with specific assumptions to describe a mathematical relationship between human disturbance footprint, effective GRSG habitat and effects to GRSG.

The variables in the equation are defined as:

Acres of a Biologically Significant Unit (BSU)  
Acres of Anthropogenic Development within the BSU  
Acres of Effective GRSG Habitat (sagebrush) within the BSU

Knick et al. (2013) defined their unit of comparison (analogous to a biologically significant unit) as an area within 5 km of the lek. Within this area they also found that 79% of this area contained sagebrush (analogous to effective GRSG habitat). Results of the study show that “Ninety-nine percent of active leks were in landscapes with <3% developed”. This shows that when areas within 5 km of a lek containing 79% sagebrush were 3% developed there was a measurable effect on the presence of GRSG – this defines a disturbance threshold of 3% at which point GRSG are affected. Knick et al. developed a habitat similarity relationship between the proportion of leks and percent of sagebrush which shows the highest proportion of leks when sagebrush percentage is between 70-90% (Knick et al. 2013, Figure 5, Connelly et al. 2000, Wisdom et al. 2011). Above 90% and below 70% the proportion of leks is reduced. This helps define the optimum range for sagebrush at between 70-90% and also indicates that the disturbance threshold of 3% is also dependent upon and varies with the percent of sagebrush present (effective habitat).

These findings from Knick et al. (2013) help define some mathematical parameters to define a modeled relationship between disturbance, effective habitat and effects to GRSG. Figure G-2 illustrates three different ‘disturbance curves’ that reflect the relationship between disturbance (y-axis) and effective habitat (sagebrush percentage) (x-axis) when the footprint disturbed is equivalent to 3% of the area. The red boxes (A) represent the conceptual relationship between disturbance and effective habitat as described and interpreted from Knick et al. (2013). The blue diamonds (B) represent a simple calculation based only on disturbance footprint, without regard to effective habitat. The green triangles (C) represent the derived formula to model the relationship.

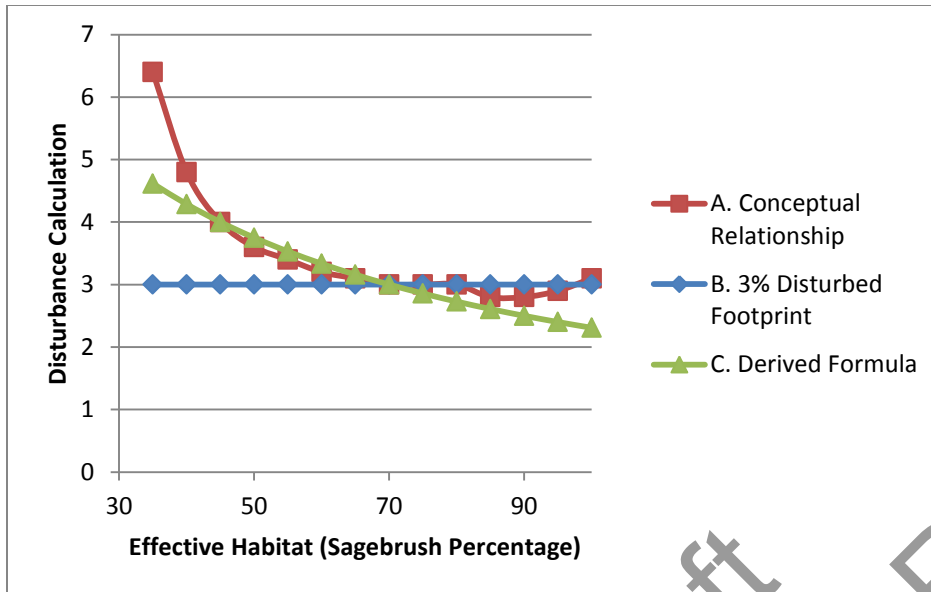
The 'A' disturbance curve shows that when the disturbance footprint is 3% of the area and the sagebrush percentage is between 70-90% the disturbance calculation would be 3. When sagebrush percent falls below 70% or rises above 90%, the change in habitat, even without a change in disturbed footprint would begin to affect the presence of GRSG. As the amount of sagebrush declines while disturbance remains the same there would be an increasing effect to GRSG presence. This disturbance curve is conceptual and Knick et al. (2013) does not explicitly define this relationship, although this relationship does reflect numerical the observations described in Knick et al. (2013).

The 'B' disturbance curve is a straight calculation based only on disturbed footprint over a specified area. It does not account for variability of sagebrush percentage, and the only variable is the acres of disturbance. For an area that is 3% disturbed the relationship 'curve' is a flat line at 3, regardless of sagebrush percentage. This 'curve' or calculation would match the conceptual curve when sagebrush percentage is between 70 and 90%. This calculation would not account for changes in effective habitat due to loss through fire or gain through restoration and rehabilitation. The 'C' disturbance curve models and approximates the conceptual relationship described in Knick et al. (2013). It accounts for changes in effective habitat that would translate into variable effects to GRSG based on loss or gain of habitat. It includes the ability to consider habitat loss such as from fire and to consider habitat gain such as from rehabilitation efforts including conifer removal. The model matched the conceptual relationship in the range of 70% sagebrush and approximates the conceptual relationship in areas with more or less sagebrush cover. The conceptual relationship assumes a more exponential relationship to GRSG effects from loss of habitat, while the derived formula assumes a more linear relationship. There are no available scientific studies that more clearly define the nature of the relationship. The derived formula and the conceptual relationship are substantially similar from 35-90% sagebrush percentage to validate the derived formula's relative approximation of the relationship.

Figure G-2. Disturbance Relationships







**Development of the Modeled Formula:**

In order to manage and apply a defined disturbance cap it is necessary to take the findings of the appropriate scientific research and utilize them as appropriately as possible to develop management strategies and evaluation techniques consistent with the management objective. Most scientific research is not completed with the intent to develop specific management objectives or approaches; however, it is through the management approaches that the scientific findings utilized to inform management.

Development of the modeled formula began by describing the simplest relationship of disturbance across a defined area by defining the disturbance percentage as:

$$\% \text{ Disturbance} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within Area of Concern}} \right) * 100$$

This accounts for disturbance, but does not account for changes in effective habitat or sagebrush percentage as described in Knick et al. (2013). To account for effective habitat the formula needs to include a term that adjusts the resulting calculation with regard to effective habitat. This should be reflected as an adjustment to the denominator (acres within area of concern). The denominator would be weighted based on the amount of effective habitat. In mathematical terms this would give a denominator of:

$$(\text{Acres within Area of Concern}) * (\text{Adjustment Based on Effective Habitat})$$

The adjustment term must equal 1.0 when the effective habitat is somewhere between 70-90% as described in Knick et al. (2013). Assuming the adjustment term is related to the relative percentage of sagebrush or effective habitat then the *Adjustment Based on Effective Habitat* could be expressed as:

*Acres of Effective Habitat within the Area of Concern*  
*Acres within the Area of Concern*

However, this term does not equal 1.0 when effective habitat is less than 100%. In order to meet the requirement of equaling 1.0 a constant must be added. This constant, when added to the percentage calculated in the previous term must equal 1.0 when the *Acres of Effective Habitat within the Area of Concern* is somewhere between 70-90%. In the Idaho and Southwestern Montana Subregional Plan an objective of 70% effective habitat has been defined, which is consistent with Knick et al. (2013). If the objective is 70% then the constant that must be added to this term is 0.3 in order to meet the requirement of equaling 1.0 at 70% effective habitat. This defines the following derived formula that approximates the conceptual relationship described in Knick et al. (2013).

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance within Area of Concern}}{\text{Acres within the Area of Concern} * \left( \frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}} + 0.3 \right)} \right) \times 100$$

**Scale:**

The particular scale for which this formula is calculated is defined by the Area of Concern. The Knick et al. (2013) used a study area defined by the area within 5 km of an individual lek. The disturbance relationships described previously are applicable at this scale and begin to break down or lose their integrity at greater distances from the lek (18 km). This concern, coupled with limited availability of consistent data across broader areas undermines the reliability and accuracy of the calculation when including areas more distant from the lek.

From a management perspective there is a need to address concerns at the broader scale to help manage those threats before they become a concern at the site specific scale. In Idaho, nesting location data collected by Idaho Department of Fish and Game (IDFG), shows that most nesting habitat occurs within 6.2 miles (10 km) of the lek. IDFG has also collected telemetry data on GRSG movements and used this data to help define wintering areas. Nesting and wintering areas are the most limited and seasonal habitats in Idaho and additional disturbance in those areas could have impacts to GRSG presence. For these reasons the Area of Concern, referred to as the Biologically Significant Unit have been delineated to include nesting and wintering habitats. This results in areas that include more acres than just those associated within a 5 km area of an individual lek as described by Knick et al. (2013), but that are associated (within 6.2 miles or 10 km) with leks. While the Knick et al. (2013) study did not include winter habitat, because of their relative importance they have also been included as part of the BSU since conceivably disturbances that would cause lek abandonment would also likely cause abandonment or avoidance of other seasonal habitat areas. Using other administratively defined areas not delineated or based on specific GRSG use may undermine the utility and integrity of the disturbance relationship and calculation.



This approach, built upon the findings in Knick et al. (2013), uses those findings to help inform management at a broader scale that would help determine management actions based on disturbance evaluations. Using the BSU as the Area of Concern is a scale larger than described in Knick et al. (2013), but still within the predictive bounds described in that study. The formula can be used to calculate disturbance at the BSU scale to help inform a disturbance cap, and it can also be used at the site or project scale to help inform specific project activities.

### **Additional Questions and Answers Regarding the Idaho Disturbance Calculation**

The measurement and application of a disturbance threshold with regard to a species using the various locations of the landscape for different parts of its life history is extremely complicated. The previous discussion is a description of the derivation of that calculation and application. What follows are specific responses to questions that have arisen based on the previous discussion. While all of the following answers are supported in the previous discussion they are not necessary described as explicitly there as they are below.

***Question: Why has Idaho BLM developed a calculation apart from the rest of the Great Basin planning areas when USFWS has been looking for a consistent approach to the extent possible?***

**Response:** The alternative included in the Draft EIS's describing the National Technical Team Report (Alternative B in the Idaho and Southwestern Montana DEIS) included a management action to apply a 3% disturbance cap. However, there was no description of how this would be applied, calculated or implemented in subsequent management. The Preferred Alternatives (D & E) did not include a disturbance cap since disturbance was not identified as a major concern causing loss of habitat in Idaho or Southwestern Montana and its measurement and applicability was not defined and deemed highly problematic to implement in a meaningful way. During the early 2014 Federal Family Meeting (FFM) USFWS indicated that inclusion of such a disturbance threshold was necessary in order for USFWS to have the assurance and certainty necessary when assessing GRSG listing. At that point, outside of Wyoming's Disturbance Density Calculation Tool there was no developed approach to measure or calculate disturbance to evaluate a disturbance cap against.

Idaho BLM invited Dr. Steve Knick to discuss his study regarding disturbance (the only known scientific research describing a disturbance cap). Also as a result of that FFM the BLM's NOC began working on developing a disturbance calculation process that was not as intensive as the Wyoming DDCT approach, based on BLM guidance that anthropogenic disturbance measurement would not follow that approach in other states due the intensive and workload associated with that approach would not be feasible to implement in other states.

Idaho BLM followed the provided guidance to develop biologically significant units (BSUs). The NOC developed 3 equations to try and relate disturbance and habitat. These equations were specifically applicable to broad scales but not applicable to site specific scales. Idaho BLM took the information and built a simple equation measuring and evaluating absolute disturbance to compare against the cap. That equation was defined as:

*Acres of Anthropogenic Disturbance within the BSU*  
*Acres within the BSU*

At the time of the August Federal Family Meeting the Idaho BLM had further refined the previous equation to more accurately reflect the findings in Knick's research. Disturbance was discussed at that meeting and it was evident that there was no other clear guidance from either the WO, the NOC or efforts from other states in this subject. Idaho was the only state to have put effort into the need identified by USFWS and the only effort to have a reasonable, scientifically based approach. Idaho did not intentionally deviate from consistent approaches being developed apart from the other Great Basin planning areas; and in fact until late 2014 Idaho is the only Great Basin planning effort to have put an approach together.

***Why is the Idaho calculation important or relevant given that an anthropogenic disturbance cap is not likely to be hit?***

***Response:*** Loss of habitat from anthropogenic disturbance is not a major issue in Idaho and Southwestern Montana; however, that does not mean that measurement and evaluation of a disturbance cap can be arbitrary, or any less supportable, or inconsistent with the scientific research available if that research can help inform the conditions and evaluation appropriately. That is why the Idaho disturbance calculation is defined consistent with the scientific research making it reflective of the known effects to GRSG and supportable to base management decisions upon.

***Is loss of habitat from fire considered in the Idaho calculation?***

***Response:*** The Idaho calculation does consider the effect fire has on the habitat and includes loss of habitat from fire as part of the calculation by weighting the denominator based on the actual habitat available to the GRSG. The rationale described is in direct reference to the original equation Idaho BLM used:

*Acres of Anthropogenic Disturbance within the BSU*  
*Acres within the BSU*

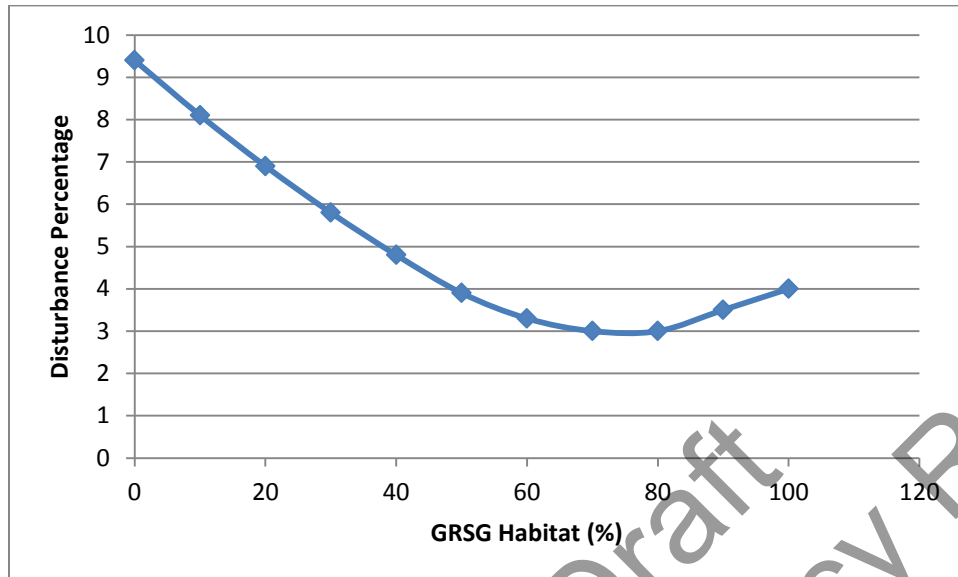
which does not account for changes in habitat due to loss through fire or gain through restoration. As stated previously Idaho's approach was not developed as a deviation or in comparison to other planning effort attempts at calculating the disturbance cap because such attempts did not yet exist when Idaho's approach was completed.

***Why does the Idaho calculation include two terms which seem to complicate the evaluation (the entire area of the BSU and the constant)?***

***Response:*** The two terms at issue here are precisely what make the equation relevant and scientifically accurate and supportable, they may make the calculation more complex but natural systems are complex and mathematical equations developed to describe those systems may be somewhat complex. That they are difficult to interpret does not invalidate their inclusion and



their value, in numerical description, which those terms contribute to describing a complex situation. The actual relationship described in Knick et al., when graphed would resemble:



This graph shows the conceptual relationship curve of anthropogenic disturbance suggested by Knick et al. In that research it was shown that when anthropogenic disturbance reached 3% within an area surrounding leks (5-18km) then lek attendance was impacted through fewer birds attending on leks. In the graph above the curve assumes that the area described has 3% of its acres under some sort of anthropogenic developed. According to Knick et al. when 70-80 percent of an area is effective habitat for GRSG then anthropogenic development totaling 3% of that area will start to reduce lek attendance. That research also shows that if the effective habitat percentage within that area is over 90% or less than 70% lek attendance is affected when less than 3% of the area contains anthropogenic development. This relationship would mathematically be described using a parabolic (as opposed to a linear) equation, making it a much more accurate reflection of a complex system but also making it even more complex and difficult to interpret. In addition, while Knick et al. suggests this relationship, and defines the effects at a 3% anthropogenic disturbance level in conjunction with 70-80% effective habitat. Knick et al., and we are aware of no other scientific studies, does not describe the trajectory of the curve above 80% or below 60%, so actually developing a more accurate, parabolic formula, is not possible at this time.

The Idaho equation is:

$$Disturbance\ Percentage = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance in the BSU}}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

This equation is meant to describe a spatially reality, for that reason it is imperative that the terms be linked with that spatially reality. Without this link any equation descriptive of a spatial reality would become meaningless to the reality it is trying to describe. The purpose of a disturbance cap and a supporting disturbance calculation is to measure and evaluate anthropogenic disturbance over a given area. For the purposes of application this area is defined as the biologically significant unit or BSU. For Idaho the BSU was delineated consistent with

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BLM guidance and reflective of the Knick et al. research. Idaho's BSU are defined as: all of the modeled nesting and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas for all land ownerships. Modeled nesting habitat is defined as a 10 km area around leks. Based on Idaho Department of Fish and Wildlife surveys and monitoring information this area around leks encompasses a vast majority of the nesting habitat (i.e. IDFG data show that over 90% of nesting occurs within 10 km of the lek). This 10 km is within the 5-18 km range for which Knick et al. identified their research was applicable. Knick communicated to the Idaho ID Team that beyond 18 km the disturbance relationship to lek attendance described in his research was not discernable). The equation calculates a disturbance value within that BSU area by totaling the acres of disturbance within that area and dividing by that area appropriately adjusted by effective habitat within that area to reflect a higher impact of disturbance when effective habitat is lower than the low end of the 70-80% optimum range (This optimum range is also supported by Connelly et al. 2000 (80%) and the BLM's National Technical Team Report (70%)). The equation does not accurately depict the disturbance relationship when effective habitat is greater than 80%. This is due to the fact the equation is linear as opposed to parabolic (discussed earlier) and that the areas within Idaho of most concern for continued presence of GRSG and impacts from anthropogenic disturbance do not exceed 80% effective habitat. Areas of effective habitat greater than 80%, only occurs in the Mountain Valleys Conservation Area where existing disturbance is well below 2%. Therefore the applicability of the equation to these conditions is limited.

Anthropogenic disturbance is being measured and evaluated within the entire BSU, not just the effective habitat area, which is why it is important to define the denominator across the BSU scale, not just a portion of the BSU, which is where the spatial link becomes critical. How the denominator is described mathematically defines the scale over which the numerator is measured; changing that scale would also require adjustments to the numerator to be mathematically correct and maintain the spatial link critical for using a numeric equation to describe a spatial effect.

The presence of the constant (0.3) is a mathematical necessity that defines the relationship, it is neither irrelevant, nor is it a 'correction' factor. Correction implies there is something incorrect or erroneous in the equation. The effective habitat denominator adjustment term:

$$\left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)$$

This entire term, in order to accurately reflect Knick et al. (see previous conceptual curve graph), must equal 1 when effective habitat within the BSU represents 70% of the BSU. Without the constant 0.3 added to the effective habitat proportion this term would not equal 1 when effective habitat is at 70%, it would not be a mathematical correct approximation of the disturbance relationship, it would lose its spatial link since this term needs to account for 100% of the acres in the BSU at the 70% habitat/3% disturbance intercept and would therefore become meaningless with respect to the spatial relationship that is being approximated.



***Does the Idaho equation allow for more disturbance before hitting the cap than other calculations?***

**Response:** This conclusion would need to be qualified based on the validity of the equation being used for comparison. For example an equation represented by the disturbance relationship expressed as:

$$\frac{\text{Acres of Disturbance}}{\text{Effective Habitat}}$$

This equation has the benefit of simplicity; however there are several fundamental flaws with this simple calculation which without further refinement to link the spatial reality with the mathematical formula make any comparisons invalid. This equation does not appropriately address: 1) spatial representation; 2) scale of the calculation; 3) consistency with known science; or 4) multiple considerations of single disturbances (i.e. double counting, which links back to the spatial representation aspect of the equation).

When using mathematical equations to describe real-world conditions it is imperative that the link between the spatial conditions and the mathematical representation of those conditions be understood and maintained. Otherwise any comparison does not have an appropriate foundation for comparison and is ultimately of limited, if any, use. To help illustrate this equation would more accurately be written:

$$\frac{(\text{Acres of Disturbance within Effective Habitat} + \text{Acres of Disturbance outside Effective Habitat})}{(\text{Acres of Concern (BSU)} - \text{Acres outside Effective Habitat})}$$

While more complicated, this equation is more accurate in depicting the actual formula used in a spatially representative way. This is further described when all the acres within the Area of Concern or BSU are Effective Habitat; Acres outside Effective Habitat would be zero, effectively eliminating that term and similarly Acres of Disturbance outside Effective Habitat would be zero since there are no acres outside Effective Habitat, therefore eliminating that term as well; leaving the original simplified version of this equation. However, when there are no Acres outside Effective Habitat within the Acres of Concern is the ONLY condition where this simplified equation actually represents and links to the real-world spatial conditions which are being described. So it is ONLY at this point (when the BSU contains 100% Effective Habitat) that the Idaho methodology and this simple equation can be appropriately compared. As described earlier the Idaho methodology (equation) does not accurately reflect the spatial conditions (according to Knick et al.) above 80% Effective Habitat (See previous discussion regarding why this is not a significant issue in need of resolution). Below 70% Effective Habitat where the Idaho methodology reflects the scientific relationships comparisons; the simple equation loses its spatial link and comparisons are not valid or appropriate.

***So why is the spatial link lost?***

**Response:** A key principle in translating spatial conditions to mathematical equations is, in this instance, each acre of either disturbance, within effective or outside effective habitat in the equation represents a real acre of disturbance, a real acre within effective habitat or a real acre

outside effective habitat. If there are acres outside Effective Habitat within the Area of Concern the more accurate equation described above shows that those acres are REMOVED through subtraction from the denominator. This changes the scale of the calculation effectively redefining the spatial extent over which the Acres of Disturbance appropriate to the new scale/denominator can be measured. So this equation redefines the spatial extent for comparison through removing acres from the denominator, while at the same time it includes acres of disturbance in the numerator. The spatial representation is lost when the same acres are both included in the numerator but removed from the denominator.

***Why is the Idaho calculation not applied more broadly, i.e. within other planning areas?***

***Response:*** Using Idaho's methodology in other states will be problematic because the site-specific data available in the Key Habitat Map needed to support Idaho's methodology are not readily available in other states. Idaho has collected, reviewed and updated on an annual basis for 12+ years a GRSG Key Habitat Map. This map tracks effective habitat, effects to that habitat from fire, restoration efforts and use by GRSG. This is the data utilized in the adjustment factor for the denominator and it is critical to the use of the equation, without this data actual meaningful application of the equation would not be possible or relevant.

***How is effective habitat defined?***

***Response:*** For Idaho's methodology effective habitat is taken to be the Key Habitat areas described by the Idaho Key Habitat Map. Key habitat includes areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year. This map also identifies areas that could provide GRSG habitat or currently provide habitat at less than optimum levels. These areas are also spatially depicted and as described as: R1 – perennial grass areas with limited sagebrush presence; R2 – annual grassland areas with limited perennial grasses or sagebrush presence; and R3- juniper encroachment within areas previously dominated by sagebrush.





**Example 1 – Anthropogenic Disturbance**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres and the Important BSU was delineated to include 1,036,455 acres, which represent the acres of the Biologically Significant Unit to be used in the denominator. The acres of Effective Habitat in the Priority BSU are 424,656 and in the Important BSU are 447,497. This sets up two equations – one for Priority Habitat Management Areas and one for Important Habitat Management Areas.

The existing footprint acres of disturbance within the Priority BSU are 17,661 acres and the footprint acres of disturbance within the Important BSU are 12,748 acres.

This gives the following two equations to define the baseline disturbance condition in the BSUs:

$$Priority = \frac{17661}{(784958 * ((\frac{424656}{784958}) + 0.3))} * 100$$

Or 
$$\left( \frac{17661}{784958 * ((0.54) + 0.3)} \right) * 100$$

Or 
$$\left( \frac{17661}{784958 * (0.84)} \right) * 100$$

Yielding a percent disturbance in the Priority BSU of 2.68%

$$Important = \frac{12748}{(1036455 * ((\frac{447497}{1036455}) + 0.3))} * 100$$

Yielding the percent disturbance in the Important BSU of 1.68%

If by 2015 we project additional development within the Priority BSU to be 2120 acres (a 12% increase) and development within the Important BSU to be 4000 acres (a 30% increase) then the Priority footprint acres becomes 20,161 acres and the Important footprint acres becomes 16,748 acres. The resulting evaluation for this cumulative disturbance is calculated by:

$$Priority = \frac{19781}{(784958 * ((\frac{424656}{784958}) + 0.3))} * 100 \quad Important = \frac{16748}{(1036455 * ((\frac{447497}{1036455}) + 0.3))} * 100$$

Yielding the percent disturbance as: Priority = 3.00% and Important = 2.21%

In the examples, given the existing disturbance footprint it would require development of an additional 2,120 acres in the Priority BSU and an additional 10,005 acres in the Important BSU before the 3% cap would be engaged.

### Part III – Montana Disturbance Calculation

Montana will use a 3% disturbance cap until the state of Montana strategy, similar to WY's Core Area Strategy that uses a 5% disturbance cap for all lands and all disturbances, is fully implemented. BLM MT will develop, and include in their plans, the conditions to be met prior to the change in the disturbance cap.

- I. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
- II. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
- III. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
- IV. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)



- V. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VI. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

#### Additional Information/Formulas

Disturbance Calculations for the BSUs and for the Project Analysis Areas:

- For the BSUs: **% Degradation Disturbance = (combined acres of the 12 degradation threats\*) ÷ (acres of all lands within the PHMAs in a BSU) x 100.**
- For the Project Analysis Area: **% Degradation Disturbance = (combined acres of the 12 degradation threats<sup>1</sup> plus the 7 site scale threats<sup>2</sup>) ÷ (acres of all lands within the project analysis area in the PHMA) x 100.**

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2

Project analysis area method for permitting surface disturbance activities:

- Determine potentially affected occupied leks by placing a four mile boundary around the proposed area of physical disturbance related to the project. All occupied leks located within the four mile project boundary and within PHMA will be considered affected by the project.
- Next, place a four mile boundary around each of the affected occupied leks.
- The PHMA within the four mile lek boundary and the four mile project boundary creates the project analysis area for each individual project. If there are no occupied leks within the four-mile project boundary, the project analysis area will be that portion of the four-mile project boundary within the Priority Habitat Management Area.
- Map disturbances or use locally available data. Use of NAIP imagery is recommended. In Wyoming, burned areas are included in this step.

- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

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Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

8. Coalbed Methane Ponds
9. Meteorological Towers
10. Nuclear Energy Facilities
11. Airport Facilities and Infrastructure
12. Military Range Facilities & Infrastructure
13. Hydroelectric Plants
14. Recreation Areas Facilities and Infrastructure

**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

**Background**

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In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

- Measure 1: Sagebrush Availability (percent of sagebrush per unit area)
- Measure 2: Habitat Degradation (percent of human activity per unit area)
- Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

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		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAPWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMA:	PHMA:	PHMA:
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj. <sup>5</sup>
	Management:	Internal BLM & FS estimates	3% Cap. Adapt Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>2</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAPWA Populations	Biologically Significant Unit	
	Area of Interest:	PHMA:	PHMA:	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	n/a
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>2</sup> or State Offices	
Energy and Mining	Unit:	WAPWA Populations		Project Area & Seasonal Hab.
	Area of Interest:	PHMA:		PHMA:
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pads and Mines<sup>1</sup></u> Square Mile	n/a	<u>Well Pads and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs

**ACRONYMS**

PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit  
EVT = Existing Vegetation Type                  BpS = Areas of Biotic Potential

<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.

<sup>2</sup> Westwide data will be used only if state or local data are not available.

<sup>3</sup> This format was removed from the table. January 2015.

<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.

<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management

<sup>6</sup> The project analysis area will be based on a 4-mile radius project boundary combined with a 4-mile lch boundary for lchs within the 4mi project boundary in PHMA (DDCT methodology).

<sup>7</sup> See Table 2





## Part IV - Adaptive Management

### Adaptive Management Habitat Trigger-

The specific formula for the change in habitat for the habitat trigger is defined by the following

Within Idaho and Utah all factors are measured within the modeled nesting and wintering habitat within Priority or Important Habitat Management Areas (calculated separately) by Conservation Area; in Southwest Montana all factors are measured within the Priority Habitat Management Area.

In simple description the adaptive management habitat trigger calculation is the percentage of Effective Habitat (defined as areas of generally intact sagebrush that provide Greater sage-grouse habitat during some portion of the year) within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area within a particular year when compared to the Effective Habitat within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area as of the 2011 baseline. Using Effective Habitat as the metric of comparison removes non-habitat acres from the calculation. The calculation is evaluated within both Priority and Important Habitat Management Areas separately within each of the 10 BSUs.

For purposes of evaluating the adaptive management habitat triggers, Effective Habitat in Idaho is tracked using the Key Habitat Map which is updated annually by BLM in coordination with IDFG, Forest Service, US FWS and Local Working Groups and tracks the areas of generally intact sagebrush providing Greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map. Appendix F contains a description of the Key Habitat Map maintenance and update process including the inclusion of disturbances from fire and temporary disturbances and habitat restoration/rehabilitation.

Factors: EHP(Y) – where Y is the year and EHC is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(Y) - where Y is the year and EHI is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year within the 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year (Y) within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

EHP(2011) – the Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(2011) - the Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

Formulas:

$$\text{Priority Habitat Management Area} = 100 - \left( \frac{EHP(Y) - ADP(Y)}{EHP(2011) - ADP(2011)} \right) * 100$$

$$\text{Important Habitat Management Area} = 100 - \left( \frac{EHI(Y) - ADI(Y)}{EHI(2011) - ADI(2011)} \right) * 100$$

When this calculation equals or exceeds 10 then an adaptive trigger has been engaged as per AM-7 & AM-8.

Tables 2-7 describe the acreages associated with the BSUs by Conservation Area for the Idaho and Southwestern Montana Subregion. The tables contain values for the entire BSU (Priority and Important), including all ownerships, acres of effective habitat within the BSUs and acres of anthropogenic disturbance within the BSUs.

These values will be used to provide several examples applying the anthropogenic disturbance and adaptive management habitat trigger evaluations. These are for illustrative purposes and do not represent an actual evaluation of ground conditions.

### **Example 2 – Adaptive Management – Habitat**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres, of which 424,656 acres were Effective habitat; therefore EHP(2011) is equal to 424,656 acres. Development within the Effective Habitat in 2011 was measured at 10,074 acres; therefore ADP(2011) is equal to 10,074 acres.



If in 2015 we project a cumulative loss of 42,000 Effective habitat acres due to wildfire (10% loss) and an additional 1000 acres of anthropogenic development (10% increase), then EHP(2015) is equal to 424,656 – 42,000 or 382,656 and ADP(2015) is equal to 10,074+1000 or 11,074. The evaluation for the adaptive management trigger is calculated by:

$$100 - \left( \frac{382656 - 11074}{424656 - 10074} \right) * 100$$

This simplifies to:  $100 - \left( \frac{371582}{414582} \right) * 100$

Or  $100 - (0.896 * 100)$

Or  $100 - 89.6$

Or  $10.4 - \text{equivalent to } 10.4\%$

This evaluation shows a loss of greater than 10 percent and less than 20 percent which would engage the soft habitat trigger as described in AM-8 and not the hard habitat trigger described in AM-7.

### **Soft Trigger Considerations and Implementation Actions**

The Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service would utilize monitoring information to assess when triggers have been tripped. When information indicates that the soft habitat or population trigger may have been tripped, a Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service - aided by the technical expertise of IDF&G - would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to BLM possible changes in management to the PHMA. As to the IHMA, the Sage-Grouse Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state's ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Sage-Grouse Implementation Task Force would analyze the secondary threats to the species and determine whether further management actions are needed.

### **Adaptive Management Population Trigger**

#### **Framework**

#### **Population & Habitat Trigger Justification**

#### Triggers

Because unexpected events (e.g., wildfire, West Nile Virus) may result in a substantial loss of habitat or decline in sage-grouse populations, adaptive management triggers have been developed. These triggers are intended to improve sage-grouse population trends, protect the overall baseline population, preserve a buffer population, and conserve sage-grouse habitat.

The triggers have both population and habitat components. Population components consider population growth and change in lek size. The habitat component considers loss of breeding and/or winter habitat. Lek size has been related to population change in numerous studies (Connelly and Braun 1997, Connelly et al. 2004, Baumgart 2011, Garton et al. 2011). Garton et al. (2011) used both characteristics as well as number of active leks to assess change for sage-grouse populations throughout the west. A variety of researchers (Swensen et al. 1987, Connelly et al. 2000a, Miller et al. 2011) have shown that loss of winter or breeding habitats resulted in decreased sage-grouse populations. The adaptive management triggers set at a lambda value less than one, a 20% decline in males counted on lek routes, and a 20% loss of breeding or winter habitat as break points that would initiate a population or habitat trigger.

#### Population Growth (Finite Rate of Change)

Although populations cannot be accurately estimated, lek counts of males provide a robust method for assessing population trend and estimating population growth ( $\lambda$ ) in an unbiased fashion. Calculating  $\lambda$  (finite rate of change) between successive years for a sage-grouse population is described in Garton et al. (2011). The ratio of males counted in a pair of successive years estimates the finite rate of change ( $\lambda_t$ ) at each lek site in that one-year interval. These ratios can be combined across leks within a population for each year to estimate  $\lambda_t$  for the entire population (or Conservation Zone) or combined across all leks to estimate  $\lambda_t$  for the state between successive years as:

$$\lambda(t) = \frac{\sum_{i=1}^n M_i(t+1)}{\sum_{i=1}^n M_i(t)}$$

where  $M_i(t)$  = number of males counted at lek  $i$  in year  $t$ , across  $n$  leks counted in both years  $t$  and  $t+1$ . Ratio estimation under classic probability sampling designs—simple random, stratified, cluster, and probability proportional to size (PPS)—assumes the sample units (leks counted in two successive years in this case) are drawn according to some random process but the strict requirement to obtain unbiased estimates is that the ratios measured represent an unbiased sample of the ratios (i.e., finite rates of change) from the population or other area sampled. This assumption seems appropriate for leks and the possible tendency to detect (or count) larger leks than smaller leks does not bias the estimate of  $\lambda_t$  across a population or region (Garton et al. 2011), but makes it analogous to a PPS sample showing dramatically increased precision over simple random samples (Scheaffer et al. 1996). Also precision can be estimated for  $\lambda$ .



Because small game populations (including sage-grouse) typically fluctuate among years due to weather and other environmental variables, a  $\lambda_t$  for any given year is not very meaningful. However, a series of years where  $\lambda_t$  remains at or above 1.0 indicates a stable to increasing population. Moreover, this situation would also provide strong evidence of the effectiveness of conservation actions that may have been employed.

#### Definition of “Significance” for Hard Population Trigger:

The Governor’s Alternative (E) did not define criteria for “significantly less than 1.0”. For purposes of the Plan, IDFG proposes to use a 90% confidence interval around lambda over a three-year period. to evaluate whether  $\lambda$  is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, than  $\lambda$  is significantly less than 1.0. The  $\lambda$  and variance will be calculated following Garton et al. (2011). A 90% confidence interval is justified because:

1. Under a 90% confidence interval the probability of making a false conclusion is 10%, however, the error will be on the conservative side; i.e., the error would benefit the sage-grouse population.
2. The  $\lambda$  criteria would not be used alone; as stated in the ADPP,  $\lambda$  would be used in concert with trend in maximum number of males.

#### Males Counted on Leks

Lek attendance by males has been used as an indicator of population trend in some areas since at least the early 1950s. For many years it was the only indicator used to assess status of sage-grouse populations. However, recent research has shown that male attendance at leks can be affected by severity of the previous winter, weather, timing of counts during spring, and a variety of other factors (Emmons and Braun 1984, Hupp 1987, Baumgart 2011). Baumgart (2011) indicated the probability of male sage-grouse attending leks in south-central Idaho varied among years and appeared to be tied to winter severity. Although lek data provide a powerful data set for assessing population trends over time (Garton et al. 2011), counts for a single year may not reflect trends very well. Thus using lek counts as a trigger must consider the inherent variation in these counts. Moreover, males counted on leks appear to have the most value for assessing population change when used in conjunction with other indicators of population status (e.g., finite rate of change).

Emmons and Braun (1984) reported that lek attendance rates varied from 86% for yearling males to 92% for adult males. These rates were pooled over 5 day periods and may have overestimated attendance (Connelly et al. 2011). In contrast, Walsh et al. (2004) reported average daily male attendance rates of 42% (range = 7-85%) and 19% (range = 0-38%) for adult and yearling sage-grouse, respectively but these rates were not adjusted for detection rate and were likely biased low (Connelly et al. 2011). Moreover, this study involved very small sample sizes (17 adult males, 9 yearling males over 15 leks) and only one breeding season and it was not clear whether all leks in the study area were known and sampled. Preliminary data from Utah (D. Dahlgren, personal communication) indicated that in a study area about 30 miles south of Idaho male sage-grouse lek attendance rates varied from roughly 60% at the beginning of April to about 90% at the end of the month. Recent findings in Idaho (Baumgart 2011) predicted the probability of lek

attendance for an adult male following an “average” winter would range from 0.894 (SE = 0.025) on week 3 (~1 April) to 0.766 (SE = 0.040) on week 8 (~ 5 May). Published information suggests that a change in maximum number of males counted on leks of say 10-15% cannot confidently be considered a reflection of population status. However, a 20% decline in maximum number of males counted on leks would likely not be related to lek attendance patterns but instead would reflect a population decline. Thus, the trigger was set at 20%.

### Habitat Trigger

Numerous studies have documented the negative effects of habitat loss including fire and energy development on sage-grouse (Connelly et al. 2000b, Fischer et al. 1996, Nelle et al. 2000, Doherty et al. 2008), but few studies have related the amount of sagebrush habitat lost to population change. In a Montana study area with a non-migratory sage-grouse population, there was a 73% decline in breeding males after 16% of the study area was plowed (Swenson et al. 1987). Walker et al. (2007) indicated that the lowest probability for lek persistence within a landscape occurred where, within 6.4 km of a lek center, the area has < 30% sagebrush. Similarly, Wisdom et al. (2011) reported sage-grouse occupying landscapes with <27% sagebrush as dominant cover would have a low probability of persistence. Connelly et al. (2000a) showed that a fire in 1989 that removed 58% of the sagebrush cover in sage-grouse breeding and winter habitat led to an almost 95% decline in the breeding population a few years later. Similarly, a fire that removed about 30% of breeding/winter habitat resulted in substantial population declines over the next few years (J. W. Connelly, unpublished data; Table 1). A 30% loss of breeding and winter habitat is thus far the lowest amount of habitat loss for which a population response could be detected and landscapes with < 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. Idaho is taking a more conservative approach than suggested by the literature. A soft trigger is set at a 10% loss of breeding or winter habitat in Core or Important management zones of a Conservation Area, which initiates a review of the management approach. A hard trigger is set at a 20% loss of breeding or winter habitat within a Core Habitat Zone of a Conservation Area, which automatically causes a change in management status of the corresponding Important Habitat Zone.

Table 1. Nest success (%) in SE Idaho study areas before and after a fire in the Table Butte study area. The fire occurred in August 2000.

Year	Area	
	Table Butte	Upper Snake
1999	54	
2000	45	61
2001 <sup>a</sup>	18	56
2002	20	65

### Literature Cited



- Baumgart, J. A. 2011. Probability of attendance and sightability of greater sage-grouse on leks: relating lek-based indices to population abundance. Dissertation, University of Idaho, Moscow.
- Connelly, J. W., and C. E. Braun. 1997. A review of long-term changes in sage grouse populations in western North America. *Wildlife Biology* 3:123-128.
- Connelly, J. W., C. A. Hagen, and M. A. Schroeder. 2011a. Characteristics and dynamics of greater sage-grouse populations. *Studies in Avian Biology* 38: 53-68.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies, Cheyenne, WY.
- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000a. Response of a sage grouse breeding population to fire in southeastern Idaho. *Wildlife Society Bulletin* 28:90-96.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.
- Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Emmons, S. R. and C. E. Braun. 1984. Lek attendance of male sage grouse. *Journal of Wildlife Management* 48:1023-1028.
- Fischer, R. A., K. P. Reese, and J. W. Connelly. 1996a. An investigation on fire effects within xeric sage grouse brood habitat. *Journal of Range Management* 49:194-198.
- Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.
- Hupp, J. W. 1987. Sage grouse resource exploitation and endogenous reserves in Colorado. Dissertation, Colorado State University, Fort Collins.
- Leonard, K. M., K. P. Reese, and J. W. Connelly. 2000. Distribution, movements, and habitats of sage grouse *Centrocercus urophasianus* on the Upper Snake River Plain of Idaho: changes from the 1950's to the 1990's. *Wildlife Biology* 6:265-270.
- Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. *Studies in Avian Biology* 38: 145-184.

- Nelle, P. J., K. P. Reese, and J. W. Connelly. 2000. Long-term effects of fire on sage grouse nesting and brood-rearing habitats in southeast Idaho. *Journal of Range Management* 53:586-591.
- Scheaffer, R. L., W. Mendenhall, III, and R. L. Ott. 1996. *Elementary survey sampling*. Wadsworth Publishing, Belmont, CA.
- Swenson, J. E., C. A. Simmons, and C. D. Eustace. 1987. Decrease of sage grouse *Centrocercus urophasianus* after plowing of sagebrush steppe. *Biological Conservation* 41:125-132.
- Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71:2644-2654.
- Walsh, D. P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-count index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.
- Wisdom, M. J., C. A. Meinke, S. T. Knick, and M. A. Schroeder. 2011. Factors associated with extirpation of sage-grouse. *Studies in Avian Biology* 38: 451-472.

**Potential Implementation Level Actions to Consider in the Event Soft Trigger Criteria are Met**

- ✓ Increase monitoring and evaluation of sage-grouse populations in Priority Habitat Management Area (area of concern).
- ✓ Implement Priority Habitat Management Area management strategy in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Implement Priority Habitat Management Area RDFs in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Not allow any new (large) infrastructure development within the Priority Habitat Management Area (no exceptions allowed).
- ✓ Reallocate resources to focus on primary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Apply Priority Habitat Management Area criteria for all primary threats, and/or all secondary threats to the Important Habitat Management Area.
- ✓ Reallocate resources to focus on primary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).

**Adaptive Grazing Management Response**

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
June 2015





Improperly managed livestock grazing generally affects seasonal sage-grouse habitat at the site level. Therefore, the specific issues contributing to tripping an adaptive management trigger would need to be defined. Generally, these might be nesting cover from perennial grasses in breeding/nesting habitat, condition and forb availability in brood rearing habitat, and possibly sagebrush cover in winter habitat.

BLM would focus resources to accelerate land health assessments and/or assessment of specific habitat metrics in the areas where deficiencies in site-level habitat metrics are suspected to be a causal factor in tripping a soft or hard trigger. If it is identified that one or more site-level habitat objectives is not being met due to livestock, and an imminent likelihood of resource damage may occur from continued grazing, decisions could be issued in accordance with 4110.3-3(b) to provide immediate protection of resources while a full review of the grazing allotments and grazing permits is conducted. BLM would then focus resources at the state level to accelerate the grazing permit renewal in the area where the trigger has been tripped in order to expedite progress towards meeting land health standards.

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**Adaptive management response for livestock grazing**



**Part IV – Anthropogenic Disturbance and Adaptive Management 2011 Baseline Indices**

**Table G-2 – Desert Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Desert Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-3 – Mountain Valleys Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Mountain Valleys Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-4 – Southern Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Southern Conservation Area</b>					
Priority BSU (nesting and wintering)	560,985	784,958	424,656	17,661	10,074
Important BSU (nesting and wintering)	798,691	1,036,455	447,497	12,748	6,289

**Table G-5 – West Owyhee Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>West Owyhee Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-6 – Southwest Montana Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southwest Montana Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

**Table G-7 – Raft River (Utah Portion of Sawtooth National Forest)**

				Existing Anthropogenic Disturbance	
<b>Utah portion of Sawtooth National Forest</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

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## **Part V - Travel and Transportation Management Definitions for Use in Anthropogenic Disturbance Calculation**

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

### ***Maintenance Intensities***

#### **Level 0**

##### Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Maintenance Objectives:

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1**

Maintenance Description:

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Maintenance Objectives:

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3**

Maintenance Description:

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives:

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.



## Level 5

### Maintenance Description:

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

### Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

# Appendix H

## Anthropogenic Disturbance Calculation





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## Appendix H – Anthropogenic Disturbance Calculation

### Disturbance Density Calculation

#### GRSG Local/Site Disturbance Calculation

- **All sub-regions:** Agreed to use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis. Would use local data and/or more current satellite imagery if available. Recognize that site specific data, where available, provide a more accurate measure of land cover, disturbance and conifer encroachment than Landfire. In the long-term, ensure fine/site scale monitoring provides results that can be used across the GRSG range and “rolled up” for reporting purposes. In the short term (<5 years), locally derived vegetation data may not be available or easily rolled up, so use of seamless land cover data such as Sagestitch is recommended.

Great Basin sub-regions agreed to use the same type of data sets as used for broad and mid-scale to monitor local/site level conditions. Supplement with local data where available and/or more accurate. The following data layers or local surrogate would be used.

1. Energy (oil and gas wells and development facilities) Based on local info, actual footprint; see NOC language for certain exceptions.
2. Energy (coal mines) Actual footprint
3. Energy (wind towers) Based on local info, actual footprint
4. Energy (solar fields) Based on local info, actual footprint
5. Energy (geothermal) Based on local info, actual footprint
6. Mining (active developments; locatable, leasable, saleable) Based on local info, actual footprint
7. Infrastructure (roads) actual footprint; see road attachment for specific guidance
8. Infrastructure (railroads) abandoned railroads are NOT a disturbance
9. Infrastructure (power lines) Using NOC guidance, apply these widths:
  - <100 kV: use ROW width
  - 100-199kV: 100 ft
  - 200-399kV: 150 ft
  - 400-699kV: 200 ft
  - 700-799kV: 250 ft
10. Infrastructure (communication towers, fire lookouts, met towers) Based on local info, actual footprint
11. Other developed rights-of-ways

The National Monitoring Framework lists the data sets by threat. These are:

<b>FWS Listing Decision Threat</b>	<b>Sagebrush Habitat Availability</b>	<b>Habitat Degradation (Human Activities)</b>	<b>Density of Energy and Mining Facilities</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X*		
Invasive Species	X*		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and salable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights of ways		X*	

The following data sets would **not** be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units. Use best available data, where Landfire or Sagestitch could be used for biophysical setting (bps), compared to existing vegetation type.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

**Biologically Significant Unit:**

- Idaho proposes use of Priority and Important Habitat Management Areas that generally match PACs, but also anticipates assessing disturbance at other scales including nesting and winter habitat, 5 km lek neighborhood, Conservation Areas and/or at the project-scale, depending on need.
- For all subregions, data from these units would be rolled up to the PAC and WAFWA Management Zone, to meet FWS needs. In addition, units must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance:

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

Non-Disturbance

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.

Linear transportation features identified as primitive routes.  
Linear disturbances.

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### ***Travel and Transportation Management Definitions***

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as “Transportation Linear Disturbances.” These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM’s transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

### ***Maintenance Intensities***

#### **Level 0**

##### Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Maintenance Objectives:

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1**

Maintenance Description:

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Maintenance Objectives:

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3**

Maintenance Description:

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives:

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.





## Level 5

### Maintenance Description:

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

### Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

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# Appendix I

## Montana Action Screen and Mitigation Process



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## Appendix I – Montana Project/Action Screen and Mitigation Process

The BLM/USFS will ensure that any activities or projects in GRSG habitats would: 1) only occur in compliance with the Idaho and Southwestern Montana sub-region GRSG goals and objectives for PHMA and GHMA; and 2) maintain neutral or positive GRSG population trends and habitat by avoiding, minimizing, and offsetting unavoidable impacts to assure a conservation gain at the scale of this LUP and within GRSG population areas, State boundaries, and WAFWA Management Zones through the application of mitigation for implementation-level decisions. Impacts to GRSG could include loss or disturbance of nesting or wintering habitat as well as disruption of breeding activities at the lek site. The mitigation process will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy, while also following Secretary of the Interior Order 3330 and consulting BLM, USFWS and other current and appropriate mitigation guidance. If it is determined that residual impacts to GRSG from implementation-level actions would remain after applying avoidance and minimization measures to the extent possible, then compensatory mitigation projects will be used to offset residual impacts, or the project may be deferred or denied if necessary to achieve the goals and objectives for PHMA and GHMA in the Idaho and Southwestern Montana Sub-region GRSG LUPA/EIS.

To ensure that impacts from activities proposed in GRSG PHMA and GHMA are appropriately mitigated, the BLM will apply mitigation measures and conservation actions and potentially modify the location, design, construction, and/or operation of proposed land uses or activities to comply with statutory requirements for environmental protection. The mitigation measures and conservation actions (**Appendix B**) for proposed projects or activities in these areas will be identified as part of the National Environmental Policy Act (NEPA) environmental review process, through interdisciplinary analysis involving resource specialists, project proponents, government entities, landowners or other Surface Management Agencies. Those measures selected for implementation will be identified in the Record of Decision (ROD) or Decision Record (DR) for those authorizations and will inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands and minerals to mitigate, per the mitigation hierarchy referenced above, impacts from the activity or project such that sage-grouse goals and objectives are met. Because these actions create a clear obligation for the BLM to ensure any proposed mitigation action adopted in the environmental review process is performed, there is assurance that mitigation will lead to a reduction of environmental impacts in the implementation stage and include binding mechanisms for enforcement (CEQ Memorandum for Heads of Federal Departments and Agencies 2011).

To achieve the goals and objectives for PHMA and GHMA in the Idaho and Southwestern Montana Sub-region GRSG LUPA/EIS, the BLM will assess all proposed land uses or activities such as road, pipeline, communication tower, or powerline construction, fluid and solid mineral development, range improvements, and recreational activities proposed for location in GRSG PHMA and GHMA in a step-wise manner. The following steps identify a screening process for review of proposed activities or projects in these areas. This process will provide a consistent approach and ensure that authorization of these projects, if granted, will appropriately mitigate impacts and be consistent with the LUP goals and objectives for GRSG. The following steps

provide for a sequential screening of proposals. However, Steps 2 through 6 can be done concurrently.

### **Step 1 – Determine Proposal Adequacy**

This screening process is initiated upon formal submittal of a proposal for authorization for use of BLM lands. The actual documentation of the proposal would include at a minimum a description of the location, scale of the project and timing of the disturbance. The acceptance of the proposal(s) for review would be consistent with existing protocol and procedures for each type of use.

### **Step 2 – Evaluate Proposal Consistency with LUP**

This initial review should evaluate whether the proposal would be allowed as prescribed in the LUP. For example, some activities or types of development are prohibited in PHMA or GHMA. Evaluation of projects will also include an assessment of the current state of the Adaptive Management hard and soft triggers. If the proposal is for an activity that is specifically prohibited, the applicant should be informed that the application is being rejected since it would not be allowed, regardless of the design of the project.

### **Step 3 – Determine Proposal Consistency with Density and Disturbance Limitations**

If the proposed activity occurs within a PHMA, evaluate whether the disturbance from the activity exceeds the limit on the amount of disturbance allowed within the activity or project area (DDCT process). If current disturbance within the activity area or the anticipated disturbance from the proposed activity exceeds this threshold, the project would be deferred until such time as the amount of disturbance within the area has been reduced below the threshold, redesigned so as to not result in any additional surface disturbance (collocation) or redesigned to move it outside of PHMA.

### **Step 4 – Determine Projected Sage-Grouse Population and Habitat Impacts**

Determine if the project will have a direct or indirect impact on GRSG populations or habitat within PHMA or GHMA. This will include:

- Reviewing GRSG Habitat delineation maps to initially assess potential impacts to GRSG. Use of the *USGS report Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review* to assess potential project impacts based upon the distance to the nearest lek, using the most recent active lek data available from the state wildlife agency. This assessment will be based upon the direction in **Appendix B**:
- Review and application of current science recommendations.

- Reviewing the ‘Baseline Environment Report’ (USGS) which identifies areas of direct and indirect effect for various anthropogenic activities.
- Consultation with agency or State Wildlife Agency biologist.
- Evaluating consistency with (at a minimum) State GRSG regulations
- Or other methods needed to provide an accurate assessment of impacts.

If the proposal will not have a direct or indirect impact on either the habitat or population, document the findings in the NEPA and proceed with the appropriate process for review, decision and implementation of the project.

### **Step 5 – Apply Avoidance and Minimization Measures to Comply with Sage-Grouse Goals and Objectives**

If the project can be relocated so as to not have an impact on GRSG and still achieve objectives of the proposal and the disturbance limitations, relocate the proposed activity and proceed with the appropriate process for review, decision and implementation (NEPA and Decision Record). This step does not consider redesign of the project to reduce or eliminate direct and indirect impacts, but rather authorization of the project in a physical location that will not impact GRSG. If the preliminary review of the proposal concludes that there may be adverse impacts to GRSG habitat or populations in Step 4 and the project cannot be effectively relocated to avoid these impacts, proceed with the appropriate process for review, decision and implementation (NEPA and Decision Record) with the inclusion of appropriate mitigation requirements to further reduce or eliminate impacts to GRSG habitat and populations and achieve compliance with GRSG objectives. Mitigation measures could include disturbance buffer limits, timing of disturbance limits, noise restrictions, design modifications of the proposal, site disturbance restoration, post project reclamation, etc. (see **Appendix B** for a more complete list of measures). Compensatory or offsite mitigation may be required (Step 6) in situations where residual impacts remain after application of all avoidance and minimization measures.

### **Step 6 – Apply Compensatory Mitigation or Reject / Defer Proposal**

If screening of the proposal (Steps 1 through 5) has determined that direct and indirect impacts cannot be eliminated through avoidance or minimization, evaluate the proposal to determine if compensatory mitigation can be used to offset the remaining adverse impacts and achieve GRSG goals and objectives. If the impacts cannot be effectively mitigated, reject or defer the proposal. The criteria for determining this situation could include but are not limited to:

- The current trend within PHMA is down and additional impacts, whether mitigated or not, could lead to further decline of the species or habitat.
- The proposed mitigation is inadequate in scope or duration, has proven to be ineffective or is unproven in terms of science based approach.

- The project would impact habitat that has been determined to be a limiting factor for species sustainability.
- Other site specific information and analysis that determined the project would lead to a downward change of the current species population or habitat and not comply with GRSG goals and objectives.

If, following application of available impact avoidance and minimization measures, the project can be mitigated to fully offset impacts and assure conservation gain to the species and comply with GRSG goals and objectives, proceed with the appropriate process for review, decision and implementation (NEPA and Decision Record).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy to address greater sage-grouse impacts within that Zone. The WAFWA Management Zone Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the Zone's boundaries. Subsequently, the BLM Field Office/USFS Forest's NEPA analyses for implementation-level decisions, which have the potential to impact GRSG, will include analysis of mitigation recommendations from the relevant WAFWA Management Zone Regional Mitigation Strategy(ies).

Implementation of the Regional Mitigation Strategy may involve managing compensatory mitigation funds, implementing compensatory mitigation projects, certifying mitigation/conservation banks, and reporting on the effectiveness of those projects. These types of mitigation implementation actions may be most effectively managed at the State-level, in collaboration with partners. BLM State Office/USFS Region may find it most effective to enter into an agreement with a State-level program administrator (e.g. a NGO, a State-level entity) to help manage these aspects of mitigation. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. **Appendix J** provides additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.



# Appendix J

## Mitigation



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## Appendix J – Mitigation

### Part I – Regional Mitigation Strategy

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

#### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater

sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.
      - This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
      - For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
      - The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
    - Compensatory Mitigation Options
      - Options for implementing compensatory mitigation should be identified, such as:
        - Utilizing certified mitigation/conservation bank or credit exchanges.
        - Contributing to an existing mitigation/conservation fund.
        - Authorized-user conducted mitigation projects.

- For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- Compensatory Mitigation Siting
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- Compensatory Mitigation Project Types and Costs
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- Compensatory Mitigation Compliance and Monitoring
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.
- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

## Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

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## Part II – Idaho Mitigation Framework

### FRAMEWORK FOR MITIGATION OF IMPACTS FROM INFRASTRUCTURE PROJECTS ON SAGE-GROUSE AND THEIR HABITATS

Sage-Grouse Mitigation Subcommittee of the Idaho Sage-Grouse State Advisory Committee<sup>1</sup>  
December 6, 2010

#### INTRODUCTION

The Conservation Plan for Greater Sage-grouse in Idaho (Idaho Sage-Grouse Advisory Committee 2006; as amended in 2009) calls for the development of a “proposal for a mitigation and crediting program for sagebrush steppe habitats in Idaho and recommendations for policy consideration” (Measure 6.2.4.). In early 2010, the Idaho Sage-grouse Advisory Committee (SAC) established the Mitigation Subcommittee to complete this task.<sup>1</sup> The Mitigation Subcommittee met several times from the late spring, through the fall of 2010 and found broad areas of agreement among its diverse participants.

This report presents the Mitigation Subcommittee’s consensus recommendations for the creation of an Idaho-based program to compensate for the impacts of infrastructure projects on sagegrouse and their habitats. This program – called the Mitigation Framework – would serve as a science-based “mitigation module” that project developers and government regulators could use to achieve compensatory mitigation objectives called for in project plans and permits. While compensatory mitigation may help offset certain impacts arising from infrastructure projects, mitigation should not be considered a substitute for first avoiding and then minimizing impacts.

In addition, it is important to recognize that federal and state regulatory or land-management agencies, and county or local governments may also require additional stipulations, conditions of approval or other requirements as well as on-site mitigation, in accordance with applicable law, regulation or policy.

This document proposes a general outline or “skeleton” of policies and procedures for such a program. The Mitigation Framework is designed to be transparent, inclusive, and accountable to defined objectives. The Subcommittee’s purpose is to describe the program in enough detail to foster a dialogue among SAC members, spot important issues and points of agreement, and assess the level of support for developing a functioning mitigation program for Idaho sagegrouse and their habitats.

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<sup>1</sup> Subcommittee participants: John Robison and Lara Rozzelle, Idaho Conservation League; Brett Dumas, Idaho Power Company; Paul Makela and Tom Rinkes, BLM; Don Kemner, Idaho Department of Fish and Game; Will Whelan and Trish Klahr, The Nature Conservancy; Rich Rayhill, Ridgeline Energy, LLC; Lisa LaBolle and Kirsten Sikes, Idaho Office of Energy Resources; Nate Fisher, Idaho Office of Species Conservation; John Romero, Citizen at Large.

## EXECUTIVE SUMMARY

The state of Idaho is seeing an increasing number of infrastructure projects, such as transmission lines and wind energy facilities, proposed in the state's sagebrush steppe ecosystems. Where federal permits are required, the environmental review process for these projects will analyze how these projects affect sage-grouse and will consider a range of potential mitigation measures to avoid, minimize, or offset any impacts. It is likely that the environmental review process will lead at least some developers and agencies to implement compensatory mitigation.

Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For sage-grouse, this would include, among other things, protecting and restoring sagebrush habitats to offset habitat losses and other effects of infrastructure projects.

This framework describes the general outline for a sage-grouse compensatory mitigation program in Idaho. This program would employ an "in-lieu fee" approach to compensatory mitigation through which a project developer would pay funds into an account managed by the mitigation program for performance of mitigation actions that provide measureable benefits for sage-grouse and their habitats within Idaho.

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, it offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions. It should be emphasized that this program would not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts through appropriate project siting, design and implementation.

Although the initial focus is on sage-grouse, the Mitigation Framework can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associated species. The suitability of the Framework for other species and natural features has not been evaluated.

The objectives of the Mitigation Framework include:

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by actions that benefit the affected species and habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset the impacts of project development and operation on sage-grouse and sage-grouse habitat, and provide a consistent mechanism to offset impacts to the species that can be evaluated in future reviews of the species' status; and
- Evaluate issues based on best available scientific information, while acknowledging and responding to scientific uncertainty.

The Mitigation Framework would be established through a memorandum of agreement (MOA) among entities that have the capacity and commitment to assist in its implementation. Such parties may include land and wildlife management agencies, counties, tribes, participating private infrastructure development companies, and non-governmental organizations. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program.

The Mitigation Framework envisions a program with the following attributes: (1) a Mitigation Team and program administrator to steer the mitigation program and ensure strong oversight; (2) technically sound and transparent guidelines for estimating compensatory mitigation costs; (3) a science-based statewide strategy to guide the selection of mitigation actions that will receive funding; (4) provisions that the costs of operating the program will be borne by infrastructure developers that use the Mitigation Framework to deliver compensatory mitigation; (5) monitoring the implementation and effectiveness of mitigation actions funded by the Mitigation Framework program; (6) a system to track benefits provided by the Mitigation Framework to sage-grouse habitat in Idaho; and (7) periodic evaluation and adaptation of the Mitigation Framework program.

This framework provides only a general outline of a proposed Idaho-based compensatory mitigation program. It is intended to assess the level of support for crafting the agreements and completing the technical tasks needed to bring the Mitigation Framework into being.

## DISCUSSION

### I. The Role of Compensatory Mitigation in Infrastructure Development and Sage-grouse Conservation

#### A. Mitigation Basics

Broadly defined, “mitigation” refers to a wide range of measures that are taken to avoid, minimize, rectify, reduce, or compensate for the adverse impacts of actions affecting the environment. See 40 C.F.R. § 1508.20 (definition of “mitigation” in National Environmental Policy Act (NEPA) rules). In this general sense, mitigation should be an integral part of all phases of project planning and implementation.

The focus of this report is on compensatory mitigation – also known as “biodiversity offsets” or “offsite mitigation.” Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For instance, a project developer may fund the restoration of a particular type of habitat in order to replace or “offset” similar habitat that is lost as a result of project construction.

This Framework adopts an “in-lieu fee” approach to compensatory mitigation. Under this approach, a project developer provides funding to a compensatory mitigation program administrator who then distributes the funds to the appropriate government agency, foundation or other organization for performance of mitigation actions. In an in-lieu fee program, the responsibility for actually delivering the compensatory mitigation is transferred

from the developer to the program administrator once the developer provides the necessary funds to the in-lieu fee program. It is important to emphasize that compensatory mitigation does not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts. This Framework endorses the principle known as the “mitigation hierarchy,” which holds that decision makers should consider the elements of environmental mitigation in the following order of priority:

1. Avoid environmental impacts through project siting and design;
2. Minimize the impacts during construction, operation, maintenance, and decommissioning by implementing appropriate conservation measures related to timing and conduct of project activities;
3. Restore areas that have been disturbed or otherwise rectify on-site project-related impacts to the greatest extent practicable; and
4. Compensate for residual impacts (direct and indirect effects that are not mitigated on-site) by providing replacement habitats or other benefits.

This means that compensatory mitigation is addressed only after efforts to avoid, minimize, and mitigate the impacts have been addressed. It also should be noted that significant impacts to habitat areas that support special functions and values for sage-grouse may simply not be replaceable through mitigation and therefore the best course may be to avoid those areas altogether.

#### **B. Need for an Idaho Compensatory Mitigation Program**

In recent years, the state of Idaho has seen an increase in the number of major infrastructure projects proposed in the state’s sagebrush steppe ecosystems. Several current proposals involve high voltage transmission lines that would cross over hundreds of miles of sage-grouse habitat. Large scale energy infrastructure projects such as wind farms may also affect large areas of sagegrouse habitat. Where these projects are located at least partially on federally managed public lands they will be required by federal law to go through an extensive environmental review process under NEPA before relevant federal permits are issued. The NEPA process requires the permitting agencies to consider the projects’ environmental effects (both positive and negative), alternatives, and potential mitigation measures. Impacts on sage-grouse will be one of the topics analyzed in the NEPA process.

Even after efforts are taken to avoid and minimize impacts, it is possible that some of these infrastructure projects will degrade some sage-grouse habitat, cause direct sage-grouse mortality, or lead to indirect effects such as avoidance of previously occupied habitat. The extent to which project developers and regulators adopt compensatory mitigation as a means to offset these impacts is not fully known. However, it is likely that at least some developers and regulators will seek to implement compensatory mitigation to benefit sage-grouse and their habitats. Energy companies and other developers face daunting challenges in carrying out compensatory mitigation for sage-grouse habitat. Just identifying specific mitigation actions requires a major effort. Actually implementing sagebrush restoration and enhancement projects is even more difficult and expensive – typically involving years of effort and a significant risk of failure. Delivering this type of technically complex

environmental mitigation may be well outside the core business of many infrastructure developers.

### **C. Advantages of the Mitigation Framework**

The Mitigation Framework proposes to respond to these challenges by creating a statewide program to deliver scientifically sound compensatory mitigation for multiple projects. Project developers and regulators would no longer have to design, fund and implement their own mitigation programs. Instead, they would have the option of contributing money to a central fund overseen by agencies with expertise in habitat management and non-governmental partners with similar experience. This approach to compensatory mitigation offers three major advantages. The first advantage stems from the increased efficiency of an Idaho-wide mitigation program compared with fragmented, project-by-project mitigation programs. Mitigation efforts require a significant investment in planning, administration, project oversight, and monitoring. The Mitigation Framework would consolidate these functions, thus avoiding needless duplication. The second advantage is that a state mitigation fund can be used for sage-grouse conservation more strategically and at a greater scale than project-by-project mitigation. As described in more detail below, the Mitigation Framework would fund sage-grouse habitat protection and restoration projects in accordance with a statewide strategy that uses landscape-scale analyses to identify the specific measures and habitats that will provide the greatest benefit for Idaho sagegrouse populations. This Idaho-based mitigation strategy will be integrated with other conservation strategies throughout the range of sage-grouse to ensure that actions taken in Idaho benefit the species as a whole. Third, this method can engage the capacity and competence of natural resources agencies, local governments, private companies, and non-governmental organizations. The Mitigation Framework proposes to enlist these entities in shaping Idaho's strategy, developing criteria for use of the fund, and proposing and implementing habitat protection and restoration projects. The benefits of the Mitigation Framework can be summarized as follows:

#### *Benefits for Project Developers:*

An efficient and reliable mechanism for meeting compensatory mitigation objectives and permit conditions; and Increased certainty regarding project costs.

#### *Benefits for Regulatory Agencies:*

Increased certainty that in-lieu fees will result in strategic "on-the-ground" mitigation actions that benefit sage-grouse.

#### *Benefits for Sage-Grouse:*

Increased certainty that scientifically sound mitigation actions that benefit sage-grouse and offset impacts and habitat losses associated with infrastructure development will be implemented.

### **D. Ensuring Accountability**

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
June 2015



In-lieu fee compensatory mitigation does pose one potentially significant drawback that must be acknowledged and addressed: a poorly designed program may lack accountability for delivering meaningful on-the-ground benefits for sage-grouse. Simply having a project developer contribute to an in-lieu fee mitigation account does not by itself compensate for the sage-grouse impacts caused by the project. Actual mitigation is possible only after well-conceived habitat protection and restoration projects are planned, funded, implemented, monitored, and successful in achieving stated objectives. The Mitigation Framework seeks to ensure accountability by adopting a series of rigorous and transparent procedures. As described below, the Framework would: (1) ensure that program administration and monitoring functions are adequately funded; (2) provide technically sound guidelines for estimating the costs of delivering compensatory mitigation; (3) establish a sciencebased statewide strategy to guide the program; (4) develop project selection criteria and a request for proposals based on the strategy; (5) require monitoring of the implementation and effectiveness of mitigation actions funded by the program; (6) track benefits the Mitigation

Framework program provides to sage-grouse in Idaho; and (7) require periodic evaluation of the program. Taken together, these procedures provide a high degree of certainty that the Mitigation Framework will be able to turn in-lieu fee payments into tangible, lasting compensatory mitigation for sage-grouse. As described in greater detail in Section E, below, project developers that seek to use the Mitigation Framework will need to show two things. First, they will need to show that their projects' impacts on sage-grouse and their habitats have been evaluated using a scientifically sound process. Second, they will need to show that their contributions to the mitigation fund reflect the Mitigation Framework's compensation guidelines to ensure that funding will be adequate to offset project impacts. Having demonstrated those things, the project developers should then be able to rely on their in-lieu fee contribution to the mitigation account as satisfying their compensatory mitigation objectives or obligations.

## II. Core Elements of Idaho Sage-Grouse Mitigation Program

### A. Program Objectives

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by mitigation actions that benefit the sage-grouse and their habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset project impacts on sage-grouse and sage-grouse habitat, and provide a consistent mitigation mechanism that can be evaluated in future reviews of the species' status; and
- Evaluate issues based on best available scientific information while acknowledging and responding to scientific uncertainty.

### B. Scope

The Mitigation Framework proposes to mitigate for impacts to Idaho sage-grouse and their habitats in Idaho. The initial focus of the Mitigation Framework is on sage-grouse. However, this program can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associate species, such as pygmy rabbits, if project developers and regulators call for such mitigation.

Whether this Framework is suited for mitigation of impacts to a broader suite of species or natural features has not been evaluated. It should be noted that some subcommittee members expect to advocate in other forums that compensatory mitigation should extend beyond sagegrouse. The Mitigation Framework focuses on infrastructure projects because this type of development is the most likely to give rise to compensatory mitigation under existing environmental policies. As used here, the term “infrastructure” refers to building structures that significantly disturb sage-grouse habitat, including but not limited to projects for electricity transmission, energy generation, pipeline conveyance, transportation, communications, and similar purposes. The Mitigation Framework is not intended to apply to existing projects that are not changing in scope or to the renewal of on-going activities, such as grazing permits. In addition, the Framework is not suited to projects with minor impacts because their contributions to the mitigation program would be too small to justify the effort needed to establish and administer inlieu fee payments.

### **C. Integration with Environmental Review Procedures**

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, the Framework offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions. The Mitigation Framework is intended to complement the environmental review process conducted pursuant to NEPA and other federal environmental laws as well as county land use planning authorities. Many energy and other infrastructure projects undergo review and approval at the county level. The issues examined and the level of environmental analysis varies widely among individual counties and individual developers. If a county or developer decides to address sage-grouse impacts, it will be able to use the Mitigation Framework as a mechanism for meeting compensatory mitigation objectives that may arise from the county permitting process.

### **D. Mitigation Strategy**

The next step focuses on the Mitigation Team’s task of developing a statewide, science-based strategy that will guide the use of the mitigation fund. The mitigation program strategy would establish priorities for the use of compensatory mitigation funding based on factors/risks identified in the U.S. Fish and Wildlife Service’s 12-Month Findings for Petitions to List Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (USFWS 2010) and in the Conservation Plan for Greater Sage-grouse in Idaho (2006). The strategy sets mitigation priorities with a landscape view of sage-grouse needs and highlights mitigation opportunities in Idaho based on best available science. In setting priorities, the strategy considers species and community size, landscape condition, and regional context. The strategy is responsive to the threats and risks described in the sage-grouse 12- month findings. The strategy will also generally describe the types of mitigation actions, project specifications, and best practices that are likely

to produce measureable benefits for sage-grouse habitat. Finally, the strategy addresses both implementation and effectiveness monitoring requirements for mitigation actions funded through the program. The Mitigation Framework's strategy will draw heavily from the State of Idaho's sage-grouse conservation plan but has a narrower focus. It is intended to provide the specific guidance on program priorities, accepted mitigation measures, and geographic areas of emphasis that potential mitigation project sponsors will need to know when they apply for funds. The strategy plays a crucial role in steering mitigation funding to those activities and places that can provide the most effective benefits for Idaho sage-grouse populations consistent with strategies to increase the viability of the species throughout its range. To this end, the strategy will address one of the major policy questions that arise in the design of compensatory mitigation systems: how closely should the mitigation actions be linked to the type and location of the habitat that was originally affected by the infrastructure project. Stated in the alternative, does removal of the mitigation action from the area of impact improve the effectiveness of or benefit from the action. Some compensatory mitigation systems place a heavy emphasis on this link by favoring "in-kind" and "on-site" compensatory mitigation over "out-of-kind" and "off-site" compensatory mitigation. The subcommittee members generally favor an approach that allows funding to flow to the projects and locations within Idaho that will provide the greatest overall positive impact on sage-grouse populations. The Mitigation Framework calls for a monitoring program that would assess habitat gains provided by mitigation actions and compare them with the mitigation objectives of the participating infrastructure projects. The nature and purpose of this monitoring is described more fully in Mitigation Program Step 4, below.

Once the strategy is complete, the Mitigation Team will develop project ranking criteria and procedures that will guide the selection of the mitigation actions that will receive funding. The goal is to fund projects that provide high quality, lasting benefits based on landscape scale analyses that actually compensate for project impacts.

#### **E. Compensation Guidelines**

The Mitigation Framework Program will develop guidelines that may be used by developers and/or regulators to determine the cost of meeting their compensatory mitigation objectives. These compensatory mitigation objectives determine the extent of compensatory mitigation for each project and are generally incorporated into project plans or permits. The compensation guidelines will provide transparent, technically sound principles for determining how much it costs to deliver habitat mitigation for sage-grouse. In other words, the guidelines will represent best estimates of the true cost of implementing the mitigation actions needed to meet each project's compensatory mitigation objectives. The guidelines may be used by the project developer and the Mitigation Framework Program Administrator to establish the in-lieu fee that the developer will contribute to the mitigation fund. Specific valuation methods will be developed at a later time and will likely draw from compensatory mitigation systems used elsewhere in the West. Although the details have yet to be worked out, the following outline illustrates the core concepts and principles (shown in bold lettering) that are likely to be employed by the MOA parties in setting the Mitigation Framework's in-lieu fee structure.

- A common unit of measurement would be established for describing and tracking both the project impacts and the benefits of any compensatory mitigation actions. This unit of measurement can be a physical unit such as "acres impacted" or more specifically "acres of summer brood rearing habitat impacted" or "habitat units" lost.



- While the “common unit of measurement” noted above addresses the area of habitat impacted and mitigated, habitat compensation ratios are used to address the quality of the habitat affected by the infrastructure project. These ratios could specify the number of acres of mitigation required per acre of impacted habitat based on the size, habitat quality/condition and function of the impacted habitat; for more critical or important habitat, more mitigation acres might be required. Thus, habitats with higher quality and importance could have higher compensation ratios.
- Several factors are taken into account in calculating how much it will cost to actually compensate for the acres or habitat units. The recommended approach is to evaluate on the costs of implementing a conceptual portfolio of potential mitigation actions or offset activities that provide benefits for sage-grouse. This portfolio of model projects would include a balanced mix of accepted habitat protection and restoration measures reflecting the types of projects expected to be funded by the mitigation program (in accordance with the strategy discussed above). Examples of projects in this portfolio may include such actions as restoring sagebrush canopy and a native understory on recently burned land, improving riparian areas and wet meadows in early brood-rearing habitat, conservation easements to prevent habitat loss, and land management practices that improve sage-grouse habitat. Project costs include the full range of expenses needed to complete all phases of the mitigation action, including administration and monitoring. The average costs of these model mitigation actions per acre or habitat unit is the foundation of the in-lieu fee calculation.
- In addition, the in-lieu fee should also be adjusted to take into consideration the issue of lag time –the time between when habitat is lost at the impacted site relative to when habitat functions are gained at the compensation site.
- The fee also needs to account for contingencies associated with delivering compensatory mitigation, including an estimate of the risk of failure (i.e., the probability that offsite mitigation will not result in any measureable conservation outcomes) for each mitigation site or project.
- In addition to the fee calculated above, costs for establishing and operating the program, including travel, technical consultation and monitoring of program effectiveness must be included. This overhead fee could range from 5-15% depending on the size and complexity of the proposed mitigation program.

#### **F. Program Structure and Oversight**

The Mitigation Framework would be established through a memorandum of agreement (MOA) among the entities that would participate in its implementation. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program. The MOA would serve as a joint powers agreement for state and local government parties. The MOA would establish the following administrative structure for the Mitigation Framework:

1. **Core Team:** A core group would oversee the Mitigation Framework program and provide policy-level guidance for the Science Team and Fund Administrator, described below. The



Core Team would be composed of three to seven representatives of diverse perspectives among the MOA signatories.

2. Science Team: A team of experts drawn from MOA signatories and other targeted organizations will administer the science-based and technical aspects of the program. The Science Team would consist of several individuals with expertise in relevant areas such as habitat protection and restoration, landscape ecology/spatial analysis, wildlife biology, sage-grouse ecology, project development, and mitigation policy.

The Team would focus on developing the policies and statewide strategy that will guide the program, making requests for mitigation project proposals (RFPs), ranking mitigation proposals that will receive funding, tracking monitoring reports and project benefits, and evaluating program success.

3. Program Administrator: A program administrator will be responsible for fund management and administrative tasks. The program administrator will provide administrative support for the Mitigation Team, manage the mitigation account, and administer grants, contracts, and other agreements.

4. Advisory Committee: A broader advisory committee consisting of agencies, companies and organizations with the skills and commitment that will provide useful advice to the Core Team regarding the implementation of the Mitigation Framework. The specific make up of each of these groups will be determined at a later time. Potential participants in the Mitigation Framework include but are not limited to representatives of:

***State of Idaho:***

Department of Fish and Game  
Management  
Office of Energy Resources  
Office of Species Conservation  
Idaho Department of Lands  
Service

***Energy Companies:***

Idaho Power  
Ridgeline Energy  
Conservancy  
Idaho Tribes  
Idaho Sage-Grouse Advisory Committee  
interests)  
Sage-Grouse Local Working Groups

***United States:***

Bureau of Land  
U.S. Fish and Wildlife Service  
U.S. Forest Service  
Natural Resources Cons.

***Non-Governmental Organizations:***

Idaho Conservation League  
The Nature  
Idaho Counties  
Public Land Users (e.g., grazing

**G. Funding the Mitigation Program**

The costs of administering the program will be sustained by the project developers that seek compensatory mitigation. Therefore, a portion of the in-lieu fee that project developers contribute to the mitigation account will be applied for program administration. As noted above, protecting and restoring sagebrush habitats are time consuming and expensive undertakings. Ensuring that these activities are conducted with strong oversight should be viewed as an exceptionally wise investment.

### III. Mitigation Program Steps

The Mitigation Framework envisions a five-step process for developing, implementing, and monitoring compensatory mitigation.

#### **A. Step 1 – Assessment of Project Impacts and Development of Mitigation Objectives**

Assessment of project impacts should be undertaken by the project developers proposing new infrastructure projects and the government agencies that conduct environmental reviews of those projects. Although the Mitigation Framework process is not responsible for this step, it is nevertheless crucial to the integrity of the mitigation program. Specifically, the Framework's success in achieving its goal of offsetting major infrastructure project impacts on sage-grouse depends on an accurate accounting of those impacts. For many projects, this analysis will be done as part of the environmental review procedures required by NEPA. As noted above, NEPA requires federal agencies to address the full range of direct, indirect and cumulative impacts of the proposed project, alternatives to the proposed action, and potential mitigation before they act on permit applications. Once impacts have been assessed and compensatory mitigation objectives set, the project developer is ready to engage the Mitigation Framework, starting with determining the developer's in-lieu fee contribution.

#### **B. Step 2 – Determine the In-lieu Fee Contribution**

The goal of Step 2 is to use valuation techniques, such as the guidelines presented above, to convert the complex range of project impacts, including direct, indirect and cumulative impacts, into monetary terms that become the basis for the in-lieu fee payment. The accepted in-lieu fee compensatory mitigation plan could be a condition of the instrument approving the project (FONSI, ROD, right-of-way grant, conditional use permit, etc.) and thus legally requires the project developer comply with the approved mitigation plan.

#### **C. Step 3 – Commitment of Mitigation Funds by Project Developer**

Infrastructure project developers can employ the Mitigation Framework by entering into an agreement with the program administrator with regard to a specific infrastructure project. This project agreement sets forth the parties' respective responsibilities, including the project developer's commitment to pay the in-lieu fee. Importantly, the agreement provides that the project developer's funds can only be used for the purposes set forth in the Mitigation Framework. The agreement may also include "conditions" as requested by regulatory agencies or project developers. For instance, the agreement might provide that the in lieu fee



will be used to fund mitigation actions in specific geographic areas in order to meet permit requirements. The program administrator, based on consultation with the MOA parties, may decline to enter into an agreement that is inconsistent with the Mitigation Framework principles or includes conditions that are burdensome or unworkable. Once the agreement specifying the payment structure and schedule is signed, the project developer makes the required in-lieu fee deposits to an interest bearing account managed by the program administrator. After the completion of this step, the project developer is no longer engaged in the Mitigation Framework – unless it has decided to participate as a MOA party.

#### **D. Step 4 – Issue Request for Proposals (RFP) and Select, Implement, and Monitor Mitigation Actions**

At least at annual intervals, the Mitigation Team will issue an RFP that invite private companies, non-governmental organizations, and agencies to submit proposals for sage-grouse habitat protection, restoration, and/or enhancement actions. The RFP will provide guidance to mitigation project sponsors on program priorities and criteria. These priorities and criteria will be drawn from the mitigation program strategy including identification of geographic areas where mitigation might provide the greatest benefits as well as identification of the threats that present the highest risk to the species or its core habitat. The Mitigation Team should also reach out to federal, state, and local agencies, non-governmental organizations and the general public in order to facilitate discussion, engage stakeholders, raise awareness of the program and generate responses to the RFP. The RFP will solicit project proposals that contain an operation or implementation plan and address at least the following elements:

- Geographic area;
- Threats addressed and how the mitigation action project will offset impacts resulting from those threats;
- An analysis of current sage-grouse conditions in the area;
- Resource goals and objectives the mitigation action project will seek to provide;
- A description of any coordination with federal, state, tribal and local resource management and regulatory authorities or other stakeholder involvement required to complete the mitigation action (e.g., requirement for NEPA compliance or county permit);
- A description of recent or proposed projects and events in the vicinity of the proposed project, if any, such as fire rehabilitation treatments, restoration or enhancement treatments or other activities that complement the effectiveness or intent of the proposed, mitigation action;
- A description of the long term protection, management, stewardship for the project being implemented, and the entity responsible for these activities; and
- A commitment to periodic evaluation and reporting on the progress of the project in meeting stated goals and objectives, including a process for adaptively redirecting the project if necessary.

When selecting projects, the Mitigation Team will estimate the biological benefits of the projects activities, the likely success of those activities, the duration of benefit expected and

measure those benefits in relation to the strategy and RFP objectives. Mitigation Team and the program administrator will work together on continuing program administration and oversight including annual reporting of program activities, expenditures, and benefits. An annual program report will describe program activities, budget, and assessment of whether the mitigation strategy and associated projects are benefitting sage-grouse and at what level or scale. The Mitigation Team and/or Program Administrator should implement a monitoring program to measure and validate whether project-specific objectives have been met. Monitoring is required of all compensatory mitigation actions to determine if the project is meeting its performance standards and objectives. As mentioned above, at regular intervals, the total habitat and/or population gains provided by the programs will be compared with the habitat/population losses associated with the participating infrastructure projects. The purpose of this comparison is to evaluate the mitigation program and make any necessary program adjustments – particularly if the monitoring shows that the mitigation benefits are not compensating for habitat losses. This comparison will not be a basis for imposing new, unexpected requirements on the infrastructure project developers.

## CONCLUSION

The framework of policies, principles and procedures outlined above are meant to start a dialogue among parties engaged in sage-grouse conservation and infrastructure development. If these parties agree with the Mitigation Subcommittee that there is great value in establishing an Idaho-based compensatory mitigation program, then this framework will mark the beginning of an inclusive effort to fill in the details and complete the tasks needed to bring such a program into being. We have confidence in our collective ability to create a compensatory mitigation program that will benefit infrastructure developers, agencies, conservation interests, and – not least – Idaho's sage-grouse.



### **Part III –**

## **IDAHO AND SOUTHWESTERN MONTANA SUBREGION- NET CONSERVATION GAIN PROCESS**

### **Introduction**

The Net Conservation Gain strategy is a means of assuring that proposed anthropogenic activities, when approved and implemented will not result in long-term degradation of Greater Sage-Grouse habitat or population and will have a net conservation benefit to the species. The attached 'flow chart' identifies a screening process for review of proposed anthropogenic activities. The goal of the process is to provide a consistent approach regardless of the administrative location of the project and to ensure that authorization of these projects will not contribute to the decline of the species. Though the initial Steps (1-6) are done prior to initiating the NEPA process, the authorized officer must ensure that appropriate documentation regarding the rationale and conclusion for each is included in the administrative record.

The flow chart provides for a sequential screening of proposals. However, Steps 2-6 can be done concurrently. Steps 7-12 are related to project implementation.

### **Step 1**

This screening process is initiated upon formal submittal of a proposal for authorization for use of federal lands (BLM or Forest Service). The actual documentation would include, at a minimum, a description of the location, scale of the project, and timing of the disturbance and would be consistent with existing protocol and procedures for the specific type of use. It is anticipated that the proposals would be submitted by a third party.

### **Step 2**

This initial review would evaluate whether the proposal would be allowed as prescribed in the Greater-Sage-Grouse Land Use Plan Amendment. For example, certain activities are prohibited in suitable habitat, such as wind or solar energy development. If the proposal is an activity that is specific prohibited, the submitter would be informed that the proposal is being rejected since it would not be consistent with the Land Use Plan, regardless of the design of the project.

In addition to consistency with program allocations, the Land Use Plan identifies a limit on the amount of disturbance that is allowed within a 'biological significant unit' (BSU). If current disturbance within the affected unit exceeds this threshold, the project should be deferred until such time as the amount of disturbance within the area has been reduced, through restoration or other management actions.

### **Step 3**

In reviewing a proposal, determine if the project will have a direct or indirect impact on population or habitat (PPH or PGH). This can be done by:

1. Reviewing Greater Sage-Grouse Habitat maps.
2. Reviewing the 'Base Line Environment Report' (USGS) which identifies the area of direct and indirect effects for various anthropogenic activities.
3. Consultation with agency, Fish and Wildlife Service, or State Agency wildlife biologist.
4. Reviewing the standard and guidelines in the plan amendments (such as buffer distances for the proposed activity).
5. Other methods

If the proposal will not have a direct or indirect impact on either the habitat or population, proceed with the appropriate process for review, decision, and implementation of the project.

#### **Step 4**

If the project could have a direct or indirect impact of sage-grouse habitat or population, evaluate whether the proposal can be relocated so as to not have the indirect or direct impact and still achieve the intent of the proposal. This Step does not consider redesign of the project as a means of not having direct or indirect impacts but rather authorization of the project in a physical location that will not impact Greater Sage-grouse. If the project can be relocated so as to not have an impact on sage-grouse and still achieve objectives of the proposal, inform applicant and proceed with the appropriate process for review, decision, and implementation of the relocated project.

#### **Step 5**

If the preliminary review of the proposal concludes that there may be impacts to sage-grouse habitat and/or population, and the project cannot be effectively relocated to eliminate these impacts; evaluate whether the agency has the authority to modified or deny the project. If the agency does NOT have the discretionary authority to modify or deny the proposal, proceed with the authorization process (NEPA) and include appropriate mitigation requirements that minimize impacts to sage-grouse habitat and populations. Mitigations could include a combination of actions such as timing of disturbance, design modifications of the proposal, site disturbance restoration, and compensatory mitigation actions.

#### **Step 6**

If the agency has the discretionary authority to deny the project and after careful screening of the proposal (Steps 1-4) has determined that direct and indirect cannot be eliminated, evaluate the proposal to determine if the adverse impacts can be mitigated. If the impacts cannot be effectively mitigated within the BSU, reject or defer the proposal. The criteria for determining this situation would include but not limited to:

- Natural disturbance within the BSU is significant and additional activities within the area would adversely impact the species.



- The current trend within the BSU is down and additional impacts, whether mitigated or not, could lead to further decline of the species or habitat.
- The proposed mitigation has proven to be ineffective or is unproven in terms of science based approach.
- The additional impacts, after applying effective mitigation, would exceed the disturbance threshold for the BSU.
- The project would impact habitat that has been determined, through monitoring, to be a limiting factor for species sustainability within the BSU.
- Other site specific criteria that determined the project would lead to a downward trend to the current species population or habitat with the BSU.

If the project can be mitigated to provide for a net conservation benefit to the species, proceed with the design of the mitigation plan and authorization (NEPA) of the Project. The authorization process could identify issues that may require additional mitigation or denial/deferring of the project based on site specific impacts to the Greater Sage-grouse.



# Appendix K

## Lands No Longer Available for Disposal



Administrative Draft  
Cooperating Agency Review

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Administrative Draft  
Cooperating Agency Review

**Appendix K – Lands No Longer Available for Disposal**

The following public land parcels have been previously identified through the land use planning process as available for sale in conformance with the criteria described in the Federal Lands Policy and Management Act. These lands may be considered for exchange as described in the Proposed Plan but are no longer available for sale.

**Upper Snake Field Office**

<b>Legal Description</b>	<b>Acres</b>
T 12 NR 38 E 028 NENW	40
T 11 NR 39 E 019 SENE	40
T 11 NR 39 E 019 NESE	40
T 11 NR 39 E 019 SESE	40
T 12 NR 37 E 027 NWSW	40
T 11 NR 37 E 020 NWNE	40
T 10 NR 37 E 028 SWSW	40
T 10 NR 37 E 034 NWSW	40
T 10 NR 37 E 034 NESW	40
T 10 NR 37 E 033 SENE	40
T 10 NR 37 E 034 SENE	40
T 10 NR 37 E 034 SWSW	40
T 10 NR 37 E 034 SESW	40
T 11 NR 36 E 017 SWSE	40
T 11 NR 36 E 017 SESE	40
T 11 NR 34 E 014 NENE	40
T 11 NR 35 E 014 NENE	40
T 11 NR 34 E 015 SWNE	40
T 11 NR 35 E 013 SWNW	40
T 11 NR 35 E 013 SENW	40
T 11 NR 34 E 014 SWSW	40
T 11 NR 35 E 017 SESW	40
T 11 NR 34 E 022 NWNW	40
T 11 NR 35 E 020 NENE	40
T 11 NR 36 E 020 NWNE	40
T 11 NR 36 E 020 NENE	40
T 11 NR 35 E 021 SESW	40
T 11 NR 36 E 019 SWSW	25.31
T 11 NR 36 E 030 NWNW	25.52
T 11 NR 36 E 030 SENE	40
T 11 NR 36 E 030 NWSE	40

**Upper Snake Field Office**

T 11 NR 36 E 030 NESE	40
T 11 NR 34 E 026 SESE	40
T 11 NR 36 E 030 SESE	40
T 11 NR 34 E 035 NENE	40
T 11 NR 35 E 034 NWNW	40
T 11 NR 35 E 034 NWSW	40
T 11 NR 34 E 035 SENE	40
T 11 NR 35 E 034 SWNW	40
T 11 NR 34 E 035 SWSW	40
T 11 NR 34 E 035 SESW	40
T 10 NR 36 E 005 SWNW	40
T 10 NR 35 E 003 NENW	38.86
T 10 NR 36 E 030 NWNE	40
T 10 NR 36 E 030 NENE	40
T 10 NR 36 E 006 SENE	40
T 10 NR 36 E 006 SWSW	35.22
T 10 NR 35 E 001 NESW	40
T 10 NR 35 E 029 SWSW	40
T 10 NR 36 E 029 SWSW	40
T 10 NR 36 E 030 SWNE	40
T 10 NR 35 E 031 NENE	40
T 10 NR 35 E 031 SENE	40
T 10 NR 35 E 034 SWSW	40
T 10 NR 35 E 031 NWSE	40
T 10 NR 35 E 031 NESE	40
T 10 NR 35 E 034 NWSW	40
T 10 NR 36 E 032 NESW	40
T 10 NR 36 E 035 NESW	40
T 10 NR 36 E 035 NESE	40
T 09 NR 35 E 005 SENW	40
T 09 NR 35 E 005 NENW	39.04
T 09 NR 36 E 005 NWNE	40.7
T 12 NR 33 E 017 SESW	40
T 12 NR 33 E 019 NENE	40
T 10 NR 32 E 012 SWSW	40
T 10 NR 32 E 013 NENW	40
T 01 NR 29 E 009 SENW	40
T 02 SR 29 E 019 SWNE	40

**Upper Snake Field Office**

T 03 SR 29 E 004 NESW	40
T 02 NR 40 E 012 SENE	40
T 02 NR 41 E 035 SENW	40
T 03 NR 41 E 034 SWSE	40
T 13 NR 39 E 035 SENW	40
T 13 NR 39 E 035 SWNE	40
T 12 NR 39 E 009 SENW	40
T 12 NR 39 E 009 SWSE	40
T 12 NR 38 E 019 SENE	40
T 05 NR 35 E 002 SENW	38.64
T 05 NR 35 E 002 SWNE	38.52
T 07 NR 36 E 034 NESW	40
T 05 NR 35 E 002 NESW	40
T 05 NR 35 E 002 NWSE	40
T 05 NR 35 E 002 SWSW	40
T 05 NR 35 E 002 SESW	40
T 05 NR 35 E 002 SWSE	40
T 05 NR 35 E 010 NWNE	40
T 05 NR 35 E 010 NENE	40
T 05 NR 35 E 011 NWNW	40
T 05 NR 35 E 011 NENW	40
T 05 NR 35 E 011 NWNE	40
T 05 NR 35 E 010 SENE	40
T 04 NR 36 E 009 NENE	40
T 04 NR 36 E 015 SWNW	40
T 04 NR 36 E 015 SENW	40
T 04 NR 36 E 009 NESE	40
T 04 NR 36 E 010 NWSW	40
T 04 NR 36 E 010 NESW	40
T 04 NR 36 E 010 NWSE	40
T 04 NR 36 E 010 NESE	40
T 04 NR 36 E 010 NWNW	40
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T 04 NR 36 E 010 NWNE	40
T 04 NR 36 E 010 NENE	40
T 04 NR 36 E 011 NWNW	40
T 04 NR 36 E 009 SENE	40
T 04 NR 36 E 010 SWNW	40
T 04 NR 36 E 010 SENW	40

**Upper Snake Field Office**

T 04 NR 36 E 010 SWNE	40
T 04 NR 36 E 010 SENE	40
T 04 NR 36 E 011 SWNW	40
T 04 NR 36 E 009 SESE	40
T 04 NR 36 E 010 SWSW	40
T 04 NR 36 E 010 SESW	40
T 04 NR 36 E 010 SWSE	40
T 04 NR 36 E 010 SESE	40
T 04 NR 36 E 015 NWNW	40
T 04 NR 36 E 015 NENW	40
T 04 NR 35 E 032 SWSW	40
T 04 NR 35 E 032 SESW	40
T 13 NR 36 E 004 SWSE	40
T 01 NR 31 E 006 SWNE	23.69
T 01 NR 31 E 006 SENE	23.15
T 01 NR 31 E 005 SWNW	22.9
T 01 NR 31 E 005 SENW	22.93
T 01 NR 31 E 005 SWNE	22.97
T 01 NR 31 E 005 SENE	23
T 01 NR 31 E 004 SWNW	22.94
T 01 NR 31 E 004 SENW	22.78
T 01 NR 31 E 004 SWNE	22.62
T 01 NR 31 E 004 SENE	22.46
T 01 NR 31 E 003 SWNW	22.47
T 01 NR 31 E 003 SENE	23.03
T 01 NR 31 E 002 SWNW	23.15
T 01 NR 31 E 002 SENW	23.21
T 01 NR 31 E 005 NWSE	40
T 01 NR 31 E 004 NWSW	40
T 01 NR 31 E 005 SWSE	40
T 01 NR 31 E 004 SWSW	40

**Challis Field Office**

<b>Legal Description</b>	<b>Acres</b>
7N 24E E2SE NE	40
7N 24E E2SE NE	41
7N 24E E2SE NE	41
7N 24E E2SE	41
7N 24E E2SE	41
7N 24E S21NENW	40
7N 24E NE	40
7N 24E NE	40
7N 24E NE	40
7N 24E NE	40
7N 24E S 17 NWNW	40
8N 21E S2 SENE	40
8N 21E S15 NENE	39
8N 23E S 25 NENE	10
8N 23E S 25 NENE	30
8N 23E S 25 SWSE	40
8N 23E S 25 SESW	40
8N 24E S31 Lot 3	19
8N 24E S31 Lot 4	19
8N 24E S31 Lot 10	19
7N 22E S3 NESE	41
7N 22E S11 NENW	40
7N 22E S11 NWNW	40
8N 21E S9 NWNE	40
7N 23E S5 NESE	39
8N 21E S9 E2NWSW	20
8N 21E S9 E2SWNW	20
8N 23E S30 Lot 6	2
7N 24E S 7 E2NW	52
7N 24E S 7 E2NW	51
7N 24E S 7 NESW	47
7N 24E S 7 Lot 2	48
7N 24E S 9 S2SW	40
7N 24E S 9 S2SW	40
7N 24E S 17 NE	40
8N 24E S31 Lot 9	19
7N 22E S3 Lot 2	41
8N 23E S26 NESE	40
8N 24E S31 Lot 7	40
8N 22E S17 NENE	40
8N 22E S13 Lot 4	40
8N 22E S13 Lot 2	40



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8N 22E S12 Lot 6	40
7N 24E S24 SESE	40
7N 24E S25 NENE	41
7N 25E S30 Lot 1	51
7N 25E S30 Lot 2	46
9N 22E S32 SWSW	40
10N 18E S13 NWSESW	10
12N 20E S23 E2E2E2SW	8
12N 20E S23 E2E2E2SW	8
12N 20E S26 E2E2E2NW	8
12N 20E S26 E2E2E2NW	8
12N 20E S26 NESW	40
7N 25E S30 E2SW	23
7N 25E S30 SE	7
7N 25E S30 SE	41
7N 25E S30 SE	41
7N 24E S25 S2S2N2	15
7N 24E S25 S2S2N2	11
7N 24E S25 S2S2N2	8
7N 24E S25 S2S2N2	3
7N 25E S30 SE	1
8N 21E S2 SWSW	41
8N 21E S2 SESW	40
8N 22E S3 NWSW	41
8N 22E S13 N2SE	40
8N 23E S18 lot 7	7
8N 23E S18 lot 7	32
8N 23E S18 lot 7	0
8N 23E S19 SWSE	41
8N 23E S19 Lot 9	31
8N 23E S19 Lot 5	17
8N 23E S19 Lot 10	5
8N 23E S19 Lot 13	18
8N 23E S 29 Lot 2	4
7N 20E S9 SW4	40
7N 20E S17 NE4	40
8N 22E S2 Lot 8	39
8N 21 E S1 SWSW	40
7N 23E S9 SW4	40
7N 23E S9 SW4	40
7N 23E S9 SW4	40

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7N 20E S17 NE4	40
7N 20E S17 NE4	40
7N 20E S17 NE4	40
8N 21E S11 NENW	41
8N 21E S11NESW	40
8N 21E S11 N2SE	40
8N 21E S11 N2SE	40
8N 21E 20S NWSW	40
8N 23E S 29 Lot 2	2
8N 23E S30 NWNE	11
8N 23E S30 NWNE	29
8N 22E S13 N2SE	40
8N 22E S13 SESE	40
8N 22E S12 Lot 2	41
8N 22E S11 Lot 2	40
10N 18E S12 NESENW	9
10N 18E S13 SESEWNW	3
11N 18E S12 NWNWNWNW	1
11N 18E S35 NESESW	10
12N 20E Lot 2	32
12N 20E S4 Lot 8	36
12N 20E S4 Lot 5	15
12N 20E S4 Lot 2	8
12N 20 S10 Lot 2	21
12N 20 S10 Lot 3	2
13N 20E S20 Lot 2	7
13N 20E S29 Lot 2	2
13N 20E S29 Lot 3	8
13N 20E S33 Lot 2	10
13N 23E S19 NENE	40
13N 23E S34 NENE	40
14N 22E S6 SWNE	40
14N 22E S6 E2NE	41
14N 22E S6 E2NE	40
15N 21E S13 S2SW	40
15N 21E S13 S2SW	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S15 (South of County Road)	7
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	26

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15N 21E S15 (South of County Road)	5
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	39
15N 21E S15 (South of County Road)	22
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	41
15N 21E S15 (South of County Road)	41
15N 21E S22 W2NE	40
15N 21E S22 W2NE	40
15N 21E S22 SENW	40
15N 21E S23 N2NE	40
15N 21E S23 N2NE	40
15N 21E S24 N2NW	40
15N 21E S24 N2NW	40
15N 22E S31 W2W2W2E2SE	9
16N 20E S26 S2NENW	19
16N 20E S27 E2E2SE	37
10N 18E S12 SENENW	9
10N 18E S32 SWSWNWSE	2
10N 18E S32 SESENESW	2
13N 20E S18 SWSE	40
14N 23E S34 NESW	40
15N 22E parts S19	40
15N 22E parts S19	40
15N 22E parts S19	40
15N 22E parts S20	40
15N 22E parts S20	40
15N 22E parts S29	40
15N 22E S32 Lot 2	40
13N 19E S21 Lot 10	12
8N 22E S2 Lot 9	10
8N 22E S2 Lot 5	2
7N 25E S30 SE	31
15N 21E S22 SENW	40
16N 20E S23 S2S2SE	24
16N 20E S23 S2S2SE	8
11N 18E S22 pending survey	28
11N 18E S22 pending survey	39
11N 18E S22 pending survey	37

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11N 18E S22 pending survey	23
11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	30
11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	29
8N 22E S11 lot 3	36
8N 22E S12 lot 3	4
8N 22E S13 lot 5	25
8N 23 E S32 Lot 2	37
8N 23E S 33 Lot 2	10
8N 23E S 33 Lot 3	35
8N 23E S 33 Lot 8	27
8N 23E S 33 Lot 6	11
12N 18E S3 Lot 18	4
13N 19E S10 SESENESE	1
14N 18E S2 Lot 4	36
15N 21E S7 NENWNW	9
16N 20E S24 (East of Hwy 93)	37
11N 17E S24 S2 East of patented 3144A	40
11N 17E S24 S2 East of patented 3144A	16
11N 17E S24 S2 East of patented 3144A	22
11N 17E S24 S2 East of patented 3144A	16
11N 17E S24 S2 East of patented 3144A	40
11N 17E S24 S2 East of patented 3144A	34
11N 17E S24 S2 East of patented 3144A	1
11N 17E S24 S2 East of patented 3144A	<1
11N 17E S24 S2 East of patented 3144A	<1
11N 17E S25 N2NE North of Salmon River	19
11N 17E S25 N2NE North of Salmon River	12
11N 17E S25 N2NE North of Salmon River	9
11N 17E S25 N2NE North of Salmon River	2
11N 17E S25 N2NE North of Salmon River	<1
11N 18E S2 NENESENE	1
11N 18E S30 SWNWSWNE	3
13N 19E S4 SESW	40
13N 19E S4 E2NWSW	20
13N 19E S4 W2NESW	20
13N 19E S5 Lot 9	37
14N 18E S35 SESESESW	1
13N 19E S4 Lot 9	1
13N 19E S4 Lot 15	1

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13N 19E S4 Lot 18	10
13N 19E S4 Lot 19	<1
13N 19E S4 Lot 19	16
13N 19E S4 SESW	1
13N 19E S4 Lot 14	6
11N 18E S22 pending survey	6
11N 18E S22 pending survey	37
11N 18E S22 pending survey	39
11N 18E S22 pending survey	40
11N 18E S22 pending survey	6
11N 18E S22 pending survey	2
11N 18E S22 pending survey	2
11N 18E S22 pending survey	3
11N 18E S22 pending survey	6
11N 18E S22 pending survey	11
11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	26
11N 18E S22 pending survey	3
16N 20E S35 lot 9	4
16N 20E S35 lot 10	3
11N 18E S22 pending survey	<1
11N 18E S22 pending survey	<1
11N 18E S22 pending survey	<1
13N 19E S9 Lot 1	3

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**Dillon Field Office**

T. 3S; R.1W;	Section 3:	Lot 1	43.02
		Lot 2	43.04
	Section 7:	Lot 6	18.68
		Lot 7	2.10
		SE1/4 SE1/4 SW1/4 NW1/4	2.50
		NE1/4 SE1/4 SE1/4 NW1/4	2.50
	Section 18:	Segregated Survey within Lot 8	1.21
	Section 31:		9.10
	Section 32:	Lot 4	1.16
		Lot 5	1.21
		Lot 8	0.59
		Lot 10	0.02
		Lot 11	20.79
T. 4S; R.1W;	Section 2:	SW1/4 NE1/4 and NW1/4 SE1/4	80.00
T. 8S; R. 1W;	Section 33:		121.38
T. 9S; R.1W;	Section 4:	Lot 1	47.34
T. 3S; R. 2W;	Sections 2, 12 and 13:	All segregated surveys	180.26
	Section 13:	Lot 1	10.39
T.4S; R.2W;	Section 10:		20.90
	Section 35:	SE1/4 NW1/4	40.00
T. 5S; R. 2W;	Section 18:	S1/2 SE1/4	80.00
T.13S; R. 2W;	Section 17:	NE1/4 NE1/4	40.00
T. 2S; R. 3W;	Section 23:	Lot 7	24.79
T. 6S; R. 3W;	Section 1:	S1/2 SW1/4	80.00
	Section 2:	Lot 2	41.30
	Section 7:	Lot 5	9.24
	Section 8:	Lot 1	21.87
		Lot 2 unpatented portion	13.55
		NW1/4 NE1/4 SW1/4	10.00
	Section 13:	SW1/4 SW1/4	40.00
	Section 14:	S1/2 NE1/4	80.00
	Section 17:	SW1/4 NW1/4 NE1/4	10.00
	Sections 29 and 32:		21.60
T. 4S; R. 4W;	Section 19:	W1/2 NW1/4 SE1/4	15.46

Section 31:	SE1/4	160.00	
T. 6S; R. 4W;	Section 13:	S1/2 S1/2 NW1/4 NE1/4	10.00
	Section 14:	N1/2 SW1/4 NW1/4 NE1/4	5.00
		S1/2 S1/2 N1/2 NE1/4	20.00
		SE1/4 NE1/4	40.00
		SE1/4 SE1/4	40.00
	Section 24:	W1/2 NW1/4	80.00
T. 4S; R.5W;	Section 13:	NW1/4 SE1/4	40.00
T. 7S; R.6W;	Section 21:	Lot 21	0.06
		Lot 22	7.15
		Lot 23	1.69
		Lot 24	0.29
Section 28:		Lot 7	3.61
T.9S; R.6W;	Section 27:	SW1/4 SW1/4	40.00
T. 12S; R.6W;	Section 4:	NW1/4 SE1/4	40.00
T. 13S; R.6W;	Section 7:	NE1/4 SW1/4	40.00
T. 6S; R.7W;	Section 34:	NW1/4 NE1/4	40.00
T. 7S; R 7W;	Section 2:	NE1/4 SE1/4	40.00
	Section 26:	SE1/4 SW1/4	40.00
	Section 27:	NW1/4 SE1/4	40.00
	Section 35:	NW1/4 NW1/4	40.00
T. 3S; R.8W;	Section 19:	NE1/4 SW1/4 and NW1/4 SE1/4	80.00
	Section 30:	NE1/4 SW1/4	40.00
T. 4S; R.8W;	Section 2:	Lot 1	46.42
T. 12S; R. 8W;	Section 26:	NW1/4 NE1/4	40.00
	Section 35:	SE1/4 NE1/4	40.00
T. 14S; R. 8W;	Section 9:	NW1/4 SE1/4	40.00
T. 9S; R. 9W;	Section 21:	NW1/4 NE1/4	40.00
T. 14S; R. 9W;	Section 25:	SE1/4 NW1/4	40.00
T. 6S; R. 10W;	Section 29:	Lot 11	0.06
		Lot 12	0.02
	Section 30:	Lot 7	1.05
		Lot 11	0.11
		Lot 12	0.23



T. 9S; R.10W; Section 20:	NE1/4 NW1/4	40.00
Section 27:	W1/2 SW1/4	80.00
T. 10S; R.10W; Section 23:	SW1/4 NE1/4	40.00
T. 14S; R.10W; Section 10:	E1/2 SW1/4 SE1/4	20.00
T. 7S; R.11W; Section 33:	Lot 2	0.13
T. 6S; R. 12W; Section 8:		1.8
T.10S; R.12W; Section 19:	Lot 1	38.37
Section 31:	Lot 2	38.15
	Lot 3	38.42
T. 5S; R.14W; Section 20:	SE1/4 NE1/4	40.00
Section 32:	SE1/4 SW1/4	40.00
T. 9S; R.14W; Section 1:	Lot 1	39.87
T. 3S; R.16W Section 3:	NE1/4 NE1/4	40.00
T. 3S; R.1E; Section 5:	Segregated survey bound by Lots 5&6	11.60
T. 14S; R.1E; Section 23:	NW1/4 NE1/4	40.00



# Appendix L

## Travel Management Planning Guidelines



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## Appendix L – Travel Management Planning Guidelines:

- Among other designation criteria from 43 CFR 8342.1(b), “areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- During subsequent travel management planning, all routes would undergo a route evaluation to determine its purpose and need and the potential resource and/or user conflicts from motorized travel. Where resource and/or user conflicts outweigh the purpose and need for the route, the route would be considered for closure or considered for relocation outside of sensitive GRSG habitat.
- During implementation-level travel planning, threats to GRSG and their habitat would be considered when evaluating route designations and/or closures.
- During subsequent travel management planning, routes that do not have a purpose or need would be considered for closure.
- During subsequent travel management planning, routes that are duplicative, parallel, or redundant would be considered for closure.
- During subsequent travel management planning, seasonal restrictions on OHV use would be considered in important seasonal habitats where OHV use is a threat.
- During subsequent travel management planning, OHV timing limitations would be considered in important seasonal habitats where OHV use is a threat.
- During subsequent travel management planning, consider limiting over snow vehicle (OSV) travel to designated routes, consider seasonal closures in GRSG wintering areas from November 1 through March 31 or define Designation Criteria (i.e. minimization criteria) to regulate over snow vehicle traffic.
- During subsequent travel management planning, routes not required for public access or recreation with a current administrative/agency purpose or need would be evaluated for administrative access only.
- During subsequent travel management planning, consider prioritizing restoration of routes not designated in a Travel Management Plan.
- During subsequent travel management planning, consider using seed mixes or transplant techniques that will maintain or enhance GRSG habitat when rehabilitating linear disturbances.
- During subsequent travel management planning, consider scheduling road maintenance to avoid disturbance during sensitive periods and times to the extent

practicable. Consider using time of day limits (After 10:00 AM to 7:00 PM) to reduce impacts on GRSG during breeding and nesting periods.

Over-snow vehicle – a motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

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# Appendix M

## GRSG Implementation and Coordination



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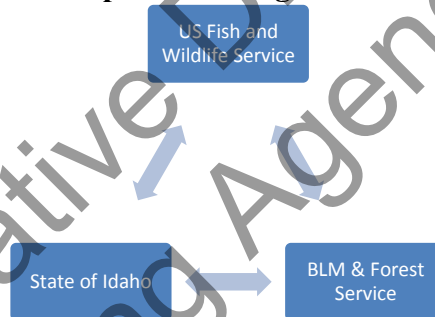
## Appendix M – GRSG Implementation and Coordination

The BLM, Forest Service, US Fish and Wildlife Service and the State of Idaho have coordinated on GRSG monitoring and management for numerous years as part of the 2006 Idaho Sage Grouse Conservation Plan. Much of this ongoing work provides a firm foundation from which to build future coordination efforts, especially in regard to implementation of the GRSG RMP Amendment. With some specific adjustments and additional inclusions in those efforts the effective implementation of the GRSG RMP Amendment can be achieved.

There are several decisions, or components of decisions that would benefit from close coordination between the State of Idaho, BLM, Forest Service and the US Fish and Wildlife Service. These include: application and assessment of the adaptive management strategy; application of the right-of-way screening process; and development and implementation of any potential project mitigation efforts.

Figure 1 describes a conceptual relationship between the agencies for coordination and project evaluation/implementation.

**Figure 1 – Conceptual Relationship Between Agencies**



For description an example project proposal will be tracked through the consideration and evaluation process.

### **I. Project Proposal is Initially Screened by BLM or Forest Service**

This initial screened would evaluate whether the proposal conforms to the land use plan allocation decisions (Open, Open with Limitations, Closed). The BLM/Forest Service Field Office or Ranger District would work in coordination with the State or Supervisor's Office to evaluate this conformance.

For BLM if the proposal is not in conformance then a non-conformance letter from the State Director would be sent to the project proponent and the project would not be considered further.

If the project were found to conform to the land use plan allocations then consideration would continue.

### **II. Project Proposal would be Coordinated with State and USFWS**

The State Implementation Task Force (set up through Idaho Executive Order) would convene to apply the right-of-way screening process to the proposal, informed by GRSG population monitoring accomplished by IDF&G. This evaluation would be vetted through the Governor's Office and a recommendation from the Governor would be provided to the BLM/Forest Service.

The BLM and/or Forest Service would work with local offices to apply the right-of-way screening process to the proposal, informed by the disturbance level (cap), and habitat conditions (amount).

The BLM/Forest Service decision maker would utilize the information from internal review and State recommendations to determine whether the project conforms to all land use plan guidance and whether to consider the project further.

For BLM if the proposal is not in conformance then a non-conformance letter from the State Director would be sent to the project proponent and the project would not be considered further.

If the project were found to conform to the land use plan guidance then consideration would continue.

### **III. BLM and/or Forest Service would Initiate Project NEPA**

The NEPA analysis would be developed by the local unit office in full consideration of local habitat conditions. This process would describe alternatives to the proposal that would reduce or eliminate impacts and full identify residual impacts to GRSG.

### **IV. Share Residual Impacts with the State of Idaho and USFWS**

The State Implementation Task Force would consider the residual impacts and work to develop an appropriate mitigation package to be included within analysis of the project proposal. This Governor would recommend to BLM the inclusion of the mitigation package within the project proposal.

### **V. BLM Incorporates and Analyzes Mitigation in NEPA Evaluation**

### **VI. State of Idaho would Administer Mitigation Consistent with the Mitigation Strategy**

As part of the implementation of the GRSG RMP Amendment the BLM and Forest Service will work cooperatively with the State to develop a Mitigation Strategy. Part of this strategy will define the operating procedures such as credits, banking, funding process, etc. This component is likely to strongly involve State oversight, with the specifics remaining to be determined.

### **VII. Mitigation is Implemented**



# Appendix N

## Proposed Plan Mapping Adjustments



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## **Appendix N – Mapping Adjustments in Development of Proposed Plan Map Map Differences between Draft EIS Preferred Alternatives and Proposed Plan**

**Overview:** The preparation of the Alternative D (BLM/FS Alternative) GRSG map in the DEIS (the GRSG Management Area map) involved modeling of Preliminary Priority and Preliminary General Habitat (PPH/PGH) by Idaho BLM using available GRSG lek data, Breeding Bird Density and Lek Connectivity Models, available winter habitat and additional refinements using available land use or vegetation data (e.g., agriculture, timber), and as well as expert opinion and additional local data. The Southwest Montana GRSG areas were refined by Montana BLM based on modeling and map refinements previously completed by Montana Fish, Wildlife and Parks, based on their Core area designations. For the Utah portion of the Sawtooth National Forest, BLM/FS adopted Utah BLM’s designation for that area.

For Alternative E in the DEIS, the Idaho Governor’s Sage-Grouse Task Force re-configured the initial BLM PPH/PGH data to create three categories of Management Zones (Core, Important, General), using additional population and habitat information, to support an adaptive management strategy focused on GRSG conservation.

During review of the DEIS, mapping adjustments were made in response to public comments and were based on agency field and personnel input and discussions with State of Idaho and USFWS. Specifically, adjustments were intended to address the broad scale nature of the initial map and to address disparities. Specifically, certain portions of the Alt D and Alt E maps still encompassed some areas of non-habitat, such as timber or farm lands; or they were missing some areas of potential restoration or other locally definable areas or habitat; or were designated inappropriately as Core and/or Important.

As a result, in preparing the Proposed Plan/FEIS, BLM, FS, FWS and the State of Idaho worked together to refine the GRSG Habitat Management Area map. To resolve map disparities between Alternatives D and E, and to provide more recognizable boundaries of Habitat Management Areas on the ground, BLM and FS worked closely with field personnel in December 2013. During the winter and spring of 2014, BLM and FS also worked closely with the State of Idaho and U.S. Fish and Wildlife Service (Idaho Fish and Wildlife Office, Boise) in re-evaluating the Core, Important or General Management Zone designations of Alt E, in order to move forward with a map for the Proposed Plan (Alternative G) that met BLM and FS objectives for habitat and State of Idaho and FWS objectives for populations. The final Proposed Plan map is identified in Tables 1 & 2, displayed in Map 1, and summarized as follows:

- Refinements in General Habitat delineations. Additional areas in south-central Idaho, Mountain Home and the Weiser area were added as General Habitat Management Areas (approximately 488,018 acres); these areas were previously encompassed by “Restoration” areas identified in Alt. F, of the DEIS. The additional areas contain similar habitat characteristics as General habitat areas. Specifically, General Habitat Management Areas (GHMAs) encompass habitat outside of Priority Habitat Management Areas (PHMAs) or Important Habitat Management Areas (IHMAs) and contain approximately 10% of the occupied GRSG leks that are also of relatively low male attendance compared to leks in PHMA or IHMA. The GHMAs are generally characterized by lower quality, disturbed or patchy habitat or low lek connectivity. These additional areas added

to the GHMAs are annual grassland or perennial grassland areas, from the Idaho “Key Habitat Map” that had been previously excluded from the initial PPH/PGH model; or were based on additional field input. These areas have restoration potential to GRSG habitat, or involve past or ongoing restoration efforts therefore were incorporated into the Alternative G map, based on recommendations from the field and are characterized by lower quality, disturbed or patchy habitat or low lek connectivity. As a result, the additional areas embody the same or similar characteristics as those areas identified as General habitat in the DEIS.

- **Small Isolated Areas.** These areas (i.e., less than 500 acres in size) referred to as “Donut holes” of non-habitat inside of a larger matrix of habitat were classified according to the surrounding habitat. As a result of mapping corrections and refinements, data was collected from BLM Field Offices. This data showed that there were many areas that contained holes of non-habitat within larger tracts of habitat. In order to ensure efficient and practicable management of these areas, these areas (holes) will be managed according to the habitat management designation that governs the surrounding area. The total acreage of all of these areas is a small percentage of the total planning area. Specifically, the areas that comprise the “donut holes” amounts to 6,746 acres out of approximately 11,000,000 acres of habitat in the planning area. This amounts to only 0.06% of the entire planning area/habitat.
- **Snapping of Priority, Important, or General Habitat Management Areas** to meaningful edges or features (canyons, allotment/pasture boundaries, roads etc.) was completed at the field level to facilitate use of the map designations at the field level.
- **Refinements in Important and Priority Habitat delineations.** The refined mapping of Priority and Important Habitat Management Areas for Alternative G contains areas of Priority and Important habitat that are outside of those previously identified as PACs. In the case of Priority, these arose from very minor adjustments in localized areas during the snapping exercise. Similar refinements were made for Important designations, however in the southern Big Desert area near Craters of the Moon National Monument roughly 200,000 acres of General habitat identified in Alternative E were identified as having the same characteristics as Important habitat and therefore are depicted as Important in the Administrative Draft Proposed Plan (see Table 2 Desert Conservation Area, Southern Big Desert Area Geographic Area). Smaller areas of IHMA refinements as described above were identified in the Owyhee Mountains, Cotterel/Jim Sage Mountains, Curlew National Grasslands and Bear Lake area. See Table 2 below for mapping adjustment details and acreages. Specifically, Important Habitat Management Areas are defined as areas of moderate to high conservation value to GRSG that are generally adjacent to PPMAs but reflect reduced GRSG population and/or habitat characteristics.

**Table 1. Mapping Adjustment Summary**

<b>Habitat Management Area</b>	<b>Alt. B (DEIS)</b>	<b>Alt. C (DEIS)</b>	<b>Alt. D (DEIS)</b>	<b>Alt. E (DEIS)</b>	<b>Alt. F (DEIS)</b>	<b>Alt. G (new mapping effort/AD PP/Propo</b>

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
June 2015



						<b>sed Plan)</b>
Priority (Core – Alt E)	8,235,923.31	11,132,465.87	6,849,163.04	P- 694,581.01 C-4,213,562.21	8,235,923.31	5,192,615.53
Important (Medial – Alt D)	0	0	1,386,771.23	2,743,839.51		3,153,334.61
General	2,896,542.56	0	3,129,038.47	3,523,002.46	2,896,542.56	2,786,078.46
Restoration					500,334.74	

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**Table 2. Mapping Adjustment Details by Geographic Area:**

<b>Conservation Area</b>	<b>Geographic Area</b>	<b>Initial Recommendation (BLM/FS field)</b>	<b>Final Decision and Rationale</b>	<b>Location and Acres (Depicted on Map 1)</b>
<b>WEST OWYHEE</b>				
	Mountain tops in the Owyhee Mtns.	Field recommended including the top of mountains, previously mapped as non-habitat, as General. Some local records of bird use; likely some summer use	Left mountain tops as <u>non-habitat</u> . Difficult to justify as General based on nominal bird use and limited other information. No known lek or winter habitat.	A = 127,468 acres  Is the total of non-habitat mountain tops
	Juniper encroachment surrounding Owyhee mountains	Field recommended classifying as Important due to potential for juniper control efforts and habitat improvement. No leks or winter habitat in vicinity.	Kept as <u>General</u> . Difficult to justify as “Important” due to general lack of leks/nest habitat or winter habitat in that zone. Juniper work should probably focus on juniper encroachment in adjacent Core areas. General designation does not preclude restoration work, if otherwise justified.	B = 229,290 acres  Is the total number of GHMA in this area
	Owyhee front	This was a large oblong area recommended by the field to be changed from Important (as in Alt E) to Core, along the Owyhee Front. The majority of the area is overlain by recently modeled winter habitat and also encompasses a number of occupied and undetermined status leks and nesting habitat. BLM	Multiple discussions with the State and US FWS led to a delineation where much of the Owyhee Front remained as Important, with an additional area of Core (~25,000 ac) identified that overlaid a cluster of leks and nesting/winter habitat. Area maintained as Important has fewer and smaller leks.	C1 = 554,026 acres  Total Area of IHMA in the Owyhee Front  C2 = 70,827 Acres of PHMA Total in the Owyhee Front

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June 2015

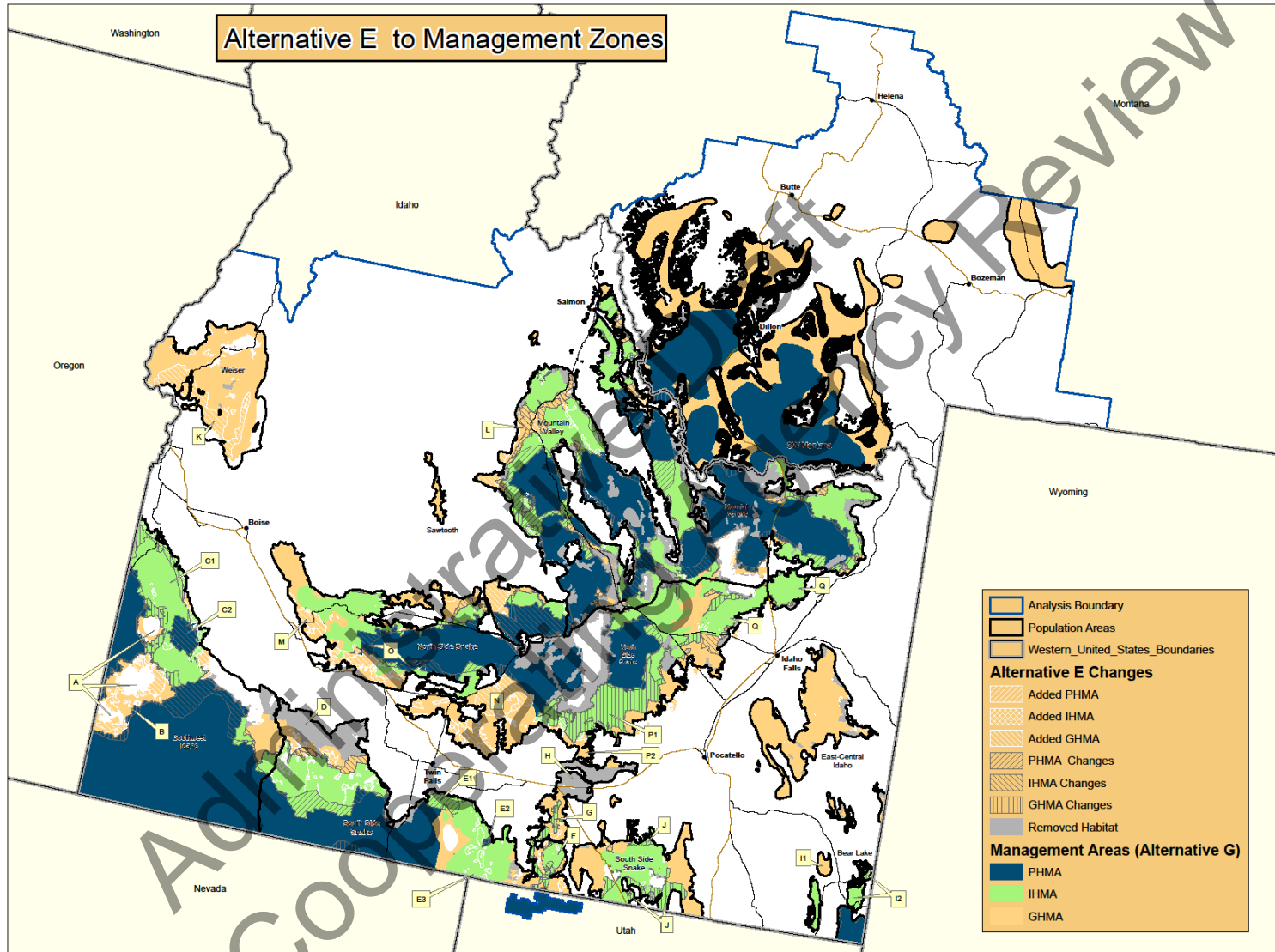
Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres (Depicted on Map 1)
		also had concerns with protecting connectivity.		
<b>SOUTHERN</b>				
	Jarbidge FO	Field recommended removal of General habitat at north end of FO that burns repeatedly and modification of some Core to Important in southern 1/3 of the area.	Adopted recommendation for final map.	D = 232,331 acres GHMA Removed
	Burley FO-South Hills	Field recommended changing Core in west half or so of the South Hills to Important, based on existing infrastructure, recreation activity. Also included and important area of winter habitat west of Oakley as Core and added some General to Middle Mountain area.	Adopted recommendations a noted. Also retained Goose Creek area as <u>Important</u> as in Alt E.	E1 = 39,260 acres South Hills E2 = 5,283 acres Priority E3 = 26,174 acres Goose Creek Area as IHMA
	Burley FO-Jim Sage	Field recommended making part of Jim Sage Core; additional edits to Important and General.	Majority of Jim Sage mapped as Important. Proposed Core was small area not readily implementable.	F = 47,629 acres IHMA in Jim Sage
	Burley FO-Cotterel	Field added some Important patches to top of Cotterels.	Adopted recommendation.	G = 14,279 acres IHMA on Cotterel Mountains
	Burley FO-No Mans/Basalt;	Field recommended removing the General habitat that extends from the	Adopted recommendation.	H = 137,827 acres Total of non-habitat

<b>Conservation Area</b>	<b>Geographic Area</b>	<b>Initial Recommendation (BLM/FS field)</b>	<b>Final Decision and Rationale</b>	<b>Location and Acres (Depicted on Map 1)</b>
	North of Interstate area.	north end of the Cotterels to Lake Walcott. There has been no known GRSG use for many years.		
	Pocatello FO-Bear Lake	Field cleaned up slivers and added some Core. Recommended dropping the larger "U" shaped area of General. Recommended two smaller polygons of I and G north of Bear Lake be Core.	Retained the U shaped area as General habitat as there are two leks just to south. The polygons north of Bear Lake were designated "Important".	I1 = 23,448 acres I2 = 39,249 acres IHMA N of bear lake
	Pocatello FO-Curlew area	Some additions/revisions to I and G.	Adopted recommendations.	J = 74,820 Habitat change from G to IHMA
<b>MOUNTAIN VALLEY</b>				
	Weiser	Field recommended adding substantial areas of Core and Important as well as additional, previously unmapped General based on additional scrutiny of imagery and lek information.	Keep <u>entire area as General</u> as shown in Alt E. Added in some additional General in SW portion based on imagery and adjacency to existing habitat. Size and number of leks did not justify proposed designation.	K = 181,308 acres GHMA added in the South
	Challis	Field did extensive, detailed work edge snapping. Added	Adopted the edge snapping and addition of General. Uniqueness and	L = 135,608 acres

Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres (Depicted on Map 1)
		some new General; changed a large area from Important (Alt E) to Core, per leks, uniqueness/isolated nature of area and connectivity with Moyer Basin to north.	isolated nature is not a characteristic considered in the classification.	Total GHMA habitat in the area
<b>DESERT</b>				
	Mountain Home	Field recommended certain “Restoration Type 2” (cheatgrass) areas shown on the “Key Habitat Map” be classified as Important. No leks. Adjacent to Interstate. Nesting habitat and winter habitat (in north half).	Adopted the addition of the R2 but classified as <u>General</u> . Since it is R2 (cheatgrass), it was difficult to justify as Important without more compelling information.	M = 44,939 acres GHMA added
	Wild Horse	Large area not on Alt D or E maps, but currently mapped as R2 (annual grassland) per the Key habitat map has ongoing restoration focus by Shoshone Field Office. Field recommended this area be added as Important. No significant lek presence (only one, small to south); majority is in between mapped winter areas.	Adopted addition of the R2 areas, but classified as <u>General</u> . Could be upgraded in future if restoration efforts show progress and GRSG use, but not justified as Important at this time.	N = 188,475 acres GHMA Added
	Core area in Shoshone FO	Some additional Core added by edge snapping exercise.	Adopted recommendation.	O = 79,687 acres
	Southern Big Desert area	Field recommended adding southern Big Desert area as Core due to leks, connectivity with Craters	Adopted S. Big Desert area as Important, adding to the overall area of PACs. Number and size of leks did not warrant Core designation.	P1 = 363,818 Total acres of IHMA in the South Desert and Brigham

Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres (Depicted on Map 1)
		<p>Nat. Monument core to the west and northern Big Desert Core. Also cut out some edge habitat that interfaced with agricultural land, lava.</p>	<p>Also designated <u>Important</u> for the areas generally adjacent to southern end of the Craters of the Moon National Monument lava in the Brigham Point Area etc. This added a small acreage to the overall are of initial PACs.</p> <p>Areas to the south of Power lines and east/south side of the Wapi flow were designated <u>General</u>.</p>	<p>Point Area</p> <p>P2 = 61,175 total of GHMA acres</p>
	<p>Idaho Falls/Roberts</p>	<p>Field recommended adding some areas of Core per snapping efforts around the edges.</p> <p>Added two small patches of Core near the Interstate; Added moderate sized Core area near Howe (but low lek density, no wintering habitat mapped).</p>	<p>Retained as Important. Changing the small patches near the Interstate to Core would create doughnut holes of different classification not implementable on the ground.</p>	<p>Q = 50,223 acres</p> <p>Stayed IHMA habitat</p>

Map 1. Proposed Plan Map Changes from Draft



# Appendix O

## Reasonably Foreseeable Development Scenario for Greater Sage-Grouse Habitat in the Idaho and Southwestern Montana Sub-Region



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**O. Reasonably Foreseeable Development Scenario for Greater Sage-Grouse Habitat in Idaho and Southwestern Montana Sub-region**

**O.1 Introduction**

This Reasonably Foreseeable Development Scenario (RFDS) is a required component of the GRSG LUPA/EIS and addresses potential fluid mineral exploration and development over the next 15 years, and its resulting potential impact on leasing and development of federal and nonfederal lands and/or mineral rights within occupied GRSG habitat in the Idaho/southwest Montana sub-region. This RFDS applies primarily to BLM-administered and National Forest System lands and split-estate underlain by federal minerals, although it takes into consideration nonfederal development in the cumulative impact analysis.

This RFDS generally follows the procedures outlined in BLM Instruction Memorandum 2004-089, Policy for Reasonably Foreseeable Development Scenarios for Oil and Gas. It projects a baseline scenario of activity assuming that all potentially productive areas are open under standard lease terms and conditions, except those areas designated as closed to leasing by law, regulation, or executive order. Under these conditions, this RFDS provides a maximum development scenario. The effect of the alternatives on potential development is also included in this scenario.

**O.2 Oil and Gas Resources**

The reasonably foreseeable disturbance acreage associated with oil and gas development from existing plans is presented in Table B-1.

The Four Rivers RFDS concluded it was reasonable to anticipate 6 to 10 exploration wells would be drilled on Federal lands north of the Payette River east of Payette. Due to the recent discovery and development of private lands near New Plymouth, and because several expressions of interest have been received, the nearby Federal lands (some of which are split estate) are considered to have medium potential for the discovery and development of a natural gas resource. Leasing is deferred pending completion of the Four Rivers RMP/EIS. The lands are not located in GRSG habitat. Due to existing road density in the area, it was concluded that approximately one mile of temporary road would be required for each exploratory well.

The Jarbidge RFDS concluded it was reasonable to anticipate up to 2 exploration wells would be drilled, only because lands have been nominated for leasing on lands in the vicinity of Brown's Bench (leasing is deferred pending the completion of the Jarbidge RMP/EIS). The potential for discovery of an oil or gas resource is considered low. Therefore no field development is anticipated. Due to existing road density in the area, it was concluded that approximately two miles of temporary road would be required for each exploratory well. These lands are located in PPH.

**Table O-1**  
**Reasonably Foreseeable Development Scenario for the Idaho and Southwest Montana Sub-region**

Plan Name/RFDS	# of Exploration Wells Predicted	Acres of Drill Pads <sup>1</sup>	Miles of Road <sup>2</sup>	Acres of Roads <sup>3</sup>	Acres Disturbed from Exploration	# of Discovery Wells	Exploration Wells Reclaimed (acres)	# Step-out Wells	Acres Disturbed from Step-out	Total Permanent Disturbance (acres)
Four Rivers	6-10	18-30	8	40	48-80	1	35-65	4	32	46
Jarbidge	2	6	4	20	26	0	26	0	0	0
Pocatello	5	15	20	100	115	1	92	4	32	55
Dillon	6	18	10.5	105	123	2	100	4	32	55
Caribou NF	4	12	24	120	132	0	120	0	0	0
TOTALS	23-27	69-81	66.5	332.5 acres	401.5-413.5	4	376-406	12	96	156

<sup>1</sup> Assumes 3 acres each

<sup>2</sup> Miles of road per exploration well varies by RFDS. Miles of road for step-out wells equals one mile per well (in accordance with Idaho well spacing rule)

<sup>3</sup> Assumes 5 acres per mile

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The Pocatello RFDS concluded it was reasonable to anticipate that 5 exploratory wells would be drilled, likely in the Bear Lake area. Lands have been nominated, but leasing is deferred pending the outcome of this EIS. The area has moderate potential for the discovery of a limited gas field (see oil and gas potential report for more information). Due to existing road density in the area, it was concluded that approximately four miles of temporary road would be required for each exploratory well. These lands are located in PPH.

The Dillon RFDS concluded it was reasonable to anticipate that 6 exploratory wells would be drilled, and each well would require 3.5 miles of temporary road. Of these wells, two are anticipated to encounter commercial quantities of oil or gas. Dillon predicted that 2 additional step-out wells would be drilled for each discovery well. Given the location of lands with moderate potential in the Dillon RFDS, it is assumed that three of the 6 exploratory wells would be located in PPH, and that one well would encounter commercial quantities of oil or gas, resulting in one three-well field.

The Caribou NF RFDS concluded it was reasonable to anticipate that 4 exploratory wells would be drilled, and that each well would require 6 miles of temporary road. Mineral potential is low to moderate. It is anticipated that the wells would be dry and that no field development would occur. It is assumed the wells would not be located in GRSG habitat.

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**Table O-2**  
**RFDS by Alternative**

Alternative	# of Exploration Wells Predicted	Acres of Drill Pads (3 acres ea)	Total Miles of Road	Acres of Roads (5 ac. per mile)	Acres Disturbed from Exploration	Exploration Wells Reclaimed (acres)	# of Discovery Wells	# Step-out Wells	Acres Disturbed from Step-out	Total Permanent Disturbance (acres)	Geophysical Exploration Allowed?
Alternative A	25	75	66.5	332.5	401.5-413.5	376-406	4	12	96	156	Yes
Alternative B	13 <sup>1</sup>	39	34	170	209	209	2	6	48	73.5	No <sup>2</sup>
Alternative C	13 <sup>3</sup>	39	34	170	209	209	2	6	48	73.5	No
Alternative D	23 <sup>4</sup>	69	62.5	312.5	375.5-387.5	350-386	4	12	96	156	Yes, with TLs
Alternative E	19 <sup>5</sup>	57	45	275	332	203	4	10	80	128.5	Not addressed
Alternative F	13 <sup>6</sup>	39	34	170	209	209	2	6	48	73.5	No <sup>2</sup>
Proposed Plan	15 <sup>7</sup>	45	38	190	235	235	2	6	48	73.5	Yes, with TLs

<sup>1</sup> Alternative B is closed to leasing in PHMA. No leasing on Bear Lake Plateau (Pocatello) or Jarbidge. Assume half the number of wells in Dillon (assume half is in PHMA)

<sup>2</sup> Only allow geophysical exploration within PHMA to obtain exploratory information for areas outside of and adjacent to PHMA. Only allow geophysical operations by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood rearing and winter habitats during their season of use by GRSG.

<sup>3</sup> Alternative C is closed to leasing in PHMA. Since no wells are predicted in GHMA under Alternative B, numbers are the same as Alternative B.

<sup>4</sup> Alternative D no to low potential areas within PHMA or IHMA are closed to leasing. Therefore no leasing would be allowed in Jarbidge.

<sup>5</sup> Alternative E is open with NSO in PHMA and GHMA. This is the same as Alternative C in Idaho and same as Alternative A in MT (added 10 wells total for MT- 6 exploratory plus 4 step-outs).

<sup>6</sup> Alternative F is closed to leasing in PHMA (Same as Alternative B). No leasing on Bear Lake Plateau (Pocatello) or in Jarbidge, and assume half the number of wells in Dillon (assume half is in PHMA)

<sup>7</sup> Under the Proposed Plan, PHMA and IHMA are open to leasing, subject to NSO w/rare exceptions. Only those wells predicted in non-habitat would be drilled- include those in Four Rivers (8 wildcat + 4 step-out), half the wells in Dillon (3 wildcat + 2 step-out), and 4 wildcat wells in Caribou NF (no production predicted).

### O.3 Geothermal Resources

BLM currently has 19 existing geothermal leases, 11 of which are located in or near GRSG habitat. While most of the planning area has moderate potential for the discovery of a geothermal resource, it is predicted, for the purposes of this planning document, that the following 8 areas of public lands in Idaho are likely to experience exploration and possible development of the resource for the purposes of energy production:

- Raft River, in southern Cassia County: It is assumed that the operator of the existing 13 MW power plant would increase its output by drilling additional wells on adjacent public lands they now lease. It is also assumed that a different leaseholder would drill the 5 wells it has been approved to drill on public lands, as well as additional unspecified wells, to develop a second power plant at Raft River. It is likely the plant would be located on private land. FEIS update: Two leases have been terminated since publication of the DEIS. They were located in better GRSG habitat (north and west of existing leases) than the leases that remain. The five wells still have not been drilled, but lessee has submitted a new plan to drill a total of 18 wells on federal leases, as well as a utilization plan for a power plant to be located on private land. Assume a 25 mw power plant would be constructed (on private, with wells and pipelines on federal leases).
- Crane Creek, in Washington County: Lessee has drilled temperature gradient holes, but has not proposed development drilling to date. It is assumed, for planning purposes, that a power plant would be developed, possibly on-lease, requiring approximately 12 large bore production wells. FEIS update: no new activity has occurred and no new proposals have been submitted to BLM.
- Magic Reservoir, in Camas/Blaine Counties: Lessee has not done any exploration to date, however existing data indicates this has potential for power production. It is assumed that a small field would be discovered and a 10 MW power plant would be constructed. FEIS update: these two leases have been terminated. BLM has no plans to re-lease the area. The RFDS is therefore revised to no discovery or power plant construction.
- West of Weiser, in Washington County: Lessee has not performed any exploration to date. It is assumed that temperature gradient drilling would be conducted on lease. Due to the scattered land ownership pattern in this area, it is not assumed that the geothermal resource would be developed for energy production in the next 10 years. FEIS update: no activity has occurred and no proposals have been submitted to BLM. Castle Creek, in Owyhee County: Numerous water wells in the general area have encountered a higher geothermal gradient than normal, indicating a possible heat source at depth. Normal faulting provides a conduit for fluid flow. Leases offered but no bidders. It is not assumed that the resource would be developed for energy production in the next 10 years.

- Blackfoot/Grays Lake area, in Caribou/Bonneville Counties: higher than normal geothermal gradient indicated in an oil and gas well drilled in 1980's. No other information available. It is not assumed that the resource would be developed for energy production in the next 10 years.

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**Table O-3**  
**Reasonably Foreseeable Total Disturbance Acreage by Alternative for Geothermal Resources**

Alternative	MW Predicted	Acres Disturbed by TG Drilling (1 ac per well)	# of Prod/ Inj. Wells Predicted	Acres of Drill Pads (3 acres ea)	Total Miles of Road	Acres of Roads (5 ac. Per mile)	Powerplant Construction (1/2 ac per MW)	Pipeline Construction	Transmission Line Construction (5 ac. per mile)	Total Permanent Disturbance	Geophysical Allowed in GRSG Habitat?
Alternative A	40	22	28	85	19	96	20	48	16 miles = 80	380	yes
Alternative B	40	19	28	85	16	80	10	40	80	300	yes
Alternative C	40	19	3,528	85	16	80	10	40	80	300	no
Alternative D	40	19	28	85	16	80	10	40	80	300	yes
Alternative E	40	19	28	85	16	80	10	40	80	300	yes
Alternative F	40	19	28	85	16	80	10	40	80	300	yes

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# Appendix P

## Slickspot Peppergrass Conservation Agreement





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**CONSERVATION AGREEMENT****U.S. Bureau of Land Management – Idaho State Office****U.S. Fish and Wildlife Service –****Idaho Fish and Wildlife Office****September 2014****Idaho Bureau of Land Management Existing Land Use Plans and On-going  
Actions Affecting Slickspot Peppergrass****I. INTRODUCTION**

This Conservation Agreement updates the January 2013 agreement between the Idaho State Office Bureau of Land Management (BLM) and the Idaho Fish and Wildlife Office of the U.S. Fish and Wildlife Service (USFWS) to provide for the conservation of slickspot peppergrass related to existing Idaho BLM Land Use Plans (LUPs) and a subset of ongoing actions. The Conservation Agreement and associated conservation measures guide the BLM management actions and serve as a basis for consultation or conference on these LUPs between the BLM and the USFWS regarding slickspot peppergrass, a species proposed for listing under the Endangered Species Act (ESA) of 1973, as amended.

Land use plans provide guidance and direction for managing public lands administered by the BLM. They ensure that public land is managed in accordance with the intent of Congress as stated in the Federal Land Policy Management Act (FLPMA) (43 U.S.C. 1701 et seq.). Resource management planning is used by the BLM to allocate resources and select appropriate uses for public land. There are three LUPs that are addressed under the scope of this Conservation Agreement. The LUPs include the 1983 Kuna Management Framework Plan, the 1987 Jarbidge Resource Management Plan (RMP), and the 1988 Cascade RMP. At the time these LUPs were prepared, there was no requirement to consult with the USFWS on slickspot peppergrass. Currently LUP revisions are in progress for the Jarbidge Field Office and the Four Rivers Field Office that will update and replace these three LUPs. The BLM and the USFWS will consult on these revised LUPs when they are at the appropriate state of development and depending on the outcome of the proposed reinstatement of slickspot peppergrass as a threatened species under the ESA.

This Conservation Agreement also addresses on-going actions currently authorized by the BLM including livestock grazing, rights-of-way activities, and military training.

## **II. OBJECTIVE AND INTENT**

This Conservation Agreement is intended to promote the conservation of slickspot peppergrass, a species proposed for listing which has not yet undergone consultation or conference at the LUP level or for ongoing actions. The conservation measures describe desired recovery and conservation objectives with corresponding implementation actions and will be analyzed in the associated Biological Assessment (BA). These conservation measures replace or create guidance within the LUPs regarding programmatic management direction for slickspot peppergrass. It is the intent of the BLM and the USFWS that specific conservation measures will be fully implemented and that this Conservation Agreement will remain in effect and binding on both parties until such time as new LUPs or amendments are prepared with completed section 7 compliance as appropriate, and Records of Decision signed. At that time, programmatic management direction for slickspot peppergrass will be included in the new or revised LUP or amendment, and this Conservation Agreement, or portions thereof in the case of programmatic amendments, will no longer apply to the planning area. For example, this Conservation Agreement is not applicable to the Snake River Birds of Prey planning area as section 7 consultation has been completed on the 2008 Snake River Birds of Prey RMP, which contains management direction for slickspot peppergrass similar to what is found within Appendix A of the 2006 version of this Conservation Agreement. Additionally, the conservation measures associated with this agreement may be modified based on the current USFWS analysis of new information and assessment of threats being conducted as part of the listing determination process. Any additional information which becomes available prior to completion of the LUPs that may enhance conservation of the species, such as new information provided when the species is listed, critical habitat is designated, and/or a recovery plan completed; may trigger an update of conservation measures within this agreement.

While a high priority for the BLM, both the BLM and the USFWS recognize that funding constraints may affect the ability to implement specific conservation measures as planned. BLM will work to leverage stakeholder partnerships to allow for flexible cost recovery associated with conservation actions. Where funding is lacking, the BLM and the USFWS will cooperate to set priorities and adjust dates for accomplishment. In addition, minor modifications to conservation measures may be necessary as the conference process progresses. Any modification must be agreed to by the BLM and the USFWS, and shall not materially alter the meaning or intent of a conservation measure as stated at the time of signature of this agreement.

## **III. PARTIES TO THE CONSERVATION AGREEMENT**

U.S. Bureau of Land Management, Idaho; and  
U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office

## **IV. AUTHORITY FOR CONSERVATION AGREEMENTS**

The commitments and actions in this Conservation Agreement are within existing authorities of the signatory agencies. The primary authority for the USFWS and the BLM to enter into this Conservation Agreement derives from the ESA.

The primary purpose of the ESA is to provide a means whereby ecosystems upon which endangered and threatened species depend may be conserved. Section 7(a) directs Federal agencies to utilize their authorities (e.g., FLPMA) in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species. Further, under Section 7(b), each Federal agency is expected to, in consultation and with the assistance of the USFWS, ensure that any action authorized, funded or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species. Section 3 of the ESA includes the following definition for conservation as is intended under this Conservation Agreement:

The terms “conserve,” “conserving,” and “conservation” mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Additional authorities for the USFWS derive from the Fish and Wildlife Act of 1956, as amended; and the Fish and Wildlife Coordination Act, as amended.

In addition to the ESA, FLPMA (43 U.S.C. 1701 et. seq) provides the BLM with the authorities required for this Conservation Agreement:

The public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.

The BLM Special Status Species Management Manual 6840 provides specific policy guidance as it pertains to the ESA, FLPMA and this Conservation Agreement. For listed species, the policy states the following:

being conducted as part of the listing determination process. Responsibilities for implementing the actions are indicated, along with time frames for implementation. Most of the conservation measures will be implemented as standard operating actions conducted during day-to-day management activities. In addition, LUP conservation measure guidance and direction will be applied to ongoing actions. However, as site-specific information will be available for the ongoing actions, additional conservation measures may be considered.

## **Part 1: Programmatic Planning**

Programmatic planning conservation measures include those that are needed for consultation at all planning levels including future LUPs, ongoing activities and proposed projects. In addition to the existing LUP conference activities, the BLM will complete all necessary section 7 compliance for new or revised LUPs that may affect this species and its habitat.

## **Part 2: Projects/Activity Plans – Planning and Implementation**

### **A. Ongoing Actions**

This category includes all activities currently ongoing and permitted on BLM land. These include actions that have gone through the agency planning process and have a documented agency decision (decision memorandum, decision notice, or record of decision). The BLM will complete section 7 compliance for ongoing activities that have the potential to directly affect an element occurrence and associated occupied slickspot peppergrass habitat concurrent with the conference effort for existing LUPs. The BLM will also adaptively manage all ongoing activities as described in the associated Biological Assessment, and adjust the action as appropriate to ensure management objectives for slickspot peppergrass are met.

### **B. Proposed Actions**

This category includes all new proposed projects or activities as well as all renewal actions. Project-level inventories will be completed as appropriate during project planning if inventory information is not available or adequate to determine if impacts to the species or habitat may occur. If direct or indirect negative impacts to the species or its habitats are anticipated as a result of new BLM actions, the activity will be modified to avoid or minimize anticipated negative impacts. The BLM will complete all necessary section 7 compliance for new activities that may affect this species and its habitat.

### **Part 3: Monitoring**

Conservation measures for slickspot peppergrass include a provision to implement adaptive management as needed to achieve conservation objectives. At the project level, this will be accomplished by conducting site-specific implementation and effectiveness monitoring to track progress toward achieving the conservation measures. The BLM and the USFWS Level 1 Teams will meet annually to review the implementation and effectiveness monitoring results for projects of concern, determine if current management actions are on a trajectory toward meeting management goals within the established time frames, and modify management actions as needed if progress toward goals is inadequate. Implementation of the programmatic and on-going actions conservation measures will be monitored through the reporting and monitoring requirements of this Conservation Agreement (Section VII).

### **VII. CONSERVATION AGREEMENT MONITORING AND REPORTING**

The agencies agree to a joint, annual review in October of each year to assess progress in implementing this Conservation Agreement. In addition, monitoring specific to forage kochia use will be assessed by BLM and FWS every 5 years to inform future use of this species as a tool and determine if changes to conservation measures (e.g. buffer widths) regarding use of this species are appropriate. Any recommendations will be presented to the Idaho BLM State Director and the USFWS Field Office Supervisor by November of each year. This review could lead to the modification and exceptions discussed in Section VIII below. These modifications or exceptions will be formalized within the scope of this Conservation Agreement.

### **VIII. AMENDMENTS, EXCEPTIONS, AND DURATION OF AGREEMENT**

Exceptions or amendments to this agreement may be jointly agreed to by the signatories on a case-by-case basis, where such changes would better provide for protection and conservation of species, where conflicts must be resolved between species, where priorities need to be adjusted due to funding constraints, or, when new, relevant scientific information becomes available. Such exceptions or amendments shall be agreed to by modification. All modifications within the scope of this agreement shall be made by issuance of a modification executed by all parties prior to any changes being performed.

This agreement shall be considered fully executed when all signatories have signed. The agreement shall remain in effect and binding on both parties until such time as new land use plans or amendments are completed which contain programmatic management direction for slickspot peppergrass, when section 7 compliance under the Endangered Species Act of 1973, as amended, is completed, and when Records of Decision are signed.

**IX. QUALIFICATIONS AND CONTACTS**

This agreement in no way restricts any of the signatories from participating in similar activities with other public or private agencies, organizations, and individuals. This agreement is neither a fiscal nor a funds obligations document. Any endeavor involving reimbursement or contribution of funds between the parties to this agreement will be handled in accordance with applicable laws, regulations, and procedures including those for government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This agreement does not provide such authority. Specifically, this agreement does not establish authority for non-competitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

The principal contacts for this agreement are:

Kurt Wiedenmann, Branch Chief  
Resources and Science  
Bureau of Land Management  
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<b>LUP Programs Evaluated</b>	<b>Conservation Measures</b>	<b>BLM Implementation Actions</b>
<p>Special Status Animal and Plant Management Note: Common to All Programs</p>	<p>The conservation measures contained throughout this table implement important elements included in the Candidate Conservation Agreement (CCA) for slickspot peppergrass. The conservation measures reflect BLM's commitment to support species conservation.</p> <p>1) In cooperation with Idaho Department of Fish and Game (IDFG) Idaho Natural Heritage Program (INHP), U.S. Fish and Wildlife Service (USFWS), Idaho Army National Guard (IDARNG), the U.S. Air Force (USAF), and others:</p> <p>a) Develop and use survey protocols consistent with the USFWS Rare Plant Survey Guidelines to conduct Stage 1, 2, and 3 surveys (see Figure 2 at the end of this table for the general survey process).</p> <p>b) Cooperate to refine slickspot peppergrass habitat and potential habitat maps (Stage 1 survey, Figure 2), and to identify and map slickspot peppergrass occurrences (Stage 2 survey, Figure 2).</p>	<p>The implementation actions reflect BLM's commitment to support species conservation and meet ESA objectives. Actions apply to BLM lands and activities only. Habitat terms used throughout this document are defined in <b>Appendix B: Definitions</b>.</p> <p>1) Following actions to be completed in cooperation with others:</p> <p>a) Apply current survey methods, and assure that inventories are done at the appropriate time of the year by qualified botanists, or by persons who are under the guidance of botanists.</p> <p>b) Surveys, mapping, and data management (refer to Figure 2 , <i>Inventory Flowchart for Slickspot Peppergrass</i>, at the end of this table):</p> <p>i) Cooperate with IDFG, INHP, and USFWS to record, refine, and map all habitat features including potential habitat, slickspot peppergrass habitat, non-habitat, occupied habitat, and element occurrences (EOs), for BLM lands (see Appendix B, <i>Definitions</i>). Use current GIS standards for mapping and database management. In cooperation with INHP, maintain a spatial database of species population and habitat information for BLM lands.</p> <p>ii) BLM will continue to conduct Stage 1 and 2 surveys, report survey information to the INHP, and incorporate the information into the adaptive management strategy.</p>



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	<p>c) Cooperate in regular monitoring of slickspot peppergrass population trends and land health conditions on BLM lands, and follow current monitoring protocols. Land health conditions include forb diversity to support pollinators and habitat for slickspot peppergrass.</p>	<p>iii) BLM's intent will be to continue to conduct Stage 1 and Stage 2 surveys concurrently with the goal of completing these surveys within 10 years. BLM will work collaboratively with USFWS to prioritize new survey areas based on areas that have a high likelihood of species occurrence, or that are needed for BLM project purposes. The amount of habitat to be surveyed each year will be based on available annual funding and staffing. As of 2013, approximately 10,000 acres have had three years of surveys completed and are now classified as unoccupied slickspot peppergrass habitat (see Figure 2).</p> <p>iv) Prioritize Stage 2 surveys to address slickspot peppergrass habitat with a high likelihood of species occurrence. Surveys should be scheduled to complement other program needs. Coordinate surveys annually with USFWS.</p> <p>c) Follow the Habitat Integrity and Population (HIP) monitoring protocol or other accepted methodology. BLM will cooperate with others to conduct annual monitoring within all EOs on BLM lands to assess the effectiveness of the conservation measures as part of the adaptive management strategy.</p> <p>i) Establish permanent ecological reference areas (ERAs) in selected EOs to evaluate land health conditions associated with slickspot peppergrass.</p> <p>ii) Use data from the ERAs to assist in completing land health assessments. This information will be used to evaluate permitted management actions and to design restoration projects for slickspot peppergrass.</p>

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	<p><u>d)</u> Participate in research essential to conservation of the species</p> <p><u>e)</u> Continue to support seed banks in a long-term seed storage facility.</p> <p><u>f)</u> Support the establishment and maintenance of new populations in habitat categories for slickspot peppergrass. The goal of these activities is to maintain or enhance viable populations.</p> <p><b>2)</b> Ensure that ongoing Federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass.</p>	<p><u>d)</u> BLM will participate in research as funding allows. Areas to focus on include, but are not limited to, the following:</p> <p><i>i)</i> Elimination and control of invasive species.</p> <p><i>ii)</i> Effects of ground disturbance (including fire) and seed predation on the species.</p> <p><i>iii)</i> Determination of specific limiting factors in terms of habitat needs and characteristics.</p> <p><i>iv)</i> Population viability analyses.</p> <p><u>e)</u> As needed, provide funding to a suitable repository to support a seed bank.</p> <p><u>f)</u> Reintroduce slickspot peppergrass at selected experimental reintroduction or historic sites as funding allows.</p> <p><b>2)</b> Ongoing BLM authorized activities:</p> <p><u>a)</u> Based on the results of annual Stage 1 and 2 surveys, review ongoing activities in habitat categories for slickspot peppergrass. The Level 1 Team will conduct these reviews in a manner consistent with streamlining procedures where local section 7 compliance activities with USFWS (if necessary) have not yet been completed.</p> <p><u>b)</u> If reviews indicate that direct or indirect negative impacts to the species or its habitat are occurring as a result of ongoing discretionary BLM actions, the activity will be modified to avoid or minimize anticipated negative impacts and, where feasible, promote species</p>

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	<p>3) Ensure that new Federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass.</p>	<p>conservation.</p> <p>c) Where needed, complete Section 7 compliance for ongoing activities that may affect this species and its habitat. Following the annual review of Stage 1 and 2 surveys outlined in (2)(a) above, initiate section 7 compliance activities for ongoing actions, as appropriate.</p> <p>d) Where habitat categories for slickspot peppergrass exists, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project level decisions.</p> <p>3) New proposed BLM authorized activities:</p> <p>a) Consistent with streamlining procedures, BLM will require project-level inventory data for any project in slickspot peppergrass habitat and in potential habitat during project planning if inventory information is not available or adequate. BLM will use the protocols described in (1)(a).</p> <p>b) If direct or indirect negative impacts to the species or its habitat are anticipated as a result of new BLM actions, the activity will be modified to avoid or minimize negative impacts and, where feasible, promote species conservation.</p> <p>c) Where needed, complete section 7 compliance for new activities that may affect this species and its habitat.</p> <p>d) Where habitat categories for slickspot peppergrass exists, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project level decisions.</p>

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	<p>4) Implement adaptive management as needed to achieve conservation objectives.</p> <p>5) Support programs to conserve and enhance slickspot peppergrass on non-Federal lands.</p> <p>6) Include language in all use authorizations to require rehabilitation of habitat categories for slickspot peppergrass and in the case of trespass or permit violations, if damage occurs.</p>	<p>4) Conduct site-specific implementation and effectiveness monitoring of management actions. Adjust management as needed to ensure that management objectives are met. See additional details within other programs.</p> <p>5) Take advantage of opportunities to support conservation of slickspot peppergrass through easements, cooperative management efforts, and other programs.</p> <p>6) As a part of use authorizations / violations (to include but not limited to rights-of-way, grazing and off highway vehicle (OHV) trespass), require rehabilitation to native vegetation in habitat categories for slickspot peppergrass if trespass or permit violation occurs and the habitat is damaged. If ecological site conditions preclude the use of native species, use non-invasive, non-native plant species for rehabilitation in trespass or permit violation situations.</p>
Air Resources	None	None
Soil and Water Resources: Riparian/Wetland Areas (includes weed management)	None	None
Upland Vegetation Management: Rangelands (includes weed management)	<p>1) Activities within the <b>Upland Vegetation Management: Rangelands (includes weed management)</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation. As a part of promoting conservation, the goals are to promote habitat conservation, to avoid negative impacts, or to minimize impacts if avoidance is not possible.</p> <p>2) Although non-chemical methods will be the preferred approach in occupied habitat,</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Site-specific stipulations will be developed locally using these criteria:</p>

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	<p>when appropriate, projects involving the application of pesticides (including herbicides, fungicides, and other related chemicals) in habitat categories for slickspot peppergrass that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure.</p> <p>3) Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of noxious weeds in upland areas through cooperative weed management programs. One of BLM's priorities within the cooperative weed management program is the protection of special status plants on BLM lands.</p>	<p>a) Evaluate the benefits and risks of vegetation treatment including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, bio-controls, hand pulling).</p> <p>b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals.</p> <p>c) Explore opportunities to eradicate competing non-native invasive plants in habitat categories for slickspot peppergrass where slickspots are being invaded by such plants.</p> <p>d) Implement appropriate revegetation and weed control measures to reduce the risks of non-native invasive plant infestations following ground/soil disturbing actions in habitat categories for slickspot peppergrass.</p> <p>e) BLM will provide USDA APHIS with the location of habitat categories of slickspot peppergrass. Mormon cricket, grasshopper, or other insect control in habitat categories for slickspot peppergrass will only include those methods that minimize impacts to the plant's pollinators.</p> <p>3) Take advantage of coordination opportunities as they arise.</p>

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	<p>4) BLM will promote diversity, richness, and health of native plant communities to support pollinators and habitat for slickspot peppergrass.</p>	<p>4) BLM will focus slickspot peppergrass habitat conservation and restoration efforts in habitat categories for slickspot peppergrass to encourage connectivity among populations through the following measures:</p> <p>a) Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project level decisions.</p> <p>b) Vegetation treatment projects undertaken in habitat categories for slickspot peppergrass will be compatible with species habitat restoration objectives, as described in item (d) below.</p> <p>c) BLM will select and implement specific projects to restore habitat categories for slickspot peppergrass in degraded areas as funding allows, such as planting shrubs and forbs and controlling weeds, within and adjacent to occupied habitat. Apply methods described in item (d) below.</p> <p>d) When conducting vegetation treatment projects in habitat categories for slickspot peppergrass, BLM will use seeding techniques that minimize soil disturbance such as minimum-till drills and rangeland drills equipped with depth bands, use native plant materials and seed during restoration activities, and select native forbs that benefit slickspot peppergrass insect pollinators.</p>
<p>Forest and Woodland Management (includes weed management)</p>	<p>None</p>	<p>None</p>
<p>Wildlife and Wildlife Habitat</p>	<p>1) Activities within the <b>Wildlife and Wildlife Habitat Management</b> program will</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and</b></p>

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Management	<p>implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Manage facilities installed for wildlife to promote maintenance of habitat categories for slickspot peppergrass.</p> <p>3) Restore wildlife habitat while promoting slickspot peppergrass conservation.</p>	<p><b>Plant Management</b> program section at the beginning of this table.</p> <p>2) For review of ongoing actions, see <b>Special Status Animal and Plant Management</b> program section item (2). For new actions, see <b>Special Status Animal and Plant Management</b> program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new wildlife facilities in occupied habitat.</p> <p>3) Any restoration efforts for wildlife within habitat categories for slickspot peppergrass will be compatible with the species' habitat requirements.</p>
Fish and Aquatic Habitat Management	None	None
Livestock Grazing Management: Permits and Leases	<p>1) Activities within the <b>Livestock Grazing Management: Permits And Leases</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Manage livestock grazing and trailing to conserve suitable habitat conditions for slickspot peppergrass while implementing rangeland health standards and guidelines (S&amp;Gs). Apply the <i>Implementation of Annual Grazing Adaptive Management</i> (Figure III.C-2), located at the end of this conservation measures table, to adjust livestock use as appropriate.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table</p> <p>2) Permit or lease renewal actions and annual authorizations:</p> <p>a) For review of ongoing actions, see <b>Special Status Animal and Plant Management</b> program section item (2).</p> <p>b) Schedule surveys in habitat categories for slickspot peppergrass as needed for S&amp;G assessments associated with permit and lease renewals. Use survey procedures and flowchart (<b>Figure 2, Inventory Flowchart for Slickspot Peppergrass</b>) referenced in <b>Special Status Animal and Plant Management</b> program section 1(b).</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
		<p>c) For new actions, see <b>Special Status Animal and Plant Management</b> program section item (3).</p> <p>d) As part of adaptive management to avoid or minimize negative impacts, modify livestock grazing activities as outlined in <b>Figure 1. Implementation of Annual Grazing Adaptive Management</b>, located at the end of this conservation measures table. In addition, the following measures will be implemented, as appropriate:</p> <p>i) As part of range readiness assessments, delay livestock turnout when saturated soils are a negative factor in slickspot peppergrass species conservation.</p> <p>ii) Minimize gathering livestock in element occurrences (EOs).</p> <p>iii) Avoid impacts to EOs from herd movement through rested and deferred pastures.</p> <p>iv) Trailing permits will not be authorized through EOs unless conducted on existing roads in accordance with FWS 2012 Letter of Concurrence. In the Jarbidge FO of the Twin Falls District, no livestock trailing will be authorized through EOs, proposed critical habitat, or occupied habitat. In the Four Rivers FO of the Boise District, livestock trailing permits will not be authorized through EOs, proposed critical habitat, or occupied habitat unless conducted on existing roads or historic routes described within the Four Rivers FO 2012 livestock trailing consultation with FWS (FWS tracking number 01EIFW00-2012-I-0206).</p> <p>v) Sheep grazing permits will be modified to restrict bedding, trailing, or watering herds within 1/2 mile of EOs.</p>



LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
	<p>3) As part of adaptive management, BLM will conduct scheduled compliance inspections in pastures with occupied habitat as part of BLM range use supervision to minimize impacts.</p>	<p>vi) Supplements will be placed at least 1/2 mile from EOs. Supplements will be placed so that livestock are drawn away from the EO and avoid trailing through the EO en route to the supplement or a water source. Management requirements will be adjusted to maintain an appropriate distance between supplements and existing EOs to avoid impacts.</p> <p>vii) No new domestic horse AUMs will be authorized in pastures containing EOs to avoid trampling impacts.</p> <p>3) BLM, in coordination with the USFWS, will create a schedule to prioritize compliance inspections associated with livestock grazing permits in occupied habitat areas. These compliance inspections are a complement to the HIP monitoring listed under Special Status Animal and Plant Management and where practical the efforts may be combined. BLM staff will conduct inspections as determined by the schedule.</p> <p>a) BLM range staff will conduct pre-season range readiness checks for soil moisture conditions in allotments with occupied habitat.</p> <p>b) BLM will conduct post-use monitoring for trampling in slickspots within EOs (could be done in conjunction with utilization compliance checks).</p> <p>c) Monitoring results will be documented in a standard format (to be developed by BLM) in the grazing allotment files. Copies will be provided to the USFWS as completed.</p>

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	<p>4) Provide adequate rest from livestock use for areas treated after major disturbances in habitat categories for slickspot peppergrass. Major disturbances may include fire, fire rehabilitation, or other soil-disturbing occurrences.</p> <p>5) BLM will work cooperatively with the livestock permittees to promote slickspot peppergrass conservation.</p>	<p>d) Apply Grazing Adaptive Management Implementation Flowchart as outlined in Figure 1.</p> <p>4) Protect treated areas by using temporary livestock closures or other measures. The length of rest will be determined by achieving certain goals associated with plant establishment outlined in the restoration, fire rehabilitation, or other plan.</p> <p>5) BLM will train permittees on slickspot peppergrass plant and habitat recognition. BLM will also work with permittees to use the INHP rare plant observation form to report survey information in a standard format.</p>
<p>Livestock Grazing Management: Livestock Management Facilities</p>	<p>1) Activities within the <b>Livestock Grazing Management: Livestock Management Facilities</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Manage livestock facilities to promote slickspot peppergrass conservation while implementing rangeland health S&amp;Gs.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) For review of ongoing actions, see <b>Special Status Animal and Plant Management</b> program section item (2). For new actions, see <b>Special Status Animal and Plant Management</b> program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities in occupied habitat areas.</p> <p>a) Within pastures, place water facilities to support slickspot peppergrass conservation:</p> <p>i) Existing water troughs (includes troughs that are tied into pipelines, as well as both permanent and movable troughs to which water is delivered throughout the grazing season) will be</p>

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		<p>moved at least 1/2 mile from EOs, when feasible. Where troughs cannot be moved (for example, because of topographical constraints, additional disturbance, or impacts to sensitive species), management will be adjusted to mitigate the impacts during the periods of critical concern for slickspot peppergrass (such as when soils are saturated and subject to trampling impacts). Management adjustments could include shutting the water off seasonally, changing pasture boundary fences, or other appropriate measures.</p> <p><i>ii</i>) New water troughs (not including existing water troughs moved in (2)(a)(i), above) will be placed at least 1 mile from EOs. A deviation from this standard may be developed on a case-by-case basis through collaboration with the USFWS. New water troughs will be placed so that cattle are drawn away from the EO and avoid trailing through an EO en route to a water source.</p> <p><i>iii</i>) Temporary water troughs (short-term, emergency, or single-season use) will be located at least 1 mile from EOs. A deviation to this standard may be developed on a case-by-case basis through collaboration with the USFWS. New water troughs will be placed so that cattle are drawn away from the EO and avoid trailing through an EO en route to a water source.</p> <p><i>b</i>) Placement of new livestock infrastructure will be compatible with slickspot peppergrass habitat conservation. ESA consultation is required if new fencing is proposed in EO's.</p>
Wild Horse Management	1) Activities within the <b>Wild Horse Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant</b>	1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.

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	<p><b>Management</b> program section to promote conservation.</p> <p>2) If the range of wild horses and slickspot peppergrass occupied habitat overlaps now or in the future, protect these areas from wild horses by including applicable conservation measures in herd management plans.</p>	<p>2) Manage wild horse herd size to minimize conflicts with slickspot peppergrass. Limit trampling in occupied habitat by implementing appropriate range management practices, such as fencing and water trough placement.</p>
<p>Recreation Management</p>	<p>1) Activities within the <b>Recreation Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Developed facilities (paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities to promote conservation of species habitat.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Management of existing and new facilities:</p> <p>a) For review of <b>existing facilities</b>, see <b>Special Status Animal and Plant Management</b> program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities.</p> <p>b) For <b>new facilities</b>, or for expansion of uses at existing facilities, see <b>Special Status Animal and Plant Management</b> program section item (3). In addition, avoid development of new recreation facilities or expansion of existing facilities in habitat categories of slickspot peppergrass if negative impacts are anticipated.</p> <p>c) BLM will educate recreationists on special status species and invasive weeds, focusing on occupied and selected habitat areas. BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.</p>

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	<p><b>3)</b> Dispersed use areas (informal areas, including camping areas and tie-up areas for pack animals): Manage dispersed use sites to promote conservation of species habitat. This includes limiting disturbances to the species resulting from human uses.</p> <p><b>4)</b> Commercial and noncommercial recreation permits, including hunting guides and outfitter camps: issue commercial and noncommercial recreation permits to promote conservation of habitat categories for slickspot peppergrass. This includes management of physical facilities (such as camps), as well as disturbances to habitat categories for slickspot peppergrass resulting from human uses.</p>	<p><b>3)</b> For review of ongoing activities, see <b>Special Status Animal and Plant Management</b> program section item (2). In addition, minimize human activity in and adjacent to occupied habitat if negative impacts are occurring. Close areas, either seasonally or year-round, as needed to protect the species and its habitat.</p> <p><b>4)</b> Issuance and review of existing and new permits:</p> <p>a) For review of existing permits, see <b>Special Status Animal and Plant Management</b> program section item (2). If needed, modify existing permits that negatively impact habitat for this species.</p> <p>b) For new permits, see <b>Special Status Animal and Plant Management</b> program section item (3). Avoid issuing recreation permits in habitat categories of slickspot peppergrass if negative impacts are expected. In particular, avoid permitting new recreation activities in and adjacent to occupied habitat. If a recreation permit is to be issued, apply stipulations to the permit to support or to not preclude species conservation and educate permit holders about species' biology and needs.</p> <p>c) BLM will not authorize organized recreation activities in habitat categories for slickspot peppergrass if negative impacts are anticipated (for example, OHV races, equestrian events, and other events).</p>
<p>Recreation Management: Travel Management</p>	<p><b>1)</b> Activities within the <b>Recreation Management: Travel Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p>	<p><b>1)</b> Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p>

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	<p>2) Manage roads, OHV routes and areas, as well as non-motorized trails, to promote species habitat conservation. This includes management of roads and trails, as well as ground disturbance resulting from human uses.</p> <p>3) Perform compliance checks on OHV closures to protect occupied habitat, identify problems as soon as possible, and take immediate corrective measures.</p>	<p>2) Review of existing and new roads, OHV routes and areas, and non-motorized trails:</p> <p>a) For existing roads, designated OHV routes and areas, and designated non-motorized trails, see <b>Special Status Animal and Plant Management</b> program section item (2). Modify roads and routes in and adjacent to habitat categories for slickspot peppergrass if negative impacts are occurring. Implement restrictions to reduce ground disturbance. Seek opportunities to close and revegetate roads, OHV routes, or non-motorized trails and use areas in and adjacent to habitat if negative impacts are occurring.</p> <p>b) For new roads, OHV routes and areas, and non-motorized trails, see <b>Special Status Animal and Plant Management</b> program section item (3). Avoid creating new roads, trails, routes, and areas if negative impacts are expected in and adjacent to habitat categories of slickspot peppergrass</p> <p>c) Evaluate off-road vehicle use in occupied habitat, and where needed, limit access or close areas to motorized and mechanical vehicles to promote species conservation.</p> <p>3) See <b>Special Status Animal and Plant Management</b> program section item (2).</p>
Visual Resource Management	None	None
Special Designation Area Management	1) Activities within the <b>Special Designation Area Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.	1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.

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	<p>2) Explore the potential for new designations that would enhance species conservation.</p>	<p>2) Evaluate establishing ACECs for several stronghold populations of slickspot peppergrass during land use plan amendments or revisions.</p>
<p>Fire Management: Fire Suppression</p>	<p>1) Activities within the <b>Fire Management: Fire Suppression</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation. Human life and firefighter safety and property take priority over species protection.</p> <p>2) Fire suppression efforts will be conducted, as possible, to protect habitat categories for slickspot peppergrass. Place a high priority on protecting habitat categories for slickspot peppergrass.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Fire management activities:</p> <p>a) Fire Management Plans will include Standard Operating Procedures (SOP's) that address conservation of slickspot peppergrass.</p> <p>i) BLM will provide adequate fire suppression coverage at all stations to meet management objectives with the intent to suppress 90% of fires to the acreages specified in the fire management plans for slickspot peppergrass. As funding allows, BLM will maintain existing remote fire guard stations easily accessible to occupied habitat (for example, Juniper Butte fire guard station) and explore opportunities to establish additional stations to provide better initial attack and reduced response times for wildfires in slickspot peppergrass habitat.</p> <p>ii) Apply minimum impact suppression tactics (MIST) in habitat categories for slickspot peppergrass, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts.</p> <p>iii) Although MIST are preferred, aggressive fire suppression tactics (e.g.,</p>

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	<p>3) As needed, coordinate with appropriate agency personnel regarding fire suppression activities in or adjacent to habitat categories for slickspot peppergrass</p>	<p>blade lines, back fires, etc. in habitat) may be applied if EO's are threatened.</p> <p>b) Do not locate fire base camps, staging areas, and fueling areas within occupied habitat.</p> <p>3) Ongoing interagency coordination.</p> <p>a) BLM and cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators, and Fire Operations Supervisors.</p> <p>b) BLM and cooperators will distribute maps and inform fire crews on locations of the EOs to maximize fire protection and to avoid or minimize impacts from fire suppression activities.</p>
<p>Fire Management: Emergency Stabilization and Rehabilitation</p>	<p>1) Activities within the <b>Fire Management: Emergency Stabilization and Rehabilitation</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Implement Emergency Stabilization and Rehabilitation (ES&amp;R) activities to consider slickspot peppergrass in and adjacent to slickspot peppergrass habitat rehabilitation.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) The following measures will be applied:</p> <p>a) Wildfires within habitat categories for slickspot peppergrass will be evaluated for ES&amp;R treatments, regardless of size with an emphasis on retaining native plant resiliency including early seral native grasses, forbs, and biological soil crusts.</p> <p>b) As needed, protect disturbed and recovering areas using temporary closures or other measures. BLM will continue to rest areas from land use</p>



LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
		<p>activities to meet ES&amp;R objectives as defined through ES&amp;R plans.</p> <p>c) BLM ES&amp;R efforts for slickspot peppergrass, subject to funding availability, should enhance shrub establishment and forb diversity. BLM will implement the following measures during fire ES&amp;R efforts:</p> <p>i) BLM will use seeding techniques that minimize soil disturbance; such techniques may include minimum-till drills and rangeland drills equipped with depth bands when ES&amp;R projects have the potential to impact occupied or proposed critical habitat categories for slickspot peppergrass. Based on ES&amp;R monitoring data, if these methods prove to be unsuccessful, other methods will be evaluated to maximize success.</p> <p>ii) BLM will use native plant materials and seed during ES&amp;R activities. BLM will include native forbs in seed mixtures that will benefit slickspot peppergrass insect pollinators commensurate with ES&amp;R program policy.</p> <p>iii) If native plant materials and seed are not available, or where site capability precludes the use of natives due to past disturbances, non-invasive, non-native species may be used for stabilization activities in habitat categories for slickspot peppergrass.</p> <p>iv) In slickspot peppergrass habitat and potential habitat, non-native species are acceptable for stabilization activities where site disturbances exceed the capability for extant native vegetation to regenerate. Potentially invasive non-native species such as intermediate wheatgrass and forage kochia will not be used within 1.5 miles of EOs. Within</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
	<p>3) Fire rehabilitation projects involving the application of pesticides in slickspot peppergrass habitat will be analyzed and implemented in accordance with the approach described in the <b>Upland Vegetation Management: Rangelands (includes weed management)</b> program section.</p>	<p>slickspot peppergrass habitat and potential habitat, potentially invasive non-native species such as intermediate wheatgrass and forage kochia may be used for stabilization activities that are specifically designed as greenstrip fuel break projects, if an environmental analysis determines that the benefits of their use outweigh the risk of invasion to slickspot peppergrass and its habitat relative to other alternative fuel break methods. For these projects, environmental analyses will use the best available scientific and biological information, current BLM and USFWS guidance, and incorporate a comprehensive monitoring strategy. These site specific treatments will also be reviewed via the Level 1 streamlining process.</p> <p>When used in ESR fuel break projects, control measures for intermediate wheatgrass and forage kochia will be incorporated into project design features. Control measures will be informed by a comprehensive monitoring strategy that triggers subsequent adaptive management actions.</p> <p>v) Apply conservation measure (3), Implementation Action (ii) in Fire Management: Non-Fire Fuels Management. Program to ESR actions</p> <p>3) See <b>Upland Vegetation Management: Rangelands (includes weed management)</b> program section.</p>
<p>Fire Management: Wildland Fire Use</p>	<p>1) Wildland fire use projects will not be allowed in habitat categories for slickspot peppergrass.</p>	<p>1) When developing wildland fire use plans, do not allow wildland fire use in habitat categories for slickspot</p>

<b>LUP Programs Evaluated</b>	<b>Conservation Measures</b>	<b>BLM Implementation Actions</b>
		peppergrass.
Fire Management: Prescribed Fire	<p>1) Activities within the <b>Fire Management: Prescribed Fire</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Prescribed fire projects will be designed to conserve and enhance habitat categories for slickspot peppergrass.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Prescribed fire in habitat categories for slickspot peppergrass will only be used as a tool for assisting with species conservation (for example, a burn in preparation to decrease cheatgrass litter before herbicide application, or to clear fence lines of accumulated windblown weeds).</p>
Fire Management: Non-Fire Fuels Management	<p>1) Activities within the <b>Fire Management: Non-Fire Fuels Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Implement projects involving the application of pesticides in accordance with the approach described in the <b>Upland Vegetation Management: Rangelands (includes weed management)</b> program section.</p> <p>3) Fuels management projects conducted in habitat categories for slickspot peppergrass should have long-term benefits to slickspot peppergrass.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) See <b>Upland Vegetation management: Rangelands (includes weed management)</b> program section.</p> <p>3) Avoid fuels management projects in occupied and critical habitat, unless such projects would enhance species conservation or are necessary for hazardous fuels reduction near the urban interface. Implement protection measures to avoid or minimize negative impacts to the species. In critical and occupied habitat categories for slickspot peppergrass, design native seed mixes that emphasize locally adapted plant material that will promote species conservation. When appropriate, use native plant materials and seed during project activities, and select species that</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
		<p>benefit slickspot peppergrass insect pollinators.</p> <p>a) Because of potential negative impacts to habitat categories for slickspot peppergrass from linear fuel breaks, which can act as weed dispersal corridors, the following measures will be applied in habitat categories for slickspot peppergrass:</p> <p>i) BLM will monitor the effectiveness of existing fuel breaks (location, dry fuel load, and weed composition) in protecting habitat categories for slickspot peppergrass.</p> <p>ii) BLM may create and maintain fuel breaks where frequent fires can threaten habitat categories for slickspot peppergrass. New fuel breaks in habitat categories for slickspot peppergrass will be designed to conserve and/or enhance species habitat. Where appropriate and where objectives will be met, native vegetation should be emphasized in the creation of new fuel breaks. Other fuel break methods may include mowing or brown strips. If native vegetation or seed will not meet objectives, or site disturbance or site conditions preclude their use, fuel breaks may include non-native, non-invasive, species that will not invade slickspots.</p> <p>In slickspot peppergrass habitat all ESR implementation actions/methods in conservation measure (2) and all upland vegetation management implementation actions/methods in conservation measure (4) that are also applicable will be implemented for non-fire fuels management program projects.</p> <p>Potentially invasive non-native species such as intermediate wheatgrass and</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
		<p>forage kochia will not be used within 1.5 miles of EOs. When used in fuel break projects, control measures for potentially invasive non-native species such as intermediate wheatgrass and forage kochia will be incorporated into project design features. Control measures will be informed by a comprehensive monitoring strategy that triggers subsequent adaptive management actions. These site specific treatments will also be reviewed via the Level 1 streamlining process.</p> <p>All fuel breaks located in habitat categories for slickspot peppergrass will have a robust, project specific monitoring strategy that shall include implementation monitoring, effectiveness monitoring, and specific hard and soft triggers for implementation of vegetation control measures, fuel break maintenance, and fuel break modification actions specific to slickspot peppergrass conservation.</p> <p><i>iii)</i> Consider actions to repair or restore fuel breaks so they function as desired. Apply conservation measure (2) in the <b>Fire Management: Emergency Stabilization and Rehabilitation</b> program section and conservation measure (4) in the <b>Upland Vegetation Management</b> program.</p> <p><i>b)</i> In addition to the reduction in fuels associated with appropriately managed livestock grazing (see relevant conservation measures from <b>Livestock Grazing Management</b> section of this table), BLM may create fuel breaks using techniques such as mowing or targeted grazing to strategically reduce fuel loads where frequent fires can threaten habitat categories for slickspot peppergrass if the benefit of these actions can be demonstrated to outweigh the risks to slickspot peppergrass and its habitat.</p>

<b>LUP Programs Evaluated</b>	<b>Conservation Measures</b>	<b>BLM Implementation Actions</b>
<p>Fire Management: Community Assistance</p>	<p>1) Activities within the <b>Fire Management: Community Assistance</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Follow all measures included throughout the Fire Management program sections.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) See actions within Fire Management program sections. Incorporate into community assistance agreements.</p>
<p>Lands and Realty Management: Land Tenure Adjustment (land sale, exchanges, withdrawals, etc.)</p>	<p>1) Activities within the <b>Lands and Realty Management: Land Tenure Adjustment (land sale, exchanges, withdrawals, etc.)</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Where feasible and funding is available, acquire through land exchange or purchase private lands that contain habitat categories for slickspot peppergrass.</p> <p>3) Retain occupied slickspot peppergrass habitat in Federal ownership unless such a transfer would result in a net benefit to the species.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) As feasible depending on funding and other factors, BLM will opportunistically acquire habitat categories for slickspot peppergrass, particularly occupied habitat and critical habitat, in land exchanges and purchases.</p> <p>3) Review each land tenure decision in terms of species habitat. Avoid the loss of occupied habitat and critical habitat from Federal ownership. If property with occupied habitat or critical habitat is being considered for transfer out of Federal ownership, ensure that the action will result in a greater net benefit for this species. BLM will coordinate with USFWS as early as possible to discuss methods to assure that the proposed land tenure adjustment benefits the species.</p>
<p>Lands and Realty Management: Land Use Permits and Leases</p>	<p>1) Activities within the <b>Lands and Realty Management: Land Use Permits and Leases</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant</b></p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
	<p>Management program section to promote conservation.</p> <p>2) Issue new land use permits and leases and review existing permits and leases at renewal to conserve species habitat. This includes management of physical facilities, as well as ground disturbance resulting from human uses.</p>	<p>2) For new authorizations, as well as those being renewed, see <b>Special Status Animal and Plant Management</b> program section item (3). Avoid issuing new authorizations, or renewing existing authorizations, in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If an authorization is to be issued or re-issued in such areas, apply stipulations to the authorization that support species conservation and that avoid or minimize negative impacts. BLM will require control of noxious weed species on new, renewing, or amending land use permits. In addition, BLM will require control of invasive, non-native species on new, renewing, or amending land use permits within the ground disturbance footprint within (INHP) B- or C-ranked EOs and critical habitat.</p> <p>a) Conduct periodic project compliance inspections during implementation of projects involving soil disturbance. BLM may require a qualified botanist to monitor slickspots to avoid impacts during ground disturbing activities in habitat categories for slickspot peppergrass.</p> <p>b) BLM will require that new or renewing permit or lease holders establish at least 50% perennial cover after all ground disturbing activities, unless ecological site conditions preclude that level of cover. If a native species component existed prior to the ground disturbance, then the native species component of the perennial cover should be restored.</p>
<p>Lands and Realty Management: Rights-of-Way</p>	<p>1) Activities within the <b>Lands and Realty Management: Rights-of-Way</b> program will implement relevant conservation measures as</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at</p>

LUP Programs Evaluated	Conservation Measures	BLM Implementation Actions
	<p>described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Issue new rights-of-way and review existing rights-of-way at renewal to conserve species habitat. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.</p> <p>3) As appropriate, require a qualified botanist to monitor slickspots to avoid or minimize impacts during BLM authorized activities in habitat categories for slickspot peppergrass</p>	<p>the beginning of this table.</p> <p>2) For new rights-of-way and renewal of existing rights-of-way, see <b>Special Status Animal and Plant Management</b> program section item (3) Avoid issuing new rights-of-way, or renewing rights-of-way, in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. In habitat categories for slickspot peppergrass, only issue or re-issue rights-of-way with stipulations to avoid negative impacts to the habitat. BLM will require control of noxious weed species on new, renewing, or amending rights-of-way authorizations. In addition, BLM will require control of invasive, non-native species on new, renewing, or amending rights-of-way authorizations within the rights-of-way footprint, and an additional width on each side of the rights-of-way within (INHP) B- or C-ranked EOs and critical habitat.</p> <p>a) BLM will require that new or renewing permit or lease holders establish at least 50% perennial cover after all ground disturbing activities, unless ecological site conditions preclude that level of cover. If a native species component existed prior to the ground disturbance, then the native species component of the perennial cover should be restored.</p> <p>3) BLM may require a qualified botanist to monitor slickspots to avoid impacts during soil disturbing activities in habitat categories for slickspot peppergrass.</p>
Mineral	1) Activities within the <b>Mineral</b>	1) Apply relevant conservation measures



<b>LUP Programs Evaluated</b>	<b>Conservation Measures</b>	<b>BLM Implementation Actions</b>
<p>Management: Locatable Minerals</p>	<p><b>Management: Locatable Minerals</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Approve plans of operations or allow notice level operations so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.</p>	<p>from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Approval of plans of operations and notice-level operations:  a) For review of existing plans of operation and notice-level operations, see <b>Special Status Animal and Plant Management</b> program section item (2). To the extent allowed by law, modify plans of operation or notice-level operations that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts.</p> <p>b) For new plans of operation and notice-level operations, see <b>Special Status Animal and Plant Management</b> program section item (3). To the extent allowed by law, avoid approving plans of operation or notice-level operations that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to habitat categories for slickspot peppergrass, apply stipulations to support or to not preclude species conservation. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.</p>
<p>Mineral Management: Saleable and Leasable Minerals</p>	<p>1) Activities within the <b>Mineral Management: Saleable and Leasable Minerals</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p> <p>2) Approve development of saleable or</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p> <p>2) Approval of saleable and leasable</p>

<b>LUP Programs Evaluated</b>	<b>Conservation Measures</b>	<b>BLM Implementation Actions</b>
	<p>leasable minerals so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.</p>	<p>minerals:</p> <p>a) For review of existing mineral leases, see <b>Special Status Animal and Plant Management</b> program section item (2). Modify existing mineral leases if negative impacts are occurring.</p> <p>b) For new sales or leases, see <b>Special Status Animal and Plant Management</b> program section item (3). Avoid development of saleable or leasable minerals in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to habitat, apply stipulations to support or to not preclude species conservation.</p>
<p>Cultural Management</p>	<p>1) Activities within the <b>Cultural Management</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p>
<p>Paleontology</p>	<p>1) Activities within the <b>Paleontology</b> program will implement relevant conservation measures as described in the <b>Special Status Animal and Plant Management</b> program section to promote conservation.</p>	<p>1) Apply relevant conservation measures from the <b>Special Status Animal and Plant Management</b> program section at the beginning of this table.</p>

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# APPENDIX B

## Definitions

<b>Adaptive Management</b>	A type of natural resource management that implies making decisions as part of an ongoing process. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information.
<b>Adjacent</b>	The area outside of a mapped habitat area, but within a zone of influence to the habitat area for which a BLM activity may affect the species. Some activities, such as those that can affect watershed conditions and erosion, can have wide zones of influence for aquatic species. Other activities, such as those that do not affect the slickspot peppergrass habitat but can affect use of that habitat, can have a narrower zone of influence. Thus, this adjacent zone of influence will vary among species and land use activities. The species-specific and land use-specific application of this term will be determined at the local level.
<b>Avoid</b>	To the extent possible do not implement the action indicated. If the action needs to take place, then add stipulations or take additional steps to minimize impacts. Avoidance is the preferred management approach in the identified habitats for species conservation.
<b>Best Management Practices (BMPs)</b>	Generally accepted state-of-the-art techniques and procedures used in project-level operations to avoid or minimize impacts to species and their habitats.
<b>Conserve</b>	The terms "conserve," "conserving," and "conservation" mean to use all methods and procedures that are necessary for species recovery. For project management, the priority for conservation is to avoid impacts, then to minimize and mitigate if adverse impacts are unavoidable.
<b>Element occurrence (EO)</b>	An area of land in which a species like slickspot peppergrass is or was present (NatureServe 2002 as cited in Colket et al. 2006, page 1). EO features are designated by the Idaho Conservation Data Center as separate EOs if they are >1 km apart (Colket et al. 2006, page 2).

**Habitat**

The habitat definitions for slickspot peppergrass are divided into six classifications that meet certain site characteristics and resource conditions, including the presence of slickspots and/or slickspot peppergrass plants. Each classification may have different management strategies in the conservation measures.

- **Non-habitat:** Areas that do not contain slickspots, or slickspots do not have the proper soil characteristics to support slickspot peppergrass.
- **Surrounding habitat:** Landscape-scale matrices of vegetation communities that may influence adjacent slickspot peppergrass occupied habitat.
- **Potential habitat:** Areas within the known range of slickspot peppergrass that have certain general soil and elevation characteristics that indicate the potential for the area to support slickspot peppergrass, although the presence of slickspots or the plant is unknown. These areas meet the following criteria:
  - Natric and natric-like soils forming "slickspots," and associated soil series, or phases thereof, which support Loamy 7- to 10-inch and 10- to 13-inch Wyoming big sagebrush Ecological Sites (Major Land Resource Areas 11-Snake River Plains, and 25 Owyhee High Plateau) and have a aridic bordering on xeric soil moisture regime; and
  - 2,200 to 5,400 feet elevation.

The use of the term "potential habitat" acknowledges the potential for an area to support slickspot peppergrass based on general characteristics even though uncertainty remains because of the lack of site-specific habitat information.

- **Slickspot Peppergrass Habitat:** Potential habitat areas with Wyoming big sagebrush ecological sites that through Stage 1 surveys have documented slickspot microsites (natric and natric-like soil types) within 2,200 feet and 5,400 feet elevation in Southwest Idaho. Slickspot peppergrass habitat includes areas with slickspots of unknown occupancy and in some cases may be dominated by non-native vegetation such as annual grasses or crested wheatgrass. In addition, to maintain ecological continuity, if there is less than 0.5 miles between areas defined as slickspot peppergrass habitat, then the

entire area is considered slickspot peppergrass habitat. Surveyed potential habitat not meeting these criteria will no longer be considered habitat for slickspot peppergrass.

- **Occupied habitat:** The term "occupied habitat" refers to areas where slickspot peppergrass has been documented or identified as an element occurrence (EO) and includes the area generally within 0.5 mile of that occurrence that is important to maintain or improve habitat integrity and pollinator populations necessary for species conservation. For analysis purposes, a generalized area delineated by a 0.5 mile radius circle was drawn around each EO (this circle may include areas of non-habitat). This area identified as occupied habitat may or may not include additional slickspots or slickspot peppergrass plants beyond the EO. Further refinement of occupied habitat may be accomplished through field surveys considering existing resource conditions as well as specific habitat quality and integrity.
- **Unoccupied Habitat:** Slickspots that have the proper soil characteristics to support slickspot peppergrass, but Stage 2 surveys 3 out of 12 years did not indicate that a seedbank is present.

Livestock gathering

Collecting scattered livestock into a group for management purposes.

Livestock herding

Moving a herd of livestock within or between pastures of an allotment. Permits are not required and it is part of the grazing plan.

Livestock trailing

An activity involving moving a livestock herd across allotment(s) where the trailing party has no grazing permit.

Minimize

To reduce to the smallest possible amount, extent, size, or degree as is feasible from a technical or management standpoint.

Modify

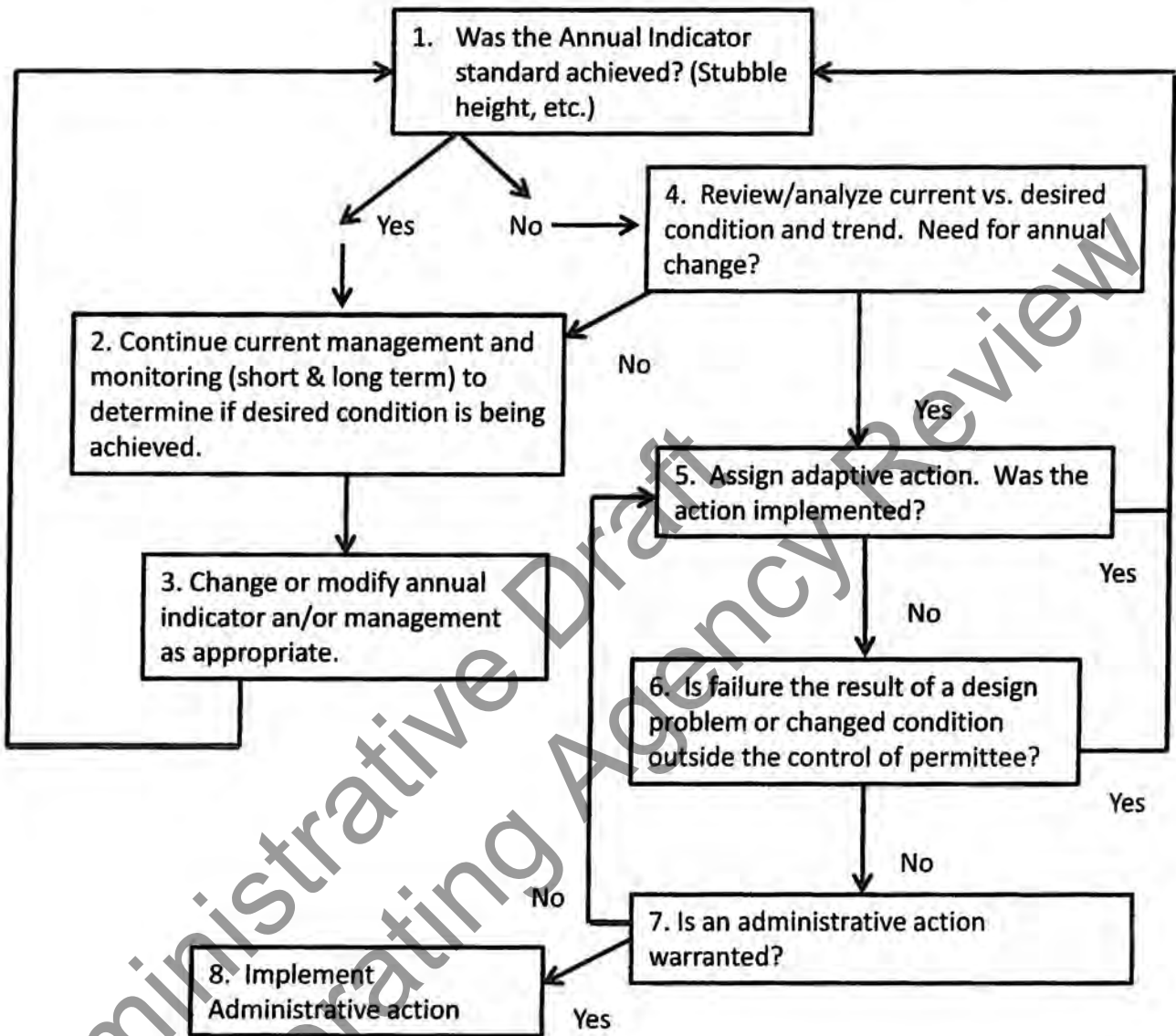
To "modify" a management activity could have a wide variety of site-specific actions, ranging from eliminating the activity, to changing seasonal use, or to minor operational changes. The goal of modifying an activity is to meet the intent of a specific conservation measure or its implementing action.

Penetrating trampling

Breaking of the restrictive layer underneath the silt surface area during saturated conditions exposing the clay layer of a slickspot. The restrictive layer of a slickspot is the heavy clay (35-45% clay content) prismatic structured subsoil layer (Bt1 horizon) below the salty vesicular surface layer (E horizon) and above the lighter textured (25-35% clay content) blocky structured clayey layer (Bt2 horizon).

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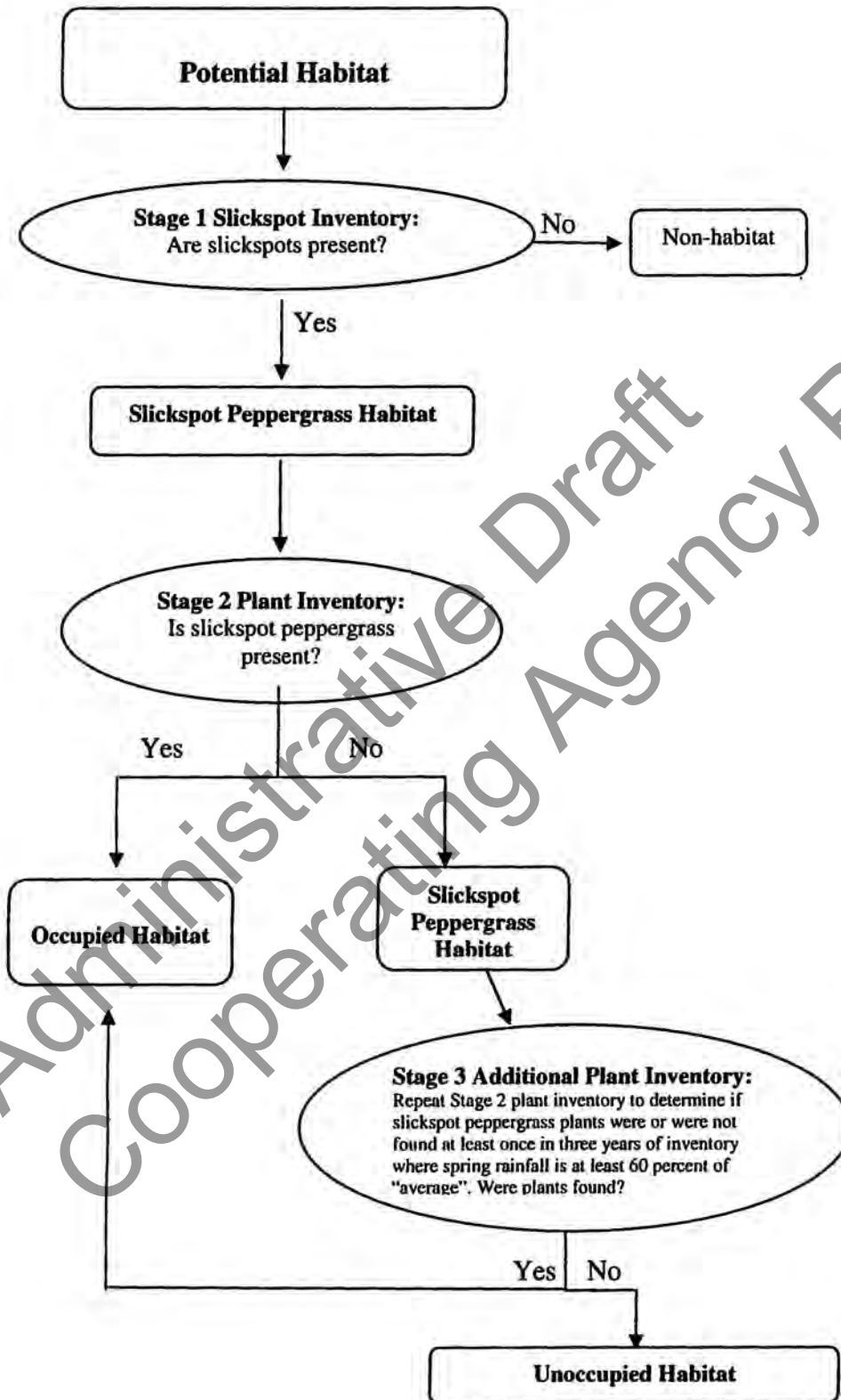
Figure 1. Implementation of Annual Grazing Adaptive Management





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Figure 2. Inventory flowchart for slickspot peppergrass.



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# Appendix Q

## State of Idaho Governor's Alternative



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## **Brief Description of Governor's Alternative for the State of Idaho**

In December 2011 Secretary of the Interior Ken Salazar invited western governors to create state-specific GRSG conservation plans to provide for the needs of GRSG and help preclude the need to list the species. In response to this invitation Governor Otter issued Executive Order 2012-02 on March 9, 2012 establishing the Governor's Sage-Grouse Task Force (Task Force). The Task Force was a diverse group of stakeholders comprised of representatives from local sage-grouse working groups, conservation interests, state and local officials and industry. The Task Force was charged with providing recommendations on actions for developing a state-wide regulatory mechanism to preclude the need to list the species under the ESA.

From March through May 2012, the Task Force met eight times in various locations across the State of Idaho. The Task Force conducted an information gathering and decision-making process consistent with state laws and regulations. Each meeting was open to the public and provided an opportunity for the public to comment on GRSG conservation and its potential effects. Additionally, the IDFG hosted a Web page displaying the times and locations of Task Force meetings, agenda, meeting notes, and presentations made during the meetings (IDFG 2012b).

On June 15, 2012, after much deliberation and discussion, the Task Force - aided by the technical expertise of IDFG including that of GRSG expert Dr. Jack Connelly, USFWS, and other relevant State and Federal agencies—delivered its recommendations to Governor Otter for review and consideration. After carefully reviewing those recommendations, the Governor developed a set of “guiding principles” used to develop a draft alternative for the State of Idaho for incorporation into the BLM and Forest Service land-use plan (LUP) amendment process. After 30-days of public comments, modifications to the Governor's alternative were made followed by the submission of the alternative to the BLM and Forest Service on September 5, 2012.

The Governor's Alternative has continued to be collaboratively refined since September 5th, 2012. In March 2013, Governor Otter wrote to the USFWS to clarify elements of the Alternative, but to also request the agency's “concurrence” with the strategy. Brian Kelly, Idaho State Supervisor for the Service replied to the Governor in April 2013 concurring with the general structure of the alternative and its major foundational elements, including the grazing management component. Since then, the State of Idaho has worked closely with the relevant state and federal agencies to further refine aspects of the Governor's alternative for the BLM and Forest Service analysis and submitted additional clarification and management actions to the agencies on July 1, 2013.

Alternative E was based on inputs from the Idaho Governor's Office (for federal lands within Idaho) and the Utah Governor's Office (for the portion of the Sawtooth National Forest in Utah that would be analyzed within the Idaho/southwest Montana sub-region). Lands in Montana would be managed under Alternative A for this alternative. Alternative E focuses primarily on management for the threats of wildfire, invasive species, and large infrastructure projects, and secondarily on management for the threats of improper livestock grazing management and related infrastructure, West Nile Virus, and recreation. It



recommends use of an adaptive management approach and implementation of triggers or thresholds that adjust zone criteria.

The refined Idaho Governor's Alternative has been incorporated as Idaho's portion of Alternative E, and draws heavily from recommendations developed by the Task Force. The Utah Governor's Alternative has been incorporated as the Utah portion of Alternative E. The intent of the Idaho and Utah's Governor's Alternative is to provide specific multiple-use management and direction for the conservation and management of the GRSG in lands administered by the BLM and Forest Service.

The actions described in this alternative for Idaho build upon, supplement, or replace the Idaho 2006 State Plan and LWG plans by identifying habitat zones, adaptive regulatory triggers and concrete best management practices for primary threats (e.g., wildfire, invasive species and infrastructure) and some secondary threats (e.g., recreation, improper livestock grazing and West Nile virus) as identified by the Service necessary to preclude a listing (for the sake of completeness, Idaho's 2006 Plan is incorporated herein by reference). Activities not addressed by this alternative, such as predation issues, will continue to be guided by the 2006 State Plan, LWG plans or relevant federal resource management plans. This alternative would replace land management plan direction inconsistent with the GRSG management actions described, unless otherwise prescribed by statute, regulation or valid existing authorizations. This alternative would retain land management plan direction that is not inconsistent with actions described to provide guidance for projects and activities within the Sage-Grouse Management Area (SGMA). It is important to note that any action taken under these provisions would have to undergo a site-specific NEPA analysis.

This alternative includes measurable population objective (e.g., population within the CHZ), and utilizing monitoring to ensure that objective is met; and setting metrics that trigger changes in practices or review of current practices to ensure the conservation objective is met long-term. Specifically, the use of four separate Conservation Areas (CAs), described below, in which the adaptive triggers are individually applied adds an increased level of sensitivity to change.

This alternative includes the establishment, through Idaho Governor's Executive Order, of an Implementation Task Force following the implementation model based on the State's success in developing a federal rule for the management and conservation of the inventoried roadless areas within Idaho (73 Federal Register 61,456 October 16, 2008).

Habitat restoration and vegetation management under Alternative E would focus on prioritizing conifer removal and restoring sagebrush and perennial grasslands. Native vegetation would be used for restoration to the extent practicable. In addition, invasive species would be controlled for three years after wildfire treatments. Alternative E provides guidance to reduce wildfire response time, create fuel breaks, and improve the wildfire suppression baseline. Targeted grazing would be allowed in all habitat management zones to reduce fine fuels and mitigate for the risk of wildfire.



This alternative emphasizes the need for livestock permittees to achieve the Idaho Rangeland Health Standards while also achieving flexibility and management predictability through the use of the state's adaptive construct.

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Cooperating Agency Review





*Executive Department  
State of Idaho*

**C.L. "BUTCH" OTTER**  
GOVERNOR

*State Capitol  
Boise*

**EXECUTIVE DEPARTMENT  
STATE OF IDAHO  
BOISE**

**EXECUTIVE ORDER NO. 2012-02**

**ESTABLISHING THE GOVERNOR'S SAGE-GROUSE TASK FORCE**

*WHEREAS, the greater sage-grouse inhabits significant portions of the sage-steppe habitat in Idaho;*

*WHEREAS, the State of Idaho currently enjoys viable and widespread populations of the species;*

*WHEREAS, the State of Idaho by and through the Sage-grouse Advisory Committee (SAC) and the Local Working Groups (LWGs) has a long track record of successful engagement in managing and conserving the species and its habitat;*

*WHEREAS, the State by and through the involvement of the SAC and the LWGs developed a state-wide management plan for the species in 2006 and amended in 2009 (2009 Plan);*

*WHEREAS, the sage-grouse has been the subject of several petitions to list, federal regulatory actions and multiple rounds of litigation regarding its status under the Endangered Species Act (ESA);*

*WHEREAS, on March 23, 2010, the U.S. Fish and Wildlife Service (Service) determined the species warrants listing over all of its range, including Idaho, but is precluded by higher-priority listing actions;*

*WHEREAS, due to the Service's decision, the sage-grouse is currently considered a "candidate" species under the ESA;*

*WHEREAS, on February 2, 2012, the United States District Court for the District of Idaho ruled the Service must reevaluate the status of the species under the ESA by September 30, 2015;*

*WHEREAS, in response to this decision, the Secretary of the Interior has invited the eleven (11) western states impacted by a potential listing of the species to develop state-specific regulatory mechanisms to conserve the species and preclude the need to list under the ESA;*

*WHEREAS, the development of a state-specific regulatory mechanism in Idaho will be critical in demonstrating to the Service the species does not warrant federal protection;*

*WHEREAS, the Bureau of Land Management (BLM) is currently implementing national Instruction Memoranda to guide interim management of public lands and to develop sage-grouse conservation measures for incorporation into the agency's existing Resource Management Plans (RMPs) by September 2014;*

*WHEREAS, the development of a state-specific regulatory mechanism, consistent with the objectives of this Executive Order, may allow the State the opportunity to be exempted from the applicability of these Instruction Memoranda guiding interim management of public lands within Idaho;*

*WHEREAS, the development of a state-specific regulatory mechanism will enable the BLM to incorporate the State's plan as an alternative in its environmental analysis pursuant to the National Environmental Policy Act (NEPA);*

*WHEREAS, it is vital to the interests of the State to develop a state-specific regulatory mechanism as the listing of the species would adversely impact the economy of Idaho, including the ability to generate revenues from private property and State endowment lands;*

*WHEREAS, the listing of the species would have a significant impact on the State's custom, culture and way of life; and*

*WHEREAS, development of the State's regulatory mechanism must be driven by the most current scientific information, input from a variety of stakeholders and aimed at conserving the species and its habitat while maintaining predictable and multiple uses of private, state and public lands.*

*NOW, THEREFORE, I, C.L. "BUTCH" OTTER, Governor of the State of Idaho, by the authority vested in me under the Constitution and laws of the State of Idaho do hereby create the Sage-Grouse Task Force.*

*1. The creation of the Governor's Sage-Grouse Task Force:*

*A. The members of the Governor's Sage-Grouse Task Force (Task Force) shall be appointed by and serve at the pleasure of the Governor through calendar year 2012.*

*i. The Task Force shall be composed of fifteen (15) members, representing the various geographic areas of the State within the range of the species.*

*ii. The Office of the Governor will chair this entity.*

*iii. The Office of Species Conservation and the Idaho Department of Fish and Game will staff this entity.*

*B. The Task Force members shall be appointed from the following categories:*

*i. Individuals who:*

- Represent agricultural interests; or*
- Represent energy or mineral development interests.*

*ii. Individuals representing:*

- A local working group; or*
- A nationally, regionally or locally recognized environmental organization; or*
- Nationally or locally recognized wildlife or sportsmen's groups.*

*iii. Individuals who:*

- Hold State elected office; or*
- Hold county elected office; or*
- Represent the public at large.*

*2. Duties of the Task Force:*

*A. Provide the Governor recommendations on policies and actions, using the 2009 Plan and other on-going activities as a backdrop, for developing a state-wide regulatory mechanism to preclude the need to list the species;*

- B. The recommendations must be based on the following objectives and/or criteria:*
- i. Conserve the species and its habitat while maintaining predictable and multiple uses of private, state and public lands;*
  - ii. Identify and designate key/core sage-grouse habitat based on the biological needs of the species;*
  - iii. Tailor the management recommendations to the import of the habitat and is attuned to the interests of the State;*
  - iv. Address the following primary threats to the species as identified by the Service:*
    - Habitat fragmentation due to wildfire and invasive species;*
    - Conversion of habitat for agriculture or urbanization; and*
    - Energy development/infrastructure.*
  - v. Address the following secondary threats to the species as identified by the Service:*
    - Disease/West Nile virus;*
    - Management issues related to livestock grazing;*
    - Collisions with fences and power lines;*
    - Mining;*
    - Prescribed fire and range treatments;*
    - Water development; and*
    - Conifer invasion.*
  - vi. Identify opportunities for pro-active sage-grouse habitat enhancement projects; and*
  - vii. Recognize, encourage and incentivize land use practices that are actively maintaining or improving sage-grouse habitat as evidenced by improvements in habitat quality, active lek routes or stable/increasing populations of the species.*
- C. The duties of the Task Force are solely advisory.*
- D. The Task Force will provide its recommendations to the Governor no later than May 31, 2012.*
- E. Technical Expertise:*
- i. The Task Force may request consultation, information and technical expertise from Directors or their designees of state agencies regarding the biological needs of the species, activities on state, federal and private lands potentially impacted by the status of the species, and requirements of the ESA and other relevant statutory requirements, including but not limited to the Office of Species Conservation, the Idaho Department of Fish and Game, the Idaho Department of Lands, the Office of Energy Resources, the Idaho State Department of Agriculture and the Idaho Department of Parks and Recreation.*
  - ii. The Task Force may request comments, information and technical expertise from the American Indian Tribes of Idaho, the universities of the State, federal agencies, including but not limited to the Service, the BLM, the U.S. Forest Service and the Natural Resources Conservation Services, and members of the public.*



*IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Idaho at the Capitol in Boise on this 9th day of March, in the year of our Lord two thousand and twelve, and of the independence of the United States of America the two hundred thirty-sixth and of the Statehood of Idaho the one hundred twenty-second.*

A handwritten signature in blue ink that reads "C.L. 'Butch' Otter".

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C.L. "BUTCH" OTTER  
GOVERNOR

A handwritten signature in black ink that reads "Ben Yursa".

---

BEN YURSA  
SECRETARY OF STATE

Administrative Draft  
Cooperating Agency Review

July 13, 2012

Brian Kelly, State Director  
U.S. Fish and Wildlife Service  
Idaho State Office  
1387 South Vinnell Way  
Boise, ID 83709-1657

**RE: Governor's Draft Alternative for Sage-Grouse Management**

Dear Brian,

I appreciate your attendance and participation on my annual trail ride to discuss the State of Idaho's effort to conserve the sage-grouse and its habitat while maintaining predictable levels of land use across all ownerships. As I stated during our discussion, Idaho's sage-grouse plan must work for the State and preclude the need to list the species under the Endangered Species Act (ESA). We can only achieve this meaningful objective and solve this complex natural resource issue if the State, federal government and other important stakeholders truly view this as an opportunity to form a partnership. I believe this was Secretary Salazar's intent when he invited the affected states to craft state-specific plans for the species.

To this end, and as you are fully aware, my Sage-Grouse Task Force (Task Force) was assigned to provide recommendations and policies to serve as a foundation for a successful management strategy. I'm confident you would agree the Task Force made significant inroads in developing such a strategy within a very aggressive timeframe. Based largely on these recommendations, I recently released a draft plan for the species and requested public input.

I believe the draft plan provides a solid framework and moves us one step closer to completing this difficult and important task. Recognizing that further detail and refinement need to take place based on continued stakeholder input, I request feedback on the following questions:

- Whether the management framework – based on a thematic habitat continuum and population metrics – outlined in my Draft Alternative represents a sound policy that should move forward; and



- Whether or not the habitat zones, especially the Core Habitat Zone and Important Habitat Zone, are consistent with the U.S. Fish and Wildlife Service’s understanding of the most important sage-grouse habitats in the State.

I look forward to continuing our dialogue and discussion of this important issue. It is essential that we keep the lines of communication open to ensure we achieve our mutual objectives.

As Always—Idaho, “Esto Perpetua”



C.L. “Butch” Otter  
Governor of Idaho

Cc: Idaho Department of Fish and Game, Director (V. Moore)  
Governor’s Office of Species Conservation, Acting Administrator (D. Miller)  
BLM, State Director (S. Ellis)  
U.S. Forest Service, Regional Forester (H. Forsgren)  
Governor’s Sage-Grouse Task Force



United States Department of the Interior  
Fish and Wildlife Service

Idaho Fish And Wildlife Office

1387 S. Vinnell Way, Room 368

Boise, Idaho 83709

Telephone (208) 378-5243

<http://www.fws.gov/idaho>



AUG 01 2012

The Honorable C.L. "Butch" Otter  
Governor of Idaho  
State Capitol  
Boise, Idaho 83702

Subject: Draft Federal Alternative of Governor C.L. 'Butch' Otter for Greater Sage-Grouse Management in Idaho-June 29, 2012

Dear Governor Otter:

Thank you for your letter of July 13, 2012, regarding your Draft Alternative for Sage-Grouse Management. Let me begin by following up on the trail ride discussion you hosted in June, and reiterate the U.S. Fish and Wildlife Service's (Service) appreciation for your leadership on this important issue. Your staff, the Task Force you appointed, Idaho Department of Fish and Game and the Office of Species Conservation worked diligently to develop a draft state strategy under an aggressive timeline. Their work built on years of effort by many in Idaho, in particular the foundational accomplishments of the local working groups. My staff and I appreciated the opportunity to serve as technical advisors throughout the Task Force process. Your letter requested that the Service provide feedback regarding (1) whether the "management framework – based on a thematic habitat continuum and population metrics" was a sound policy that should move forward, and (2) whether or not the "habitat zones, especially the Core Habitat Zone and Important Habitat Zone" are consistent with the Service's understanding of the most important sage-grouse habitats in the State.

The Service believes the management framework that you have developed provides a sound policy outline from which to build upon to meet the long-term conservation goals of greater sage-grouse in Idaho. The thematic approach based on conservation objectives that are monitored in an adaptive management construct that your framework incorporates, are fundamental attributes of the Service's own approach to strategic conservation (USFWS and USGS 2006). My staff and I look forward to continuing to work with you (and the Bureau of Land Management and U.S. Forest Service as they work through their land management planning processes) to identify and resolve issues that will help solidify the adequacy of this framework, and associated policy, necessary for our 2015 Endangered Species Act listing review.

The Core and Important Habitat Zones, as currently drafted by the Task Force, are indeed among the most important sage-grouse habitats in the State. In identifying these zones, the Task Force had the foresight to address not only the conservation of what are now the most important habitats, but also a means to provide for long-term conservation and restoration of sage-steppe habitat and rangelands in Idaho. Addressing the threats to sage-grouse across jurisdictional boundaries in these areas will be important for our listing review in 2015. Specifically, I look forward to continued conversations regarding how the State will approach implementation of long-term conservation on State and private lands where necessary.

Thank you for the opportunity to provide feedback on the draft alternative. The compressed timeframes which you have worked within to assemble this framework is commendable. In closing, the Service agrees that success in this endeavor hinges on our ability to work with many in a partnership. We look forward to our continued role as one of those partners with you and others to assist the conservation of greater sage-grouse in Idaho. If you have any questions regarding the information provided here please do not hesitate to contact me at 208-378-5243 or Jason Pyron of my staff at 208-685-6958.

Sincerely,



Brian T. Kelly, State Supervisor  
Idaho Field Office

cc:USFWS, National Greater Sage-grouse Coordinator, Cheyenne, WY (P. Deibert)  
BLM, State Director, Boise, ID (S. Ellis)  
USFS, Regional Forester (H. Forsgren)  
IDFG, Director and Sage-Grouse Task Force Co-Chair, Boise, ID (V. Moore)  
Governor's Office of Species Conservation, Administrator, Boise, ID (D. Miller)  
Governor's Sage-Grouse Task Force Co-Chair, Boise, ID (T. Perry)  
USFWS Region 1 Director, Portland, OR (R. Thorson)

Literature Cited:

U.S. Fish and Wildlife Service and U.S. Geological Survey. 2006. Strategic Habitat Conservation: final report of the National Ecological Assessment Team. U.S. Department of Interior, Washington, D.C. 48p.



C.L. "BUTCH" OTTER  
GOVERNOR

August 17, 2012

Steve Ellis, State Director  
Bureau of Land Management  
Idaho State Office  
1387 S. Vinnell Way  
Boise, ID 83709-1657

Dear Steve,

I appreciate your attendance and participation on my annual trail ride to discuss the State of Idaho's effort to conserve the sage-grouse and its habitat while maintaining predictable levels of land use across all ownerships. As I stated during our discussion, Idaho's sage-grouse plan must work for the State and preclude the need to list the species under the Endangered Species Act (ESA). We can only achieve this meaningful goal and solve this complex natural resource issue if the State, federal government and other important stakeholders truly view this as an opportunity to form a partnership. I believe this was Secretary Salazar's intent when he invited the affected states to craft state-specific plans for the species.

As you are fully aware, my Sage-Grouse Task Force (Task Force) was assigned to provide recommendations and policies to serve as a foundation for a successful management strategy. I'm confident you would agree the Task Force made significant inroads in developing such a strategy within a very aggressive timeframe. Based largely on these recommendations, I released a draft plan for the species and requested public input.

I believe the draft plan provides a solid framework and moves us one step closer to completing this difficult and important task. As the State continues working with stakeholders to refine my proposal, I request feedback on the following questions prior to submitting a revised version of the State's Alternative:

- Whether the management framework outlined in my Draft Alternative – based on a thematic habitat continuum and population metrics – represents a sound policy that should move forward; and

- Whether my Draft Alternative is consistent with the agency’s multiple-use mandate as well as the National Greater Sage-Grouse Land Use Planning Strategy.

It is essential that I receive answers to these questions to ensure all stakeholders are striving to achieve the mutual objectives outlined by the Secretary and my Executive Order (2012-02). One near-term objective, as noted in my Executive Order, is to have the “opportunity to be exempted from the applicability of these Instruction Memoranda guiding interim management of public lands within Idaho.” This aim was recently affirmed in a Nevada BLM Instruction Memo (NV 2012-058) stating, “Nevada BLM may adopt the Governor’s strategy through a subsequent Instruction Memorandum and upon concurrence by the U.S. Fish and Wildlife Service....”

As you are aware, I sent a similar letter to Brian Kelly, state director of the U.S. Fish and Wildlife Service (Service), requesting his agency’s perspective on my draft plan. As the agency charged with implementing the ESA, the Service opined:

The Service believes the management framework that you have developed provides a sound policy outline from which to build upon to meet the long-term conservation goals of greater sage-grouse in Idaho. The thematic approach based on conservation objectives that are monitored in an adaptive construct that your framework incorporates, are fundamental attributes of the *Service’s own approach to strategic conservation* (USFWS and USGS 2006).

(emphasis added).

Thus, from your answers to these two questions the State can discern whether the agencies are moving in the same direction with regard to my plan, ultimately affording Idaho the opportunity for a state-specific Instruction Memorandum. Thank you for your consideration and support on this issue.

As Always—Idaho, “Esto Perpetua”



C.L. “Butch” Otter  
Governor of Idaho

Cc: U.S. Secretary of the Interior, The Honorable Ken Salazar  
Counselor to the Assistant Secretary for Fish, Wildlife and Parks (M. Bean)  
Idaho Department of Fish and Game, Director (V. Moore)  
Governor’s Office of Species Conservation, Administrator (D. Miller)  
USFWS, State Director (B. Kelly)  
U.S. Forest Service, Regional Forester (H. Forsgren)  
Governor’s Sage-Grouse Task Force



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



August 30, 2012

In Reply Refer To:  
6500/6515/6520 (930)

Honorable C. L. "Butch" Otter  
Office of the Governor  
PO Box 83720  
Boise, ID 83720

Dear Governor Otter:

I appreciate your letter of August 17, 2012, and our discussion about sage-grouse management at your annual trail ride in June. As I indicated during our discussion on the trail ride, I am encouraged by the efforts of your Sage-Grouse Task Force (Task Force) and look forward to receiving your final alternative for consideration in our resource management planning effort. I share Idaho's goal of long term conservation of sage-grouse and its habitat, which may make it unnecessary to list the species under the Endangered Species Act.

We support the efforts of the State of Idaho and your Task Force to advance sage-grouse conservation across public lands, state lands, and private lands. The State of Idaho and local working groups have been the foundation for advancing sage-grouse conservation in Idaho in coordination with federal agencies and other partners. Your Task Force represents a diversity of interests and expertise that worked diligently under an aggressive timeframe to develop a draft alternative. This spring we committed \$75,000 towards the task force planning effort and my staff actively participated in all task force meetings as technical advisors. My technical staff has thoroughly reviewed the State of Idaho's Draft Alternative released to the public in June and we believe it is a thoughtful approach to sage-grouse conservation on public lands. Jeff Foss and wildlife specialists on my staff have had follow-up discussions with Tom Perry and Virgil Moore to share ideas as the Draft Alternative is being finalized.

Your letter requested feedback on two questions: 1) Whether the management framework outlined in the State of Idaho's Draft Alternative—based on a thematic habitat continuum and population metrics—represents a sound policy that should move forward; and 2) Whether the State of Idaho's Draft Alternative is consistent with the agency's multiple-use mandate as well as the National Greater Sage-grouse Land Use Planning Strategy. The management framework detailed in the Idaho's Draft Alternative provides a sound management platform and represents one in a range of alternatives we will fully consider in our resource management planning process that is underway. The management framework outlined in the Draft Alternative incorporates habitat information and population metrics that are central to developing a sound management strategy. The adaptive regulatory triggers and emergency response outlined in the

Draft Alternatives represent an innovative approach to addressing the complex and dynamic threats that influence the sage-grouse habitat. Adaptive management is of particular importance in Idaho where the threats of wildfire and invasive species are actively impacting habitat conditions and maintenance of large, intact stands of sagebrush.

The management framework for the Draft Alternative addresses many of the issues we received from the public during scoping and many of the responsibilities the BLM has as a multiple-use agency. For example, the Draft Alternative provides a strategy for guiding land management activities to address the primary threats of wildfire, invasive species, and fragmentation of habitat resulting from large-scale infrastructure projects. The Draft Alternative also provides a strategy to address impacts to sage-grouse habitat from improper livestock grazing and recreation activities. A rigorous analysis of a range of alternatives in BLM's draft Environmental Impact Statement (EIS) will provide the basis to evaluate the effectiveness of the alternatives in achieving sage-grouse conservation. Upon public review and comment and development of a final EIS, I will have a reasoned basis for issuing a final decision to amend our resource management plans by 2014.

BLM's National Greater Sage-grouse Land Use Planning Strategy provides guidance for incorporating the National Technical Team report "into at least one alternative in the land use planning process." The National Greater Sage-grouse Land Use Planning Strategy also provides guidance for use and update of preliminary priority habitat and preliminary general habitat maps that were developed in coordination with the Idaho Department of Fish and Game. The State of Idaho's Draft Alternative meets the purpose and need of the sage-grouse program and is responsive to BLM's National Sage-grouse Planning Strategy which calls for explicit objectives, desired habitat conditions, management actions, and area-wide use restrictions. Given that the National Greater Sage-grouse Land Use Planning Strategy is largely guiding the planning process, I believe it is reasonable to add the State of Idaho's Alternative to the range of alternatives analyzed in the EIS.

BLM's interim management of sage-grouse is outlined in IM 2012-043 which provides policies and procedures for management while the resource management plans are undergoing amendment and revision. The instruction memorandum states "*BLM field offices do not need to apply the conservation policies and procedures described in this IM in areas in which (1) a state and/or local regulatory mechanism has been developed for conservation of the Greater Sage-grouse in coordination and concurrence with the FWS; and (2) the state sage-grouse plan has subsequently been adopted by the BLM through the issuance of a state level BLM IM. If BLM programs are not addressed in the adopted state Greater Sage-grouse Plan then program direction will default to the policies and procedures set forth in this WO IM.*" If the U.S. Fish and Wildlife Service provides concurrence on Idaho's regulatory mechanism for the conservation of Greater Sage-grouse, Idaho BLM will initiate discussions with your staff about BLM policy considerations and organizational capacity for potentially adopting the State's Final Alternative as interim direction until the BLM issues the final EIS and Record of Decision, by the end of 2014.

I appreciate the continued strong coordination between the State of Idaho and Idaho BLM in the conservation of sage-grouse and public land management. We will continue to be actively engaged with sage-grouse planning efforts led by the State of Idaho and look forward to receiving your final alternative for inclusion in our EIS effort. My primary management point of contact for sage-grouse conservation is Jeff Foss, Deputy State Director for Resource Services (208-373-3801).

Thank you for your leadership in advancing conservation of sage-grouse and close coordination with Idaho BLM regarding public land management in Idaho.

Sincerely,

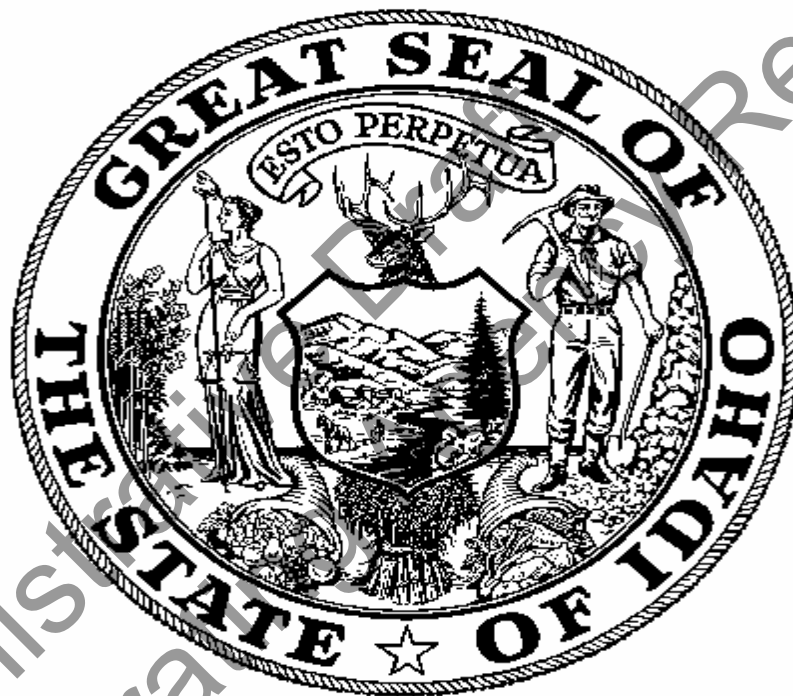


Steven A. Ellis  
State Director  
Idaho BLM

Administrative Draft  
Cooperating Agency Review



FEDERAL ALTERNATIVE OF GOVERNOR C.L. "BUTCH" OTTER



FOR GREATER SAGE-GROUSE MANAGEMENT IN IDAHO

September 5, 2012 Version

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## BACKGROUND

As Governor of the State of Idaho, I hereby submit to the U.S. Secretary of the Interior and U.S. Secretary of Agriculture (collectively, “the Secretary”) the State of Idaho’s Alternative (“Idaho’s Alternative”) for incorporation into the National Greater Sage-Grouse Land Use Planning Strategy (“Strategy”) of the U.S. Bureau of Land Management (“BLM”) and U.S. Forest Service (“USFS”) (*see* BLM/USFS 2012). The Strategy aims to incorporate objectives, desired habitat conditions and management actions into land use plans for Federal lands – for the BLM, the Resource Management Plans (“RMPs”) required by the Federal Land Policy and Management Act (“FLPMA”) and for the USFS, the land management plans (“LMPs”) required by the National Forest Management Act (“NFMA”)—by September 30, 2014. The ultimate outcome for the Strategy is to conserve the Greater sage-grouse (*Centrocercus urophasianus*) (“sage-grouse”) and its habitat and potentially avoid a listing under the Endangered Species Act (“ESA”) (*see* BLM 2011a).

The State of Idaho wishes to express its appreciation for the Secretary’s recognition of the important role states can play in managing and conserving the sage-grouse. This recognition is also evinced in the ESA as it directs the Secretary to “take[ing] into account those efforts” being made by a state prior to a listing determination. 16 U.S.C. § 1533(b)(1)(A). Accordingly, I believe the recommendations contained herein not only provide a balanced approach to this complex natural resource issue, but also ensure the long-term sustainability of those habitat attributes necessary to preclude the need to list the species under the ESA.

In order to place Idaho’s Alternative in proper context, it is necessary to set out a brief overview of the process the State employed. As Idaho currently enjoys viable and widespread populations of sage-grouse, I was fully aware of the need for a carefully planned process to ensure we conserved the species and its habitat while maintaining predictable levels of land use. I would strongly urge our Federal partners to approach the issue in this fashion.

### GOVERNOR’S SAGE-GROUSE TASK FORCE

On March 9, 2012, I issued Executive Order 2012-02 establishing the Governor’s Sage-Grouse Task Force, hereafter “Task Force” (*see* Task Force Website, available at: <http://fishandgame.idaho.gov/public/wildlife/?getPage=310>). The Task Force was a diverse group of stakeholders comprised of representatives from local sage-grouse working groups, conservation interests, state and local officials and industry. The Task Force was charged with providing recommendations on actions for developing a state-wide regulatory mechanism to preclude the need to list the species under the ESA.

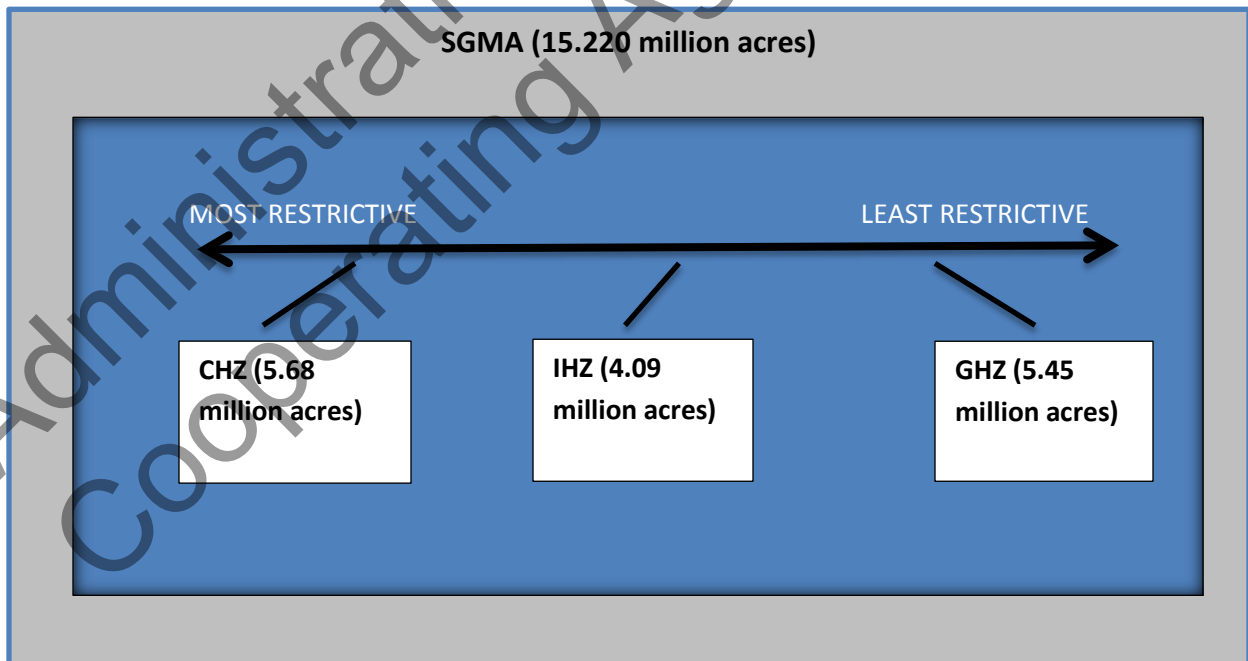
In March through May 2012, the Task Force met eight times in various locations across the State of Idaho. Each meeting was open to the public and provided an opportunity for the public to comment on sage-grouse conservation and its potential effects. Additionally, the Idaho Department of Fish and Game (“IDFG”) hosted a Web page displaying the times and locations of Task Force meetings, agenda, meeting notes, and presentations made during the meetings. See IDFG 2012b. Thus, the Task Force conducted an open and transparent information-gathering and decision-making process.

After much deliberation and discussion, the Task Force on June 15, 2012—aided by the technical expertise of IDFG, the U.S. Fish and Wildlife Service (“Service”), and other relevant State and Federal agencies—delivered its recommendations to me for review and consideration. After carefully reviewing those recommendations, I developed a set of “guiding principles” to help evaluate the strength of the Task Force’s recommendations, public comments and other important considerations. These guiding principles will be discussed in further detail under section I.

#### OVERVIEW OF THE STATE’S ALTERNATIVE

Consistent with the unanimous recommendation of the Task Force, the State is adopting the designation of a Sage-Grouse Management Area (“SGMA”) with three distinct management zones: Core Habitat (“CHZ”), Important Habitat (“IHZ”) and General Habitat (“GHZ”).

**Figure 1. Idaho’s Sage-Grouse Management Area<sup>1</sup>**



<sup>1</sup> The acreages displayed in Figure 1 are approximate values.

Generally, these management zones outline a suite of basic management activities that may, under certain conditions, or may not occur within a given area. In other words, the three management zones within the SGMA represent a management continuum that includes at one end, a relatively restrictive approach aimed at providing a high level of protection to the species within the CHZ, and on the other end, a relatively flexible approach for the GHZ allowing for more multiple-use activities. While the IHZ provides greater flexibility than in the CHZ, the overall quality and ecological importance of the habitat within this zone is more closely aligned with the habitat in the CHZ than in the GHZ.

Allocation to a specific management zone does not mandate or direct the relevant Federal agency to propose or implement any action; rather, the three habitat zones provide an array of permitted and prohibited activities. Activities not specifically addressed by the Alternative are still subject to the allowances and restrictions of the applicable resource management plan.

The measures set forth below are essential to sage-grouse conservation in Idaho and should receive not only priority consideration in the Strategy, but also in the shaping of future agency budgets. In order to accomplish the objectives set out below, I strongly urge State and Federal agencies, including the Service, BLM, USFS and other federal agencies to work collaboratively to ensure uniform and consistent application of Idaho's Alternative. In particular, BLM needs to make federal funding for fire suppression, especially in the CHZ, a top priority.

It is important to note that this document does not represent a complete list of sage-grouse actions for the State of Idaho. This document only provides special management for sage-grouse on lands managed by the BLM and USFS, and while beneficial to other sage-steppe species, agencies will still have the obligation to analyze other values when considering a proposed action.

That said, with this management framework in place, the State will approach willing private parties, local governments, other Federal partners, and the Idaho Department of Lands to see what actions are necessary and appropriate to complement the State's Federal Alternative. Furthermore, it is important to note that the relevant Federal agencies in considering these measures as part of environmental analyses, planning updates and ESA listing determinations, should recognize that actions on these lands can have direct and indirect impacts on State endowment trust lands managed by the Idaho Department of Lands. Thus, it is important to evaluate sage-grouse management in a comprehensive and holistic manner.

## STATE OF IDAHO'S ALTERNATIVE

The following section further explains the “guiding principles” used to develop Idaho’s Alternative.

### I. GUIDING PRINCIPLES

#### A. Task Force Recommendations

Because the Task Force represents the diverse stakeholders associated with this issue, the State has made a concerted effort to defer to their recommendations. In areas where the Task Force provided alternative recommendations and/or left actions to the discretion of the State, we have endeavored to capture the intent of the Task Force consistent with the parameters set out in the Governor’s Executive Order.

#### B. ESA Considerations

On March 23, 2010, the Service determined the species warrants listing over all of its range, including Idaho, but is precluded by higher listing actions. 75 Fed. Reg. 13,910 (Mar. 23, 2010). Specifically, the Service found Federal resource management plans deficient with respect to addressing the primary threats to the species—namely, habitat fragmentation due to wildfires, invasive species and infrastructure development. *See* 75 Fed. Reg. at 13,973-80.

Following the Service’s decision, the United States District Court for the District of Idaho ruled that pursuant to a D.C. District Court settlement, the agency must reevaluate the status of the species under the ESA by September 30, 2015. In response to this deadline, the Secretary of the Interior in December 2011 invited the eleven western states impacted by a potential listing of the species to develop state-specific regulatory mechanisms to address these cited deficiencies in an effort to preclude a listing under the ESA. Accordingly, one of the State’s primary objectives in submitting this Alternative is to develop a management framework that passes muster under the ESA.

#### C. Idaho’s Management Approach

The State’s management approach was designed to be clear and measurable over varying spatial and temporal scales. This approach consists of management objectives attempting to address key decision points outlined in the Service’s 2010 determination. As mentioned above, the Service’s 2010 decision cited lack of regulatory mechanisms and habitat loss as the primary drivers for its warranted but precluded decision. Importantly, both of these factors affect the population status of the species. The Idaho Sage-Grouse Management Approach includes: (1) implementation of regulatory mechanisms to support the overall management and conservation objectives of the species; (2) stabilization of habitats and populations, including a systematic review of habitat and

population status; and (3) development of adaptive regulatory triggers and a wildfire emergency clause to address sudden and unanticipated changes.

The best available information indicates that wildfire, invasive species and infrastructure, as defined below, are the primary threats to sage-grouse in Idaho. The State aided by the valuable contributions of the Task Force developed a suite of regulatory measures to address these primary threats as well as some activities identified by the Service as secondary threats (e.g., recreation, improper livestock grazing and West Nile virus). The State believes that implementation of these measures will provide significant conservation benefits to sage-grouse, other sage-steppe obligate species, and should be sufficient to preclude a listing under the ESA in Idaho.

Notwithstanding these efforts, unexpected and catastrophic events (e.g., major wildfire event(s), West Nile virus) may result in a substantial loss of habitat and concomitant decline in sage-grouse populations sufficient to trigger a change in the regulatory approach to the issue. Hence, the State has developed adaptive regulatory triggers and an emergency wildfire clause to ensure the populations and habitats within the CHZ, and to a lesser extent, the IHZ are maintained and enhanced. These adaptive triggers are intended to provide a regulatory backstop for navigating unanticipated and deleterious impacts to the species.

If these measures prove necessary, the State would still be well positioned to conserve the species and its habitat, while maintaining predictable levels of land use. It is important to note the development and implementation of regulatory triggers, primarily to deal with wildfire, is a new approach for managing this particular species. With that recognition, the State anticipates continuing to work with its partners to refine this feature of the plan to ensure the triggers are properly attuned to the needs of the State and the species.

To aid in the assessment of this management approach, the State has divided the SGMA into four individual Conservation Areas (“CA”) across the State: two north (Mountain Valleys, Desert) and two south (West Owyhee, Southern) of the Snake River. Each Conservation Area is divided into Core, Important, and General management zones (“MZs”) based upon modeling of sage-grouse breeding bird density, habitat connectivity and persistence, scientific knowledge based on surveys and radio-telemetry studies, and the recommendations of the Task Force.

Although wildfire, infrastructure, and invasive species pose threats for sage-grouse in all CAs, wildfire and invasive species tend to be a greater issue in the Desert and West Owyhee CAs than in the Mountain Valleys or Southern CAs. Additionally, sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented. North of the Snake River, the CHZ is approximately three million acres, while the CHZ south of the Snake River is approximately 2.7 million acres.

Acreage for the CHZ and IHZ in the four CAs is presented in Table 1. These four CAs are further described below:

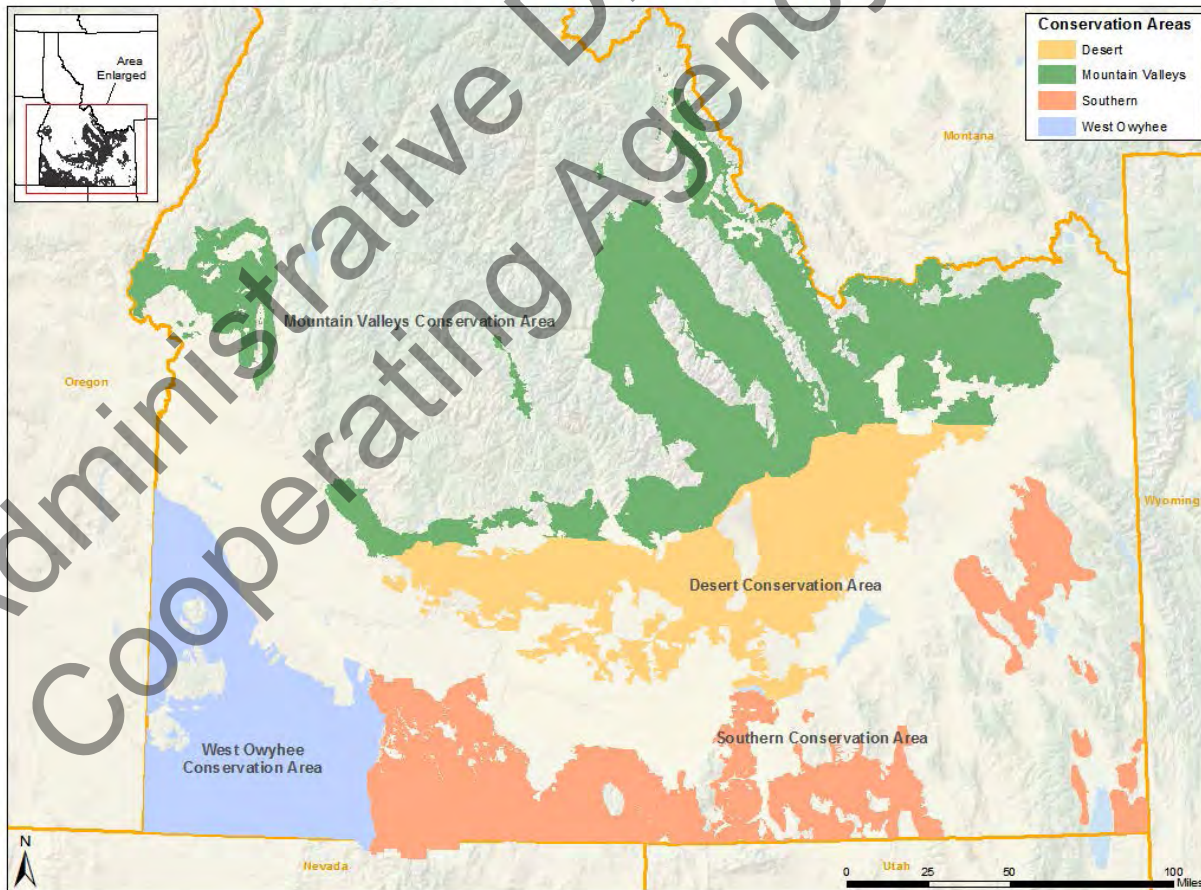
#### North of the Snake River

- Mountain Valleys CA— Starting at Rexburg and extending west, sage-grouse habitat north and west of Highway 33 to Howe, Highway 33/22 to Arco, Highway 26/20/93 to Carey, Highway 20 west to Mountain Home, south from Mountain Home on Highway 51 to the Snake River. West-Central is included in this area.
- Desert CA—South of the above CA.

#### South of the Snake River

- West Owyhee CA—West of the Jarbidge River.
- Southern CA—East of the Jarbidge River, including East Idaho uplands and Bear Lake Plateau.

### Sage Grouse Conservation Areas



Date: 8/30/2012



## MANAGEMENT OBJECTIVES

**Objective 1: Implement Regulatory Mechanisms** – The State’s first objective is to implement the regulatory mechanisms provided herein to maintain and enhance sage-grouse habitats, populations and connectivity in areas within the CHZ, buffered by strategic areas within IHZ, dominated by sagebrush. Through the implementation of these mechanisms, the State will be able to provide a level of protection sufficient to conserve at least 65% of the current known leks within the State, which are fully captured in the CHZ. Recognizing the risk and difficulty of controlling wildfire, invasive species and providing the opportunity to consider limited high-value infrastructure development, the IHZ provides an additional population buffer.

The effectiveness of this objective with respect to the primary threats of wildfire, invasive species and infrastructure will be assessed every three years for each Conservation Area. Secondary threats addressed in this Alternative will be evaluated according to the various schedules contained in the regulatory language. IDFG will serve as the lead in conducting these assessments in concert with the Governor’s Office of Species Conservation and relevant Federal agencies as the management of the species is currently under the jurisdiction of the State of Idaho.

**Objective 2: Stabilize Habitats and Populations** – The second management objective examines the effectiveness of the regulatory measures by monitoring the stability of habitat and population trends over time. As described above, the State recognizes the need to regularly analyze the effectiveness of the regulatory measures as well as to discern whether active conservation and restoration efforts, including conifer control, wildfire suppression, and more passive habitat protection techniques such as fuel breaks are effective strategies. Areas within the CHZ, and to a lesser extent the IHZ, will be used for baseline comparison to evaluate progress in achieving this objective.

During the first three-year period (2012-2015) of implementation, Idaho’s management approach will emphasize limiting habitat loss in the CHZ and IHZ respectively to no more than a ten percent (10%) loss due to fire and/or infrastructure development resulting in a proportionate reduction of males counted on leks within a particular Conservation Area. This allowance is made because of the difficulty in developing effective wildfire suppression programs, including allocation of appropriate resources and infrastructure projects currently planned and/or underway.

Should a ten percent loss occur within this timeframe, IDFG in coordination with the Governor’s Office of Species Conservation and other relevant State and Federal agencies will initiate a management review of the State’s regulatory approach to assess the causal factors for declines. Conceptually, the review would include a determination of whether the loss is based on a population-related decline (e.g., West Nile virus, drought) or is driven by habitat loss. If the loss

is habitat-driven, the review team will assess the effectiveness of current best management practices, funding levels and restoration efforts in order to preclude the triggering of the adaptive regulatory triggers.

Three primary indicators provide a baseline for population status:

- 1) Maximum number of males counted on lek routes in 2011 within CHZ.
- 2) Number of active leks counted in 2011 within CHZ.
- 3) Average rate of population change.

Males counted on lek routes, numbers of leks and rate of population change provide a solid baseline against which future comparisons will be made to assess the success of the approach or indicate when populations may be in trouble potentially triggering additional conservation actions.

Using the average value for  $\lambda$  (finite rate of change) for 2009-2011 within CHZ is a relatively new approach for monitoring sage-grouse populations. Under this evaluation, population growth calculations ( $\lambda$ ) will be compared to a value of 1.0 which indicates a stable population and evaluated for statistical significance.

Recognizing that this indicator was not discussed in any detail with the Task Force, the State will continue working with its partners to better understand this population evaluation tool to ensure a consistent on-the-ground application. In addition, the State may request a review of this approach by Dr. Oz Garton (Bio-statistician, University of Idaho). The State reserves the right to modify or remove the evaluation tool if it's application would lead to the regulatory triggers being tripped unnecessarily, or conversely, not being sensitive enough to changes on the landscape.

Table 1. Acreage of the CHZ and IHZ by Conservation Area in 2011.

Area	Core	% Core	Important	% Imp
North of the Snake River	2,994,000	34	2,480,000	28
Desert	1,044,000	33	751,000	24
Mountain Valleys	1,949,000	36	1,729,000	32
South of the Snake River	2,686,000	41	1,609,000	24
Southern	948,000	25	975,000	26
West Owyhee	1,738,000	61	634,000	22
Grand Total	5,680,000	37	4,089,000	27

Table 2. Species Population in the CHZ and IHZ by Conservation Area based on 2011 lek data.

Zone	Males Counted				Active leks			
	Core	%Core	Important	% IMP	Core	%Core	Important	% IMP
North of Snake River	4710	79	907	15	196	71	57	21
Desert CA	2332	83	294	10	101	78	17	13
Mountain Valleys CA	2378	77	613	20	95	64	40	27
South of Snake River	2468	64	1203	31	142	63	67	30
Southern CA	642	41	758	48	59	49	47	39
West Owyhee CA	1826	80	445	20	83	80	20	19
Grand Total	7178	73	2110	22	338	67	124	25

### **ADAPTIVE REGULATORY TRIGGERS AND WILDFIRE EMERGENCY RESPONSE CLAUSE**

As mentioned above, sage-grouse adaptive regulatory triggers were developed to provide a regulatory backstop to prevent further loss and stabilize habitats and populations in the CHZ and IHZ where a demonstrated significant loss has either occurred over time or unexpectedly. These adaptive triggers are used when dramatic shifts in population or habitat occurs. Additionally, an emergency wildfire clause was developed to direct immediate response following a significant loss of sage grouse habitat due to catastrophic wildfire.

Whereas a review of the management approach is initiated when a Conservation Area exceeds a ten percent loss, an adaptive regulatory trigger—extending the conservation benefit of the measures in the CHZ to the IHZ—automatically occurs if two out of the three criteria outlined below are demonstrated. In developing these triggers it is important to note that sage-grouse populations often lag in their response to habitat loss and fragmentation. A negative population response may not be detected for three to five years following the habitat disturbance. Therefore, a habitat measure is also a component of the adaptive management trigger.

- i. Maximum number of males on lek routes declines by >20% over a three-year period compared to 2011 values.
- ii. A 30% or greater loss of sagebrush habitat is documented within defined breeding or winter habitat during a three-year period.
- iii. The finite rate of change ( $\lambda$ ) over 3 years starting with the baseline years 2009- 2011 is significantly less than 1.0.

As mentioned above, the number of active leks is a valuable indicator of population status and can be used to further inform decisions guided by the above triggers. Declines by >20% over a three-year period compared to 2011 values would indicate a problem. With the stated caveat above, the State may add, modify or remove criterion (iii) replacing the rate of change for evaluating whether to apply the adaptive regulatory trigger.

When the adaptive regulatory trigger is operative, population data and associated habitats will be reviewed to determine whether the problem is habitat related (e.g., fire) or caused by some other population-related issue (e.g., West Nile virus). If the problem is habitat related, the CHZ best management practices (*see* Section V, below) will be applied to areas in the IHZ within the same Conservation Area. For example, and while the trigger is operational, a project proponent in the IHZ would have to meet the more stringent criteria of the CHZ for developing new infrastructure. If the problem is not habitat related, appropriate management actions will be employed to minimize or alleviate the threat.

As mentioned previously, the State is also proposing an emergency clause to address dramatic habitat loss due to wildfire similar to the losses experienced in the Murphy Complex Fire. The current emergency clause states that where a wildfire burns 200,000 acres or more of CHZ habitat, and at least 50% of the burned acres contained important breeding or wintering habitat, the CHZ regulatory provisions shall apply to the IHZ within the relevant Conservation Area. The State may revise this clause based on a better understanding—e.g., mapping—of the important breeding and wintering habitat within the CHZ and IHZ.

#### **D. Existing State Sage-Grouse Plan**

In 1997, the then Idaho Sage-grouse Task Force, under the direction of the IDFG Commission, completed the Idaho Sage-grouse Management Plan (“1997 Plan”). The 1997 Plan divided Idaho into sage-grouse management areas and called for the creation of Local Working Groups (“LWGs”) to develop sage-grouse management plans for each of Idaho’s sage-grouse planning areas. Currently, for twelve local planning areas, nine LWG plans are completed, one LWG plan is nearly complete, and one plan is in progress.

Between 1999 and 2003, the Service received eight petitions to list the species as endangered or threatened under the ESA. In April 2004, the Service determined three of the petitions to list the species provided substantial information that listing might be warranted, thus initiating a comprehensive range-wide status review.

Based on the status review, the Idaho State Sage-Grouse Advisory Committee (“SAC”) in 2003 was convened to assist the State in updating the 1997 Plan. The Conservation Plan for the Greater Sage-Grouse in Idaho was completed in 2006 (“2006 Plan”). The 2006 Plan was amended in 2009 to include the completion of the Implementation Chapter.

This Alternative builds upon, supplements, and in some instances replaces the 2006 State Plan and LWG plans by identifying habitat zones, adaptive regulatory triggers and concrete best management practices for primary and some secondary threats as identified by the Service necessary to preclude a listing. For activities not addressed by this Alternative, including predation issues, the 2006 State Plan and LWG plans will continue to be operative. For the sake of completeness, Idaho’s 2006 Plan is incorporated herein by reference.

## **E. Valid Existing Rights**

All management zones and recommendations are intended to be subject to and protect all valid existing rights. It is critical, especially for areas within the CHZ and IHZ that existing land uses and landowner activities continue to occur, particularly agricultural activities on all land ownerships.

## **F. Maps**

The State recognizes that any attempt to map sage-grouse habitat must, by necessity, be at a broad, programmatic scale. The mapping of boundaries presented above is not intended to equate to verified boundary locations or on-the-ground habitat types from which the public can determine with certainty whether any particular location is inside or outside of a particular management zone.

Rather, the mapping exercise is intended to give governmental entities, land managers, project proponents and the public a general idea of where certain types of habitat and conservation priorities are spatially located as of the date of the map. The State also recognizes that this mapping exercising depicting current habitat for the species is not static, and any map must be verified through site-specific environmental analysis. Moreover, the map does not alleviate the duty of State and Federal agencies to determine the actual quality and trends of the habitat at a specific location where, for example, a project is proposed or grazing permit is up for renewal.

## **G. Infrastructure**

When the Alternative refers to measures regarding infrastructure, it is referring to discrete, large-scale anthropogenic features, including highways, high voltage transmission lines, commercial wind projects, energy development (e.g., oil and gas development, geothermal wells), airports, mines, cell phone towers, landfills, residential and commercial subdivisions, etc.

Infrastructure related to small-scale ranch, home and farm businesses (e.g., stock ponds, fences, range improvements) do not fall within this definition. These issues are not included within this definition, and are addressed in other sections of the Alternative or through local resource management plans.

## **H. Mitigation Framework**

Where compensatory mitigation—such as, for new infrastructure project authorized in the CHZ—is required to off-set impacts to sage-grouse or their habitats, the Idaho Sage-Grouse Mitigation Framework (see ISAC 2011) is the preferred mechanism to plan, select, implement and monitor these types of projects. Potential compensatory mitigation should be guided by a science-based statewide strategy to guide the selection of mitigation actions that will receive funding based on the benefits to sage-grouse populations. For example, restoration efforts are

likely to target perennial grasses and conifer encroachment areas within or adjacent to the CHZ, and secondarily, on perennial grasses and conifer encroachment areas within the IHZ with low fire risk. The Task Force recognized the importance of these targeted restoration efforts by including areas within the management regime of the CHZ current not meeting the general biological standard of 25-50% breeding bird density as described below in order to ensure these areas would still retain high restoration potential.

Mitigation efforts will focus on increasing the resiliency and productivity of sage-grouse populations and habitats, especially within the CHZ. Should these efforts materialize; the State will consider establishing a mitigation bank of sage-grouse habitation restoration projects that future development projects would repay through compensatory mitigation requirements. The State recognizes that this is a key provision in this Alternative, and intends to provide more detail on this component through the Governor's Implementation Commission.

### **I. Livestock Grazing Management**

No studies exist directly relating livestock grazing systems or stocking rates to sage-grouse abundance or productivity. Most concerns about the effects of grazing on sage-grouse are localized in nature, whereas the species is demonstrated to be more responsive to stressors at a larger landscape. Therefore, grazing should be viewed as a landscape stressor with monitoring and management actions tailored accordingly.

Numerous studies have been published providing detailed information on characteristics of sage-grouse seasonal habitats (Knick and Connelly 2011). These studies provide insight on heights and cover of sagebrush and herbaceous plants needed for productive habitats (Connelly et al. 2000).

Based on this information, opportunities exist for livestock permittees, Federal and State agencies and university researchers to collaborate in an effort to fine-tune knowledge of current conditions and needed management actions in sage-grouse habitats throughout southern Idaho. This work would provide needed insight into current conditions within sage-grouse habitat and guide specific management actions necessary for ensuring healthy and stable sage-grouse populations.

#### **Approach:**

While grazing management options should be considered at a landscape scale, livestock grazing is typically considered in a site-specific context over time where vegetative condition can be manipulated by the timing and intensity of grazing practices. Currently, this is being done by designating allotments and scheduling grazing periods based on factors such as elevation, weather and plant growth (e.g., high elevations are grazed during summer months).

The three habitat zones provide additional options for scheduled grazing and should be considered. Altering grazing schemes in allotments within the CHZ, where needed and

appropriate, may be facilitated by enhanced grazing opportunities with introduced seedings or areas with lower value to sage-grouse (e.g., GHZ). The unintended consequences of altering grazing use, such as a possible increased risk of wildfire, must be carefully considered in any management proposal.

Guidelines for managing sage-grouse habitats and populations have been published (Connelly et al. 2000, Hagen et al. 2007) and are often included in various management plans. These guidelines describe *characteristics* of productive sage-grouse habitats based on a large number of studies conducted throughout the species' range. However, they do not reflect data collected in all parts of the range nor do they reflect data collected from randomly sampled locations. Thus, this information should not be considered as providing *standards* by which to judge effects of livestock grazing on the ultimate quality of sage-grouse seasonal habitats.

Proper grazing management greatly benefits from flexibility and the opportunity to schedule and adjust intensity, timing, duration, and frequency of grazing use over time in a manner that maintains rangeland health and habitat quality. In addition, vegetative characteristics of sage-grouse seasonal ranges can change spatially and temporally due to a wide variety of other influences. Therefore, these sage-grouse habitat characteristics should be viewed as a tool for assessing habitats and guiding management actions but not as a means of dictating grazing strategies or stocking rates. On-the-ground management actions and strategies to meet these habitat characteristics should be informed local resource knowledge and conditions.

#### **Management Framework:**

Grazing within the CHZ and IHZ will be managed according to the process outlined in the text below. The first step, and perhaps the most important, is to inform and educate affected permittees regarding sage-grouse habitat needs and conservation measures. These habitat needs or characteristics outlined in Tables 3-5 will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable: (a) due to the existing ecological condition, ecological potential or the existing vegetation; or (b) due to casual events unrelated to existing livestock grazing.

Based on these habitat characteristics, conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics (Tables 3, 4 and 5) will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management should not result from one year of data at a specific location within an allotment.

The assessment process will be completed in conjunction with scheduled term grazing permit renewals (i.e., every ten years). Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on allotments within the CHZ that have declining sage-grouse populations. Following those permits within the CHZ, resources will be further prioritized to

allotments within the IHZ with breeding habitats that have decreasing lek counts. (See Flow Chart below). Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the assessment process.

Typically, summer habitats will be managed to provide the conditions described in Table 3; winter Table 4; and breeding habitats in Table 5. However, the assessment/determination process must rely on published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and/or existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics (Tables 3-5), renewed permits will include measures, including but not limited to the actions outlined in (J), to achieve desired habitat conditions. These measures must be tailored to address the specific management issues.

Additionally, adaptive management changes related to existing grazing permits should only be undertaken if improper grazing is determined to be the causal factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over time with appropriate site variability.

**Table 3. General Characteristics of Late Brood Rearing Habitat.**

Habitat Features	Habitat Indicators	Habitat Characteristics	
		Upland Sagebrush Communities	Riparian/Wet Meadow Communities
Protective Cover	Sagebrush Canopy Cover	10-25%	N/A
	Sagebrush Height	16-31 inches	N/A



	Sagebrush Proximity	N/A	Protective sagebrush cover (10-25%) is within 300 m of riparian/meadow feeding area.
<b>Protective Cover and Food</b>	Grass/forb canopy cover	>15%	N/A
<b>Food</b>	Forb Availability	Succulent forbs are available during the summer. Generally applies to higher elevations, such as mtn. big sage sites.	Riparian and wet meadow conditions are such that succulent forbs are available during the summer.

**Table 4. General Characteristics of Winter Habitat.**

<b>Habitat Features</b>	<b>Habitat Indicators</b>	<b>Habitat Characteristics</b>
<b>Protective Cover and Food</b>	Sagebrush Canopy Cover	10-30% exposed above snow
	Sagebrush Height	10-14 inches exposed above snow

**Table 5. General Characteristics of Productive Breeding/Nesting and Early Brood Rearing Habitat.**

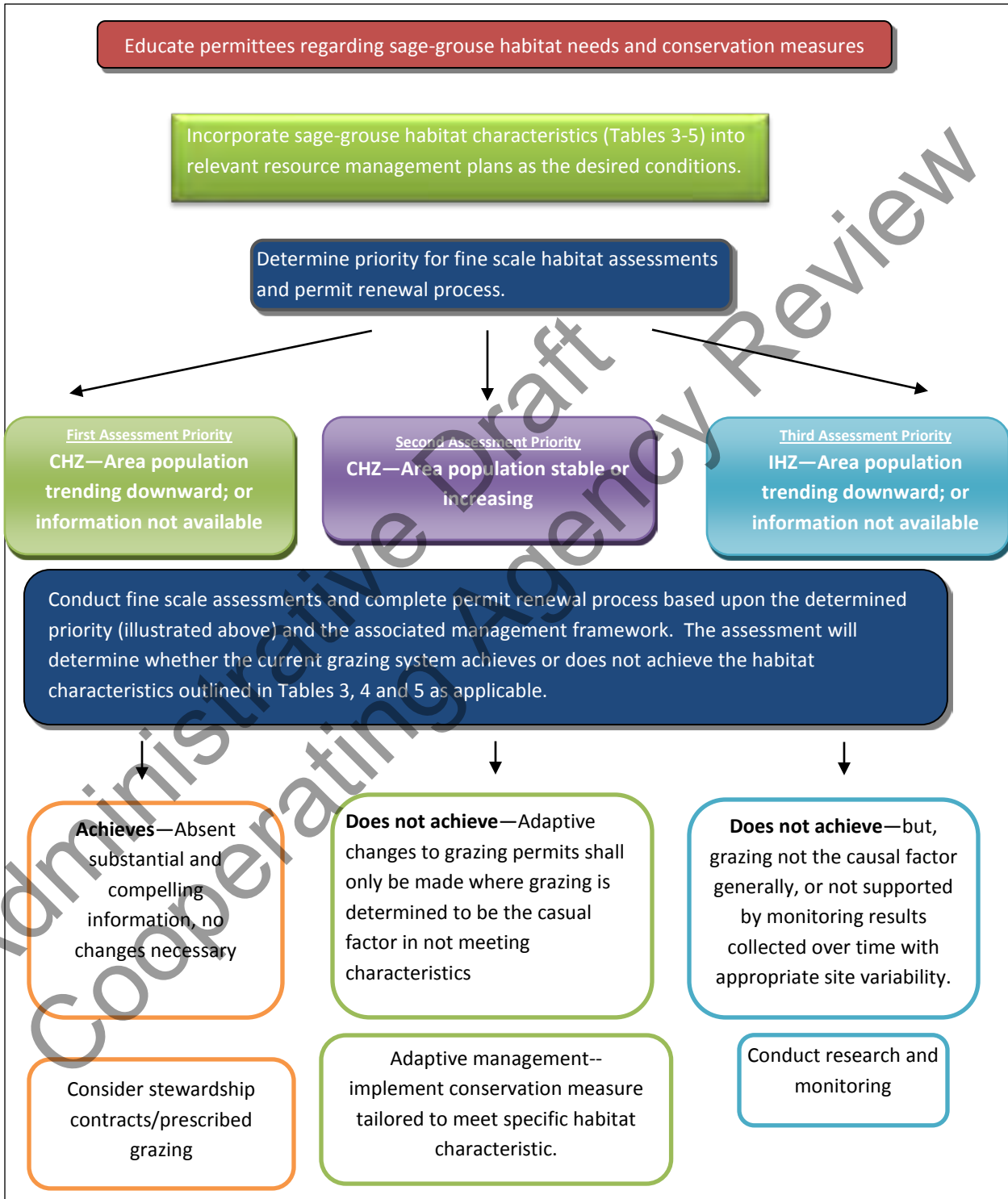
Habitat Features	Habitat Indicators	Habitat Characteristics	
		Arid Sites	Mesic Sites
Protective Cover	Sagebrush Canopy Cover	15-25%	15-25%
	Sagebrush Height	12-31 inches	16-31 inches
	Sagebrush Growth Form	Spreading	Spreading
	Perennial Grass/Forbs Heights (post hatch)	Adequate residual nesting cover <sup>2</sup>	
	Perennial Grass Canopy Cover	Not specified	>15%
Protective Cover and Food	Forb Canopy Cover	Not specified	>10%
	Total Grass/Forb Cover	>15%	>25%

<sup>2</sup> As defined by Connelly et al. 2000, Hausleitner 2003, and Holloran et al. 2005.

<b>Food</b>	Forb Availability Good abundance and availability relative to ecological site potential
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**Figure 3. Livestock Grazing Management in CHZ and IHZ**



## **J. Implementation of Idaho's Alternative**

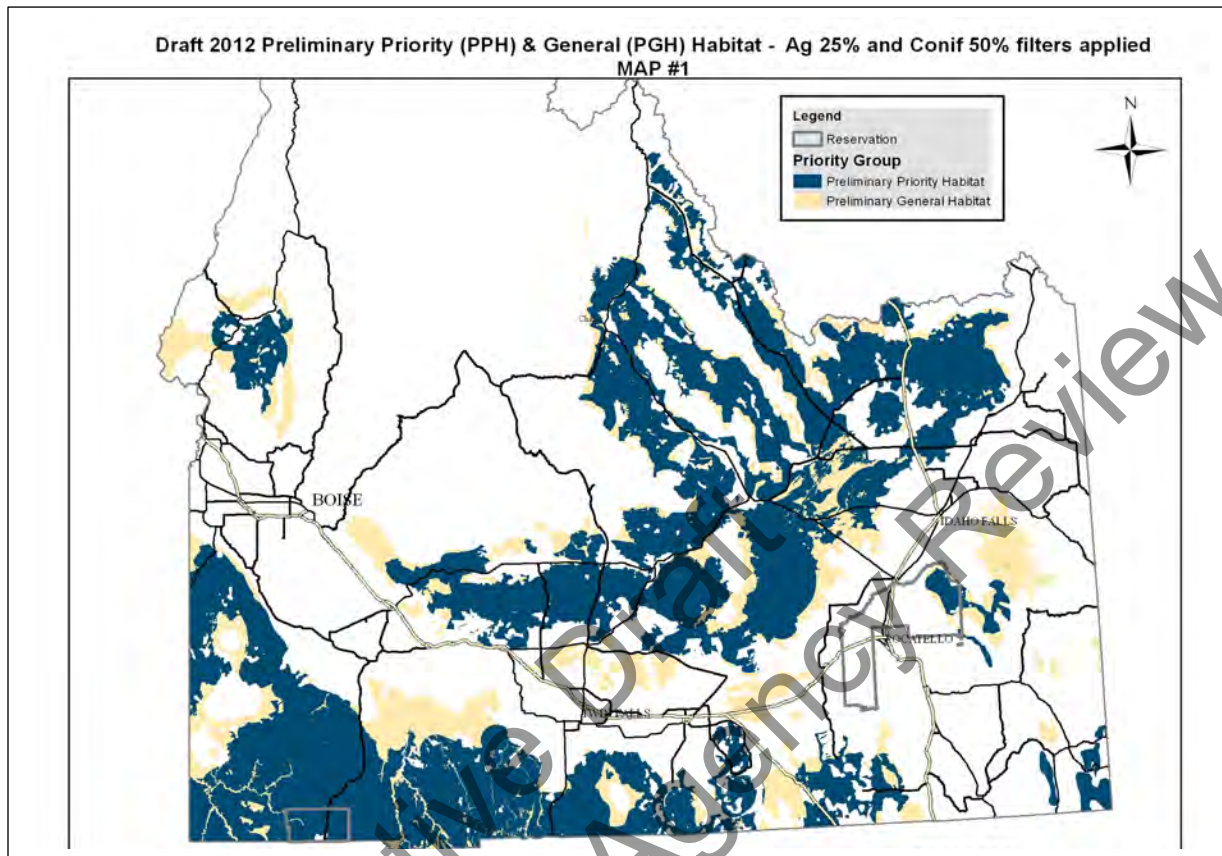
The Governor's Task Force has been a good model of collaborative problem-solving and decision-making. Should Idaho's Alternative be selected and incorporated into relevant resource management plans, I intend to establish by Executive Order an Implementation Task Force to ensure the intent of the State's Alternative is properly implemented. Specifically, the newly-formed group will examine situations where project proponents attempt to develop new infrastructure in the CHZ using the exemption process as described below; and whether proposed projects comply with the criteria outlined in the IHZ. This implementation model has proven successful in implementing the Idaho Roadless Rule.

Additionally, a key component to this alternative is adaptive management. While the State firmly believes the regulatory measures and other features of the plan effectively preclude the need to list, there is a need to continuously evaluate new information as it becomes available. For example, the U.S. Forest Service's research on *Pyrenophora semeniperda* ("black fingers of death") has shown effectiveness in eliminating the cheatgrass carryover seed. The State strongly encourages the Federal government to continue its research on this topic, and may modify this plan to make the application of this tool as an integral part of fire suppression.

## **II. IDAHO'S SAGE-GROUSE MANAGEMENT AREA (SGMA)**

As mentioned previously, the State is adopting the designation of the SGMA with three distinct management zones CHZ, IHZ and GHZ. Recognizing and identifying distinct management zones within the SGMA enables the State and the Federal government to prioritize conservation and restoration efforts to those areas that provide the most effective opportunities to benefit sage-grouse populations and their habitat while maintaining predictable levels of land use. **Map 1**, as developed by the BLM, depicts two habitat areas and provided the Task Force with an initial starting point for discussions.

**Map 1. Idaho Sage-Grouse Preliminary “Priority” and “General” Habitat Areas.**

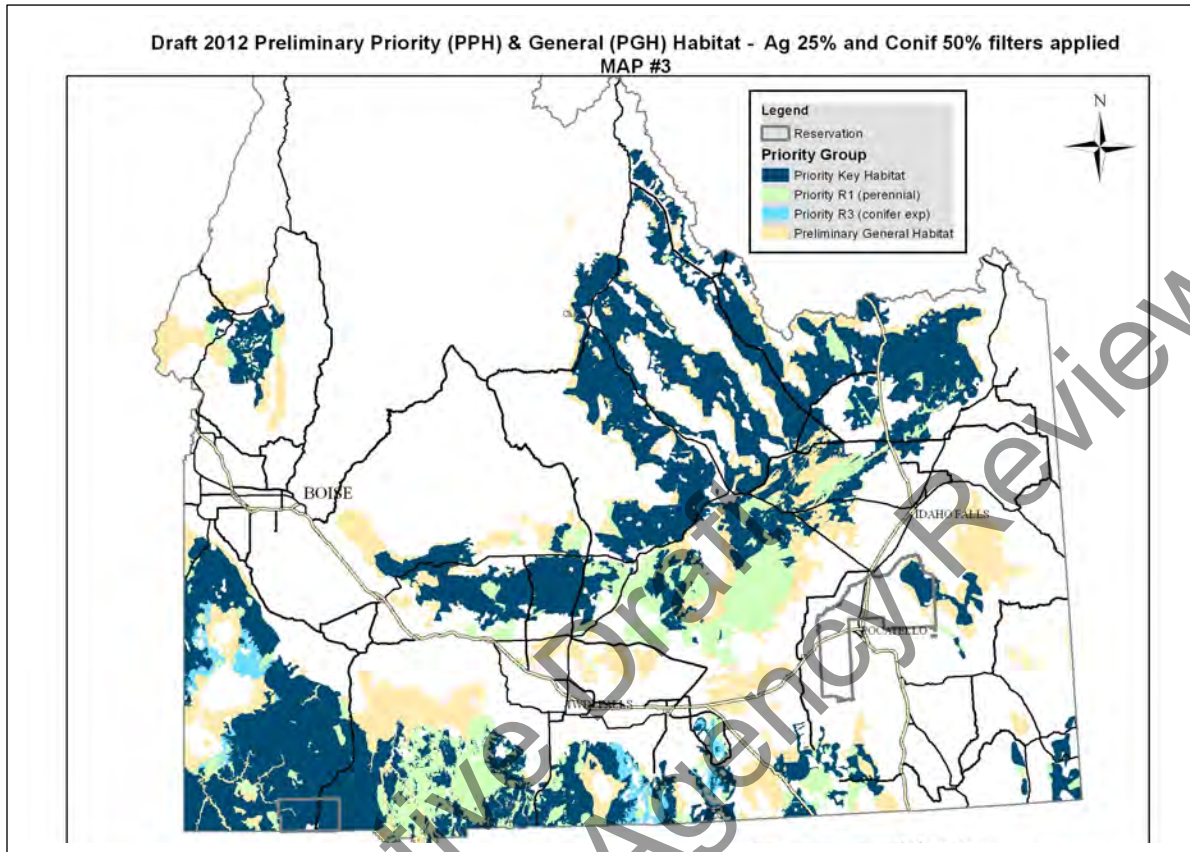


The two habitat areas in **Map 1** are referred to as preliminary “priority” habitat (“PPH”) and preliminary “general” habitat (“PGH”). BLM defines PPH as those areas having the highest conservation value to maintaining greater sage-grouse populations, while PGH is defined as areas of occupied seasonal or year-round habitat outside of “priority” habitat. (Makela and Major 2012).

The State believes this mapping approach fosters an “in or out” management regime that does not adequately take advantage of the opportunity to provide better and more precise management direction based on the quality and location of sage-grouse populations and habitats in Idaho.

The need to refine habitat areas for Idaho-specific management purposes led to the development of **Map 2**. It improves on **Map 1** by differentiating three different vegetative types within the “priority” habitat areas: sagebrush, perennial grasses and conifer encroachment. The latter two types offer opportunities for restoration of sagebrush habitat for the species.

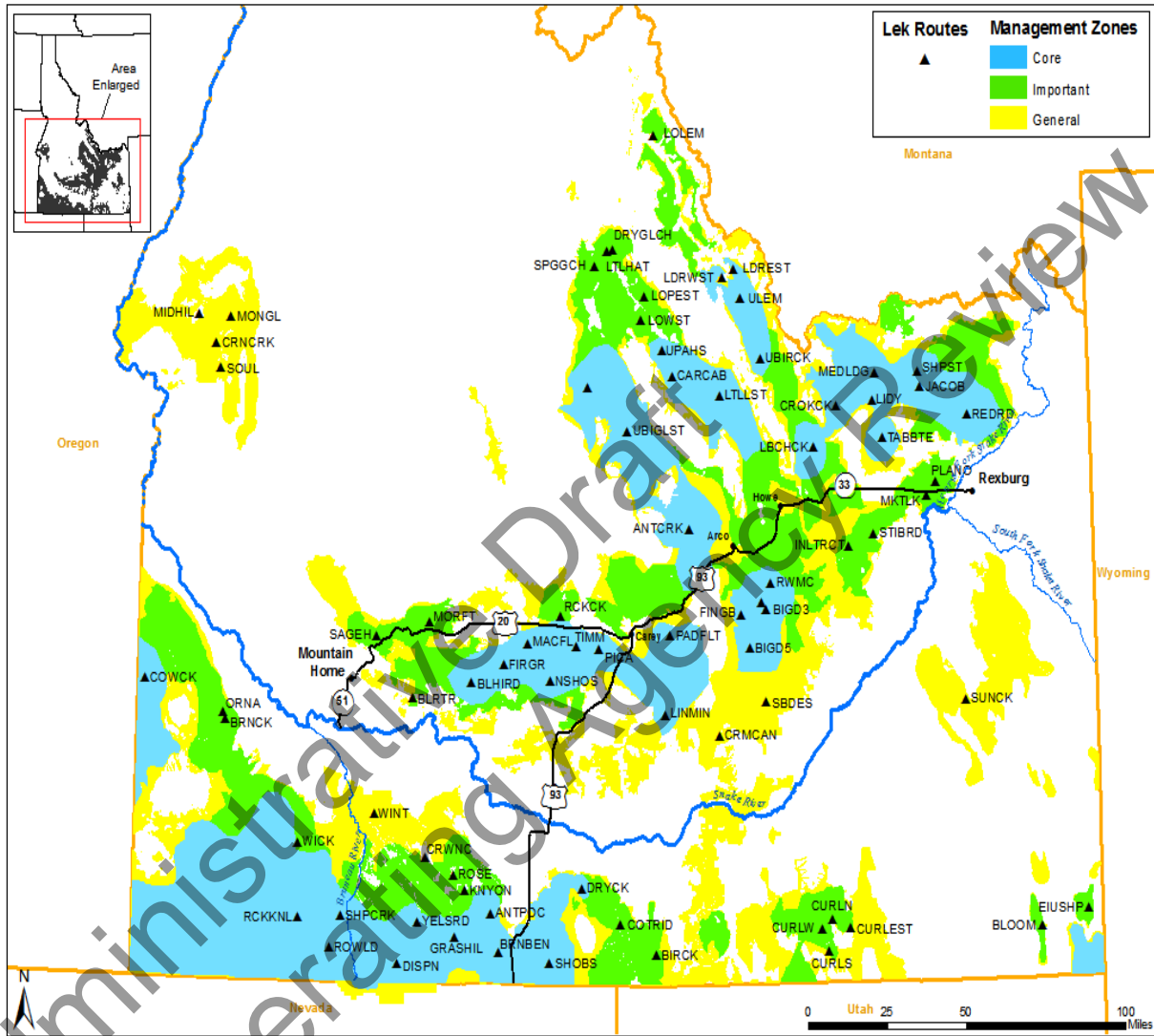
**Map 2. Refined Idaho Sage-Grouse Areas.**



For the development of Idaho's Alternative, I am adopting the Task Force's creation of the SGMA and the three management zones: CHZ, IHZ and GHZ. These are depicted on **Map 3**.

Map 3. Idaho SGMA Habitat Zones.

### Sage Grouse Management Zones & Lek Route Locations





**Table 6. Map 3 Lek Legend**

Map Label	Lek Route Name	Map Label	Lek Route Name
ANTCRK	Antelope Creek	LOWST	Lower Pahsimeroi West
ANTPOC	Antelope Pocket	LTLHAT	Little Hat Creek
BIGD3	Big Desert #3	LTLST	Little Lost
BIGD3	Big Desert #3	MACFL	Macon Flat
BIGD5	Big Desert #5	MEDLDG	Medicine Lodge
BIGD5	Big Desert #5	MIDHIL	Midvale Hill
BIRCK	Birch Creek	MIDMTN	Middle Mountain
BLHIRD	Bliss-Hill City Road	MKTLK	Market Lake
BLOOM	Bloomington	MONGL	Monday Gulch
BLRTR	Blair Trail	MORFT	Mores Flat
BRNBEN	Brown's Bench	NSHOS	North Shoshone
BRNCK	Brown's Creek	ORNA	Oreana
CARCAB	Carlson Cabin	PADFLT	Paddelford Flat
COTRID	Cottonwood Ridge	PICA	Picabo
COWCK	Cow Creek	PLANO	Plano
CRMCAN	Cream Canyon	RCKCK	Rock Creek
CRNCRK	Crane Creek	RCKCK	Rock Creek
CROKCK	Crooked Creek	RCKKNL	Rocky Knoll
CRWNC	Crow's Nest - Clover	REDRD	Red Road
CURLEST	Curlew East	ROSE	Roseworth
CURLN	Curlew North	ROWLD	Rowland Road
CURLS	Curlew South	RWMC	RWMC/INL
CURLW	Curlew West	SAGEH	Sagehen Flat
DISPN	Dishpan	SBDES	South Big Desert
DRYCK	Dry Creek	SHOBS	Shoshone Basin
DRYGLCH	Dry Gulch	SHPCRK	Sheep Creek
EIUSHP	EIU Sheep Creek	SHPST	Sheep Station
FINGB	Fingers Butte	SOUL	Soulen Center
FIRGR	Fir Grove	SPGGCH	Spring Gulch
GRASHIL	Grassy Hills	STIBRD	Stible Road
INLTRCT	INL/Tractor Flat	SUNCK	Sunday Creek
JACOB	Jacoby	TABBTE	Table Butte
KNYON	Kinyon	TIMM	Timmerman
LBCHCK	Lower Birch Creek	UBIGLST	Upper Big Lost
LDREST	Leadore East	UBIRCK	Upper Birch Creek
LDRWST	Leadore West	ULEM	Upper Lemhi
LIDY	Lidy	UPAHS	Upper Pahsimeroi
LINMIN	Lincoln/Minidoka	WICK	Wickahoney
LOLEM	Lower Lemhi	WINT	Winter Camp
LOPEST	Lower Pahsimeroi East	YELSRD	Yellow Sign Road

In sum, the CHZ and IHZ on **Map 3** total approximately 9.770 million acres, account for ninety percent (90%) of the known leks or breeding display areas in Idaho, and are believed to harbor the vast majority of the State's sage-grouse populations. Evidence for this includes census data that ninety-five percent (95%) of the male sage-grouse counted at leks are in these two zones. By contrast, the GHZ encompasses approximately 5.45 million acres, on which are found ten percent (10%) of the known leks and five percent (5%) of the male sage-grouse attending leks. Thus, the GHZ is the lowest priority for conservation or restoration efforts.

The three management zones within the SGMA take into account the distribution of sage-grouse populations in Idaho. Specifically, the CHZ and IHZ focus on protecting each of the two key meta-populations in the State. These meta-populations consist of a large aggregation of

interconnected breeding subpopulations of sage-grouse that have the highest likelihood of long-term persistence. One meta-population is located north of the Snake River and includes the North Magic Valley, Big Desert, and Basin and Range areas; the other is located south of the Snake River and includes south central Idaho, the upper Bruneau-Jarbridge Plateau, and the Owyhee Uplands.

Approximately sixty-five percent (65%) of the SGMA is administered by the BLM, and another seven percent (7%) by the USFS. Any proposed actions on lands managed by the Federal government, regardless of the management zone such projects may fall in, will still require appropriate site-specific environmental analysis under the National Environmental Policy Act (“NEPA”) and any requisite site-specific decision-making, e.g. 43 C.F.R. Subpart 4160 (BLM) and 36 C.F.R. Part 251 (USFS) prior to approving proposed management actions.

Additionally, applicable resource management plan components must be followed during the planning and implementation of a project. For example, infrastructure development within the GHZ does not contain any special conservation measures for sage-grouse. However, within this management theme, some resource management plan components set sideboards or conditions for development. In particular, there may be other species listed under the ESA that mandates direction to reduce or minimize adverse effects. This direction is not inconsistent with this Alternative. Therefore, these consistent conditions would still apply to actions permissible under the Alternative and if the project cannot comply with the plan requirements, the proposed project would have to be modified, abandoned, or the specific plan component amended.

In addition to the overall desired conditions and ecosystem characteristics discussed earlier, this management zone addresses the following general conditions and uses.

### **III. IDAHO’S MANAGEMENT ZONES**

#### **A. CHZ**

**Current Condition:** The CHZ encompasses approximately 5.68 million acres and supports the highest breeding densities of sage-grouse in Idaho. These areas include approximately sixty-five percent (65%) of the known active leks and are occupied by approximately seventy-three percent (73%) of male sage-grouse counted at leks throughout the SGMA. This management theme represents, and generally exceeds, the State’s base population objective for the species.

The CHZ represents strongholds for sage-grouse populations in Idaho and supports the largest populations. Thus, this zone should represent the highest priority for conservation efforts and policies to address the primary threats to the species, such as wildfire, as described in the Service’s 2010 listing determination.

Areas designated within the CHZ were mapped based on the following key data sets:

Twenty-five (25%) and fifty (50%) breeding bird density classes, which represent the top fifty (50%) of all leks in terms of male attendance, buffered at times by portions of the seventy-five (75%) class, depending on location, and the top two categories of the BLM's connectivity and persistence model (Makela and Major).<sup>3</sup> The lek connectivity model estimates the likelihood that those leks or population are likely to persist through time (Knick and Hanser 2011).

Depending on location, additional lands beyond the 25% and 50% thresholds have been included in the CHZ to consolidate key breeding areas, to include wilderness areas and lands within national monuments, and to foster population connectivity with neighboring states. The State recognizes that these are fluid boundaries because the habitat is not static, and as new information regarding the species becomes available, it may be necessary to adjust the boundaries for the three management zones.

**Desired Future Condition:** Maintaining or improving the status of the species within this management zone requires Federal agencies, in conjunction with the State and local partners, to work collaboratively to increase the resiliency of the habitat to disturbances, such as wildfire, and limit habitat fragmentation and loss only to projects pursuant to valid existing rights or incremental upgrades and/or that demonstrate, among other things, a significant high value benefit to the State of Idaho as well as provide compensatory mitigation consistent with the guiding principles above.

**Management Focus:** Management by Federal agencies should focus on the maintenance and enhancement of the habitats, population and connectivity areas identified in this zone.

Federal agencies need to marshal existing—and target future Federal resources—to reduce the number and size of wildfires, especially in the West Owyhee Conservation Area.

Idaho landowners and sage-grouse local working groups have already invested significant efforts in the CHZ and should continue to be informed and involved as these recommendations are refined and implemented. The State encourages local landowners to continue practices that aid in meeting conservation objectives for the CHZ.

<sup>3</sup> In 2010, the BLM entered into an agreement with the Service to model sage-grouse “breeding bird density” (“BBD”) at three scales: across the range of the species; by WAFWA sage-grouse zones; and by State (Doherty et al. 2011). The BBD analyses involve ranking leks by attendance (i.e., highest to lowest number of males counted on leks) and summing the number of males until a desired percent-population threshold is met, hence the categories used—top 25%, 50%, 75% and 100% of the population.

Table of Generally Suitable Uses and Activities in CHZ<sup>4</sup>

Use/Activity	Yes	No	Conservation Measures
Fire Management	X		Only human safety and structure protection shall take precedence.
Invasive Species	X		Actively manage exotic undesirable species sufficiently to prevent invasion.
Infrastructure		X	Limited exceptions are permissible.
Recreation	X		Prioritize the completion of comprehensive travel planning.
Livestock Grazing	X		Prioritize allotments for permit renewal and assessment process for allotments with declining sage-grouse populations.

As illustrated in the table above, prospective infrastructure development authorized by the State Director is presumptively prohibited unless conducted pursuant to valid existing rights or as part of an incremental upgrade. The Task Force also recommended that a limited exemption process should be available to facilitate limited situations where a project proponent can satisfy stringent criteria and provide compensatory mitigation. It is important to note that a proponent would have to meet all the criteria outlined in the regulatory language.

<sup>4</sup> This table, along with the successive tables for each management zone, is for general illustrative purposes only. See Section V for Idaho’s Alternative regulatory language for a complete understanding of the prohibitions and permissions for each management zone.

As the Task Force recommended, one of the key criterion for obtaining an exemption was a project proponent's demonstration that the project would provide a high-value benefit to meet critical existing needs and/or important societal objectives to the State of Idaho. In the draft Alternative, several commenters noted a discomfort with having federal officials determine what projects meet the exemption criteria. Because this Alternative is aimed at providing special management direction for sage-grouse on lands managed by the Federal government, the State does not have the authority to make land allocation decisions. More specifically, these commenters argued that these same Federal officials are not well-positioned to determine whether a project under this exemption provides a "high value" benefit to the State.

The State agrees with this line of reasoning. Thus, the factor is retained as part of the analysis, and should this Alternative be implemented, the State intends as part of the Implementation Commission to evaluate this factor as part of its responsibility to provide the Governor recommendations on site-specific projects developed through this plan.

Recognizing that maintaining and improving sage-grouse populations within the CHZ is important to the State's overall population objective, the balance between the economic value of future infrastructure projects and conserving the species to prevent an ESA listing clearly tilts in favor of the species within this the management zone. That said, it is impossible to predict projects that could be important to the economic vitality of the State in the future. Thus, the "high value" evaluation by the Implementation Commission will be critical in balancing these interests.

## **B. IHZ**

**Current Condition:** The IHZ encompasses approximately 4.09 million acres. These areas include approximately twenty-five percent (25%) of the known active leks and are occupied by an estimated twenty-two percent (22%) of sage-grouse males. This management zone generally captures high-quality habitat and populations necessary for providing a management buffer for the CHZ, connecting patches of the CHZ, and supporting important populations and habitat independent of the CHZ.

The IHZ is primarily defined by the seventy-five (75%) breeding bird density areas. Given the migratory life history of many sage-grouse populations, a portion of the birds breeding in CHZ may make seasonal use of areas within the IHZ. The IHZ also includes areas of value for migration corridors, connectivity among breeding areas, and long-term persistence of each of the two key meta-populations of sage-grouse in Idaho.

**Desired Future Condition:** Maintaining or improving the status of the species within this management zone requires Federal agencies, in conjunction with the State and local partners, to work collaboratively to increase the resiliency of the habitat to disturbances, such as fire, and

limit unnecessary and undue habitat fragmentation to projects that demonstrate, among other things, a high value benefit to the State of Idaho.

**Management Focus:** Management by Federal agencies should focus strategically on areas within this zone that have the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. Management by Federal agencies should employ more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into the CHZ. The IHZ should also afford project proponents greater flexibility than in the CHZ with the understanding that the project still must demonstrate, among other things, a high value benefit to the State.

Table of Generally Suitable Uses and Activities in IHZ

Use/ Activity	Yes	No	Conservation Measures
<b>Fire Management</b>	X		<b>Where appropriate, develop more aggressive strategies to reduce fuel loads.</b>
<b>Invasive Species</b>	X		<b>Actively manage exotic undesirable species to prevent invasion in the CHZ without impairing sage-grouse populations.</b>
<b>Infrastructure</b>	X		<b>Permissible subject to certain criteria. Mitigate unavoidable impacts.</b>
<b>Recreation</b>	X		<b>Same as CHZ.</b>
<b>Livestock Grazing</b>	X		<b>Same as CHZ.</b>

### C. GHZ

**Current Condition:** The GHZ encompasses approximately 5.45 million acres. This management zone generally includes few active leks, and fragmented or marginal habitat. The GHZ also includes habitat for two isolated populations of sage-grouse in the East Idaho Uplands and West Central Idaho. While these two areas generally represent better habitat than the remainder of the GHZ, the isolated nature of these populations make it unlikely that they will contribute to the long-term persistence of the two key meta-populations in the State of Idaho. Thus, local working group efforts will be key in these areas.

**Desired Future Condition:** Rely on efforts of local working groups to maintain populations where applicable.

**Management Focus:** Management by Federal agencies should focus, to the extent practicable, on facilitating multiple-use activities in order to avoid siting conflicts in the other management zones. Management by Federal agencies should employ a more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into the CHZ/IHZ.

Table of Generally Suitable Uses and Activities in GHZ

Use/Activity	YES	NO	Conservation Measures
Fire Management	X		Aggressive fire suppression techniques should be utilized.
Invasive Species	X		Employ aggressive invasive species measures in conjunction with CWMAs.
Infrastructure	X		Consistent with local resource management plans.
Recreation	X		No special application for sage-grouse.
Livestock Grazing	X		No special application for sage-grouse.

#### IV. COOPERATING AGENCY STATUS

The State of Idaho formally requests cooperating agency status in this process. The Governor's Office of Species Conservation in conjunction with IDFG will serve as the State's

representatives in this process. The Task Force will continue to serve in an advisory capacity to ensure the State's Alternative is properly analyzed.

## V. IDAHO'S REGULATORY LANGUAGE FOR LANDS MANAGED BY THE FEDERAL GOVERNMENT

### A. Purpose.

The purpose of this Alternative is to provide, in the context of multiple-use management, Idaho-specific direction for the conservation and management of the greater sage-grouse in lands administered by the Bureau of Land Management and the U.S. Forest Service.

### B. Definitions.

The following terms and definitions apply to Idaho's Alternative:

*Adaptive Regulatory Triggers:* Provides a regulatory backstop where a significant and unanticipated loss of sage-grouse habitats and populations occurs by applying the conservation benefits of the CHZ to the IHZ within the relevant Conservation Area.

*Infrastructure:* Discrete, large-scale anthropogenic features, including but not limited to, highways, high voltage transmission lines, commercial wind projects, energy development (e.g., oil and gas development, geothermal wells), airports, mines, cell phone towers, landfills, residential and commercial subdivisions. Infrastructure related to small-scale ranch, home and farm businesses, including but not limited to, stock ponds, fences, range improvements do not meet this definition and are addressed in other portions of the Alternative or relevant resource management plans.

*Sage-Grouse Management Objective for the State of Idaho:* Maintain and enhance the habitat and populations of sage-grouse located within the Core Habitat Zone ("CHZ"), while strategically buffered by areas within the Important Habitat Zone ("IHZ") having the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. In the first three years of implementation, the approach will emphasize limiting habitat loss in the CHZ and IHZ respectively to no more than ten percent (10%) resulting in a proportionate reduction of males counted on leks within an individual Conservation Area.

*Sage-Grouse Management Area:* The Sage-Grouse Management Area ("SGMA") pursuant to this Alternative identified in **Map 3** that accounts for the entire known sage-grouse population in the State of Idaho.

*State Director:* The Idaho State Director for the Bureau of Land Management ("BLM"). Where relevant and appropriate, the term "State Director" also means "Regional Forester" for lands subject to the management of the U.S. Forest Service.



**C. SGMA.**

1. *Designations.* All relevant National Forest System lands and BLM lands as designated in **Map 3** are hereby designated as the SGMA. Notwithstanding the need to make technical corrections, absent substantial and compelling evidence, these designations pursuant to **Map 3** should not be altered for at least five (5) years.
2. *Management Classifications.* Management classifications for the SGMA express a management continuum. The following classifications are established: Core Habitat Zone (“CHZ”), Important Habitat Zone (“IHZ”) and General Habitat Zone (“GHZ”).
3. *Conservation Areas.* In order to achieve the State’s Management Approach, the following Conservation Areas are established: West Owyhee Conservation Area; Southern Conservation Area; Desert Conservation Area; and Mountain Valleys Conservation Area.
4. *Maps.* The State Director and the Director of the Idaho Department of Fish and Game shall maintain and make available to the public a map of the SGMA, including records regarding any corrections or modifications of such maps pursuant to this Alternative.

**D. CHZ.** Management by Federal and State agencies should focus on the maintenance and enhancement of habitats, populations and connectivity in areas within this management zone.

1. *Wildfire*

- i. Incorporate the BLM Washington Office Instruction Memorandum (“WO IM”) 2011-138 to reduce the number and size of wildfires in sage-grouse habitat.
- ii. Only human safety and structure protection shall take precedence over the protection of sage-grouse habitat.
- iii. Evaluate and decrease wildfire response time by twenty-five percent (25%). In order to achieve this objective:
  - a. Prioritize, maintain and improve a high initial attack success rate in suppression response and staging decisions;
  - b. Utilize available maps under (C)(4) and spatial data depicting sage-grouse habitats within this zone;
  - c. Redeploy firefighting resources not being fully utilized outside the SGMA to the extent such redeployment will not cause harm to human safety and structure protection; and
  - d. Request the necessary federal appropriations to achieve this objective.

- iv. Evaluate the current fire suppression baseline, and in conjunction with the measures below, develop a consistent plan that improves on this baseline by twenty-five percent (25%).
- a. Federal firefighters shall ensure close coordination with State firefighters, local fire departments and local expertise to create the best possible network of strategic fuel breaks and road access to minimize and reduce the size of a wildfire following ignition;
  - b. To the extent practicable, the close coordination described in (a) should result in consistent fire response plans and mutual aid agreements necessary to achieve the management objective in (iv);
  - c. Request and place additional firefighting resources and establish new Incident Attack Centers, with particular emphasis in the West Owyhee Conservation Area;
  - d. Create and maintain effective fuel breaks in strategic locations that will modify fire behavior and increase fire suppression effectiveness according to the following criteria:
    - Target establishment of fuel breaks along existing roads or other disturbances.
    - Identify and target higher-risk roads for fuel break construction and maintenance based on fire history maps.
    - Implement a strategic approach to using these roads for rapid fire response.
    - Analyze the benefits of the fuel break against the additional loss of sagebrush cover and risk on invasive weeds.
    - Fire breaks must be properly maintained.
  - e. Request the necessary federal appropriations to achieve this objective.

2. *Invasive Species*

- i. Actively manage exotic undesirable species to limit presence.
- ii. Monitor and control invasive vegetation post-wildfire treatment for at least three years.
- iii. Emphasize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success.

- a. Reallocate native plant seeds for Emergency Stabilization and Rehabilitation (ES&R) from outside the SGMA and the GHZ to this management zone if necessary.
  - b. Where the probability of obtaining sufficient native seed is low, non-native seeds may be used provided sage-grouse habitat objectives are met.
3. *Habitat Restoration*
- i. Prioritize the removal of conifers through methods appropriate for the terrain and most likely to facilitate expeditious sage-grouse population and habitat recovery. To the extent possible, utilize removal methods creating the least amount of disturbance.
    - a. Efforts should focus on areas with highest restoration potential typically evidenced by low canopy cover, existing sagebrush understory, and adjacent current populations.
    - b. Refrain from using prescribed fire and conducting removal projects in juniper stands older than one hundred years.
    - c. Maximize the use of Natural Resource Conservation Service funding through permittee grants under the Environmental Quality Incentives Program (EQUIP) and Wildlife Habitat Improvement (WHIP) programs.
  - ii. In perennial grasslands, actively restore sagebrush canopy cover and the ecological functions of the site. To the extent practicable, utilize native understory.
    - a. Prioritize areas for restoration with lower risks of wildfire and exotic species invasion.
4. *Infrastructure*
- i. The development of infrastructure authorized after the effective date of the record of decision in areas designated as CHZ is prohibited, except if developed pursuant to valid existing rights or incremental upgrade and/or capacity increase of existing development (authorized prior to the record of decision) subject to best management practices in (G).
    - a. Impacts of proposed actions authorized in (i) shall be limited to the authorized existing footprint with no more than a fifty percent (50%), depending on industry practice, increase in footprint size and associated impacts; and
    - b. Projects authorized under (i) would only be subject to compensatory mitigation if new significant and unavoidable impacts are demonstrated to be associated with the project.

- ii. Notwithstanding the limited prohibition in (4)(i), the State Director may authorize infrastructure development only in situations where the development:
  - a. Cannot be reasonably accomplished outside of the CHZ; and
  - b. Demonstrates the population trend for the species within the relevant Conservation Area is stable or increasing over a three-year period; and
  - c. Demonstrates the individual or cumulative exceptions under this provision must best reduce habitat fragmentation ensuring the impacts will not accelerate and/or cause a population decline of the species within the relevant Conservation Area; and
  - d. Co-locate with existing infrastructure to the maximum extent practicable; and
  - e. Shall mitigate unavoidable impacts through an appropriate compensatory mitigation plan.
- iii. Proposed development authorized under (4)(ii) are subject to the applicable best management practices in (G).
- iv. Notwithstanding the limited prohibition in 4(i), the State Director may authorize, after the record of decision, oil and gas development only under the following circumstances:
  - a. Exploration activities utilizing temporary roads are permissible provided site disturbance is minimized.
  - b. There shall be no surface use or occupancy unless the State Director finds that the surface development, based on site-specific analysis, will not accelerate and/or cause declines in sage-grouse populations within the relevant Conservation Area based on the application of the criteria in 4(ii) and the best management practices in (G).

5. *Secondary Threats*

i. *Recreation*

- a. Prioritize the completion of Comprehensive Transportation Management Travel Plans (“CTMTPs”) to minimize disturbance to sage-grouse populations and reduce the risk of wildfire and other habitat disturbances associated with cross-country travel.
- b. Prior to the completion of CTMTPs, restrict vehicles to existing routes.

- c. Adopt a “restricted to designated routes” approach where appropriate to the extent such designation does not interfere with administrative use.
- d. Discourage the creation of new roads and trails. Re-route existing routes where appropriate.
- e. Identify and reduce activities demonstrating repeated displacement of nesting birds. Where existing routes are demonstrated to affect occupied leks, apply seasonal and time based use-restrictions tailored to address the site-specific conditions of the area.

ii. *West Nile Virus*

- a. Reduce the risk of transmission of West Nile Virus to sage-grouse by minimizing the creation of breeding habitat for mosquitoes.
- b. Consider the potential impacts of West Nile Virus transmission prior to permitting new ponds or reservoirs.
- c. Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.
- d. Non-pond/reservoir watering facilities, such as troughs and bottomless tanks, should be developed and maintained to provide high quality water that minimizes the development of habitat for mosquitoes.
- e. Maintenance of functioning float valves and water return features should be constructed to prohibit water from being spilled on the ground surrounding the trough and/or tank.
- f. To the extent practicable, water should be returned to the original water source to reduce suitable habitat for mosquitoes.

iii. *Livestock Grazing Management*

- a. Incorporate the sage-grouse habitat characteristics in **Tables 3-5** and management considerations into relevant resource management plans as desired conditions recognizing that these conditions may not be achievable (1) due to the existing ecological condition, ecological potential, or the existing vegetation; or (2) due to casual events unrelated to existing livestock grazing.
- b. Prioritize permit renewal and the land health assessments outlined in (iii)(c) in allotments with declining sage-grouse populations.

- c. Conduct fine and site scale-habitat assessments and, where appropriate, a determination of factors causing any failure to achieve the habitat characteristics in Tables 3-5. The assessment(s) shall be conducted at a resolution sufficient to document the habitat condition and will include local spatial and inter-annual variability. Any determination relative to the habitat characteristics (Tables 3-5) shall be based upon existing ecological condition, ecological potential, and existing vegetation information to ensure the assessment recognizes whether or not these habitat characteristics are achievable.
  - d. The assessment will rely on published characteristics of sage-grouse habitat and the Ecological Site Descriptions, and **Tables 3-5**, and where available and applicable, rangeland health determinations made in accordance with 43 C.F.R. 418.2(c).
  - e. After conducting the assessment in (iii)(c), if the current grazing system achieves the habitat characteristics (Tables 3-5), absent substantial and compelling information no further grazing management changes are necessary.
  - f. If the process and conditions outlined in (iii)(c) demonstrate that livestock grazing is limiting achievement of the habitat characteristics (Tables 3-5), renewed permits will include measures, including but not limited to the actions outlined in (J), to achieve desired habitat conditions. These measures must be tailored to address the specific management issues.
  - g. Adaptive management changes related to existing grazing permits should only be undertaken where improper grazing is determined to be the casual factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over with appropriate spatial variability.
  - h. Where management changes are needed and necessary pursuant to (f), implement management actions that are narrowly tailored to address the specific habitat objective applied at the allotment and/or activity plan level, including but not limited to the actions outlined in (J).
- iv. *Livestock Grazing Infrastructure*
- a. To the extent practicable, reduce the impacts of fences and livestock management facilities on sage-grouse.

- b. Mark fences with permanent flagging or other suitable device to reduce sage-grouse collisions on flat to gently rolling terrain in areas of moderate to high fence densities (i.e., more than one kilometer of fence per square kilometer) located within two kilometers of occupied leks.
- c. Identify and remove unnecessary fences.
- d. Placement of new fences and livestock management facilities, including corrals, loading facilities, water tanks and windmills, should consider their impact on sage-grouse.
- e. Avoid constructing new fences within one kilometer (0.6 miles) of occupied leks.
- f. To the extent practicable, place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, at least one kilometer from occupied leks.

**E. IHZ.** Management by Federal and State agencies should focus on areas within this zone that have the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. Management by Federal agencies should also provide the necessary flexibility to permit high-value infrastructure projects.

1. *Wildfire*

- i. Incorporate the BLM WO IM 2011-138 to reduce the number and size of wildfires in sage-grouse habitat.
- ii. Only human safety and structure protection shall take precedence over the protection of sage-grouse habitat.
- iii. Evaluate and decrease wildfire response time by twenty percent (20%) in the West Owyhee Conservation Area. Decrease wildfire response time in all other conservation areas by fifteen percent (15%). In order to achieve this objective:
  - a. Prioritize, maintain and improve a high initial attack success rate in suppression response and staging decisions;
  - b. Utilize available maps under (C)(4) and spatial data depicting sage-grouse habitats within this zone;
  - c. Redeploy firefighting resources not being fully utilized outside the SGMA to the extent such redeployment will not cause harm to human safety and structure protection; and
  - d. Request the necessary federal appropriations to achieve this objective.

- iv. Evaluate the current fire suppression baseline, and in conjunction with the measures below, develop a management plan that improves on this baseline by fifteen percent (15%).
  - a. Federal firefighters shall ensure close coordination with State firefighters, local fire departments and local expertise (i.e., livestock grazing permittees and road maintenance personnel) to create the best possible network of strategic fuel breaks and road access to minimize and reduce the size of a wildfire following ignition;
  - b. To the extent practicable, the close coordination described in (a) shall result in consistent fire response plans and mutual aid agreements necessary to achieve the objective in (1)(v); and
  - c. Request the necessary federal appropriations to achieve this objective.
- v. Create and maintain effective fuel breaks in strategic locations that will modify fire behavior and increase fire suppression effectiveness.
  - a. Target establishment of fuel breaks along existing roads or other disturbances.
  - b. Identify and target higher-risk roads for fuel break construction and maintenance based on fire history maps.
  - c. Implement a strategic approach to using these roads for rapid fire response.
  - d. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover and risk of invasive weeds.
  - e. Fire breaks must be properly maintained.
- vi. Prescribe or target livestock grazing where demonstrated to be appropriate as a tool for reducing fuel loads, reducing invasive species populations and maintaining functional fire breaks.
  - a. Test the effectiveness and monitor the results on a site-specific basis through stewardship contracting.
- vii. Reduce human-caused ignitions by coordinating with Federal, State and local jurisdiction on fire and litter prevention programs.

2. *Invasive Species*

- i. Actively manage exotic undesirable species to limit presence in the CHZ.
- ii. Monitor and control invasive vegetation post-wildfire treatment for at least three years.



- iii. Emphasize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success.
  - a. Reallocate native plant seeds for Emergency Stabilization and Rehabilitation (ES&R) from outside the SGMA and the GHZ to this management zone.
  - b. Where the probability of success or native seed availability is low, non-native seeds may be used provided sage-grouse habitat objectives are met.
- iv. Require best management practices for construction projects to prevent invasion.
- v. Actively pursue eradication or control of noxious weeds and/or invasive species posing a risk to sage-grouse habitats using a variety of chemical, mechanical and other appropriate means in coordination with the local Cooperative Weed Management Area (CWMA).
- vi. Establish an effective monitoring program to evaluate the success of weed control efforts in conjunction with the CWMAs.

3. *Habitat Restoration*

- i. Prioritize the removal of conifers through methods appropriate for the terrain and most likely to facilitate expeditious sage-grouse habitat recovery. Especially prioritize and target removal treatments adjacent to the CHZ. To the extent possible, utilize methods creating the least amount of disturbance.
  - a. Areas with highest restoration potential will typically have low canopy cover, existing sagebrush understory, and adjacent current populations.
  - b. Refrain from using prescribed fire and conducting removal projects in juniper stands older than one-hundred years.
  - c. Maximize the use of Natural Resource Conservation Service funding through permittee grants under the Environmental Quality Incentives Program (EQUIP) and Wildlife Habitat Improvement (WHIP) programs.
- ii. In perennial grasslands, actively restore sagebrush canopy cover and the ecological functions of the site. To the extent practicable, utilize native understory.
  - a. Prioritize areas for restoration with lower risks of wildfire and exotic species invasion, especially in areas adjacent to the CHZ.

4. *Infrastructure*

- i. The State Director may authorize new infrastructure development where in the State Director's judgment the circumstances set out below exist.
  - a. Cannot reasonably be achieved, technically or economically, outside of this management zone; and
  - b. To the extent practicable, co-locate the project with existing infrastructure. In the event co-location is not practicable, the siting should best reduce cumulative impacts and/or impacts to other high value natural, cultural, or societal resources; and
  - c. Should not result in unnecessary and undue habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area; and
  - d. Mitigate unavoidable impacts through an appropriate compensatory mitigation plan; and
  - e. Comply with the applicable best management practices in (G).
- ii. For oil and gas leases issued after the effective date of the record of decision, exploration activities utilizing temporary roads shall be exempt, provided site disturbance is minimized. Surface use or occupancy is permissible if projects can demonstrate, based on site-specific analysis, that such activities will not cause declines in sage-grouse populations through implementation of the best management practices in (G). Projects authorized under (ii) must mitigate unavoidable impacts through an appropriate compensatory mitigation plan.

5. *Secondary Threats*

i. *Recreation*

- a. Prioritize the completion of Comprehensive Transportation Management Travel Plans ("CTMTPs") to minimize disturbance to sage-grouse and reduce the risk of wildfire and other habitat disturbances associated with cross-country travel.
- b. Prior to the completion of CTMTPs, restrict vehicles to existing routes.
- c. Adopt a "restricted to designated routes" approach where appropriate to the extent such designation does not interfere with administrative use.

- d. To the extent practicable, discourage the creation of new roads and trails. Re-route existing routes where appropriate.
  - e. Identify and reduce activities demonstrating repeated displacement of nesting birds. Where existing routes are demonstrated to affect occupied leks, apply seasonal and time based use-restrictions tailored to the site-specific conditions of the area.
- ii. *West Nile Virus*
- a. Reduce the risk of the transmission of West Nile Virus to sage-grouse by minimizing the creation of breeding habitat for mosquitoes.
  - b. Consider the potential impacts of West Nile Virus transmission prior to permitting new ponds or reservoirs.
  - c. Minimize to the extent practicable, construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.
  - d. Non-pond/reservoir watering facilities, such as troughs and bottomless tanks, should be developed and maintained to provide high quality water that suppresses development of habitat for mosquitoes.
  - e. Maintenance of functioning float valves and water return features should be constructed to prohibit water from being spilled on the ground surrounding the trough and/or tank.
  - f. To the extent practicable, water should be returned to the original water source to reduce suitable habitat for mosquitoes.
- iii. *Livestock Grazing Management*
- a. See V.D.5.iii.
- iv. *Livestock Grazing Infrastructure*
- a. To the extent practicable, reduce the impacts of fences and livestock management facilities on sage-grouse.
  - b. Mark fences with permanent flagging or other suitable device to reduce sage-grouse collisions on flat to gently rolling terrain in areas of moderate to high fence densities (i.e., more than one kilometer of fence per square kilometer) located within two kilometers of occupied leks.
  - c. Identify and remove unnecessary fences.
  - d. Placement of new fences and livestock management facilities, including corrals, loading facilities, water tanks

and windmills, should consider their impact on sage-grouse.

- e. Avoid constructing new fences within one kilometer of occupied leks.
- f. To the extent practicable, place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, at least one kilometer from occupied leks.

**F. GHZ.** Management by Federal agencies should focus on multiple-use management consistent with local resource management plans.

1. *Wildfire*

- i. Incorporate the BLM WO IM 2011-138 to reduce the number and size of wildfires in sage-grouse habitat.
- ii. Fire suppression efforts should be emphasized, recognizing that other local, regional, and national fire suppression priorities may take precedent.
- iii. Aggressively create and maintain effective fuel breaks in strategic locations that will modify fire behavior and increase fire suppression effectiveness. The fire breaks should target areas necessary to provide a buffer between the GHZ and the other management zones.
  - a. Target establishment of fuel breaks along existing roads or other disturbances.
  - b. Identify and target higher-risk roads for fuel break construction and maintenance based on fire history maps.
  - c. Implement a strategic approach for using these roads to enable rapid fire response.
  - d. Fuel breaks must be properly maintained and sited with consideration of active leks and risk of invasive weeds.
- iv. Actively employ prescribed or targeted grazing as a primary tool for reducing fuel loads, reducing invasive species populations and maintaining functional fire breaks to the extent such activities do not adversely affect breeding habitats (i.e. occupied leks, nesting and early brood-rearing).

2. *Invasive Species*

- i. Aggressively manage exotic undesirable species sufficient to prevent invasion into other management zones.
- ii. Aggressively pursue eradication or control of noxious weeds and/or invasive species posing a risk to sage-grouse habitats using a variety of chemical, mechanical and other appropriate means in

- coordination with the local Cooperative Weed Management Area (CWMA).
- iii. Establish an effective monitoring program to evaluate the success of weed control efforts in conjunction with the CWMA.
3. *Infrastructure*
    - i. A responsible official may authorize infrastructure construction consistent with the relevant land management components as provided for in (H).
  4. *Secondary Threats*
    - i. *Recreation*
      - a. Nothing in this Alternative shall be construed as affecting the use of motorized equipment and mechanical transport in this management zone.
    - ii. *West Nile Virus*
      - a. Minimize the creation of breeding habitat for mosquitoes in sage-grouse habitat.
      - b. Prior to permitting new ponds or reservoirs, consider the impacts of West Nile Virus transmission.
      - c. Non-pond/reservoir watering facilities, such as troughs and bottomless tanks should be developed and maintained to provide high quality water that suppresses the development of habitat for mosquitoes.
    - iii. *Livestock Grazing Management*
      - a. Nothing in this Alternative shall be construed as affecting existing grazing permits in this management zone. Grazing permits are still subject to the grazing regulations (43 C.F.R. Part 4100, including Fundamentals of Rangeland Health, 43 C.F.R. Subpart 4160.
    - iv. *Livestock Grazing Infrastructure*
      - a. Identify and remove unnecessary fences.

**G. Infrastructure—Best Management Practices.**

1. For proposed actions authorized in the CHZ and IHZ, the following best management practices are applicable:
  - i. Utilize existing roads, or realignments of existing routes to the extent possible.
  - ii. Construct new roads to minimum design standards needed for production activities.
  - iii. To the extent possible, micro-site linear facilities to reduce impacts to sage-grouse habitats.

- iv. Locate staging areas outside the CHZ to the extent possible.
  - v. To the extent possible, co-locate linear facilities within one kilometer of existing linear facilities.
  - vi. New transmission lines, excluding those lines under (viii), will be deemed co-located and/or permissible if construction occurs between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within one kilometer either side of existing 115-kilovolt (kV) or larger transmission lines to create a corridor no wider than two kilometers.
  - vii. New transmission lines, excluding those lines under (viii), outside of this two kilometer corridor can only be constructed where it can be demonstrated that the activity will not cause declines in sage-grouse populations or if the activity reduces cumulative impacts and/or avoids other important natural, cultural or societal resources.
  - viii. Locate essential public services, including but not limited to, distribution lines, domestic water lines and gas lines, at least one kilometer from active sage-grouse leks. If one kilometer avoidance is not possible, construct lines outside of March 15 to June 30.
  - ix. In addition to the applicable best management practices (i-viii), wind energy development, projects must also comply with the 2012 U.S. Fish and Wildlife Service's Wind Energy Guidelines.
2. For oil and gas leases issued after the effective date of the record of decision, the following best management practices are applicable:
- i. Evaluate the affected area in accordance with the process outlined in the State of Wyoming's Executive Order 2011-5.
  - ii. For development within the CHZ, surface disturbance will be limited to three percent of suitable habitat per an average of 640 acres. Development within the IHZ will be limited to five percent of suitable habitat per an average of 640 acres.
  - iii. There shall be no surface occupancy ("NSO") within one kilometer of the perimeter of occupied sage-grouse leks; provided this distance is supported by the best available science at the time the development undergoes site-specific environmental analysis.
  - iv. Activity (production and maintenance activity exempted) will be allowed from July 1 to March 14 outside of the one kilometer perimeter of a lek where brood rearing, nesting and early brood-rearing habitat is present.

- v. Areas solely used as winter concentration areas, exploration and development activity will be allowed March 14 to December 1.
- vi. Locate main roads used to transport production and/or waste products >1.5 kilometers from the perimeter of occupied sage-grouse leks. Locate other roads used to provide facility site access and maintenance >1.5 kilometers from the perimeter of occupied sage-grouse leks. Construct roads to minimum design standards needed for production activities.
- vii. New noise levels, at the perimeter of a lek, should not exceed 10dBA above ambient noise (existing activity included) from 6:00 PM to 8:00 AM during the initiation of breeding (March 1-May 15). Ambient noise level should be determined by measurements taken at the perimeter of a lek at sunrise.
- viii. Absent some demonstration to the contrary, the proposed sagebrush treatment associated with this activity will not reduce canopy cover to less than 15 percent.

#### **H. Scope and Applicability.**

1. This Alternative does not revoke, suspend, or modify any permit, contract, or other legal instrument authorizing the occupancy and use of the applicable Federal lands prior to the effective date of the record of decision and prior to the completion of any statutory or regulatory decision-making process to revoke, suspend, or modify such permit, contract or legal instrument.
2. This Alternative does not revoke, suspend, or modify any project or activity decision made prior to the effective date of the record of decision.
3. Nothing in this Alternative shall be construed as restricting mineral leases, contracts, permits, and associated activities prior to the effective date of the record of decision.
4. Nothing in this Alternative shall affect mining activities conducted pursuant to the General Mining Law of 1872.
5. For the purposes of sage-grouse management, the provisions set forth in this Alternative shall take precedence over any inconsistent land management plan component unless prescribed by statute or regulation. Land management components that are not inconsistent with this Alternative will continue to provide guidance for projects and activities within the SGMA.
6. The best management practices in (G) and other protective stipulations in this Alternative should be evaluated on a continuous basis and at a

minimum, as new science, information and data emerge regarding the habitats and behaviors of the species.

7. Nothing in this Alternative waives any applicable requirements regarding site-specific environmental analysis, public involvement, consultation with Tribes and other agencies, or compliance with applicable laws.

#### **I. Corrections and Adaptive Regulatory Triggers.**

Correction or modification of designations made pursuant to this Alternative may occur under the following circumstances.

1. *Administrative Corrections.* Administrative corrections to the map of lands identified in **Map 3** include, but are not limited to, adjustments that remedy clerical errors, typographical errors, mapping errors, or improvements in mapping technology. The State Director may issue administrative corrections after a 30-day public notice.
2. *Adaptive Regulatory Trigger.* Where two out of the following three criteria are demonstrated within a Conservation Area, excluding areas within the GHZ, the measures in (D) shall apply to the IHZ containing wintering or breeding habitat in the relevant Conservation Area:
  - i. Finite rate of change ( $\lambda$ ) over three years starting with the baseline years 2009- 2011 is significantly less than 1.0. This is a moving average for rate of change (i.e. 2011-2013, 2012-2014, 2013-2015, etc.) when compared to 1.0 (indicating a stable population).
  - ii. Number of males on lek routes declines by >20% over a three-year period compared to 2011 values.
  - iii. A 30% or greater loss of sagebrush habitat is documented within defined breeding or winter habitat during a three-year period.
3. *Regulatory Trigger No Longer Necessary.* Where the core population data within the relevant Conservation Area meets or exceeds the 2011 values over a three-year period, areas within the IHZ are no longer subject to the CHZ management provisions.
4. *Emergency Wildfire Clause.* Where a wildfire burns 200,000 acres or more of the CHZ, and at least fifty percent of the burned acres contained important breeding or wintering habitat, the CHZ regulatory provisions in (D) shall apply to the IHZ within the appropriate Conservation Area.

- #### **J. Adaptive Management Measures for Livestock Grazing:**
- Based upon the assessment process, the ecological conditions, the ecological potential and the status of sage-grouse populations, the following measures could be employed singly, or in combination where appropriate, in the development and



implementation of grazing management programs. Flexibility in administering grazing programs and providing offsetting grazing options over relatively large landscapes will help successfully implement these measures.

1. Employ grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.
2. When use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat, include as appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) in grazing programs.
3. If available and feasible, utilize exotic perennial grass seedings and/or annual grasslands to avoid breeding season of use of occupied sage-grouse habitat.
4. Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse.
5. Where appropriate, maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Table 5.
6. Insure that permittees are informed of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.
7. Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site. In some cases enclosure fencing may be a viable option. However, recognize the availability and quality of desired herbaceous species may be improved by periodic grazing use of the enclosure.
8. Implement management actions (grazing decisions, allotment management plan/conservation plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. Employ proper grazing management by providing flexibility in scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives. During drought periods, prioritize evaluating effects of drought in the CHZ relative to grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.
9. When using salt or mineral supplements: a) place them in existing disturbed sites, areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites—to reduce impacts to sage-grouse breeding habitat, b)

where feasible use salts or mineral supplements to improve management of livestock for the benefit of sage-grouse habitat.

10. In general, avoid constructing new fences within 2 km of occupied leks. Where feasible, place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors. Careful consideration, based on local conditions, should also be given to the placement of new fences or structures near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.
11. New spring developments in sage-grouse habitat should be designed to maintain or enhance the free-flowing characteristics of springs and wet meadows. Analyze developed springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat. Make modifications where necessary, considering impacts to other water users when such considerations are neutral or beneficial to sage-grouse.
12. Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife. Do not use floating boards or similar objects, as these are too unstable and are ineffective. Use BMPs to mitigate potential impacts from West Nile virus.
13. When placing new water developments in sage-grouse breeding habitat, choose sites and designs that will provide the greatest enhancement for sage-grouse and sage-grouse habitat.
14. Avoid new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.
15. Identify and when feasible, establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas.
16. Monitor for, and treat invasive species associated with, existing range improvements.
17. Consider initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth. These projects should only be undertaken where it can be achieved without negatively impacting the species.

## REFERENCES CITED

(Note: all World Wide Web URLs were last accessed on June 9, 2012)

- Aldridge, C. L., S. E. Nielson, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, and M. A. Schroeder. 2008. Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions* 14:983-994.
- Baker, W. L. 2011. Pre-Euro-American and recent fire in sagebrush ecosystems. *Studies in Avian Biology* 38: 185-202.
- BLM (U.S. Bureau of Land Management). 2011a. BLM national greater sage-grouse land use planning strategy. Instructional Memorandum No. 2012-044. Available online at [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction/2012/IM\\_2012-044.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2012/IM_2012-044.html)
- BLM (U.S. Bureau of Land Management). 2011b. A report on national greater sage-grouse conservation measures. Sage-grouse National Technical Team. Available online at <http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/wildlife/Par.73607.File.dat/GrSG%20Tech%20Team%20Report.pdf>
- BLM (U.S. Bureau of Land Management). 2011c. Breaking the current fire cycle. Proceedings, Collaborative Resource Management Symposium, BLM Idaho State Office, Boise District Resource Advisory Council, March 2011, Boise, ID. Several presentations on fuel breaks, available online at [http://www.blm.gov/id/st/en/res/resource\\_advisory/boise/boise\\_district\\_rac.html](http://www.blm.gov/id/st/en/res/resource_advisory/boise/boise_district_rac.html)
- BLM (U.S. Bureau of Land Management). 2012. Sage-grouse and sagebrush conservation webpage, available online at <http://www.blm.gov/wo/st/en/prog/more/sagegrouse.html>
- BLM/USFS (U.S. Bureau of Land Management and U.S. Forest Service). 2012. National greater sage-grouse planning strategy: land use plan amendments and environmental impact statements scoping summary report. Accessible online from BLM 2012, Sage-grouse and sagebrush conservation webpage at <http://www.blm.gov/wo/st/en/prog/more/sagegrouse.html>
- Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. *Wildlife Society Bulletin* 28: 967-985. Available online as Appendix D, Conservation plan for the greater sage-grouse in Idaho (ISAC 2009) at <http://fishandgame.idaho.gov/public/wildlife/sageGrouse/conservPlanAppendices.pdf>
- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000a. Response of a sage-grouse breeding population to fire in southeastern Idaho. *Wildlife Society Bulletin* 28:90-96.

- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.
- Connelly, J. W., S. T. Knick, C. E. Braun, W. L. Baker, E. A. Beever, T. J. Christiansen, K. E. Doherty, E. O. Garton, S. E. Hanser, D. H. Johnson, M. Leu, R. F. Miller, D. E. Naugle, S. J. Oyler-McCance, D. A. Pyke, K. P. Reese, M. A. Schroeder, S. J. Stiver, B. L. Walker, and M. J. Wisdom. 2011a. Conservation of greater sage-grouse: a synthesis of current trends and future management. *Studies in Avian Biology* 38: 549-564.
- Connelly, J. W., E. T. Rinkes, and C. E. Braun. 2011b. Characteristics of greater sage-grouse habitats: a landscape species at micro and macro scales. *Studies in Avian Biology* 38: 69-84.
- Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Doherty, M.K. 2007. Mosquito populations in the Powder River Basin, Wyoming: a comparison of natural, agricultural and effluent coal bed natural gas aquatic habitats. M.S. thesis. Montana State University, Bozeman, MT.
- Doherty, M.K., J.D. Tack, J.S. Evans, and D.E. Naugle. 2010. Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. BLM Completion Report. Interagency Agreement # L10PG00911.
- Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.
- Hagen, C.A., J.W. Connelly, and M.A. Schroeder. 2007. A meta-analysis of sage-grouse *Centrocercus urophasianus* nesting and brood rearing habitats. *Wildlife Biology* 13 (Supplement 1): 42-50.
- Hausleitner, D. 2003. Population dynamics, habitat use and movements of greater sage-grouse in Moffat County, Colorado. M.S. thesis, University of Idaho, Moscow, ID.
- Holloran, M.J., B.J. Heath, A.G. Lyon, S.J. Slater, J.L. Kuipers, and S.H. Anderson. 2005. Greater sage-grouse nesting habitat selection and success in Wyoming. *Journal of Wildlife Management* 69: 638-649.
- IDFG (Idaho Department of Fish and Game). 2012b. Idaho sage-grouse task force webpage, available online at <http://fishandgame.idaho.gov/public/wildlife/?getPage=310>
- ISAC (Idaho Sage-grouse Advisory Committee). 2009. Conservation plan for the greater sage-grouse in Idaho. Idaho Department of Fish and Game, July 2006, available online at <http://fishandgame.idaho.gov/public/wildlife/sageGrouse/conservPlan.pdf> with Chapter 6 --

Implementation milestones amended in October 2009 and available online at <http://fishandgame.idaho.gov/public/wildlife/sageGrouse/conservPlanChapter6.pdf>

ISAC (Idaho Sage-grouse Advisory Committee). 2011. Executive summary of the mitigation framework. Pages 6-7, in Idaho sage-grouse local working groups statewide annual report 2010. Available from Idaho Department of Fish and Game, Boise, ID. [Note: URL at IDFG Sage-grouse webpage does not function properly.]

Johnson, D. H., M. J. Holloran, J. W. Connelly, S. E. Hanser, C. L. Amundson, and S. T. Knick. 2011. Influences of environmental and anthropogenic features on greater sage-grouse populations, 1997-2007. *Studies in Avian Biology* 38: 407-450.

Knick, S.T., and J.W. Connelly (editors). 2011. Greater sage-grouse: ecology and conservation of a landscape species and its habitats. *Studies in Avian Biology* 38. University of California Press, Berkeley, CA.

Knick, S.T. and S.E. Hanser, 2011. Connecting pattern and process in greater sage-grouse populations and sagebrush landscapes. Pages 383-405 in S.T. Knick and J.W. Connelly, editors, Greater Sage-Grouse Ecology and Conservation of a Landscape Species and Its Habitats. *Studies in Avian Biology* No. 38. Cooper Ornithological Society. University of California Press. Berkeley and Los Angeles, CA.

Knick, S.T., S.E. Hanser, R.F. Miller, D.A. Pyke, M.J. Wisdom, S.P. Finn, E.T. Rinkes, and C.J. Henny. 2011. Ecological influence and pathways of land use in sagebrush. *Studies in Avian Biology* 38: 203-252.

Leu, M. and S.E. Hanser. 2011. Influences of the human footprint on sagebrush landscape patterns: implications for sage-grouse conservation. *Studies in Avian Biology* 38: 253-272.

Makela, P., and D. Major. 2011. A framework to identify greater sage-grouse Preliminary Priority Habitat [PPH] and Preliminary General Habitat {PGH} for Idaho. Unpublished white paper, U.S. Bureau of Land Management, Idaho State Office, Boise, ID. 41 p. at <http://fishandgame.idaho.gov/public/wildlife/SGtaskForce/BLMpriorityAreasWhitePaper.pdf>

Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. *Studies in Avian Biology* 38: 145-184.

Naugle, D. E., Doherty, K. E., B. L. Walker, M. J. Holloran, and H. E. Copeland. 2011. Energy development and greater sage-grouse. *Studies in Avian Biology* 38: 489-504.

Pellant, M., P. Makela, B. Dragt, B. Washa, P. Ryan, J. Rose, and D. Major. 2010. Considerations for strategically reducing fuels and wildfires on public lands in the Great

Basin with targeted grazing. BLM Idaho State Office, Great Basin Restoration Initiative Workgroup. Report available online at [http://www.blm.gov/pgdata/etc/medialib/blm/id/Great\\_basin\\_lcc.Par.35362.File.dat/Suggestions%20For%20Strategically%20Reducing%20Fuels%20and%20Wildfires%20in%20the%20Great%20Basin%20with%20Targeted%20Grazing-Final.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/id/Great_basin_lcc.Par.35362.File.dat/Suggestions%20For%20Strategically%20Reducing%20Fuels%20and%20Wildfires%20in%20the%20Great%20Basin%20with%20Targeted%20Grazing-Final.pdf)

Sage-grouse National Technical Team. 2011. A report on national greater sage-grouse conservation measures. USDOJ Bureau of Land Management, Washington, DC.

Scheaffer, R. L., W. Mendenhall, III, and R. L. Ott. 1996. Elementary survey sampling. Wadsworth Publishing, Belmont, CA.

Stevens, B. S., J. W. Connelly, and K. P. Reese. 2012a. Multi-scale assessment of greater sage-grouse fence collision as a function of site and broad scale factors. *Journal of Wildlife Management*. *In press*.

Stevens, B. S., K. P. Reese, J. W. Connelly, and D. D. Musil. 2012b. Greater sage-grouse and fences: does marking reduce collisions? *Wildlife Society Bulletin*. *In press*.

Stiver, S.J., E.T Rinkes, and D.E. Naugle. 2010. Sage-grouse habitat assessment framework. U.S. Bureau of Land Management. Unpublished report, U.S. Bureau of Land Management, Idaho State Office, Boise, ID.

USFWS (U.S. Fish and Wildlife Service). 2010. 12-month finding for petitions to list the greater sage-grouse (*Centrocercus urophasianus*) as threatened or endangered. *75 Federal Register* 13910, March 23, 2010. Accessible online from USFWS endangered species: greater sage-grouse webpage at <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/>

USFWS (U.S. Fish and Wildlife Service). 2012. Wind energy guidelines. Accessible from USFWS wind energy development information webpage at [www.fws.gov/windenergy/](http://www.fws.gov/windenergy/)

Administrative Draft  
Cooperating Agency Review

# Office of the Governor

## STATE OF WYOMING EXECUTIVE DEPARTMENT EXECUTIVE ORDER

Order 2011-5  
(Replaces 2010-4)

### GREATER SAGE-GROUSE CORE AREA PROTECTION

**WHEREAS**, the Greater Sage-Grouse (*Centrocercus urophasianus*) inhabits much of the sagebrush-steppe habitat in Wyoming; and

**WHEREAS**, the sagebrush-steppe habitat type is abundant across the state of Wyoming; and

**WHEREAS**, the state of Wyoming currently enjoys robust populations of Greater Sage-Grouse; and

**WHEREAS**, the state of Wyoming has management authority over Greater Sage-Grouse populations in Wyoming; and

**WHEREAS**, the Greater Sage-Grouse has been the subject of several petitions to list the species as a threatened or endangered species pursuant to the Endangered Species Act; and

**WHEREAS**, the United States Department of the Interior has determined that listing the Greater Sage-Grouse as a threatened or endangered species is warranted over all of its range, including the populations in Wyoming; and

**WHEREAS**, the United States Department of the Interior has determined that listing the Greater Sage-Grouse as a threatened or endangered species is currently precluded by higher priority listing actions; and

**WHEREAS**, the Greater Sage-Grouse is currently considered a "candidate" species under the auspices of the Endangered Species Act; and

**WHEREAS**, the United States Department of the Interior is required to review the status of all candidate species every year; and

**WHEREAS**, the listing of the Greater Sage-Grouse would have a significant adverse effect on the economy of the state of Wyoming, including the ability to generate revenues from state lands; and

**WHEREAS**, the listing of the Greater Sage-Grouse would have a significant adverse effect on the custom and culture of the state of Wyoming; and



**WHEREAS**, the Wyoming State Legislature and other agencies have dedicated significant state resources to conserve Greater Sage-Grouse populations in Wyoming; and

**WHEREAS**, the state of Wyoming has developed a “Core Population Area” strategy to weave the many on-going efforts to conserve the Greater Sage-Grouse in Wyoming into a statewide strategy; and

**WHEREAS**, members of the Sixtieth Legislature of the State of Wyoming signed a Joint Resolution recognizing “the Greater Sage Grouse Core Area Strategy [then embodied under Governor’s Executive Order 2008-2] as the State of Wyoming’s primary regulatory mechanism to conserve sage-grouse and preclude the need for listing the bird as a threatened or endangered species pursuant to the Endangered Species Act of 1973.”; and

**WHEREAS**, on April 17, 2008, the Office of the Governor requested that the U.S. Fish and Wildlife Service review the “Core Population Area” strategy to determine if it was a “sound policy that should be moved forward” and on May 7, 2008, the U.S. Fish and Wildlife Service responded that the “core population area strategy, as outlined in the Implementation Team’s correspondence to the Governor, is a sound framework for a policy by which to conserve greater sage-grouse in Wyoming”; and

**WHEREAS**, on November 10, 2010, the U.S. Fish and Wildlife Service again confirmed that “This long-term, science-based vision for the conservation of greater sage-grouse has set the stage for similar conservation efforts across the species range,” and that “the Core Population Area Strategy for the greater sage-grouse provides an excellent model for meaningful conservation of sage-grouse is fully supported and implemented”; and

**WHEREAS**, several western states have adopted or are considering adopting the Wyoming Core Area Strategy, thus making the concept consistent across the species range; and

**WHEREAS**, new science, information and data continue to emerge regarding “Core Population Areas” and the habitats and behaviors of the Greater Sage-Grouse, which led the Governor’s Sage-Grouse Implementation Team to re-evaluate the original “core population areas” and protective stipulations for Greater Sage-Grouse.

**NOW, THEREFORE**, pursuant to the authority vested in me by the Constitution and Laws of the State, and to the extent such actions are consistent with the statutory obligations and authority of each individual agency including those found in Title 9, Chapter 5, Article 3 of Wyoming State Statutes, otherwise cited as the Wyoming Regulatory Takings Act, I, Matthew H. Mead, Governor of the State of Wyoming, do hereby issue this Executive Order providing as follows:

1. Management by state agencies should focus on the maintenance and enhancement of Greater Sage-Grouse habitats, populations and connectivity areas identified in Attachment A. Absent substantial and compelling information, these Core Population Areas should not be altered for at least five (5) years.
2. Existing land uses within Core Population Areas should be recognized and respected by state agencies. It is assumed that activities existing in Core Population Areas prior to August 1, 2008 will not be managed under Core Population Area stipulations. Examples of existing activities include oil and gas, mining, agriculture, processing facilities, housing and other uses that were in place prior to the development of the Core Population Areas (prior to August 1, 2008). Provided these activities are within a defined project boundary (such as a recognized federal oil and gas unit, drilling and spacing unit, mine plan, subdivision plat, etc.) they should be allowed to continue within the existing boundary, even if the

use exceeds recommended stipulations (see Attachment B) recognizing that all applicable federal actions shall continue.

3. New development or land uses within Core Population Areas should be authorized or conducted only when it can be demonstrated that the activity will not cause declines in Greater Sage-Grouse populations.
4. Development consistent with the stipulations set forth in Attachment B shall be deemed sufficient to demonstrate that the activity will not cause declines in Greater Sage-Grouse populations.
5. Funding, assurances (including efforts to develop Candidate Conservation Agreements and Candidate Conservation Agreements with Assurances), habitat enhancement, reclamation efforts, mapping and other associated proactive efforts to assure viability of Greater Sage-Grouse in Wyoming should be focused and prioritized to take place in Core Population Areas.
6. To the greatest extent possible, a non-regulatory approach shall be used to influence management alternatives within Core Population Areas. Management alternatives should reflect unique localized conditions, including soils, vegetation, development type, predation, climate and other local realities.
7. For activities outside of Core Population Areas, no more than a one-quarter (1/4) mile no surface occupancy standard and a two (2) mile seasonal buffer should be applied to occupied leks. Incentives to enable development of all types outside Core Population Areas should be established (these should include stipulation waivers, enhanced permitting processes, density bonuses, and other incentives). Development scenarios should be designed and managed to maintain populations, habitats and essential migration routes where possible. It is recognized that some incentives may result in reduced numbers of sage-grouse outside of Core Population Areas.
8. Incentives to accelerate or enhance required reclamation in habitats adjacent to Core Population Areas should be developed, including but not limited to stipulation waivers, funding for enhanced reclamation, and other strategies. It is recognized that some incentives may result in reduced numbers of sage-grouse outside of the Core Population Areas.
9. Existing rights should be recognized and respected.
10. On-the-ground enhancements, monitoring, and ongoing planning relative to sage-grouse and sage-grouse habitat should be facilitated by sage-grouse local working groups whenever possible.
11. Fire suppression efforts in Core Population Areas should be emphasized, recognizing that other local, regional, and national suppression priorities may take precedent. However, public and firefighter safety remains the number one priority for all fire management activities.
12. State and federal agencies, including the U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, and other federal agencies shall work collaboratively to ensure a uniform and consistent application of this Executive Order to maintain and enhance Greater Sage-Grouse habitats and populations.
13. State agencies shall work collaboratively with local governments and private landowners to maintain and enhance Greater Sage-Grouse habitats and populations in a manner consistent with this Executive Order.

14. It is critical that existing land uses and landowner activities continue to occur in core areas, particularly agricultural activities on private lands. For the most part, these activities on private lands are not subject to state agency review or approval. Only those activities occurring after August 1, 2008 which state agencies are required by state or federal statute to review or approve are subject to consistency review. This Executive Order in no way adds or expands the review or approval authority of any state agency. It is acknowledged that such land uses and activities could have localized impacts on Greater Sage-Grouse. To offset these impacts, Core Population Areas have been mapped to include additional habitat beyond that strictly necessary to prevent listing of the species. The additional habitat included within the Core Population Area boundaries is adequate to accommodate continuation of existing land uses and landowner activities. As a result, state agencies are not required to review most existing land uses and landowner activities in Core Population Areas for consistency with this Executive Order. Attachment C contains a list of existing land uses and landowner activities that do not require review for consistency.

15. It will be necessary to construct significant new transmission infrastructure to transport electricity generated in Wyoming to out-of-state load centers. New transmission lines constructed within Core Population Areas will be consistent with this Executive Order if they are constructed between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within one half (1/2) mile either side of existing (prior to Governor's Executive Order 2010-4) 115 kV or larger transmission lines creating a corridor no wider than one (1) mile. New transmission lines outside this one (1) mile wide corridor within Core Population Areas should be authorized or conducted only when it can be demonstrated that the activity will not cause declines in Greater Sage-Grouse populations.

16. For purposes of consistency with this Executive Order there is established a transmission line corridor through Core Population Areas in south central and southwestern Wyoming as illustrated on Attachment D. This two (2) mile wide corridor represents the state of Wyoming's preferred alternative for routing transmission lines across the southern portion of the state while reducing impacts to Core Population Areas and other natural resources. New transmission lines constructed within this corridor shall be considered consistent with this Executive Order if construction occurs within the corridor between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas).

17. New distribution, gathering, and transmission lines sited outside established corridors within Core Population Areas should be authorized or conducted only when it can be demonstrated by the state agency that the activity will not cause declines in Greater Sage-Grouse populations.

18. State agencies shall strive to maintain consistency with the items outlined in this Executive Order, but it should be recognized that adjustments to the stipulations may be necessary based upon local conditions and limitations. The goal is to minimize future disturbance by co-locating proposed disturbances within areas already disturbed or naturally unsuitable.

19. The protective stipulations outlined in this Executive Order should be reevaluated on a continuous basis and at a minimum annually, as new science, information and data emerge regarding Core Population Areas and the habitats and behaviors of the Greater Sage-Grouse.

20. State agencies shall report to the Office of the Governor within ninety (90) days of signing and annually thereafter detailing their actions to comply with this Executive Order.

This Executive Order shall remain in effect until August 18, 2015, at which time all provisions of this Executive Order shall be reevaluated.

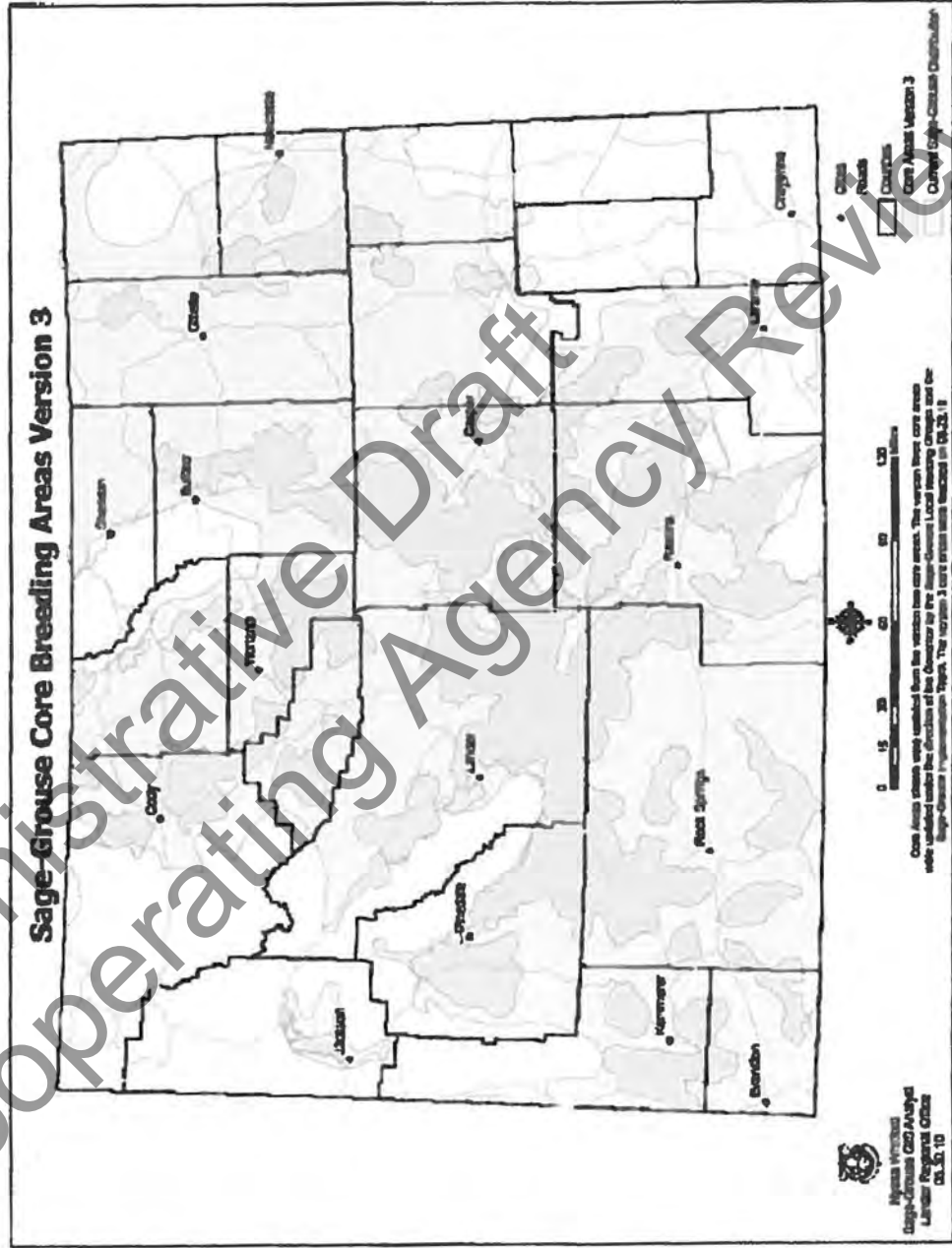
Given under my hand and the Executive Seal of the State of Wyoming this 2 day of Dec, 2011.



  
Matthew H. Mead  
Governor

Administrative Draft  
Cooperating Agency Review

# ATTACHMENT A



## ATTACHMENT B

### Permitting Process and Stipulations for Development in Sage-Grouse Core Areas

#### PERMITTING PROCESS

**Point of Contact:** The first point of contact for addressing sage-grouse issues for any state permit application should be the Wyoming Game and Fish Department (WGFD). Project proponents (proponents) need to have a thorough description of their project and identify the potential effects on sage-grouse prior to submitting an application to the permitting agency (details such as a draft project implementation area analysis, habitat maps and any other information will help to expedite the project). Project proponents should contact WGFD at least 45-60 days prior to submitting their application. More complex projects will require more time. It is understood that WGFD has a role of consultation, recommendation, and facilitation, and has no authority to either approve or deny the project. The purpose of the initial consultation with the WGFD is to become familiar with the project proposal and ensure the project proponent understands recommended stipulations and stipulation implementation process.

**Maximum Disturbance Process:** All activities will be evaluated within the context of maximum allowable disturbance (disturbance percentages, location and number of disturbances) of suitable sage-grouse habitat (See Appendix 1 for definition of suitable sage-grouse habitat and disturbance of suitable sage-grouse habitat) within the area affected by the project. The maximum disturbance allowed will be analyzed via a Density/Disturbance Calculation Tool (DDCT) process conducted by the Federal Land Management Agency on federal Land and the project proponent on non-federal (private, state) land. Unsuitable habitat occurring within the project area will not be included in the disturbance cap calculations.

1. Density/Disturbance Calculation Tool (DDCT): Determine all occupied leks within a core population area that may be affected by the project by placing a 4 mile boundary around the project boundary (as defined by the proposed area of disturbance related to the project). All occupied leks located within the 4 mile boundary and within a core population area will be considered affected by the project.

A four-mile boundary will then be placed around the perimeter of each affected lek. The core population area within the boundary of affected leks and the 4 mile boundary around the project boundary creates the DDCT for each individual project. Disturbance will be analyzed for the DDCT as a whole and for each individual affected lek within the DDCT. Any portion of the DDCT occurring outside of core area will be removed from the analysis.

If there are no affected leks within the 4 mile boundary around the project boundary, the DDCT area will be that portion of the 4 mile project boundary within the core population area.

2. Disturbance analysis: Total disturbance acres within the DDCT will be determined through an evaluation (Appendix 1) of:
  - a. Existing disturbance (sage-grouse habitat that is disturbed due to existing anthropogenic activity and wildfire).

- b. Approved permits (that have approval for on the ground activity) not yet implemented.
3. Habitat Assessment:
- a. A habitat assessment is not needed for the initial DDCT area provided that the entire DDCT area is considered suitable.
  - b. A habitat assessment should be conducted when the initial DDCT indicates proposed project will cause density/disturbance thresholds to be exceeded, to see whether siting opportunities exist within unsuitable or disturbed areas that would reduce density/disturbance effects.
  - c. When a habitat assessment is conducted it should create a baseline survey identifying:
    - i. Suitable and unsuitable habitat within the DDCT area
    - ii. Disturbed habitat within the DDCT area
    - iii. Sage-grouse use of suitable habitat (seasonal, densities, etc.)
    - iv. Priority restoration areas (which could reduce the 5% cap)
      - A. Areas where plug and abandon activities will eliminate disturbance
      - B. Areas where old reclamation has not produced suitable habitat
    - v. Areas of invasive species
    - vi. Other assurances in place (CCAA, easements, habitat, contracts, etc.)
4. Determination of existing and allowable suitable habitat disturbance: Acres of disturbance within suitable habitat divided by the total suitable habitat within the DDCT area times 100 equals the percent of disturbed suitable habitat within the DDCT area. Subtracting the percentage of existing disturbed suitable habitat from 5% equals new allowable suitable habitat disturbance until plant regeneration or reclamation reduces acres of disturbed habitat within the DDCT area.

**Permitting:** The complete analysis package developed by consultation and review outlined herein will be forwarded to the appropriate permitting agency. WGFD recommendations will be included, as will other recommendations from project proponents and other appropriate agencies. Project proponent shall have access to all information used in developing recommendations. Where possible and when requested by the project proponent, state agencies shall provide the project proponent with development alternatives other than those contained in the project proposal.

**Exempt Activities:** A list of exempt (“de minimus”) activities, including standard uses of the landscape is available in Attachment C.

## GENERAL STIPULATIONS

These stipulations are designed to maintain existing suitable sage-grouse habitat by permitting development activities in core areas in a way that will not cause declines in sage-grouse populations. General stipulations are recommended to apply to all activities in core areas, with the exception of exempt (“de minimus”) actions defined herein (Attachment C) or specifically identified activities. The specific industry stipulations are considered in addition to the general stipulations.

- 1. **Surface Disturbance:** Surface disturbance will be limited to 5% of suitable sage-grouse habitat per an average of 640 acres. The DDCT process will be used to determine the

level of disturbance. Distribution of disturbance may be considered and approved on a case-by-case basis. Unsuitable habitat should be identified in a seasonal and landscape context, on a case-by-case basis, outside the 0.6 mile buffer around leks. This will incentivize proponents to locate projects in unsuitable habitat to avoid creating additional disturbance acres. Acres of development in unsuitable habitat are not considered disturbance acres. The primary focus should be on protection of suitable habitats and protecting from habitat fragmentation. See Appendix 1 for a description of suitable, unsuitable habitat and disturbance.

2. **Surface Occupancy:** Within 0.6 miles of the perimeter of occupied sage-grouse leks there will be no surface occupancy (NSO). NSO, as used in these recommendations, means no surface facilities including roads shall be placed within the NSO area. Other activities may be authorized with the application of appropriate seasonal stipulations, provided the resources protected by the NSO are not adversely affected. For example, underground utilities may be permissible if installation is completed outside applicable seasonal stipulation periods and significant resource damage does not occur. Similarly, geophysical exploration may be permissible in accordance with seasonal stipulations.
3. **Seasonal Use:** Activity (production and maintenance activity exempted) will be allowed from July 1 to March 14 outside of the 0.6 mile perimeter of a lek in core areas where breeding, nesting and early brood-rearing habitat is present. In areas used solely as winter concentration areas, exploration and development activity will be allowed March 14 to December 1. Activities in unsuitable habitat may also be approved year-round (including March 15 to June 30) on a case-by-case basis (except in specific areas where credible data shows calendar deviation). Activities may be allowed during seasonal closure periods as determined on a case-by-case basis. While the bulk of winter habitat necessary to support core sage-grouse populations likely occurs inside Core Population Areas, seasonal stipulations (December 1 to March 14) should be considered in locations outside Core Population Areas where they have been identified as winter concentration areas necessary for supporting biologically significant numbers of sage-grouse nesting in Core Population Areas. All efforts should be made to minimize disturbance to mature sagebrush cover in identified winter concentration areas.
4. **Transportation:** Locate main roads used to transport production and/or waste products > 1.9 miles from the perimeter of occupied sage-grouse leks. Locate other roads used to provide facility site access and maintenance > 0.6 miles from the perimeter of occupied sage-grouse leks. Construct roads to minimum design standards needed for production activities.
5. **Overhead Lines:** Bury lines when possible, if not; locate overhead lines at least 0.6 miles from the perimeter of occupied sage-grouse leks. New lines should be raptor proofed if not buried.
6. **Noise:** New noise levels, at the perimeter of a lek, should not exceed 10 dBA above ambient noise (existing activity included) from 6:00 p.m. to 8:00 a.m. during the initiation of breeding (March 1 – May 15). Ambient noise levels should be determined by measurements taken at the perimeter of a lek at sunrise.
7. **Vegetation Removal:** Vegetation removal should be limited to the minimum disturbance required by the project. All topsoil stripping and vegetation removal in suitable habitat

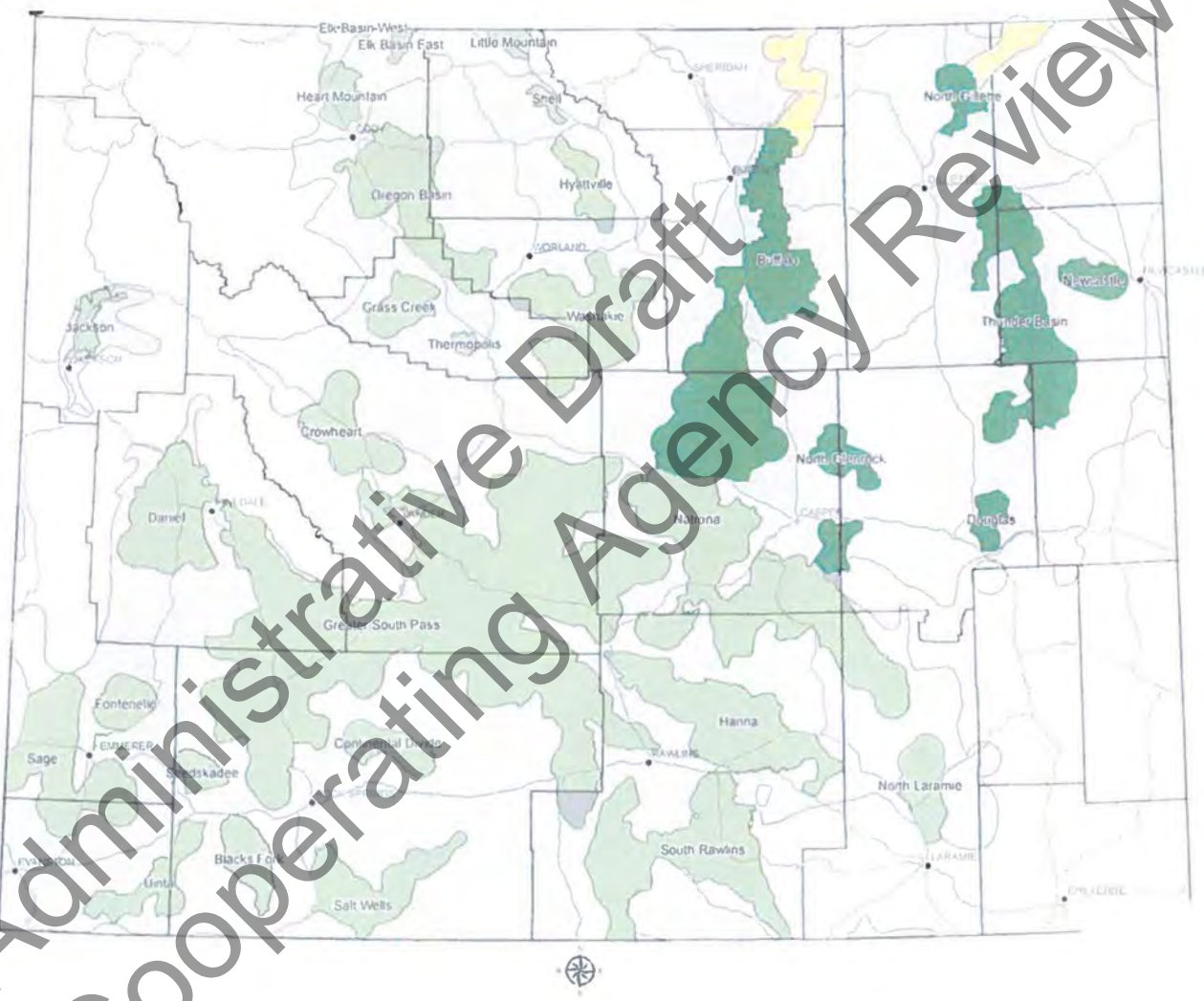


will occur between July 1 and March 14 in areas that are within 4 miles of an occupied lek. Initial disturbance in unsuitable habitat between March 15 and June 30 may be approved on a case-by-case basis.

8. **Sagebrush Treatment:** Sagebrush eradication is considered disturbance and will contribute to the 5% disturbance factor. Northeast Wyoming, as depicted in Figure 1, is of particular concern because sagebrush habitats rarely exceed 15% canopy cover and large acreages have already been converted from sagebrush to grassland or cropland. Absent some demonstration that the proposed treatment will not reduce canopy cover to less than 15% within the treated area, habitat treatments in northeast Wyoming (Figure 1) should not be conducted. In stands with less than 15% cover, treatment should be designed to maintain or improve sagebrush habitat. Sagebrush treatments that maintain sagebrush canopy cover at or above 15% total canopy cover within the treated acres will not be considered disturbance. Treatments that reduce sagebrush canopy cover below 15% will be allowed, excluding northeast Wyoming (Figure 1), if all such treated areas make up less than 20% of the suitable sagebrush habitat within the DDCT, and any point within the treated area is within 60 meters of sagebrush habitat with 10% or greater canopy cover. Treatments to enhance sagebrush/grassland will be evaluated based upon the existing habitat quality and the functional level post-treatment.
9. **Monitoring/adaptive response:** Proponents of new projects are expected to coordinate with the permitting agency and local WGFDD biologist to determine which leks need to be monitored and what data should be reported by the proponent. Certain permits may be exempted from monitoring activities pending permitting agency coordination. If declines in affected leks (using a three-year running average during any five year period relative to trends on reference leks) are determined to be caused by the project, the operator will propose adaptive management responses to increase the number of birds. If the operator cannot demonstrate a restoration of bird numbers to baseline levels (established by pre-disturbance surveys, reference surveys and taking into account regional and statewide trends) within three years, operations will cease until such numbers are achieved.
10. **Reclamation:** Reclamation should re-establish native grasses, forbs and shrubs during interim and final reclamation to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to benefit sage-grouse and replace or enhance sage-grouse habitat to the degree that environmental conditions allow. Seed mixes should include two native forbs and two native grasses with at least one bunchgrass species. Where sagebrush establishment is prescribed, establishment is defined as meeting the standard prescribed in the individual reclamation plan. Landowners should be consulted on desired plant mix on private lands. The operator is required to control noxious and invasive weed species, including cheatgrass. Rollover credit, if needed, will be outlined in the individual project reclamation plan.

Credit may be given for completion of habitat enhancements on bond released or other minimally functional habitat when detailed in a plan. These habitat enhancements may be used as credit for reclamation that is slow to establish in order to maintain the disturbance cap or to improve nearby sage-grouse habitat.

Figure 1. Wyoming Core Area with northeast Wyoming core (dark green) and connectivity areas (yellow).



11. **Existing Activities:** Areas already disturbed or approved for development within Core Areas prior to August 1, 2008 are not subject to new sage-grouse stipulations with the exception existing operations may not initiate activities resulting in new surface occupancy within 0.6 mile of the perimeter of a sage-grouse lek. Any existing disturbance will be counted toward the calculated disturbance cap for a new proposed activity. The level of disturbance for existing activity and rollover credit may exceed 5%.
12. **Exceptions:** Any exceptions to these general or specific stipulations will be considered on a case by case basis and must show that the exception will not cause declines in sage-grouse populations.

#### **SPECIFIC STIPULATIONS (To be applied in addition to general stipulations)**

1. **Oil and Gas:** Well pad densities not to exceed an average of one pad per square mile (640 acres) and suitable habitat disturbed not to exceed 5% of suitable habitat within the DDCT. As an example, the number of well pads within a two mile radius of the perimeter of an occupied sage-grouse lek should not exceed 11, distributed preferably in a clumped pattern in one general direction from the lek.
2. **Mining**
  - a. For development drilling or ore body delineation drilled on tight centers, (approximately 100'X100') the disturbance area will be delineated by the external limits of the development area. Assuming a widely-spaced disturbance pattern, the actual footprint will be considered the disturbance area.
  - b. Monitoring results will be reported annually in the mine permit annual report and to WGFD. Pre-disturbance surveys will be conducted as required by the appropriate regulatory agency.
  - c. The number of active mining development areas (e.g., operating equipment and significant human activity) are not to exceed an average of one site per square mile (640 acres) within the DDCT.
  - d. Surface disturbance and surface occupancy stipulations will be waived within the Core Area when implementing underground mining practices that are necessary to protect the health, welfare, and safety of miners, mine employees, contractors and the general public. The mining practices include but are not limited to bore holes or shafts necessary to: 1) provide adequate oxygen to an underground mine; 2) supply inert gases or other substances to prevent, treat, or suppress combustion or mine fires; 3) inject mine roof stabilizing substances; and 4) remove methane from mining areas. Any surface disturbance or surface occupancy necessary to access the sites to implement these mining practices will also be exempt from any stipulation.
  - e. Coal mining operations will be allowed to continue under the regulatory and permit-specific terms and conditions authorized under the federal Surface Mining Control and Reclamation Act.
3. **Connectivity:**
  - a. The suspension of federal and state leases in connectivity corridors (Figure 1) is encouraged where there is mutual agreement by the leasing agency and the operator. These suspensions should be allowed until additional information

clarifies their need. Where suspensions cannot be accommodated, disturbance should be limited to no more than 5% (up to 32 acres) per 640 acres of suitable sage-grouse habitat within connectivity corridors.

- b. For protection of connectivity corridors (Figure 1), a controlled surface use (CSU) buffer of 0.6 miles around leks or their documented perimeters is required. In addition, a March 15 to June 30 timing limitation stipulation is required within nesting habitat within 4 miles of leks.

- 4. Process Deviation or Undefined Activities: Development proposals incorporating less restrictive stipulations or development that is not covered by these stipulations may be considered depending on site-specific circumstances and the proponent must have data demonstrating that the alternative development proposal will not cause declines in sage-grouse populations in the core area. Proposals to deviate from standard stipulations will be considered by a team including WGFD and the appropriate land management and permitting agencies, with input from the U.S. Fish and Wildlife Service. Project proponents need to demonstrate that the project development would meet at least one of the following conditions:

- a. No suitable habitat is present in one contiguous block of land that includes at least a 0.6 mile buffer between the project area and suitable habitat;
- b. No sage-grouse use occurs in one contiguous block of land that includes at least a 0.6 mile buffer between the project area and adjacent occupied habitat, as documented by total absence of sage-grouse droppings and an absence of sage-grouse activity for the previous ten years;
- c. Provision of a development/mitigation plan that has been implemented and demonstrated by previous research not to cause declines in sage-grouse populations. The demonstration must be based on monitoring data collected and analyzed with accepted scientific based techniques.

- 5. Wind Energy Development: Wind development is not recommended in sage-grouse core areas, but will be reevaluated on a continuous basis as new science, information and data emerges.

## Appendix I Suitable Sage-Grouse Habitat Definition

Sage-grouse require somewhat different seasonal habitats distributed over large areas to complete their life cycle. All of these habitats consist of, are associated with, or are immediately adjacent to, sagebrush. If sage-grouse seasonal habitat use maps do not exist for the project site the following description of suitable habitat should be used to determine areas of unsuitable sage-grouse habitat for development siting purposes. An abbreviated description of a complex system cannot incorporate all aspects of, or exceptions to, what habitats a local sage-grouse population may or may not utilize.

**Suitable sage-grouse habitat** (nesting, breeding, brood-rearing, or winter) is within the mapped occupied range of sage-grouse, and:

- 1) has 5% or greater sagebrush canopy cover as measured by the technique developed by interagency efforts. "Sagebrush" includes all species and sub-species of the genus *Artemisia* except the mat-forming sub-shrub species: *frigida* (fringed) and *pedatifida* (birdfoot); or
- 2) is riparian, wet meadow (native or introduced) or areas of alfalfa or other suitable forbs (brood rearing habitat) within 60 meters of sagebrush habitat with 10% or greater canopy cover and the early brood rearing habitat does not exceed 20% of the suitable sagebrush habitat present within the DDCT, Larger riparian/wet meadow, and grass/forb producing areas may be considered suitable habitat as determined on a case by case basis.

**Transitional sage-grouse habitat** is land that has been treated or burned prior to 2011 resulting in <5% sagebrush cover but is actively managed to meet a minimum of 5% sagebrush canopy cover with associated grasses and forbs by 2021 (by analysis of local condition and trend) and may or may not be considered disturbed. Land that does not meet the above vegetation criteria by 2021 should be considered disturbed.

Land treatments post 2010 must meet sagebrush vegetation treatment guidelines or the treatment will be considered disturbed. Following wildfire, lands shall be treated as disturbed pending an implementation management plan with trend data showing the area returning to functional sage-grouse habitat.

To evaluate the 5% disturbance cap per average 640 acres using the DDCT, suitable habitat is considered disturbed when it is removed and unavailable for immediate sage-grouse use.

The following items are guidelines for determining suitable habitat:

- a. Long-term removal occurs when habitat is physically removed through activities that replace suitable habitat with long term occupancy of unsuitable habitat such as a road, well pad or active mine.
- b. Short-term removal occurs when vegetation is removed in small areas, but restored to suitable habitat within a few years of disturbance, such as a successfully reclaimed pipeline, or successfully reclaimed drill hole or pit.
- c. There may be additional suitable habitat considered disturbed between two or more long term (greater than 1 year) anthropogenic disturbance activities with a footprint greater than 10 acres each if the activities are located such that sage-grouse use of the suitable habitat between these activities is significantly reduced due to the close proximity (less than 1.2 miles apart, 0.6 miles from each activity) and resulting in cumulative effects of these large scale activities. Exemptions may be provided.

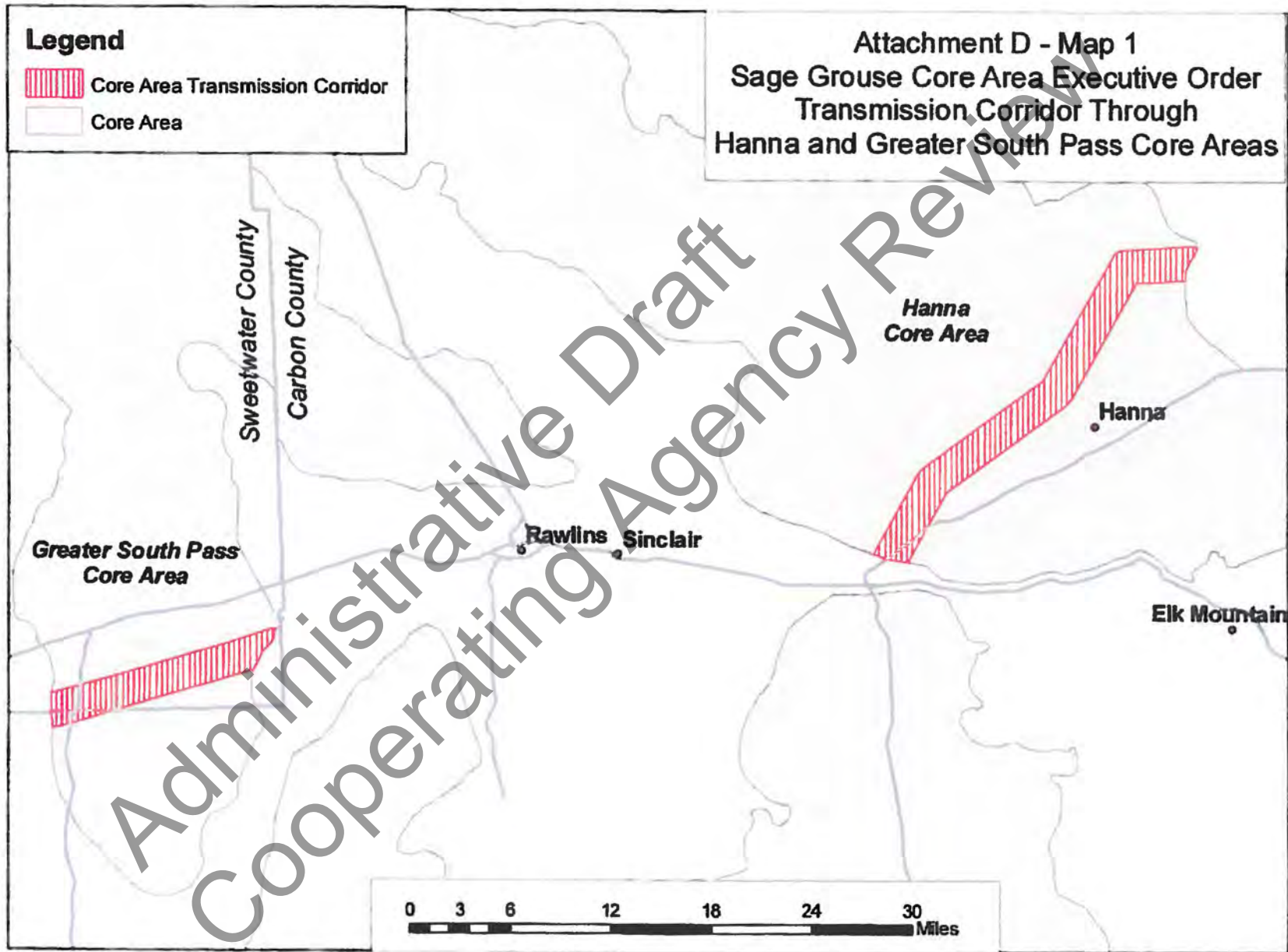
- d. Land in northeast Wyoming (Figure 1 of Attachment B) that has had sagebrush removed post-1994 (based on Orthophoto interpretation) and not recovered to suitable habitat will be considered disturbed when using the DDCT.

Administrative Draft  
Cooperating Agency Review

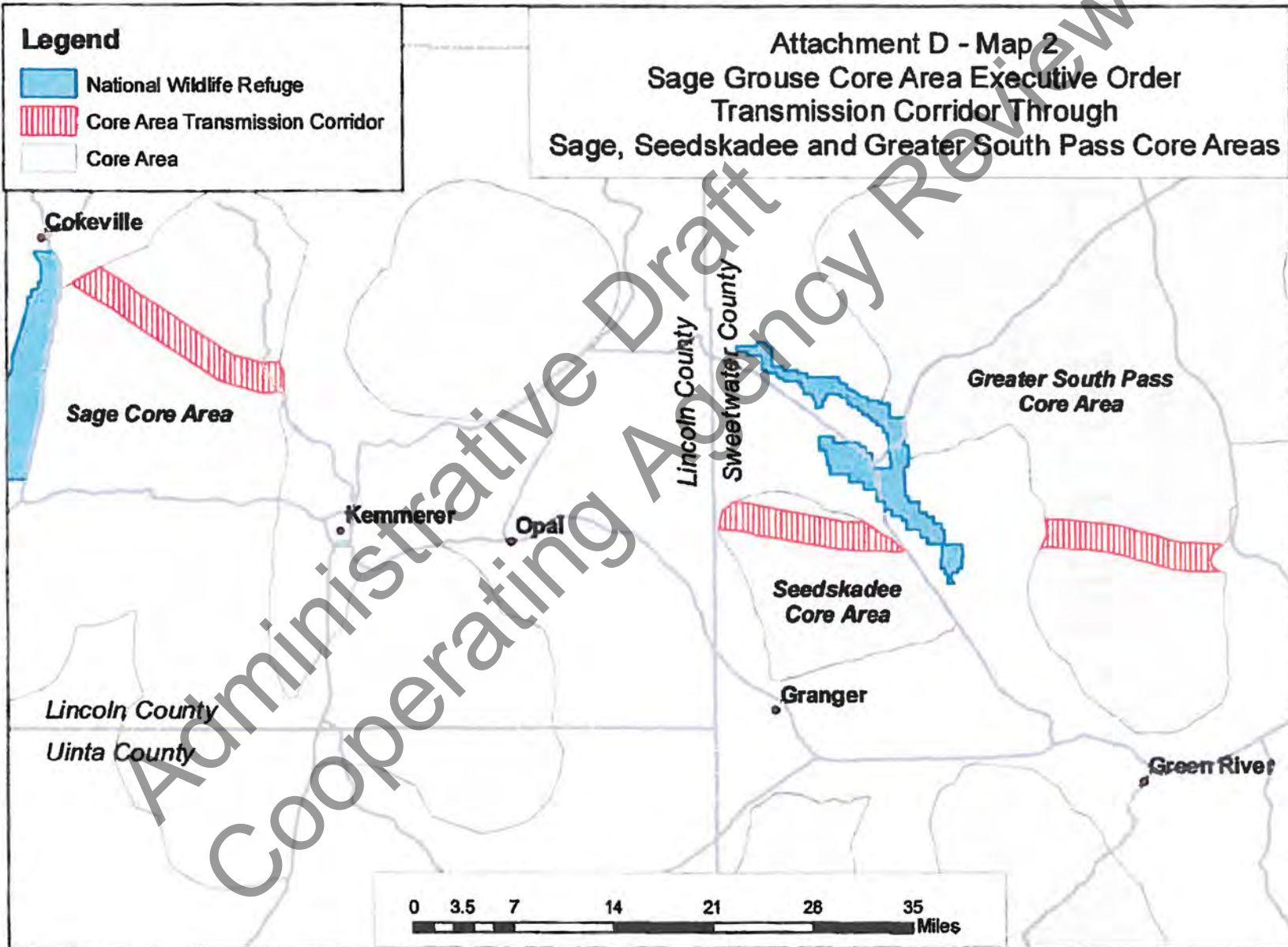
**ATTACHMENT C**  
**Exempt (“de minimus”) Activities**

**Existing Land Uses and Landowner Activities in Greater Sage-Grouse Core Population  
Areas That Do Not Require State Agency Review for Consistency  
With Executive Order No. 2011-02**

1. Existing animal husbandry practices (including branding, docking, herding, trailing, etc).
2. Existing farming practices (excluding conversion of sagebrush/grassland to agricultural lands).
3. Existing grazing operations that utilize recognized rangeland management practices (allotment management plans, NRCS grazing plans, prescribed grazing plans, etc).
4. Construction of agricultural reservoirs and habitat improvements less than 10 surface acres and drilling of agriculture and residential water wells (including installation of tanks, water windmills and solar water pumps) more than 0.6 miles from the perimeter of the lek. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction does not occur on the lek. All water tanks shall have escape ramps.
5. Agricultural and residential electrical distribution lines more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction does not occur on the lek. Raptor perching deterrents shall be installed on all poles within 0.6 miles from leks.
6. Agricultural water pipelines if construction activities are more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction is reclaimed.
7. New fencing more than 0.6 miles from leks and maintenance on existing fence. For new fencing within 0.6 miles of leks, fences with documented high potential for strikes should be marked.
8. Irrigation (excluding the conversion of sagebrush/grassland to new irrigated lands).
9. Spring development if the spring is protected with fencing and enough water remains at the site to provide mesic (wet) vegetation.
10. Herbicide use within existing road, pipeline and power line rights-of-way. Herbicides application using spot treatment. Grasshopper/Mormon cricket control following Reduced Agent-Area Treatments (RAATS) protocol.
11. Existing county road maintenance.
12. Cultural resource pedestrian surveys.
13. Emergency response.









C.L. "BUTCH" OTTER  
GOVERNOR

March 14, 2013

Brian Kelly  
State Director  
U.S. Fish and Wildlife Service  
Idaho State Office  
1387 South Vinnell Way  
Boise, ID 83709-1657

Dear Brian,

This letter continues our discussion and collaboration on Idaho's contribution to Greater Sage-Grouse (GSG) management and conservation in order to avoid its listing under the Endangered Species Act (ESA). I greatly appreciate the personal attention and leadership you dedicated to this issue.

On December 18, 2012, Interior Secretary Ken Salazar responded to a series of questions posed by several western members of Congress about the Department of Interior's National Greater Sage-Grouse Land Use Planning Strategy (GSG Strategy). I was pleased that Secretary Salazar reiterated his commitment that "the BLM has every intention of taking actions to conserve the Greater Sage-Grouse in a manner that is *consistent with its multiple use mission* and with due regard for site specific on-the-ground considerations." (emphasis added).

I also noted with great interest that Secretary Salazar outlined the process for a Bureau of Land Management (BLM) state office to be exempted from Instruction Memorandum (IM) No. 2012-043 dated December 22, 2011. I believe IM No. 2012-043 coupled with the National Technical Team Report (NTT Report) represents a one-size-fits-all management scheme that fails to account for the site-specific information contained in my management plan. Secretary Salazar's response indicates that such an exemption can occur where "a state or local conservation mechanism has been developed with concurrence of the Fish and Wildlife Service." In short, I write to pursue the "concurrence" option for Idaho as a necessary precondition for state exemption from the national IM.

Moreover, I believe that a state-based solution for public land management – similar to Idaho's effort on roadless areas – will be a win-win for the species and the Idahoans who economically depend on access to lands managed by the federal government.

Concurrence by the Service on the Idaho approach is particularly important as your agency will carefully weigh all conservation commitments by my State and others in determining whether listing of the species is warranted under the ESA.

To briefly summarize where we are in the process, I sent you a letter in July 2012 requesting preliminary feedback on Idaho's draft Sage-Grouse Alternative. Specifically, I posed two questions fundamental to the overall structure of the plan:

- (1) Whether the management framework – based on a thematic habitat continuum and population metrics – outlined in my Draft Alternative represents sound policy that should move forward; and
- (2) Whether the habitat zones, especially the Core Habitat Zone and Important Habitat Zone, are consistent with the U.S. Fish and Wildlife Service's understanding of the most important sage-grouse habitats in the state.

Your written response was especially encouraging and signaled that the State of Idaho was moving in the right direction in developing a sound GSG strategy. Based on this early feedback, the State took public comment, refined the draft Alternative and submitted it to the BLM for incorporation into its Strategy. *See* Governor C.L. "Butch" Otter's Greater Sage-Grouse Management Alternative, Sept. 5, 2012. ("Idaho Alternative").

Following submission to the BLM, you reaffirmed that the Service still had confidence with the aforementioned components in particular, but needed additional clarification and targeted revisions for the remainder of the Idaho management plan. Your point was taken in the spirit of collaboration, and I believe that in addition to the September 2012 Idaho Alternative, the attachment below resolves these outstanding issues, and thus provides the path for Service concurrence consistent with Secretary Salazar's policy directive. For the sake of completeness, the Idaho Alternative is adopted herein by reference, and only where specifically noted below should the Idaho Alternative be construed as revised or modified.

I have sincerely appreciated your leadership in helping the State of Idaho develop a collaborative, science-based management plan that meets the needs of the species and Idaho citizens. Of course, the Service's concurrence is a necessary and foundational part of this process, but the State of Idaho is mindful that further clarification may be beneficial as part of the Department's ongoing GSG Strategy consistent with the National Environmental Policy Act and the ESA in coordination with the State. Please let me know if you have any questions during your review. I look forward to the Service's concurrence and our continued discussions on this critically important issue.

As Always – Idaho, "Esto Perpetua"



C. L. "Butch" Otter  
Governor of Idaho

## Request for U.S. Fish and Wildlife Service Concurrence:

### 1. Thematic Conservation Approach

An effective plan for managing the greater sage-grouse must include both population and habitat metrics. The Idaho Alternative accomplishes both.<sup>1</sup> As to the habitat component, the Idaho Alternative at 2-3 identifies a Sage-Grouse Management Area (SGMA) that is divided into four conservation areas (CA) across the known range of sage-grouse in southern Idaho. These CAs are important for achieving Idaho's population objectives as well as to properly tailor adaptive management responses where necessary and appropriate.

There are two CAs north of the Snake River and two CAs south of the Snake River. The first CA north of the Snake River is the Mountain Valley CA, which starts at Rexburg and extends west, including sage-grouse habitat north and west of Highway 33 to Howe, Highway 33/22 to Arco, Highway 26/20/93 to Carey, Highway 20 west to Mountain Home, south from Mountain Home on Highway 51 to the Snake River. The second is the Desert CA, which is south of the Mountain Valley CA.

South of the Snake River is the West Owyhee CA, which is west of the Jarbidge River. The Southern CA is east of the Jarbidge River, and includes the East Idaho Uplands and Bear Lake Plateau. See Idaho Alternative at 6.

Each CA is divided into three management zones: Core Habitat Zone (CHZ), Important Habitat Zone (IHZ) and the General Habitat Zone (GHZ). Idaho Alternative at 24. These management zones were the result of the Idaho Department of Fish and Game's (IDFG) on-the-ground information provided by Dr. Jack Connelly and Don Kemner based on decades of research and monitoring data. As mentioned above, you indicated that Idaho's thematic approach *based on conservation objectives that are monitored in an adaptive management construct are fundamental attributes of the Service's own approach to strategic conservation.*<sup>2</sup> (emphasis added).

These management zones outline a suite of basic management activities that may or may not occur within a given area. Idaho Alternative at 3, 24-29. The thematic approach represents a management continuum that includes a relatively restrictive approach at one end in the CHZ and a relatively flexible approach in the GHZ. These three zones provide an array of permitted and prohibited activities. Idaho Alternative at 33-47.

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<sup>1</sup> The Idaho Alternative is attached as Appendix I.

<sup>2</sup> "The thematic approach based on conservation objectives that are monitored in an adaptive management construct that your framework incorporates, are fundamental attributes of the Service's own approach to strategic conservation (USFWS and USGS 2006)." Letter from Brian Kelly (U.S. Fish and Wildlife Service) to Governor Otter re: "Draft Federal Alternative of Governor C. L. 'Butch' Otter for Greater Sage Grouse Management in Idaho," August 1, 2012.

At the outset of the Governor’s Task Force deliberations, the group noted the initial BLM mapping proposal (i.e., preliminary priority habitat/general habitat) as well as the National Technical Team (NTT Report) needed to be refined to reflect the state-specific concerns and the on-the-ground monitoring information. The Alternative notes, “[t]he State believes this [BLM’s] mapping approach does not adequately take advantage of the opportunity to provide better and more precise management direction based on the quality and location of sage-grouse populations and habitats in Idaho.” Idaho Alternative at 20.

Moreover, in developing these management zones, population objectives, and regulatory mechanisms, Idaho carefully considered the collaborative recommendations of the Governor’s Task Force, current Resource Management Plans, the NTT Report, the recently published volume on greater sage-grouse (*Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and its Habitats*) (co-editors Drs. Steven T. Knick and John W. Connelly), and other current and relevant scientific information. The State of Idaho did not adopt or endorse any of these sources to the exclusion of the others. To put a finer point on this issue, the state believes that all of these sources, to some degree, constitute the best available science for sage-grouse, and must be considered in our effort to preclude the need to list the species under the ESA.

Furthermore, dividing the current range into four CAs with three distinct management zones provides several important conservation benefits for the species:

- The management themes and adaptive management triggers provide a critical part of the needed direction and flexibility to address wildfire—the most significant threat to the species.
- The management themes also ensure that precious resources are directed toward dealing with the most important threats in stronghold areas.
- In conjunction with the threat of wildfire, the state adopted the Task Force’s recommendations to expand the CHZ beyond the 25% breeding bird density to include areas that may not currently meet that benchmark, but could offer solid opportunities for habitat restoration in the future. Idaho Alternative at 25.
- Using three management zones facilitates opportunities for collaboration as resource considerations can be more appropriately tailored across the range of the species.
- This thematic approach is not without precedent. The Idaho Alternative is based largely on Idaho’s successful model for managing and conserving inventoried roadless areas. In fact, the Idaho Roadless Rule has been affirmed by both the District of Idaho and the Ninth Circuit Court of Appeals.

## 2. State of Idaho Population Objectives

These population indicators are critical to gauging the effectiveness of the state's conservation efforts. In conjunction with the management zones, the population indicators ensure there is an appropriately tailored response to significant fluctuations in habitat and population.

The first objective is to implement regulatory mechanisms that maintain and enhance sage-grouse habitats, populations, and connectivity within the CHZ. Recognizing the impact of wildfire, the IHZ provides both important management flexibility and a strategic conservation buffer. Through the implementation of the state's proposed regulatory mechanisms, Idaho will be well-positioned to maintain a viable population of at least 65% of the sage-grouse leks for the foreseeable future. It is important to note that IDF&G estimates that approximately 95% of Idaho's known sage-grouse population is encompassed in the CHZ and IHZ themes. *See generally* Idaho Alternative at 7-9. By contrast, the GHZ only accounts for 5% of the state's total population.

The second objective is to stabilize sage-grouse habitats and populations by monitoring the effectiveness of the regulatory measures over time. A significant component of this objective is to minimize habitat loss within Core Habitat Zone (CHZ), and to a lesser extent, the Important Habitat Zone (IHZ). For more detail see Idaho's Alternative.

## 3. Adaptive Regulatory Triggers

The Adaptive Regulatory Triggers have been clarified and refined since the September 5<sup>th</sup> version. Idaho Alternative 9-11.<sup>3</sup> The adaptive triggers provide a regulatory backstop to prevent further loss and stabilize habitats and populations in the CHZ, and to a lesser extent in the IHZ, where a demonstrated significant loss has either occurred over time or unexpectedly (i.e., Murphy Complex Fire). These adaptive triggers are employed when dramatic shifts in population or habitat occurs based on an average over a three year period compared to 2011 values. Additionally, these adaptive triggers place the primary and secondary threats to the species in proper context to appropriately evaluate the cause(s) of the decline.

In addition to the below description, Idaho's Alternative utilizes two types of triggers to help determine whether changes in management are necessary. This is a refinement from the September 5<sup>th</sup> version of the Idaho Alternative. The triggers are broken down into a "soft" trigger and a "hard" trigger. The "soft" trigger becomes operative when one of the following occurs:

- 10% decline in maximum number of males counted and a finite rate of change below 1.0 but not significantly on CHZ over a period of three years; or
- 10% loss of nesting and wintering habitat in a Conservation Area over a period of three years.

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<sup>3</sup> Not only do the revisions apply to the referenced narrative portions of the Idaho Alternative, but also where relevant and applicable to the regulatory language beginning on page 30.

When the monitoring information indicates that the “soft trigger” may be tripped, an Implementation Team – aided by the technical expertise of IDF&G – will assess the factor(s) leading to the decline and identify potential management actions. *See Idaho Alternative at 7.* The Implementation Team may consider possible changes in management to the CHZ. As to the IHZ, the Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state’s ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

The “hard” trigger becomes operative when one of the following occurs:

- 20% loss in CHZ nesting wintering habitat over a period of three years; or
- 20% decline in maximum number of males counted and a finite rate of change significantly below 1 within a Conservation Area over a period of three years.

If the hard trigger becomes operative according to the monitoring information, management changes are no longer discretionary and will be implemented in the following manner:

First, the IHZ will be managed according to the CHZ provisions primarily impacting the ability to consider infrastructure projects. Like the “soft trigger”, the Implementation Team will analyze the actual cause(s) of the decline. The flow chart (Appendix II) illustrates the process used to determine which threat(s) caused the habitat or population loss.

As the illustration denotes, the Service identified wildfire, invasive species, and infrastructure as the primary threats and West Nile Virus, improperly managed grazing, and recreation as secondary threats. This adaptive trigger strategy focuses the analysis on mitigating the primary threats to the species in the CHZ. Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Implementation Team analyze the secondary threats to the species and determine whether further management actions are needed.

Population and habitat objectives are measured against baselines are illustrated in the tables below. The baseline for habitat within each CA is the 2011 nesting and wintering habitat for the CHZ and IHZ. (See Tables 1 and 2). The population baseline is the maximum number of males counted on lek routes in 2011 within the CHZ and the average finite rate of change of population for 2009-2011 within the CHZ. It is measured the same way in IHZ. CHZ and IHZ triggers are analyzed separately. The habitat triggers are also analyzed separately from the population triggers. The foregoing represents additional clarification from Idaho’s Alternative.

Table 1. Population Trigger (for illustrative purposes only).

Conservation Area	Population Baseline	Soft Trigger ( 10%)	Hard Trigger (20%)
Desert			
Mountain Valley			
Southern			
Western Owyhee			

Table 2. Habitat Triggers

Conservation Area	Breeding & Wintering (acres) (baseline)	10% loss (acres) (soft trigger)	20% loss (acres) (hard trigger)
Desert	840,291	84,029	168,058
Mountain Valleys	1,640,415	164,042	328,083
Southern	568,921	56,892	113,784
West Owyhee	1,416,135	141,614	283,227

#### 4. Wildfire/Invasive Species

This section has been refined since the September 5th version. As mentioned above, the Idaho Alternative utilizes conservation areas, management zones and adaptive triggers to maintain and enhance sage-grouse populations in the CHZ to mitigate the impacts of wildfire. This approach provides stability in the short-term to enable the more proactive measures (i.e., fuel breaks, habitat restoration) the time necessary to demonstrate positive change on the landscape.

Additionally, the Idaho Alternative organizes its regulatory measures into three categories: Prevention, Suppression, and Restoration. This change reflects the state's intent to provide BLM with a method to prioritize wildfire management and resources, while providing flexibility to make adjustments when necessary.

During the 2013 Idaho Legislative session, Governor Otter made it a priority to provide ranchers and landowners in rural areas with the necessary tools and training to allow them to play an active role in fire prevention and suppression, especially in sage-grouse habitat. Idaho Code § 38-104B amends existing law to provide for the creation of non-profit Rangeland Fire Protection Associations (Appendix III).

In conjunction with this change in Idaho Code, the Idaho Legislature also provided the Idaho Department of Lands with additional funding to assist in the creation of four protection associations in southwest Idaho, modeled from the Mountain Home Rural Fire Protection



Association. Appendix IV provides a preliminary map depicting areas in sage-grouse habitat that are considered “no man’s lands” where these associations can help in early fire detection, suppression and prevention efforts.

## **5. Infrastructure**

This section remains unchanged from the Idaho Alternative. The state recognizes that more detail in the mitigation policy and its implementation may be needed to achieve the overall conservation objectives. *See* Section G of the Idaho Alternative and pages 33-34, 40, 43-45.

## **6. Livestock Grazing on Lands Managed by the Federal Government**

The State Alternative only applies to those lands managed by the Federal government that are part of the GSG Strategy. It is important, especially in the context of livestock grazing management, that the following management framework is applicable only to the extent it involves the BLM’s administration of Standard 8 of the Idaho Rangeland Health Standards (IRHS) with respect to sage-grouse. An important footnote, the IRHS do not apply to the U.S. Forest Service, and this management framework should in no way be construed as imposing those standards on the Forest Service. While this framework may benefit other sage-steppe species, those species-specific or other resources issues are not addressed herein.

### **Management Framework:**

There are two pathways where this management framework is applicable: (1) in conjunction with scheduled term grazing permit renewals; and (2) where the adaptive regulatory trigger has been tripped (as described in section 3 above) and livestock grazing is identified as a potential causal factor.

Under the first path, this management plan provides a framework for BLM to assess Standard 8 with respect to sage-grouse as grazing permits are scheduled for renewal. As described in more detail below, if no trigger has been tripped across a CA, then the Standard 8 analysis for sage-grouse is a straightforward process. Under the second path, this adaptive framework aids in determining whether improperly managed livestock grazing may be a causal factor that potentially requires adaptive change to existing permits within a CA.

The first step in this process is to inform and educate permittees within the SGMA regarding sage-grouse habitat needs and conservation measures. These habitat needs or characteristics, as applicable, are outlined in Tables 3-5 of the Idaho Alternative (14-17).

Second, Standard 8 of the IRHS establishes a “maintain a viable population” threshold for listed species. 43 C.F.R. Subpart 4160. Consistent with the overall approach of the Idaho Alternative – namely, an outcome-based conservation strategy within an adaptive construct – the State of Idaho has identified an overall population target buttressed by regulatory mechanisms and adaptive regulatory triggers. Where these population and habitat triggers are being maintained, there is a rebuttable presumption that current grazing systems within that CA are adequate to

maintain viable sage-grouse populations. Therefore, absent compelling information, no further changes to grazing permits will be required pursuant to the Standard 8 analysis insofar as it relates to sage-grouse. In sum, if no trigger has been tripped within a CA, the allotments and pastures are presumed to have met Standard 8 with respect to sage-grouse.

This rebuttable presumption does not preclude adaptive change to grazing permits based on the other standards contained in the IRHS. Again, it is important to note that the Forest Service is not subject to the IRHS; however, the conservation objectives established in the Idaho's Alternative should meet the applicable standards in National Forest Management Act (NFMA).

If an adaptive regulatory trigger is tripped consistent with the process outlined above, and livestock grazing is identified as a potential limiting factor, the presumption that the current grazing operations within the Conservation Area have met Standard 8 with respect to sage-grouse will no longer be applicable.

Following such a determination, the following process will be utilized:

BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on allotments within the CHZ that have declining sage-grouse populations. Following those permits within the CHZ, resources will be further prioritized to allotments within the IHZ with breeding habitats that have decreasing lek counts. (See Flow Chart, Appendix V). Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the adaptive assessment process.

The assessment/determination process for sage-grouse pursuant to Standard 8 must rely on published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

Where an allotment or pasture meets one of these Categories above, Tables 3-5 (Idaho Alternative at 14-16) will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable: (a) due to the existing ecological condition, ecological potential or the existing vegetation; or (b) due to causal events unrelated to existing livestock grazing. Allotments will only be managed for

the primary seasonal habitat that it has the potential to support. Typically, summer habitats will be managed to provide the conditions described in Table 3; winter Table 4; and breeding habitats in Table 5.

Based on these habitat characteristics, BLM will conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics (Tables 3-5) will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management shall not result from one year of data at a specific location within an allotment.

If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics (Tables 3-5), renewed permits will include measures, including but not limited to the actions outlined in (Idaho Alternative, Section J at 46-48) to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.

Additionally, adaptive management changes related to existing grazing permits should only be undertaken if improper grazing is determined to be the causal factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over time with appropriate site variability.

The Implementation Team will maintain oversight capabilities throughout the process and will be given the ability to review proposed management changes, the implementation of conservation measures, and the on-the-ground monitoring to ensure the measures are appropriately applied.

**APPENDIX I: IDAHO ALTERNATIVE**

Previously Included

Administrative Draft  
Cooperating Agency Review

Administrative Draft  
Cooperating Agency Review

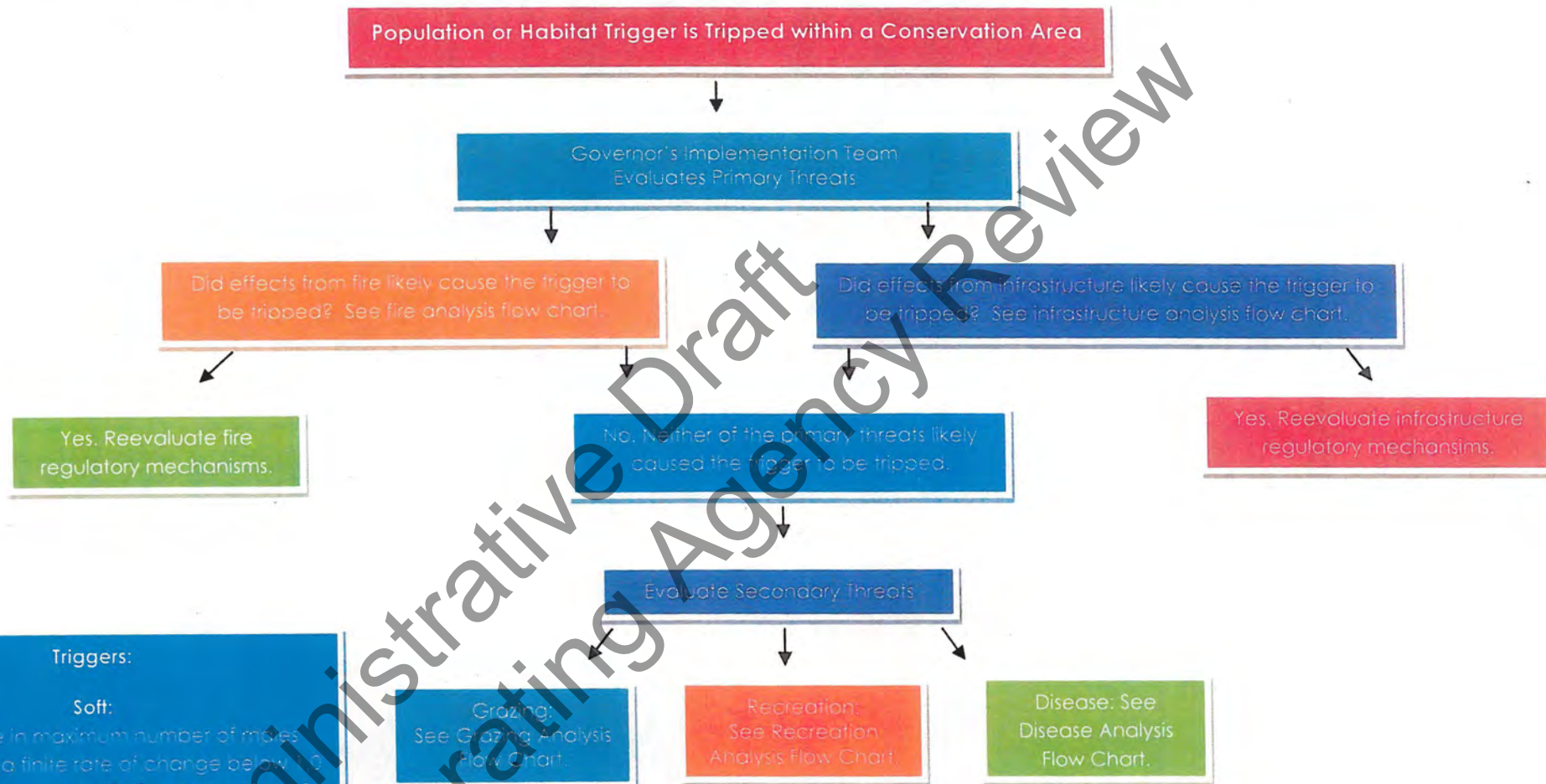
**APPENDIX II: ADAPTIVE TRIGGER STRATEGY**

Administrative Draft  
Cooperating Agency Review

Administrative Draft  
Cooperating Agency Review

## Appendix II: Adaptive Trigger Strategy

### Determine What Caused a Hard Trigger to Become Operative and What Management Actions are Necessary



#### Triggers:

##### Soft:

10% decline in maximum number of males counted and a finite rate of change below 0 but not significantly on CHZ over a period of three years; or  
 10% loss of nesting and wintering habitat in a Conservation Area over a period of three years.

##### Hard:

20% loss in CHZ nesting wintering habitat over a period of three years; or

20% decline in maximum number of males counted and a finite rate of change significantly below 1 within a Conservation Area over a period of three years.



Administrative Draft  
Cooperating Agency Review

**APPENDIX III: IDAHO RANGELAND FIRE  
PROTECTION ASSOCIATIONS**

Administrative Draft  
Cooperating Agency Review

Administrative Draft  
Cooperating Agency Review

IN THE HOUSE OF REPRESENTATIVES

HOUSE BILL NO. 93

BY RESOURCES AND CONSERVATION COMMITTEE

AN ACT

RELATING TO FOREST AND RANGE FIRES; AMENDING CHAPTER 1, TITLE 38, IDAHO CODE,  
BY THE ADDITION OF A NEW SECTION 38-104B, IDAHO CODE, TO PROVIDE FOR NON-  
PROFIT RANGELAND FIRE PROTECTION ASSOCIATIONS, TO DEFINE A TERM AND TO  
PROVIDE PROCEDURES.

Be It Enacted by the Legislature of the State of Idaho:

SECTION 1. That Chapter 1, Title 38, Idaho Code, be, and the same is hereby amended by the addition thereto of a NEW SECTION, to be known and designated as Section 38-104B, Idaho Code, and to read as follows:

38-104B. NONPROFIT RANGELAND FIRE PROTECTION ASSOCIATIONS. (1) "Non-profit rangeland fire protection association" means a nonprofit corporation or nonprofit unincorporated association, that has entered into an agreement for the detection, prevention or suppression of forest and range fires with the state of Idaho or any agency of the state of Idaho pursuant to title 38, Idaho Code.

(2) A group of rangeland owners wishing to establish a rangeland fire protection association shall petition the director of the department of lands. The director may accept petitions where:

(a) Petitioners meet the requirements established by the director concerning the legal status of the association, liability insurance and governing and managing structure; and

(b) Petitioners demonstrate financial ability to form a rangeland fire protection association; or

(c) Adequate state funding exists, as determined by the director, to assist in the initial establishment of the association.

(3) Prior to entering into an agreement, and annually thereafter, the director shall review and inspect the association for the following:

(a) The governing and managing structure of the association;

(b) The adequacy of liability insurance; and

(c) The training of all association personnel.

Administrative Draft  
Cooperating Agency Review

**APPENDIX IV: REPA MAP**

Administrative Draft  
Cooperating Agency Review

Administrative Draft  
Cooperating Agency Review

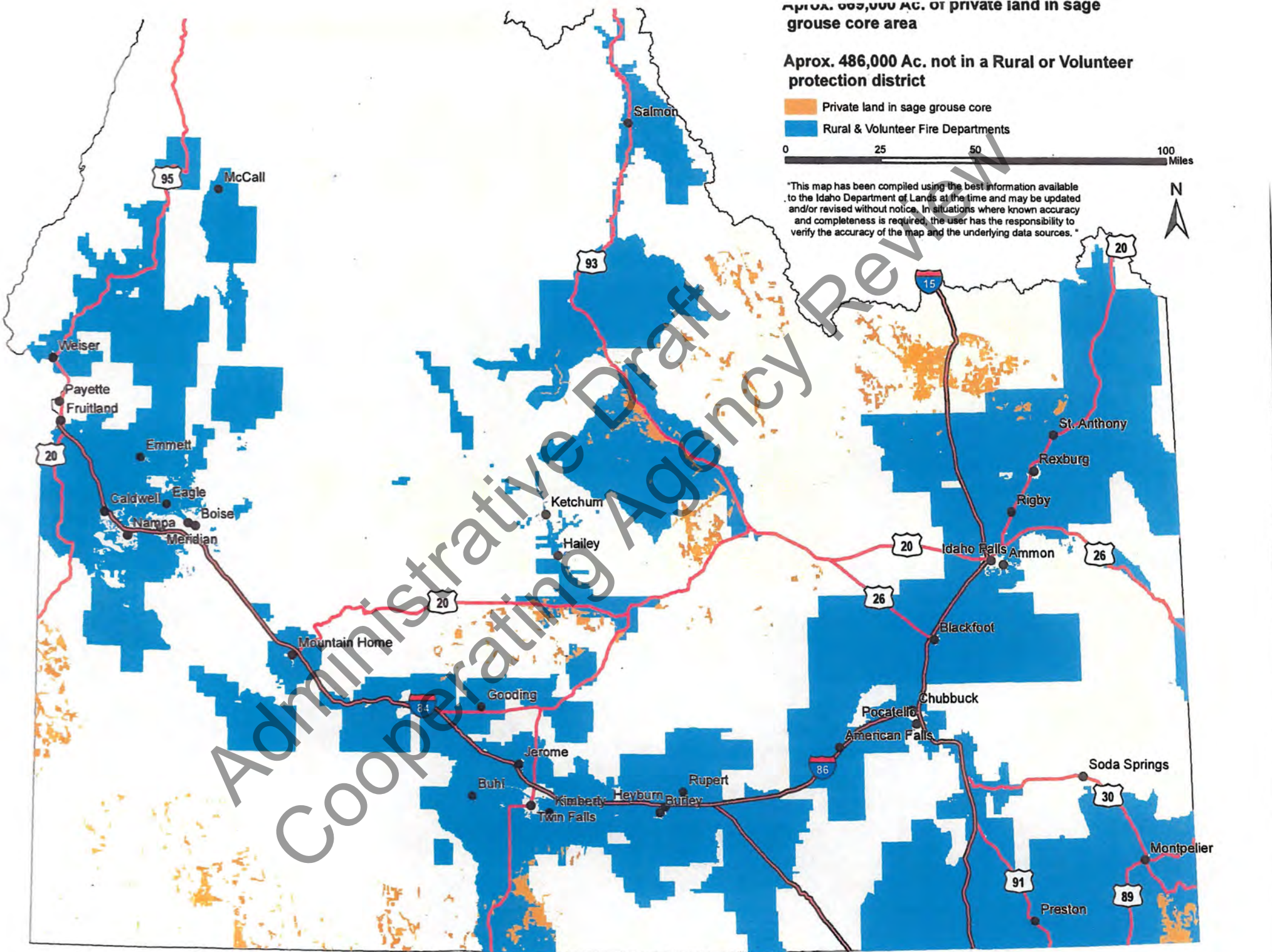
APPROX. 669,000 AC. OF PRIVATE LAND IN SAGE GROUSE CORE AREA

APPROX. 486,000 AC. NOT IN A RURAL OR VOLUNTEER PROTECTION DISTRICT

- Private land in sage grouse core
- Rural & Volunteer Fire Departments



"This map has been compiled using the best information available to the Idaho Department of Lands at the time and may be updated and/or revised without notice. In situations where known accuracy and completeness is required, the user has the responsibility to verify the accuracy of the map and the underlying data sources."





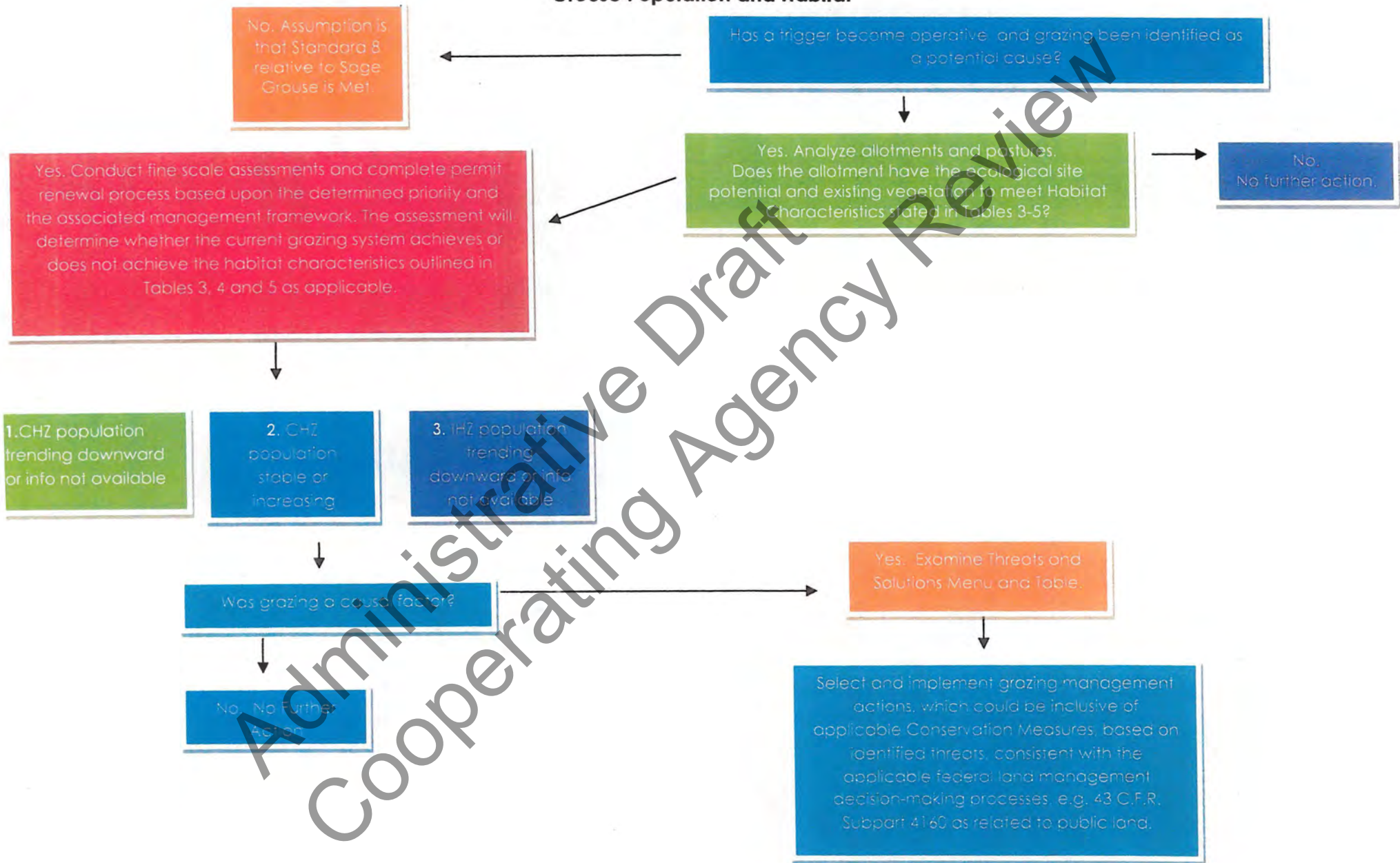
Administrative Draft  
Cooperating Agency Review

**APPENDIX V: LIVESTOCK MANAGEMENT  
FRAMEWORK**

Administrative Draft  
Cooperating Agency Review

Administrative Draft  
Cooperating Agency Review

**Appendix V: Livestock Grazing on Lands Included Within Greater Sage-Grouse Strategy  
Determine Whether Current Grazing Practices Within a Conservation Area are Adequately Maintaining Viable Sage Grouse Population and Habitat**



Administrative Draft  
Cooperating Agency Review



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



FISH AND WILDLIFE SERVICE

Idaho Fish and Wildlife Office  
1387 South Vinnell Way, Room 368  
Boise, Idaho 83709

MAR 22 2013

Governor C.L. "Butch" Otter  
Idaho State Capitol Building  
Boise, Idaho 83720

Dear Governor Otter,

We would like to reiterate our appreciation for your leadership with respect to the conservation of Greater sage-grouse in Idaho and, in particular, your work forming and supporting the collaborative work of the Idaho sage-grouse task force. The commitment of the task force, your staff, the Idaho Office of Species Conservation and the Idaho Department of Fish and Game to conserve Greater sage-grouse in a manner that respects multiple use of the land and contributes to a future where listing the species under the Endangered Species Act (ESA) is unnecessary, is a commitment we share. We write today to reassure you of this commitment with respect to the revisions you have made to the State of Idaho Alternative that was transmitted to the U.S. Fish and Wildlife Service (FWS) on March 14, 2013.

The FWS and Bureau of Land Management (BLM) each have a separate and distinct role to play in the review of the State's plan. Although FWS has been working closely with the State on specific revisions, the formal review for concurrence that you have requested will allow FWS to determine whether the State alternative or parts thereof are consistent with and will meet the conservation objectives outlined in the Conservation Objectives Team report. Such a determination will provide a basis for BLM to consider potential interim measures based on the State alternative that can be implemented in a manner consistent with the bureau's multiple-use mandate and organizational capacity.

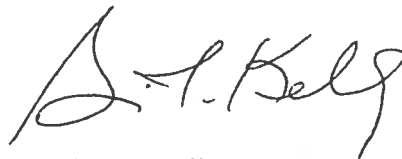
At this time, the FWS and BLM have not completed their respective detailed analysis of the State's revisions to determine adequacy and implementation/capacity possibilities, respectively. At first glance, much of the State's plan contains direction consistent with the FWS's long-term needs to ensure the conservation of sage-grouse and BLM's multiple-use mandate. There are also some aspects of the plan which both BLM and the FWS in Idaho believe need clarification and refinement.

The FWS and the BLM are jointly committed to work in partnership with the State to achieve such clarity and refinement. We look forward to convening with your team and hope to do so early next week. It is our intent that through this partnership the Idaho BLM, consistent with organizational capacity, would be able to adopt those portions that are aligned with current policy/regulations as interim direction for Greater sage-grouse management on Idaho's public lands. Idaho BLM also commits to continue to fully analyze the State alternative in their subregional Sage Grouse EIS to be completed by December, 2014.

Sincerely,



Steven A. Ellis  
BLM Idaho State Director



Brian T. Kelly  
FWS Idaho State Supervisor



# United States Department of the Interior Fish and Wildlife Service

Idaho Fish And Wildlife Office

1387 S. Vinnell Way, Room 368

Boise, Idaho 83709

Telephone (208) 378-5243

<http://www.fws.gov/idaho>



The Honorable C.L. "Butch" Otter  
Governor of Idaho  
State Capitol  
Boise, Idaho 83702

**APR 10 2013**

Dear Governor Otter:

Thank you for your letter of March 14, 2013 requesting U.S. Fish and Wildlife Service (Service) "concurrence" in regards to Idaho's Greater sage-grouse (GRSG) conservation strategy (Strategy). Before the Service responds to this request, we would like to express our continued appreciation for your leadership in guiding the collaborative approach in which your staff in the Governor's Office, the Office of Species Conservation and the Idaho Department of Fish and Game has worked with us to refine the State's approach to conserving GRSG in Idaho.

The Service remains impressed with and supportive of the science-based adaptive conservation strategy for GRSG you have crafted collaboratively in Idaho, for Idaho-specific needs. In brief, the foundation of the Strategy and most of the specific elements that complete it, are solid and are grounded in scientific concepts and approach important to both the Service and Department of the Interior. While there is much about the current draft that the Service supports; there remain elements that need refinement, clarification, or need to be incorporated into the Strategy for the Service to conclude the entire strategy is consistent with the Service's Greater sage-grouse Conservation Objectives Team (COT) report.

A detailed response to your inquiry is attached. In summary, the integrated nature of the Strategy makes it difficult to "concur" with specific elements as most are interrelated and depend on other elements of the Strategy to function effectively. Nonetheless, our review revealed that the 4 foundational elements of the Strategy (Habitat Zones, Conservation Areas, Population Objective and Adaptive Triggers) are consistent with the COT as is the Livestock Grazing Management element. Therefore, this determination of consistency with the COT reflects "concurrence" for these elements, with the necessary elements noted in our detailed comments (see attachment), for the purpose of BLM IM 2012-043. This "concurrence" should not be construed as being automatically implementable by the BLM. The Service looks forward to working with your Task Force, and BLM as appropriate, to refine, clarify and add aspects of the Strategy as needed for similar support of, for example, the Wildfire Management and Infrastructure elements; and the Implementation Team/Commission. The latter, while an element of the Strategy that that



C.L. "Butch" Otter, Governor  
State of Idaho  
Request for State sage-grouse plan concurrence

needs clarity and refinement is an issue the Service believes is easily addressed. There are numerous examples of such bodies, including as the State has verbally referenced, the process used on the Idaho Roadless Rule. The Service looks forward to assisting the State craft such a process for the Strategy.

Conservation of GRSG is a challenge. It is a challenge due to the geographic scale of the issue; the need of the species for large intact undisturbed geographies of habitat; the difficult nature of the threats in the Great Basin portion of the range; and the relevance of the habitat in questions to myriad conservation and economic needs and interests. Long-term conservation of GRSG will require a strong and sustained commitment by stakeholders across multiple jurisdictions to work together collaboratively. It is for these reasons that the Service commends the State of Idaho for acknowledging and crafting a Strategy that on one hand details proactive conservation actions to address the threats on the landscape, but equally important embraces the uncertainty of how those threats will play out on the landscape and how they will affect GRSG over time by crafting a robust, outcome based scientific strategy that is collaborative and adaptive. This balance between proactive conservation design/actions based on empirical data and assumptions, with a feedback loop from monitoring to inform adaptation in design/action, with stakeholders in the decision loop as an integral part of that process, is a fundamental component of the both the Strategic Habitat Conservation approach the Service employs, and Adaptive Management that the Department of the Interior employs.

We hope this review is helpful. The Service looks forward to continuing our role in this process of on-going refinement of the Strategy, its implementation over time, and as part of the adaptive process it embraces.

Sincerely,



Brian T. Kelly  
Idaho State Supervisor

cc: Idaho BLM, State Director (S. Ellis)  
Idaho Department of Fish and Game, Director (V. Moore)  
Idaho Office of Species Conservation, Administrator (D. Miller)  
U.S. Forest Service, Region 4, Deputy Regional Forester (M. Finley)

## ATTACHMENT

### Purpose of the Service's Comments

We want to be clear regarding the purpose of our comments. First, our comments serve to continue the collaborative and iterative process we have been engaged in with you. We see this review as an important "check-in" and continuation of that process to ensure the Strategy is ultimately best positioned to contribute to a future where listing GRSG under the ESA is unnecessary.

Our comments also provide the requested feedback regarding "concurrence" as referenced in BLM Instructional Memorandum 2012-043. While the Service and BLM are both Department of the Interior Agencies, and we together with the State of Idaho and other partners, are collaborating in the conservation of GRSG; the BLM and Service have different legal authorities and policy requirements. As such, any "concurrence" we may offer on elements of the Strategy should not be construed a priori as being implementable by the BLM. That is a determination BLM must make. The Service acknowledges and respects BLM authority in this regard. The Service stands ready to assist the State and BLM in BLM's approval process where appropriate (e.g., Service review of elements of the Strategy that are modified to be implementable by BLM). Our comments on the Strategy at this juncture are not part of the on-going BLM process to amend and or revise various Resource Management Plans across the range of GRSG. That review process will be completed separately.

Service support of the Strategy in part or whole should not be interpreted as a decision by the Service commensurate with a listing decision under the Endangered Species Act (ESA). That determination will be made when the Service formally reviews the status of the species in 2015. However, our purpose in developing the COT report was to guide the States in the development of conservation actions and strategies so that when we review those efforts in 2015 they would contribute to the conservation of the species in a manner that collectively would address threats such that listing would not be necessary. It is for this reason, our review of the Strategy herein is provided in the context of the COT report.

### Components of the Strategy

We frame our review in the context of the three primary elements of the strategy: (1) Foundational Elements, (2) Specific Elements, and (3) Implementation Team/Commission. Foundational elements of the Strategy are those that transcend specific management and conservation actions or reactive adaptive processes once population or habitat triggers are tripped. We refer to four Foundational Elements: Thematic Approach, Conservation Areas, Adaptive Triggers, and Population Objective. Specific Elements identified in the Strategy are those that target specific threats including: wildfire, invasive species, and infrastructure, as primary threats; and recreation, West Nile virus, improper livestock grazing management, and livestock grazing infrastructure as secondary threats. The Implementation Team/Commission

referenced in the Strategy is meant to ensure proper action is taken when a trigger is tripped. As such, for the purposes of our review, we will evaluate the Implementation Team/Commission as a separate operational element of the strategy.

### **Foundational Elements**

Our review of the Strategy revealed a thoughtful, science-based and outcome-driven adaptive management approach to the conservation of GRSG in Idaho. This approach is consistent with the COT report. The Thematic Approach, Conservation Areas, Adaptive Triggers, and Population Objectives are consistent with the COT report and the Service strongly supports these aspects of the State's Strategy.

Examples of how the four Foundational Elements of the Strategy are consistent with the General Conservation Objectives and Specific Conservation Objectives related to Priority Areas for Conservation (PACs) in the COT report include:

1. The designation of a Core Habitat Zone (CHZ) of approximately 5.5 million acres which by itself is currently home to approximately 73% of the male GRSG in Idaho. The CHZ captures the COT report intent of avoiding development in priority areas for conservation (PACs). The Strategy reflects that the development of infrastructure (a primary threat to GRSG) is prohibited in CHZ; with a process for limited exceptions. The Service commends the State for ensuring that any exceptions to the prohibition to infrastructure in CHZ, must meet the conservation standard in the Important Habitat Zone (IHZ; see discussion in next paragraph). While we support the configuration and intent of the CHZ, we look forward to working with the State to clarify how exceptions are determined and specific mitigation strategies if exceptions occur are implemented (see Specific Elements and Implementation Team/Commission headings, below).
2. The designation of an Important Habitat Zone (IHZ), of approximately 4 million acres which by itself is currently home to 22% of the male GRSG in Idaho. The IHZ also captures the COT report intent of stopping the population decline in that while infrastructure is permitted; it is permitted in a way that must demonstrate it will not affect the population trend for the Conservation Area in question. IHZ serves an equally important role in the Strategy as it can serve to buffer loss of habitat due to fire (see #5).
3. The Strategy's use of a measureable population objective, and utilizing monitoring to ensure that objective is met; and setting metrics that trigger changes in practices or review of current practices to ensure the Strategy's conservation objective is met long-term.
4. The use of four separate Conservation Areas in which the adaptive triggers are individually applied adds an increased level of sensitivity to change, that we expect to translate to more timely changes in management if necessary, which will translate to an enhanced ability to ensure the population objective of the

Strategy is met state-wide (the Service appreciates and concurs with the State's desire to have additional peer review of the adaptive triggers).

5. The use of a "hard trigger" that, if tripped, requires IHZ be managed as CHZ, with infrastructure development subject to the same standards in both zones. In essence, if applied to all Conservation Areas, the CHZ would almost double in size. This would add the conservation benefit of CHZ to IHZ until no longer necessary.
6. The COT report also references the importance of incentive-based conservation actions in developing a conservation strategy. The foundational elements of the Strategy provide a context for incentivizing actions to maintain population numbers and intact habitat; and help ensure the conservation and restoration of GRSG in Idaho. The structure of these foundational elements of the Strategy (and specific elements consistent with the COT report and others as they are refined) will help provide stakeholders predictability with regard to GRSG conservation needs.

### Specific Elements

*Livestock Grazing Management:* This specific element of the Strategy is consistent with the COT report. The Service supports this aspect of the Strategy because it requires Idaho Rangeland Health Standards (IRHS) be met and it does so in the context of the Strategy. The COT report identifies that if the riparian (IRHS 2) and upland (IRHS 4) rangeland health standard is met, that is the minimum needed to address the threat of grazing on GRSG based on our expertise under the ESA. To achieve this, the Strategy provides an adaptive management process by which adjustments in grazing based on ecological site potential and habitat characteristics would be prioritized as needed outside of normally scheduled permit renewals based on population triggers and cause of declines within each Conservation Area in the Strategy. Additionally, the adaptive management approach the Strategy provides an important framework for deciding what, in addition to IRHS 2 and 4, might be required under IRHS 8 (Threatened, Endangered or Sensitive Species) for GRSG conservation.

As noted above, the COT also references the importance of incentive-based conservation actions in developing a conservation strategy. The Service believes the Livestock Grazing Management Element address the conservation needs of GRSG while providing an important incentive to permittees to be good stewards.

An additional important benefit to the Service of the Livestock Grazing Management element is that the regulation of improper grazing as a threat to GRSG when permits had not yet been analyzed by BLM to meet IRHS for GRSG (IRHS 2, 4; and 8 as needed) would be accomplished through the Strategy on an as needed basis based on population status. This approach is in contrast to requiring all individual permits be conditioned to meet IRHS 2, 4 and 8 (as needed), by the time the Service makes its listing determination—a goal that is likely not achievable. To be clear, the Service supports

adherence to IRHS. Our support for the approach of this element is due to it being a wise approach for regulating the appropriate conservation action for the secondary threat of improper grazing to GRSG where needed, until IRHS necessary for GRSG conservation are achieved at the management area scale. This adequacy of regulatory mechanisms under ESA is an important consideration. Pending more clarity in how the Implementation Team/Commission is staffed and operates once a trigger is tripped; the Service would expect to fully support this element of the Strategy. While we would defer to the BLM on their permit-specific application of these triggers in the context of requirements to enhance and restore rangelands under Federal Lands Policy and Management Act (FLPMA), the Service supports the Livestock Grazing Element in the interim as long as no triggers have been tripped within a Conservation Area.

*Infrastructure:* The specific actions in the infrastructure element are consistent with the COT pending a clearer understanding how the Implementation Team/Commission operates to determine exceptions to CHZ development, development in IHZ, and how referenced mitigation of impacts will work.

*Mitigation:* Mitigation is referenced in multiple elements in the Strategy but there is no explanation of the how mitigation for impacts in CHZ, IHZ and potentially GHZ will work. The Service is aware of preliminary work by your Task Force and the work of the Idaho Sage-grouse Advisory Council and this element and encourages the State to build on these efforts for this element of the Strategy.

*Restoration:* The Service recognized in our letter of August 1, 2012, that one of the many strengths of the Strategy is that habitat in need of restoration was included in and adjacent to CHZ as a priority commitment for restoration and to expand Core habitat. However, the Strategy is largely silent on the important relationship between mitigation and restoration for restoration to occur; what constitutes habitat that is lost versus gained back; and restoration monitoring. The need for how direct and indirect loss of habitat is quantified and what constitutes restored habitat is a missing component of the habitat trigger as well.

*Wildfire Management:* Wildfire and invasive species associated with fire are the greatest threat to long-term persistence of GRSG in the Great Basin and the threat most difficult to manage. The Strategy has been refined to help manage this threat in a significant way. The addition of legislative changes and funding to support the creation of Rural Fire Districts (RFDs) is a significant addition to the Strategy and one the Service supports and that is consistent with the COT report. Viewing wildfire management in the context of Prevention, Response and Restoration and tailoring actions within each is likewise an important refinement. The Service looks forward to working with the State and other partners to help establish more RFDs; and to identify more specific actions under each category of Prevention, Response and Restoration.

One aspect of the strategy that is not a specific fire management action but that the Strategy notes and the Service likewise acknowledges as one of the strongest attributes of the Strategy is how the overarching construct of the Strategy is designed with fire in

mind. The conservation objective of maintaining between 95% and 73% of the males on leks, the establishment of refined habitat triggers that catch declines and adapt practices earlier and by Conservation Area, the identification of areas in need of restoration, the commitment to IRHS are all mechanisms to reduce fire, buffer the effects of fire, and provide for refinement in management in an adaptive construct to reduce the effects of fire in the long term.

*Management on non-Federal Property:* The Strategy to date has focused on Federal properties. This is understandable due to the ongoing Resource and Land Use Management Plan revisions and amendments underway by BLM and the U.S. Forest Service. The Service looks forward to working with the State to ensure the Strategy applies where necessary and appropriate to all properties with adequate state or local regulatory mechanisms.

### **Implementation Team/Commission**

Many of the specific elements of the Strategy are in the Service's view conditionally consistent with the COT pending more clarity how the Implementation Team/Commission is staffed and operates; and how it interacts with scientific support. Because the Strategy is an outcome-based, adaptive strategy, its efficacy is achieved through a balance between proactive actions and reactive steps to adapt and or change actions if necessary. Therefore, the Service needs to understand in more detail how the Implementation Team/Commission functions to evaluate data and inform decisions to adapt management that ensure the Strategy objective is met (e.g., see Infrastructure, above).

### **Summary**

In summary the Strategy is a robust approach to conserving GRSG in the Great Basin. Many components of the Strategy are strong, in particular the underlying foundational elements and grazing management; with wildfire and infrastructure similarly strong pending additional clarity and refinement as noted. The State of Idaho and the stakeholders on the Governor's Task Force have done remarkable work in a compressed timeframe as these aspects of the plan address threats to GRSG in the Great Basin in a way that gives the Service more regulatory certainty, stakeholders more operational certainty, and provides for the conservation of GRSG and sage-brush in Idaho that helps ensure more resiliency to large wildfires. The elements of the Strategy that the Service would welcome more conversations with the State to refine, add or clarify in the Strategy include non-federal properties, restoration, mitigation, and the operation of the Implementation Team/Commission.

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Cooperating Agency Review



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



In Reply Refer To:  
1785 (930)

MAY 06 2013

The Honorable C.L. "Butch" Otter  
Governor of Idaho  
P.O. Box 83720  
Boise, Idaho 83720

Dear Governor Otter:

I appreciate the continued coordination and partnership with the State of Idaho in conserving sage-grouse. The purpose of this letter is to describe Idaho Bureau of Land Management's (BLM) progress in considering the State of Idaho's Sage-grouse Plan (the Idaho Plan) as submitted to the U.S. Fish and Wildlife Service (FWS) on March 14, 2013. This letter will address consideration of Idaho's Plan as both an alternative in the Idaho/S.W. Montana Sub-regional Environmental Impact Statement (EIS) and as potential interim guidance to supplant BLM IM 2012-043.

First and foremost, I share your goal of a science-based approach to amending resource management plans in Idaho by 2014 so that it becomes unnecessary to list the sage-grouse under the Endangered Species Act. It is essential that we accomplish the EIS and associated resource management plan (RMP) amendments on schedule so that the FWS can fully consider BLM's amended RMPs as it assesses threats to the species and adequacy of regulatory mechanisms in 2015.

There are two pathways for considering Idaho's Plan for BLM administered lands: 1) through the sub-regional EIS and RMP amendment process planned for completion in 2014, and 2) as potential interim management as outlined in IM 2012-043.

Idaho's Plan & the Sub-Regional EIS and RMP Amendment Effort

As noted in my letter of August 30, 2012, Idaho's Plan is one of six alternatives being fully analyzed in the Draft EIS (DEIS) to be released for public comment this fall. Our regulations for implementing the National Environmental Policy Act (NEPA) require federal agencies to "rigorously explore and objectively evaluate all reasonable alternatives." Our EIS planning team continues to work closely with staff from the Office of Species Conservation and Idaho Department of Fish and Game as cooperating agencies to incorporate State input into development of the DEIS.



An immediate priority for our EIS effort is to ensure that Idaho's Plan is fully understood by our analysis team, accurately analyzed as an alternative in the DEIS, and fully disclosed to facilitate public comment. Our review of the March 14 version of Idaho's Plan has identified several elements for which we are seeking additional clarification, including the sections describing the adaptive management triggers, the wildfire suppression and emergency clause, and the direction for infrastructure development. We are in the process of clarifying those issues with your staff at this time.

As we conduct our cumulative effects analysis of past, present, and reasonably foreseeable actions, we will need to analyze activities on both federal and non-federal lands. This requires our understanding of Idaho's existing and proposed management of state lands intermingled within and adjacent to federal public lands. At this time, BLM still needs more assistance on that front so that we can complete the DEIS on schedule.

In order to insure that Idaho's Plan is properly considered and analyzed as an alternative in the DEIS planned for release this fall, Idaho BLM must receive any clarifications/additional details no later than June 30, 2013.

#### Idaho's Plan & its Potential to Inform Interim Guidance

As noted in my letter to you dated March 22, 2013, upon concurrence by the FWS, Idaho BLM will consider adopting Idaho's Plan as interim guidance so long as the proposed interim measures can be implemented in a manner consistent with our multiple use mandate, current policy and regulations, and consistent with organizational capacity (current funding and staffing).

Our preliminary review of Idaho's Plan has identified elements that fit within existing regulations and policy, would not require new NEPA, and are within our current funding and staffing capability to implement. These include: 1) some of the Best Management Practices for infrastructure and wildfire suppression/restoration, 2) parts of the invasive species direction, 3) the general characteristics of habitat as indicators, and 4) identification of a sage-grouse management area divided into four conservation areas. We have initiated discussions with your staff regarding these potential interim management measures with the goal of reaching closure this summer.

Our preliminary review of Idaho's Plan has also identified portions of the Plan which are not consistent with direction in our current RMPs and would require new analysis under NEPA before they could be considered for implementation as interim guidance. These portions include the adaptive management triggers (population and habitat thresholds), the livestock grazing management framework and standards, and the infrastructure direction and exemption process. We are unable to dedicate staffing to complete the new NEPA necessary for adopting these portions as interim management without impacting our ability to complete the EIS and RMP amendments by 2014. We remain committed to analyzing all of these potential management solutions and corresponding actions as part of the EIS.

We are very appreciative of the State's support for the Rangeland Fire Protection Associations and are committed to close coordination between Idaho BLM and the State of Idaho in reducing the threat of wildfire, the primary threat to sage-grouse habitat in Idaho. We are actively working with the Idaho Department of Lands and the Rangeland Fire Protection Associations to leverage our collective effectiveness in preventing, suppressing, and reducing the impacts of wildfire on sage-grouse habitat. We continue to work closely with Idaho Department of Fish and Game when taking emergency stabilization and rehabilitation actions following wildfire.

Thank you for your leadership in advancing conservation of sage-grouse and close coordination with Idaho BLM regarding public land management in Idaho.

Sincerely,



Steven A. Ellis  
State Director

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The following questions were posed to the State of Idaho during a coordination meeting on April 30<sup>th</sup>, 2013. At a subsequent follow-up meeting on May 2<sup>nd</sup>, 2013 attended by Don Kemner (IDF&G); Cally Younger (OSC); Dustin Miller (OSC); and Brent Ralston (BLM), many of these questions were discussed and answered – see noted answers within table; others required additional follow-up and were part of the overall state response received by BLM on July 1<sup>st</sup>, 2013, and subsequently incorporated into the State Alternative (Alternative E).

State Plan Language		BLM/FS Questions for Analysis
<p>Manage sage-grouse habitats to achieve the conditions described in Tables 3, 4 &amp; 5 of the Governors Alternative, where appropriate, recognizing these conditions may not be achievable in all areas due to the existing ecological condition, ecological potential or the existing vegetation; or to causal events unrelated to existing livestock grazing.</p>		<ol style="list-style-type: none"> <li>1. Are these desired conditions or standards? <b>These are desired conditions to help guide management; they are not standards or requirements.</b></li> <li>2. Apply when and where achievable? If so curtail management stressors until achieved? Or only allow management that does not impede achievement? Or apply management as long as progress toward achievement is being made? <b>As desired conditions management would continue with the potential to adjust management where necessary to achieve or move towards achievement of these conditions.</b></li> </ol>
<p>Develop a consistent wildfire suppression plan that improves on the wildfire suppression baseline by twenty-five percent (25%) through: a. Ensuring close coordination with Federal and State firefighters, local fire departments and local expertise to create the best possible network of strategic fuel breaks and road access to minimize and</p>		<ol style="list-style-type: none"> <li>3. What is the wildfire suppression baseline derived from?</li> <li>4. Is there specific rationale for 25% or 15%? Do these</li> </ol>

State Plan Language		BLM/FS Questions for Analysis
<p>reduce the size of a wildfire following ignition;</p> <p>b. Developing consistent fire response plans and mutual aid agreements necessary to achieves a 25% improvement in the fire suppression baseline;</p> <p>c. Requesting and placing additional firefighting resources and establish new Incident Attack Centers, with particular emphasis in the West Owyhee Conservation Area;</p> <p>d. Creating and maintaining effective fuel breaks in strategic locations that will modify fire behavior and increase fire suppression effectiveness according to the following criteria:</p> <ul style="list-style-type: none"> <li>• Targeting establishment of fuel breaks along existing roads or other disturbances.</li> <li>• Identifying and targeting higher-risk roads for fuel break construction and maintenance based on fire history maps.</li> <li>• Implementing a strategic approach to using these roads for rapid fire response.</li> <li>• Analyzing the benefits of the fuel break against the additional loss of sagebrush cover and risk on invasive weeds.</li> <li>• Maintaining fire breaks to meet objectives.</li> </ul> <p>e. Requesting the necessary federal appropriations to achieve this objective.</p>		<p>represent environmental thresholds related to wildfire?</p> <p>5. How would the 15% or 25% be measured? Is this an improvement in response time or an increase in chains per hour of firefighter capability?</p> <p>6. Is there some measurable way to determine higher risk roads for fuel breaks?</p>
<p>Utilize and employ more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into the CHZ on Federal lands.</p>		<p>7. Are there specific techniques or approaches in mind here?  There are no specific actions in mind presently but the advent of new practices and techniques which better address the threat are valid for consideration as they are developed.</p>
<p>Decrease wildfire response time by twenty-five percent (25%) through:</p> <p>a. Prioritizing, maintaining and improving a high initial attack success</p>		<p>8. Is this referring to average response time?</p>

State Plan Language		BLM/FS Questions for Analysis
<p>rate in suppression response and staging decisions;</p> <p>b. Utilizing available Sage-Grouse Management Area maps and spatial data depicting sage-grouse habitats within this zone in accordance with action # 31;</p> <p>c. Redeploying firefighting resources not being fully utilized outside the SGMA to the extent such redeployment will not cause harm to human safety and structure protection; and</p> <p>d. Requesting the necessary federal appropriations to achieve this objective.</p>		<p>9. How is this measured? Data available to measure this?</p> <p>10. Redeployment of resources not needed occurs all the time - is there some measurable way to describe this?</p>
<p>Develop more aggressive strategies to reduce fuel loads, where appropriate.</p>		<p>11. Specific techniques or practices in mind? <i>See #7.</i></p> <p>12. Is there some target amount? <i>There is no specific target identified.</i></p>
<p>Prioritize permit renewal and land health assessment processes for allotments with declining sage-grouse populations.</p>		<p>13. Is this within the 10-year schedule or in addition to the 10-years schedule? For example permit in place for 4 years and GRSG populations declining does this reinitiate permit evaluation or does existing permit run the course of 10-year authorization and then become high priority for renewal in year 10? <i>This would apply when adaptive regulatory triggers have been tripped and where the Implementation Task Force has determined that grazing</i></p>

State Plan Language		BLM/FS Questions for Analysis
		<p>is a causal factor.</p> <p>14. How does evaluation of causal factors figure in to Permit Renewal NEPA priorities?</p>
<p>Establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas when feasible.</p>		<p>15. Since most BLM land is under permit are there State lands under consideration for these areas or is this contingent on BLM permit revocation or voluntary relinquishment? There are no specific state lands under consideration at this point.</p>
<p>Objective 1: Implement the regulatory mechanisms to maintain and enhance sage-grouse habitats, populations and connectivity in areas within the CHZ, buffered by strategic areas within IHZ, dominated by sagebrush.</p>		<p>16. How are strategic areas defined/identified? This implies a subset of IHZ and that the entire IHZ would not be the strategic buffer area. The strategic areas are the IHZ within the same CA as the CHZ.</p>
<p>Designate CHZs as ROW avoidance areas with limited exemptions permissible.</p>		<p>17. What is the exemption process?</p>
<p>Prohibit the development of infrastructure, except if developed pursuant to valid existing rights or incremental upgrade and/or capacity increase of existing development (authorized prior to the record of decision) subject to best management practices in Gov. Alt Section G.</p> <p>a. Limit impacts of proposed actions to the existing authorized footprint with no more than a fifty percent (50%), depending on industry practice, increase in footprint size and associated impacts;</p>		<p>18. How is this footprint measured? Includes only the acres physically disturbed (tower footings) or includes area of impact (some sort of buffer area)? There is a tie to the COT Report – is this suggesting something other</p>

State Plan Language		BLM/FS Questions for Analysis
<p>and b. Include compensatory mitigation if new significant and unavoidable impacts are demonstrated to be associated with the project."</p>		<p>than COT approach? This approach is similar to the COT and would include the defined ROW width – not the potentially broader impact area.</p>
<p>Increase resiliency of the habitat to disturbances, such as wildfire, and limit habitat fragmentation and loss only to projects pursuant to valid existing rights or incremental upgrades and/or that demonstrate, among other things, a significant high value benefit to the State of Idaho as well as provide compensatory mitigation consistent with the guiding principles in coordination with Federal, State and local partners.</p>		<p>19. Is there a process for assigning and assessing compensatory mitigation?</p>
<p>Co-location of new transmission lines occurs when construction falls between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within one kilometer either side of existing 115-kilovolt (kV) or larger transmission lines to create a corridor no wider than two kilometers.</p>		<p>20. Co-location seems to address a long term impact of presence whereas seasonal restrictions seem to address construction activities? Do these need separated? These are separate and can be separated retaining both the co-location aspect and the timing restriction aspect.</p>
<p>Evaluate areas affected by fluid mineral development in accordance with the process outlined in the State of Wyoming's Executive Order 2011-5.</p>		<p>21. Is this process applicable in Idaho? 22. Are the definitions of suitable habitat the same? If so how much CHZ, IHZ and GHZ are considered suitable? The definitions would follow those identified by Connelly 2000.</p>

State Plan Language		BLM/FS Questions for Analysis
		23. Inclusion of wildfire as a component for Density Disturbance Calculation Tool (DDCT) – is this appropriate for Idaho?
Limit surface disturbance development within the CHZ to three percent of suitable habitat per an average of 640 acres.		24. How is disturbance defined? Only anthropogenic disturbance? Ties back to Wyoming Executive Order which includes a definition.
		25. Various buffers for different activities – 2 km for transmission, 1 km for distribution, 1.5 for roads, etc. What are these based on – can citations be provided. Differs from buffers considered for DDCT out of Wyoming Executive Order.
<p>September 5<sup>th</sup>, 2012 Version: Apply adaptive management measures for livestock grazing (following table) singly, or in combination where appropriate, in the development and implementation of grazing management, based upon the assessment process, the ecological conditions, the ecological potential and the status of sage-grouse populations. Maintain flexibility in administering grazing programs and providing offsetting grazing options over relatively large landscapes to successfully implement these measures.</p> <p>March 14<sup>th</sup>, 2013 Version: There are two pathways where this management framework is applicable:</p> <ol style="list-style-type: none"> <li>1) in conjunction with scheduled term grazing permit renewals; and</li> </ol>		<p>26. Apply during the 10-year renewal process or in addition to the 10-year renewal process – i.e. year 4 based on monitoring? <a href="#">See # 13.</a></p> <p>27. Need to reconcile language and intent from September 5<sup>th</sup>, 2012, Alternative version with March 14<sup>th</sup>, 2013 additions.</p> <p>28. Since individual allotments do not encompass an entire</p>



State Plan Language		BLM/FS Questions for Analysis
<p>2) where the adaptive regulatory trigger has been tripped and livestock grazing is identified as a potential causal factor.</p> <p>Where populations and habitat triggers are being maintained the current grazing systems within that CA are adequate to maintain viable sage-grouse populations. If no trigger has been tripped within a CA, the allotments and pastures are presumed to have met Standard 8 with respect to sage-grouse.</p> <p>If an adaptive regulatory trigger is tripped and livestock grazing is identified as a potential limiting factor then the presumption that the current grazing operations within the Conservation Area have met Standard 8 with respect to sage-grouse will no longer be applicable. BLM will individually analyze those allotments and pastures within the relevant Conservation Area and prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse.</p> <p>Allotments will only be managed for the primary seasonal habitat that it has the potential to support.</p> <p>The Implementation Team will maintain oversight capabilities throughout the process and will be given the ability to review proposed management changes, the implementation of conservation measures, and the on-the-ground monitoring to ensure the measures are appropriately applied.</p>		<p>Conservation Area is there a mechanism whereby if desired conditions have not been achieved grazing permits would be adjusted to achieve those conditions whether or not the Conservation Area trigger has been tripped? <b>Yes, according to IRHS processes.</b></p> <p>29. What is the difference or relation between a causal factor and a potential limiting factor? <b>They are the same.</b></p> <p>30. How does the Implementation Team concept fit in with BLM management responsibilities?</p>
<p>Adaptive Regulatory Triggers are broken down into a “soft” trigger and a “hard” trigger. The “soft” trigger becomes operative when one of the following occurs:</p> <ul style="list-style-type: none"> <li>• 10% decline in maximum number of males counted and a finite rate of change below 1.0 but not significantly on CHZ over a period of three years; or</li> <li>• 10% loss of nesting and wintering habitat in a Conservation</li> </ul>		<p>31. What is meant by “but not significantly on CHZ” <b>Should read ‘not significantly below 1.0’.</b></p> <p>32. Who is the Implementation Team? How do BLM and USFS staff and managers</p>

State Plan Language		BLM/FS Questions for Analysis
<p>Area over a period of three years</p> <p>When the monitoring information indicates that the “soft” trigger may be tripped, an Implementation Team – aided by the technical expertise of IDF&amp;G – will assess the factors leading to the decline and identify potential management actions. The Implementation Team may consider possible changes in management to the CHZ. As to the IHZ, the Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state’s ability to meet the overall management objective. It is anticipated that IDF&amp;G will collect data annually and will make recommendations to the Implementation Team by August 31<sup>st</sup> for population triggers and January 15<sup>th</sup> for habitat triggers.</p> <p>The “hard” trigger becomes operative when one of the following occurs:</p> <ul style="list-style-type: none"> <li>• 20% loss in CHZ nesting wintering habitat over a period of three years; or</li> <li>• 20% decline in maximum number of males counted and a finite rate of change significantly below 1.0 within a Conservation Area over a period of three years.</li> </ul> <p>If the “hard” trigger becomes operative according to the monitoring information, management changes are no longer discretionary and will be implemented in the following manner:</p> <ol style="list-style-type: none"> <li>1) The IHZ will be managed according to the CHZ provisions primarily impacting the ability to consider infrastructure projects. Like the “soft” trigger, the Implementation Team will analyze the actual causes of the decline.</li> <li>2) The adaptive trigger strategy focuses the analysis on mitigating the primary threats to the species in the CHZ. Only where the monitoring information indicates the cause(s) of the decline is</li> </ol>		<p>participate on, interface with, and make decisions for the Implementation Team?</p> <p>33. What happens if appropriate data is not available or collected for a period of time?</p> <p>34. What are the management changes as a result of “soft” triggers being tripped – these are important for description in the Draft EIS.</p> <p>35. Is the habitat “hard” trigger referring to nesting or (and?) wintering habitat? <b>Both habitat types.</b></p> <p>36. When a “hard” trigger is tripped will only the primary cause be addressed? What about other contributing factors? For example fire causes the “hard” trigger to be tripped; according to the flow chart only fire regulatory mechanisms would be evaluated. When would the cumulative impacts of other activities, i.e. development be considered?</p> <p>37. Table 1 does not include regulatory trigger</p>

State Plan Language		BLM/FS Questions for Analysis
<p>not a primary threat will the Implementation Team analyze the secondary threats to the species and determine whether further management actions are needed.</p>		<p>thresholds? When will these be defined?            38. Table 2 – defined acres of habitat within the various Conservation Areas – what is the data source and are these mapped?</p>
<p>Objective 2: Initiate a management review of the regulatory approach to assess causal factors for declines if a 10% loss of habitat loss occurs within the first three years of implementation. IDFG would lead the review in coordination with the Governor’s Office of Species Conservation and other relevant State and Federal agencies. The review would include a determination of whether the loss is based on a population-related decline (e.g., West Nile virus, drought) or is driven by habitat loss. If the loss is habitat-driven, the review team will assess the effectiveness of current best management practices, funding levels and restoration efforts in order to preclude the triggering of the adaptive regulatory triggers.</p>		<p>39. How is this process defined and executed?</p>
		<p>40. How does monitoring and assessment determine management changes?            41. Who is responsible for collection?            42. What data will be collected? The cycle of responsibilities and monitoring with regard to the adaptive management strategy needs fully described.</p>

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# OFFICE OF SPECIES CONSERVATION

**C.L. "BUTCH" OTTER**  
Governor



P.O. Box 83720  
Boise, Idaho 83720-0195

**DUSTIN T. MILLER**  
Administrator

304 North Eighth Street, Suite 149  
Boise, Idaho 83702

July 1, 2013

Steve Ellis  
State Director  
Bureau of Land Management  
Idaho State Office  
1387 South Vinnell Way  
Boise, ID 83709

Dear Steve,

This letter is in response to your May 6, 2013 request for further clarification of certain components of the September 2012 draft of the Governor Otter's Sage-Grouse Conservation Alternative (Governor's Alternative) for purposes of the Bureau of Land Management's (BLM) and US Forest Service's (USFS) analysis under the National Sage-Grouse Planning Effort. As you are aware, over the past two months the State of Idaho has worked diligently to clarify and refine components of the Governor's Alternative to better assist the BLM and USFS in their analysis under the National Environmental Policy Act (NEPA).

As you know, in December 2011 Secretary of the Interior Ken Salazar invited western governors to create state-specific sage-grouse conservation plans that could be implemented as interim management, provided that "concurrence" is granted from the Service, and incorporated as alternatives in the federal land-use planning effort. In response, Governor Otter created a Sage-grouse Task Force through Executive Order 2012-02. This Task Force began meeting in March 2012 and developed recommendations on actions needed to preclude a listing of greater sage-grouse in Idaho while maintain predictable levels of land-use activity. From those recommendations, the Governor's Alternative was drafted and submitted to the BLM and USFS for consideration in the Idaho and Southwest Montana Sub-regional EIS. In accordance with Secretary Salazar's December 2011 request, the Governor began seeking concurrence from the Fish and Wildlife Service. In March 2013, the Governor submitted a concurrence request to Brian Kelly, Idaho State Director for the Service. In April, 2013, Brian Kelly responded very positively to the Governor's Alternative and was willing to "concur" with the Governor's

Conservation Areas, the three zone habitat structure, the conservation objectives, the adaptive trigger strategy, and the grazing strategy. He stated the Governor's approach would provide needed benefits for sage-grouse and sage-grouse habitat.

In our continuing commitment to multi-agency collaboration, we have attached thorough explanations to the questions you asked us in May 2013. Some measures that may have appeared vague or incomplete have been refined and clarified along with additional actions needed to proactively deal with wildfire within sage-grouse habitat.

For the purposes of the NEPA analysis, the State requests BLM to consider the Governor's Alternative dated September 5, 2012, the Governor's March 13, 2013 request for concurrence, the concurrence letter from the Service to Governor Otter dated April 8, 2013 and the following attachments. The September 2012 Alternative is adopted herein by reference, and only where specifically noted in the March 2013 Concurrence request and in this letter should the Governor's Alternative be construed as revised or modified. Additionally, please refer to Idaho's Mitigation Framework, attached, for further explanation of the Governor's Compensatory Mitigation Strategy.

Sincerely,



Dustin T. Miller

Request for clarification or refinement of Governor Otter's Alternative for Sage-Grouse  
Management  
07/01/13

Proposed Implementation of Governor Otter's Management Plan

In addition to the description of this implementation scheme in the Governor's Alternative at 7, 19 and 27, and Governor Otter's March 2013 request for concurrence at 4, 7 (Appendix II), the below narrative provides more detail for the implementation of Governor Otter's Sage-grouse Conservation Alternative (Governor's Alternative). As mentioned previously, this process is modeled after the Idaho Roadless Rule implementation framework.

Should the Bureau of Land Management (BLM) select the Governor's Alternative as the final decision, the State of Idaho is proposing the following steps:

- Enter into a Memorandum of Understanding (MOU) between the BLM, U.S. Forest Service, and the State of Idaho establishing the State as a cooperating agent to implement the final decision.
- As part of the state's responsibility under the MOU, Governor Otter would issue an Executive Order (under state law, an EO has the force and effect of law) establishing an Implementation Task Force to meet the state's role and responsibilities under the MOU. This task force would be similar in composition to Governor Otter's Sage-Grouse Task Force pursuant to Executive Order 2012-02.
- The Implementation Task Force would be tasked with providing Governor Otter advice and counsel on at least the following issues: (1) analyzing the annual sage-grouse monitoring data to determine whether an adaptive response is appropriate and necessary given the population and habitat objectives provided in the Governor's Alternative; (2) providing input during the National Environmental Policy Act (NEPA) process for on-the-ground infrastructure projects; and (3) prioritizing habitat restoration opportunities. The Implementation Task Force would submit these recommendations to the Governor, and based on his review and concurrence, will transmit these recommendation to the appropriate agency as part of the underlying NEPA analysis. The ultimate decision involving public land management would fall to the appropriate agency.
- The Implementation Task Force will make recommendations based on the data and recommendations provided by a science subcommittee led by the Idaho Department of Fish and Game (IDFG). The Implementation Task Force may solicit outside experts if necessary.



## Process for Determining Whether an Adaptive Response is Necessary

As the U.S. Fish and Wildlife Service (Service) stated in its Concurrence Letter in April 2013, one of the most significant components of the Governor's Alternative is the adaptive management construct. The "trigger" approach makes this component work through monitoring habitat and population data and allowing for changes in management when necessary. The trigger strategy has been amended since the September 5<sup>th</sup>, 2012 draft and those changes are noted in the Governor's March 2013 concurrence request. As is discussed in further detail below, population and habitat data are collected and analyzed by the IDFG and presented to the Implementation Task Force. "Tripping a trigger," whether at the lower "soft" trigger, or the "hard" trigger will lead the Implementation Task Force to initiate potential management changes.

### 1. Data Collection by Idaho Fish and Game

The IDFG has been collecting sage-grouse population data since at least 1951. The lek routes referenced in the Alternative are all routes that were conducted during the 2011 baseline year. Leks on these routes represent 21% of all known leks. In addition, individual leks not associated with routes but counted in two consecutive years (e.g. 577 leks in 2013 equals 26% of all known leks) are combined with lek routes counts to calculate population growth (finite rate of change) for a habitat management zone. These counts combined represent approximately half of the known leks in Idaho and are distributed across the bird's range.

Population Data Collection: For purposes of determining whether an adaptive regulatory trigger is necessary, the Governor's Alternative identifies two primary methods:

- Number of males counted on lek routes as identified on page 8 of the Governor's Alternative.
- Number of males counted on individual leks not assigned to a lek route in the Governor's Alternative (as resources allow). This information is useful in the lambda population trigger.

Population data is collected by counting male sage-grouse attending leks per protocols for weather conditions, time of day, time of year, what constitutes a lek, time between counts (e.g. 7-10 days), etc. Maximum number of males observed on lek route(s) over 3-4 counts during the spring is used to monitor sage-grouse population trend in a habitat management zone. Lek data can be used to assess population trends over time (Garton et al. 2011) but counts for a single year may not reflect trends very well because of variation of male attendance at leks caused by severity of the previous winter, weather, timing of counts during spring, and a variety of other factors (Emmons and Braun 1984, Hupp 1987, Baumgart 2011). Therefore, maximum number

of males counted is averaged over three consecutive years and compared to the 2011 baseline.

#### Habitat Data Collected

- Acres of nesting and wintering habitat lost (due to wildfire, invasive species expansion, infrastructure development, and/or other secondary threats).
- Acres of nesting and wintering habitat gained (due to restoration or natural succession).

#### Habitat and Population Restoration Data Collection

- Acres protected (e.g. conservation easements or Phase 1 juniper treated).
- Feet of fence marked.
- WNV mosquito habitats treated or eliminated.

IDFG will continue to be responsible for collecting sage-grouse population data and compiling habitat data into useable forms (e.g. maps and/or tables of annual wildfire, juniper removal, and other habitat changes). This information will be collected throughout the year and will be presented to the Implementation Task Force on at least an annual basis. Further discussion between the State, BLM, and USFS is necessary to determine who will collect necessary habitat data.

#### 2. Determination of Adaptive Response

Based on the annual report and the recommendations of the subcommittee, the Implementation Task Force will consider whether an adaptive regulatory trigger is necessary to maintain a viable population of the species. (See Alternative and Concurrence Request defining “soft” and “hard triggers”). Of particular note, the September Alternative proposed an “Emergency Wildfire Clause”. This clause has been removed as the better defined triggers will likely lead to the same management response.

If the annual report indicates that a “soft trigger” has been tripped within a particular conservation zone there is no required adaptive response. The “soft trigger” is an early warning system that permits the Task Force the discretion to identify and recommend best management practices before an adaptive regulatory response becomes necessary. By contrast, if the information indicates that a “hard trigger” has been tripped within a particular conservation zone, the decision to recommend the appropriate adaptive regulatory response is no longer discretionary.

In the process of determining whether a trigger has been tripped, the Implementation Task Force will attempt to identify the cause(s) for the decline. This analysis will first examine the primary threats to the species (e.g., wildfire, invasive species and infrastructure); and only where the primary threats are not responsible for the decline will the Implementation Task Force analyze the secondary threats to the species.

### 3. Consequences of an Adaptive Trigger

If a soft trigger trips in the Core Habitat Zone, the Implementation Task Force may consider making the following recommendation to the Governor. Recommendations could be, but not limited to:

- Increase monitoring and evaluation of sage-grouse populations in Core Habitat Zone.
- Implement Core Habitat Zone management strategy in corresponding Important Habitat Zone of the same Conservation Area.
- Implement Core Habitat Zone BMPs in corresponding Important Habitat Zone of the same Conservation Area.
- Not allow any new (large) infrastructure development within the Core Habitat Zone (no exceptions allowed).
- Reallocate resources to focus on primary threats in the Core Habitat Zone (e.g. direct resources from other parts of the state to the area of concern).
- Reallocate resources to focus on secondary threats in the Core Habitat Zone (e.g. direct resources from other parts of the state to the area of concern).

If a soft trigger trips in the Important Habitat Zone, the Implementation Task Force may consider making the following recommendations to the Governor. Recommendations could be, but not limited to:

- Increase monitoring and evaluation of sage-grouse populations in area of concern.
  - Implement Core Habitat Zone management strategy in the Important Habitat Zone.
  - Implement Core Habitat Zone BMPs in the Important Habitat Zone.
  - Not allow any new (large) infrastructure development in Core Habitat Zone (no exceptions allowed) of the same Conservation Area.
  - Apply Core Management Zone criteria for all primary threats, and/or all secondary threats to the Important Habitat Zone.
  - Reallocate resources to focus on primary threats in the Important Habitat Zone (e.g. direct resources from other parts of the state to the area of concern).
  - Reallocate resources to focus on secondary threats in the Important Habitat Zone (e.g. direct resources from other parts of the state to the area of concern).
- If a “hard trigger” becomes operative in particular Conservation Area, the following consequences are no longer discretionary:

- First, the IHZ within that Conservation Zone will be managed according to the CHZ regulations primarily impacting the ability to consider infrastructure projects. See Concurrence Response at 5 noting the benefit to the species should this action be required.
- Second, if the cause is related to wildfire or invasive species, the Implementation Task Force will consider additional best management practice to prevent further loss of core habitat within that Conservation Zone.
- Third, only if a primary threat is not the cause(s) for the decline will the Implementation Task Force analyze secondary threats and determine the appropriate management response. The Service identified wildfire, invasive species, and infrastructure as the primary threats and West Nile Virus, improperly managed grazing, and recreation as secondary threats. This adaptive trigger strategy focuses the analysis on mitigating the primary threats to the species.

### Wildfire

Under the wildfire section within the Governor's Alternative for the CHZ, IHZ and GHZ, the State of Idaho desires to replace reference to the incorporation of BLM WO IM 2011-138 with BLM's updated Instruction Memorandum referenced as BLM WO IM 2013-128.

The original intent of the State of Idaho through the Governor's Alternative was to decrease the wildfire response time from the current baseline of response time by 25%. This measure was an effort to arrive at an adequate regulatory mechanism necessary for precluding a listing.

However, recognizing the difficulty in measuring this, and based on further conversations with the Service, BLM and Forest Service, the State wishes to remove that objective and replace it with the below refinement.

Wildfire is a difficult threat to prevent and control. However, the adaptive construct of Governor's Alternative provides a mechanism to prevent sage-grouse from any likelihood of becoming endangered in the foreseeable future. The short-term use of triggers and zones will provide the time to develop more proactive measures that demonstrate long-term success on the landscape.

Attached to this letter is a spreadsheet that will aid in developing a consistent wildfire suppression plan that improves upon the current baseline. Close coordination with federal, state, and private firefighting personnel, local fire departments and local expertise including Rangeland Fire Protection Associations (RFPAs) is crucial to continually improving strategies for initial attack and developing comprehensive fuel break strategies to minimize and reduce the size of wildfires threatening the CHZ and IHZ following ignition.

The employment of specific, more aggressive wildlife and invasive species management practices to prevent further encroachment into the CHZ and IHZ should be driven by local planning efforts at the field office and ranger district level. As referenced above, the creation of RFPAs throughout the Sage-Grouse Management Area (SGMA) is a regulatory mechanism that

will ensure better and faster initial attack on wildfires threatening the CHZ and IHZ through the employment of additional trained firefighters and resources in rural parts of the SGMA. From a regulatory mechanism standpoint, Idaho Code Chapter 1, Title 38 was recently amended to allow for the creation of Rural Fire Protections Associations (RFPAs). Additionally, this spring the Idaho Legislature authorized funding to help cover start-up costs for 4 RFPAs in southwest Idaho.

The emphasis for fuel break prioritization should be in areas within the Wildland-Urban Interface (WUI) where human life and safety are at risk. For instance, the Boise District BLM is currently in the planning phase of a fuel-break project within the Interstate-84 corridor between Boise and Mountain Home, Idaho referred to as the “Paradigm Project”. The idea behind the project is to strategically place and improve upon fuel breaks within this corridor, therefore keeping wildfires to more manageable sizes thus requiring fewer firefighting resources. The State of Idaho supports this project, as well as other similar fuel-break projects designed to secure the WUI and free up firefighting resources to be focused on providing initial attack on wildfires in areas that have the potential to impact greater sage-grouse habitat within the CHZ and IHZ. After securing the WUI, prioritization of fuels breaks should go to areas of high human ignition based upon ignition data and maps produced by BLM districts and field offices. The attached spreadsheet provides conservation measures to be incorporated into the Governor’s Alternative regarding prevention, suppression, and restoration activities. One crucial component of this is the utilization of grazing as an effective management tool in reducing fuel loading on BLM and Forest Service lands. The State of Idaho encourages the BLM and the Forest Service to employ this effective fuels management tool, particularly within areas of high fuel loading that are at high risk of wildfire threatening the CHZ and IHZ.

### Infrastructure Development

Exemptions for ROW avoidance areas within CHZ will be analyzed by the Implementation Task Force as part of that site-specific NEPA analysis. The Task Force will assess project proposals and their mitigation packages, if required, to determine whether to recommend an exemption for the governor’s consideration. The Task Force will use the following criteria to make these assessments, which are outlined on page 33 of the Governor’s Alternative:

- Is the project developed pursuant to a valid existing right?
- Is the project an incremental upgrade/capacity increase of existing development ? (authorized prior to the record of decision) subject to best management practices, outlined in G, pgs 43-45).
- For new development, can the project be reasonably accomplished outside the CHZ? Can the development co-locate with existing infrastructure to the maximum extent practicable?

- Can the project proponent demonstrate the population trend for the species within the relevant Conservation Area is stable or increasing over a three year period?
- Will this project benefit the state of Idaho?
- Compensatory mitigation will be assessed according to Idaho's Mitigation Framework, which is attached to this document.

If the project proponent responds satisfactorily, the Implementation Task Force will recommend to the Governor that the project should be permitted. The Governor will consult with the BLM or USFS on the Implementation Task Force's recommendation, which BLM or USFS must use in its consideration of the project's permit application. All other questions outlined on page 33-34 of the Governor's Alternative will be included in the more in depth NEPA analysis of the project.

### Livestock Grazing

The Livestock Grazing Framework was amended for the Governor's March 2013 Concurrence Request, to ensure this component remains consistent with the Idaho Rangeland Health Standards (IRHS) and the Conservation Objectives Team (COT) Report. In the Service's April 2013 response to the Governor's Concurrence Request, Brian Kelly expressed his support for this component because of its consistency with the COT report as well as the requirement that IRHS be met within the context of the Governor's overall adaptive management strategy.

There are two pathways where this management framework is applicable: (1) in conjunction with scheduled term grazing permit renewals; and (2) where the adaptive regulatory trigger has been tripped (as described in section 3) and livestock grazing is identified as a potential causal factor. See Concurrence Request at 6.

Under the first path, the Governor's Alternative provides a framework for BLM to assess Standard 8 and Standards 2 and 4 based on the Conservation Objectives Team Report (COT Report) with respect to sage-grouse. As described in more detail below, if no trigger has been tripped across a Conservation Area, the Standard 8 analysis for sage-grouse should be a straightforward process.

Standard 8 of the IRHS establishes that the habitat important to threatened and endangered plants and animals meet a "maintain a viable population" threshold with respect to livestock grazing. 43 C.F.R. Subpart 4160. Consistent with the overall approach of the Governor's Alternative, utilizing an outcome-based conservation strategy within an adaptive construct, the State of Idaho has identified an overall population target buttressed by regulatory mechanisms and adaptive regulatory triggers. Where these population and habitat triggers are being maintained within a Conservation Area, there is a rebuttable presumption that current grazing systems are adequate to maintain viable sage-grouse populations; and therefore, absent compelling information, no further changes to the grazing systems will be required pursuant to the Standard 8 analysis with respect to sage-grouse.

This rebuttable presumption *only relates* to sage-grouse management; it does not extend to other relevant issues in the Standard 8 analysis. Moreover, it does not preclude adaptive change to grazing permits based on the other standards contained in the IRHS. Again, it is important to note that the Forest Service is not subject to the IRHS; however, the conservation objectives established in the Governor's Alternative meets the applicable standards in NFMA.

If an adaptive regulatory trigger is tripped consistent with the process outlined above, and livestock grazing is identified as the potential limiting factor, the presumption that the current grazing operations within the Conservation Area have met Standard 8 with respect to sage-grouse will no longer be applicable. Following such a determination, the process outlined in the Governor's Alternative at 12-18, and as described below, for Standard 8 as well as Standards 2 and 4 will be implemented.<sup>1</sup> BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on allotments within the CHZ that have declining sage-grouse populations. Following those permits within the CHZ, resources will be further prioritized to allotments within the IHZ with breeding habitats that have decreasing lek counts. (*See* Flow Chart, Appendix V). Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the assessment process.

The assessment/determination process for sage-grouse and Standard 8 compliance must rely on published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

Where an allotment or pasture meets one of these Categories above, Tables 3-5 (pages 14-17) will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable: (a) due to the existing ecological condition, ecological potential or the existing vegetation; or (b) due to causal events unrelated to existing livestock grazing. Allotments will only be managed for the primary seasonal habitat that it has the potential to support. Typically, summer habitats will be managed to provide the conditions described in Table 3; winter Table 4; and breeding habitats in Table 5.

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<sup>1</sup> Where inconsistencies arise between the grazing framework described on pages 12-18 of the Governor's Alternative and this document, defer to this document.

Based on these habitat characteristics, BLM will conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics (Tables 3, 4 and 5, pages 14-16) will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management should not result from one year of data at a specific location within an allotment.

If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics (Tables 3-5), renewed permits will include measures, including but not limited to the actions outlined in (J, pages 46-48), to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.

Additionally, adaptive management changes related to existing grazing permits should only be undertaken if improper grazing is determined to be the causal factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over time with appropriate site variability.

The Implementation Task Force will maintain oversight capabilities throughout the process and will be given the ability to review proposed management changes and the implementation of conservation measures to ensure that the measures are being appropriately applied.

Under the second path, this adaptive framework aids in determining whether improperly managed livestock grazing may be a causal factor potentially requiring adaptive change prior to permit renewal to existing permits within a Conservation Area. This adaptive process is tied solely to Standard 8 and will rely on the preceding process as outlined above.



Fire Actions

Idaho Governor's Sage Grouse Alternative 7/1/13

Goal: Maintain adequate habitat to support 73% (core) to 95% (core and important) of the 2011 breeding males.

Objective: Implement actions necessary to manage fire within the normal range of fire activity and maintain and restore healthy, native sagebrush plant communities within Core and Important management zones.

PREVENTION						
What:	Fuel Breaks	Fuels Reduction	Fuels Reduction	Fuels Reduction	Fuels Reduction	Fire Restrictions/Closures
Where:	Complete and implement a strategy that identifies the location and extent of fuel breaks that provides adequate defensible space for firefighters. Priority should go to areas within the wildland-urban interface (WUI) to eventually allow for fewer resources to be allocated to the WUI, thus freeing up resources to combat	Identify and prioritize areas of R2 - Annual grasslands within the IHZ and GHZ based on an overlay analysis with the key habitat map (prioritize the CA's).	R2 - Annual grasslands	Identify and prioritize areas of R1 - Perennial grasslands within Core and Important habitat zones based on an overlay analysis with the Key Habitat map (prioritize the CA's).	Identify and prioritize areas of R3 (conifer encroached areas) for restoration by Conservation Area, then within CHZ and IHZs.	Identify roads, trails, and recreational use areas with high frequency of human caused fires.

	wildfire that have the potential to impact the CHZ or IHZ. Consider 300ft wide "green strips" as well as targeted grazing for fuel breaks.					
How:	Mechanical	Winter Livestock Grazing	Herbicide Treatment	Livestock grazing	Mechanical	Utilizing data that indicates the frequency of human-caused wildfires.
How Much:	Determined at the local planning level: BLM Field Office and USFS Ranger District.	Determined at the local planning unit level: Field Office and Ranger District depending upon fuel type, severity and fire threat to the CHZ and IHZ in close coordination with federal livestock grazing permittees. Livestock	Determined at the local planning level: BLM Field Office and USFS Ranger District.	Determined at the local planning unit level: Field Office and Ranger District depending upon fuel type, severity and fire threat to the CHZ and IHZ in close coordination with federal livestock grazing permittees. Livestock grazing must be recognized as an effective fuels management tool and implemented as such. Livestock operators must be looked to for guidance on the placement of fuels reduction projects that	Determined at the local planning level: BLM Field Office and USFS Ranger District.	Within or adjacent to the CHZ and IHZ with high frequency of human caused fires.

		grazing must be recognized as an effective fuels management tool and implemented as such. Livestock operators must be looked to for guidance on the design and placement of fuel reduction projects that utilize grazing.		utilize grazing.		
By When:	Strategy and associated NEPA completed within two years of signing the Record of Decision.	Strategy and associated NEPA completed within two years of signing the Record of Decision.	Strategy and associated NEPA completed within two years of signing the Record of Decision	Strategy and associated NEPA completed within two years of signing the Record of Decision	Strategy and associated NEPA completed within two years of signing the Record of Decision	Strategy and associated NEPA completed within two years of signing the Record of Decision

Mechanism:	RMPs for BLM and USFS lands. Intergovernmental MOUs, stewardship contracting.	RMP for BLM and USFS lands; An adaptive management trigger with fuel loading that is measured in the fall/winter. Implemented through stewardship contracting and/ or grazing permits.	RMPs for BLM and USFS lands	RMPs for BLM and USFS lands	RMPs for BLM and USFS lands	RMPs for BLM and USFS lands
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SUPPRESSION						
What:	Create additional Rangeland Fire Protection Associations (RFPAs) within the CHZ and IHZ and continue to support existing RFPAs.	Response Time Analysis	Suppression Capacity Analysis/Implementation	Water Capacity Analysis/Implementation	Educate Firefighters on importance of protecting CHZ and IHZ.	
Where:	Prioritize funding for RFPAs that provide coverage for habitat within CHZ and IHZ. Focus on areas that currently have no RFA coverage.	Complete a state-wide response time analysis for the SGMA.	Identify areas (e.g. south-west corner of Idaho/N. Nevada/S.E. Oregon) that need strategic placement of additional suppression resources (i.e. guard	Complete a state-wide analysis of the SGMA for current water availability for suppression purposes.	All Field offices and Ranger Districts within the SGMA.	

			stations, air attack, landing strips).			
How:	Through an MOU between IDL & BLM.	Coordination amongst BLM, USFS, State of Idaho, rural fire districts and RFPAs.	Coordination amongst BLM, USFS, State of Idaho, rural fire districts and RFPAs.	Coordination amongst BLM, USFS, State of Idaho, rural fire districts and RFPAs.	Annual fire training in the spring.	
How Much:	Over the long-term acquire funding to support RFPAs that provide coverage for all CHZ and IHZ in Idaho. Priority for an additional RFPAs should go to the West Owyhee Conservation Area, following with an additional RFPAs in the Southern Conservation Area.	Focus should be on response time to fires within CHZ or IHZ or on those fires that have the potential to impact CHZ and IHZ.	Sufficient resources strategically placed in areas of high fire risk within the CHZ and IHZ. Priority should go to the West Owyhee Conservation Area.	Suffience water resources strategically placed in areas of high fire risk within the CHZ and IHZ. Priority should go to the West Owyhee Conservation Area.		
By When:	Within 1 year of the signing of the ROD.	Within 1 year of signing the ROD.	Within 1 year of the signing of the ROD.	Within 1 year of the signing of the ROD.	Upon the signing of the ROD.	
Mechanism:	Through an MOU w/ the State of Idaho and BLM.	RMP for BLM and USFS lands.	RMP and MOU amongst all entities.	RMP and MOU amongst all entities.	RMP for BLM and USFS managed lands.	

RESTORATION						
What:	Reseeding	Sagebrush Seedlings	Invasive Annual Grass Expansion Prevention	Reseeding on State owned lands by federal contractors	Conifer removal on state owned lands by federal contractors	
Where:	Within CHZ and IHZ based upon ecological site potential.	Within CHZ and IHZ based upon ecological site potential.	Prioritize efforts to control annual grass to: 1) prevent further spread into, and 2) reduce stands within, CHZ and IHZ of each Conservation Area. Preventing invasion into CHZ or IHZ may include conducting control in adjacent GHZ.	State owned lands in CHZs and IHZs of each Conservation Area .	Identify and prioritize areas of R3 (conifer encroached areas) for restoration by Conservation Area, then within CHZ and IHZs.	
How:	Complete a strategy that identifies and prioritizes the location and amount of reseeded efforts.	Complete a strategy that identifies and prioritizes the location and amount.	First, model annual grass invasion. Second develop a strategy that identifies and prioritizes locations for prevention and restoration.	MOU between BLM, USFS and State of Idaho	MOU between BLM, USFS and State of Idaho	

Administrative Draft Agency Review

How Much:	<p>First, offset sage-grouse habitat lost to wildfires in CHZ and IHZ of each Conservation Area since 2011 (baseline year). Second, offset modeled wildfires (future fires) resulting in losses to 2011 habitat baselines for CHZ and IHZ in each Conservation Area. Third, offset habitat losses due to wildfire that occurred prior to 2011 to build upon the 2011 baselines (the long term objective is not just to reduce and offset current (2011 to present) and future losses but also to build upon the baselines to increase habitats). Number 2 and 3 likely means restoring perennial grasslands.</p>	<p>First, plant seedlings in perennial grasslands of CHZs that do not have sagebrush. Second plant seedlings in perennial grasslands of IHZs that do not have sagebrush.</p>	<p>First, implement techniques to prevent further spread in CHZs, then IHZs. Second, offset annual grass spread in CHZs and IHZs that occurred since 2011. Third, offset habitat losses due to annual grass invasion prior to 2011.</p>	<p>If ecological site condition indicates restoration is needed, reseed all state owned lands burned in CHZs and IHZs within one year of the wildfire.</p>	<p>Remove Phase I and II conifers from state-owned lands adjacent to or within federal lands conifer removal projects.</p>	
By When:	<p>Complete strategy within one year of the signing of the ROD. Implement restoration to offset wildfire losses in CHZs and IHZs since 2011 within 2 years of signing ROD. Offset</p>	<p>Complete the strategy by one year of signing of the ROD. Complete planting of CHZs within</p>	<p>Complete modeling and strategy within one year of the signing of the ROD. Implement techniques to prevent further spread in CHZs and IHZs within 2 years of signing ROD. Offset</p>	<p>Sign MOU within one year of the signing of the ROD. Reseed state owned lands within one year of the wildfire.</p>	<p>Sign MOU within one year of the ROD. Conduct conifer removal on state lands</p>	

	models wildfire losses (future fires in the next 5 years) in CHZs and IHZs 3 years after signing of the ROD. Offset losses prior to 2011 is a longer timeline.	X years of the ROD. Complete planting of IHZs within X years of the ROD	annual grass spread in CHZs and IHZs since 2011 by 3 years after signing of the ROD. Offset losses prior to 2011 is longer timeline.		within the timeframe of federal project(s).	
Mechanism:	RMP for BLM and USFS lands.	RMP for BLM and USFS lands.	RMP for BLM and USFS lands.	MOU between BLM, USFS and State of Idaho	MOU between BLM, USFS and State of Idaho	

Administrative Draft  
Cooperating Agency Review



# FRAMEWORK FOR MITIGATION OF IMPACTS FROM INFRASTRUCTURE PROJECTS ON SAGE-GROUSE AND THEIR HABITATS

## Sage-Grouse Mitigation Subcommittee of the Idaho Sage-Grouse State Advisory Committee

December 6, 2010

### INTRODUCTION

The Conservation Plan for Greater Sage-grouse in Idaho (Idaho Sage-Grouse Advisory Committee 2006; as amended in 2009) calls for the development of a “proposal for a mitigation and crediting program for sagebrush steppe habitats in Idaho and recommendations for policy consideration” (Measure 6.2.4.). In early 2010, the Idaho Sage-grouse Advisory Committee (SAC) established the Mitigation Subcommittee to complete this task.<sup>1</sup> The Mitigation Subcommittee met several times from the late spring, through the fall of 2010 and found broad areas of agreement among its diverse participants.

This report presents the Mitigation Subcommittee’s consensus recommendations for the creation of an Idaho-based program to compensate for the impacts of infrastructure projects on sage-grouse and their habitats. This program – called the Mitigation Framework – would serve as a science-based “mitigation module” that project developers and government regulators could use to achieve compensatory mitigation objectives called for in project plans and permits. While compensatory mitigation may help offset certain impacts arising from infrastructure projects, mitigation should not be considered a substitute for first avoiding and then minimizing impacts. In addition, it is important to recognize that federal and state regulatory or land-management agencies, and county or local governments may also require additional stipulations, conditions of approval or other requirements as well as on-site mitigation, in accordance with applicable law, regulation or policy.

This document proposes a general outline or “skeleton” of policies and procedures for such a program. The Mitigation Framework is designed to be transparent, inclusive, and accountable to defined objectives. The Subcommittee’s purpose is to describe the program in enough detail to foster a dialogue among SAC members, spot important issues and points of agreement, and assess the level of support for developing a functioning mitigation program for Idaho sage-grouse and their habitats.

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## EXECUTIVE SUMMARY

The state of Idaho is seeing an increasing number of infrastructure projects, such as transmission lines and wind energy facilities, proposed in the state's sagebrush steppe ecosystems. Where federal permits are required, the environmental review process for these projects will analyze how these projects affect sage-grouse and will consider a range of potential mitigation measures to avoid, minimize, or offset any impacts. It is likely that the environmental review process will lead at least some developers and agencies to implement compensatory mitigation.

Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For sage-grouse, this would include, among other things, protecting and restoring sagebrush habitats to offset habitat losses and other effects of infrastructure projects.

This framework describes the general outline for a sage-grouse compensatory mitigation program in Idaho. This program would employ an "in-lieu fee" approach to compensatory mitigation through which a project developer would pay funds into an account managed by the mitigation program for performance of mitigation actions that provide measureable benefits for sage-grouse and their habitats within Idaho.

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, it offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions. It should be emphasized that this program would not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts through appropriate project siting, design and implementation.

Although the initial focus is on sage-grouse, the Mitigation Framework can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associated species. The suitability of the Framework for other species and natural features has not been evaluated.

The objectives of the Mitigation Framework include:

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by actions that benefit the affected species and habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset the impacts of project development and operation on sage-grouse and sage-grouse habitat, and provide a consistent mechanism to offset impacts to the species that can be evaluated in future reviews of the species' status; and

- Evaluate issues based on best available scientific information, while acknowledging and responding to scientific uncertainty.

The Mitigation Framework would be established through a memorandum of agreement (MOA) among entities that have the capacity and commitment to assist in its implementation. Such parties may include land and wildlife management agencies, counties, tribes, participating private infrastructure development companies, and non-governmental organizations. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program.

The Mitigation Framework envisions a program with the following attributes: (1) a Mitigation Team and program administrator to steer the mitigation program and ensure strong oversight; (2) technically sound and transparent guidelines for estimating compensatory mitigation costs; (3) a science-based statewide strategy to guide the selection of mitigation actions that will receive funding; (4) provisions that the costs of operating the program will be borne by infrastructure developers that use the Mitigation Framework to deliver compensatory mitigation; (5) monitoring the implementation and effectiveness of mitigation actions funded by the Mitigation Framework program; (6) a system to track benefits provided by the Mitigation Framework to sage-grouse habitat in Idaho; and (7) periodic evaluation and adaptation of the Mitigation Framework program.

This framework provides only a general outline of a proposed Idaho-based compensatory mitigation program. It is intended to assess the level of support for crafting the agreements and completing the technical tasks needed to bring the Mitigation Framework into being.

## DISCUSSION

### I. **The Role of Compensatory Mitigation in Infrastructure Development and Sage-grouse Conservation**

#### A. Mitigation Basics

Broadly defined, “mitigation” refers to a wide range of measures that are taken to avoid, minimize, rectify, reduce, or compensate for the adverse impacts of actions affecting the environment. *See* 40 C.F.R. § 1508.20 (definition of “mitigation” in National Environmental Policy Act (NEPA) rules). In this general sense, mitigation should be an integral part of all phases of project planning and implementation.

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The focus of this report is on compensatory mitigation – also known as “biodiversity offsets” or “offsite mitigation.” Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For instance, a project developer may fund the restoration of a particular type of habitat in order to replace or “offset” similar habitat that is lost as a result of project construction.

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This Framework adopts an “in-lieu fee” approach to compensatory mitigation. Under this approach, a project developer provides funding to a compensatory mitigation program administrator who then distributes the funds to the appropriate government agency, foundation or other organization for performance of mitigation actions. In an in-lieu fee program, the responsibility for actually delivering the compensatory mitigation is transferred from the developer to the program administrator once the developer provides the necessary funds to the in-lieu fee program.

It is important to emphasize that compensatory mitigation does not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts. This Framework endorses the principle known as the “mitigation hierarchy,” which holds that decision makers should consider the elements of environmental mitigation in the following order of priority:

1. Avoid environmental impacts through project siting and design;
2. Minimize the impacts during construction, operation, maintenance, and decommissioning by implementing appropriate conservation measures related to timing and conduct of project activities;
3. Restore areas that have been disturbed or otherwise rectify on-site project-related impacts to the greatest extent practicable; and
4. Compensate for residual impacts (direct and indirect effects that are not mitigated on-site) by providing replacement habitats or other benefits.

This means that compensatory mitigation is addressed only after efforts to avoid, minimize, and mitigate the impacts have been addressed. It also should be noted that significant impacts to habitat areas that support special functions and values for sage-grouse may simply not be replaceable through mitigation and therefore the best course may be to avoid those areas altogether.

#### B. Need for an Idaho Compensatory Mitigation Program

In recent years, the state of Idaho has seen an increase in the number of major infrastructure projects proposed in the state’s sagebrush steppe ecosystems. Several current proposals involve high voltage transmission lines that would cross over hundreds of miles of sage-grouse habitat. Large scale energy infrastructure projects such as wind farms may also affect large areas of sage-grouse habitat.

Where these projects are located at least partially on federally managed public lands they will be required by federal law to go through an extensive environmental review process under NEPA before relevant federal permits are issued. The NEPA process requires the permitting agencies to consider the projects’ environmental effects (both positive and negative), alternatives, and potential mitigation measures. Impacts on sage-grouse will be one of the topics analyzed in the NEPA process.

Even after efforts are taken to avoid and minimize impacts, it is possible that some of these infrastructure projects will degrade some sage-grouse habitat, cause direct sage-grouse mortality, or lead to indirect effects such as avoidance of previously occupied habitat. The extent to which project developers and regulators adopt compensatory mitigation as a means to offset these impacts is not fully known. However, it is likely that at least some developers and regulators will seek to implement compensatory mitigation to benefit sage-grouse and their habitats.

Energy companies and other developers face daunting challenges in carrying out compensatory mitigation for sage-grouse habitat. Just identifying specific mitigation actions requires a major effort. Actually implementing sagebrush restoration and enhancement projects is even more difficult and expensive – typically involving years of effort and a significant risk of failure. Delivering this type of technically complex environmental mitigation may be well outside the core business of many infrastructure developers.

### C. Advantages of the Mitigation Framework

The Mitigation Framework proposes to respond to these challenges by creating a statewide program to deliver scientifically sound compensatory mitigation for multiple projects. Project developers and regulators would no longer have to design, fund and implement their own mitigation programs. Instead, they would have the option of contributing money to a central fund overseen by agencies with expertise in habitat management and non-governmental partners with similar experience.

This approach to compensatory mitigation offers three major advantages. The first advantage stems from the increased efficiency of an Idaho-wide mitigation program compared with fragmented, project-by-project mitigation programs. Mitigation efforts require a significant investment in planning, administration, project oversight, and monitoring. The Mitigation Framework would consolidate these functions, thus avoiding needless duplication.

The second advantage is that a state mitigation fund can be used for sage-grouse conservation more strategically and at a greater scale than project-by-project mitigation. As described in more detail below, the Mitigation Framework would fund sage-grouse habitat protection and restoration projects in accordance with a statewide strategy that uses landscape-scale analyses to identify the specific measures and habitats that will provide the greatest benefit for Idaho sage-grouse populations. This Idaho-based mitigation strategy will be integrated with other conservation strategies throughout the range of sage-grouse to ensure that actions taken in Idaho benefit the species as a whole.

Third, this method can engage the capacity and competence of natural resources agencies, local governments, private companies, and non-governmental organizations. The Mitigation Framework proposes to enlist these entities in shaping Idaho's strategy, developing criteria for use of the fund, and proposing and implementing habitat protection and restoration projects.

The benefits of the Mitigation Framework can be summarized as follows:

#### *Benefits for Project Developers:*

An efficient and reliable mechanism for meeting compensatory mitigation objectives and permit conditions; and

Increased certainty regarding project costs.

*Benefits for Regulatory Agencies:*

Increased certainty that in-lieu fees will result in strategic “on-the-ground” mitigation actions that benefit sage-grouse.

*Benefits for Sage-Grouse:*

Increased certainty that scientifically sound mitigation actions that benefit sage-grouse and offset impacts and habitat losses associated with infrastructure development will be implemented.

D. Ensuring Accountability

In-lieu fee compensatory mitigation does pose one potentially significant drawback that must be acknowledged and addressed: a poorly designed program may lack accountability for delivering meaningful on-the-ground benefits for sage-grouse. Simply having a project developer contribute to an in-lieu fee mitigation account does not by itself compensate for the sage-grouse impacts caused by the project. Actual mitigation is possible only after well-conceived habitat protection and restoration projects are planned, funded, implemented, monitored, and successful in achieving stated objectives.

The Mitigation Framework seeks to ensure accountability by adopting a series of rigorous and transparent procedures. As described below, the Framework would: (1) ensure that program administration and monitoring functions are adequately funded; (2) provide technically sound guidelines for estimating the costs of delivering compensatory mitigation; (3) establish a science-based statewide strategy to guide the program; (4) develop project selection criteria and a request for proposals based on the strategy; (5) require monitoring of the implementation and effectiveness of mitigation actions funded by the program; (6) track benefits the Mitigation Framework program provides to sage-grouse in Idaho; and (7) require periodic evaluation of the program. Taken together, these procedures provide a high degree of certainty that the Mitigation Framework will be able to turn in-lieu fee payments into tangible, lasting compensatory mitigation for sage-grouse.

As described in greater detail in Section E, below, project developers that seek to use the Mitigation Framework will need to show two things. First, they will need to show that their projects’ impacts on sage-grouse and their habitats have been evaluated using a scientifically sound process. Second, they will need to show that their contributions to the mitigation fund reflect the Mitigation Framework’s compensation guidelines to ensure that funding will be adequate to offset project impacts. Having demonstrated those things, the project developers should then be able to rely on their in-lieu fee contribution to the mitigation account as satisfying their compensatory mitigation objectives or obligations.

## II. Core Elements of Idaho Sage-Grouse Mitigation Program

### A. Program Objectives

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by mitigation actions that benefit the sage-grouse and their habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset project impacts on sage-grouse and sage-grouse habitat, and provide a consistent mitigation mechanism that can be evaluated in future reviews of the species' status; and
- Evaluate issues based on best available scientific information while acknowledging and responding to scientific uncertainty.

### B. Scope

The Mitigation Framework proposes to mitigate for impacts to Idaho sage-grouse and their habitats in Idaho.

The initial focus of the Mitigation Framework is on sage-grouse. However, this program can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associate species, such as pygmy rabbits, if project developers and regulators call for such mitigation. Whether this Framework is suited for mitigation of impacts to a broader suite of species or natural features has not been evaluated. It should be noted that some subcommittee members expect to advocate in other forums that compensatory mitigation should extend beyond sage-grouse.

The Mitigation Framework focuses on infrastructure projects because this type of development is the most likely to give rise to compensatory mitigation under existing environmental policies. As used here, the term “infrastructure” refers to building structures that significantly disturb sage-grouse habitat, including but not limited to projects for electricity transmission, energy generation, pipeline conveyance, transportation, communications, and similar purposes.

The Mitigation Framework is not intended to apply to existing projects that are not changing in scope or to the renewal of on-going activities, such as grazing permits. In addition, the Framework is not suited to projects with minor impacts because their contributions to the mitigation program would be too small to justify the effort needed to establish and administer in-lieu fee payments.

### C. Integration with Environmental Review Procedures

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, the Framework offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions.

The Mitigation Framework is intended to complement the environmental review process conducted pursuant to NEPA and other federal environmental laws as well as county land use planning authorities.

Many energy and other infrastructure projects undergo review and approval at the county level. The issues examined and the level of environmental analysis varies widely among individual counties and individual developers. If a county or developer decides to address sage-grouse impacts, it will be able to use the Mitigation Framework as a mechanism for meeting compensatory mitigation objectives that may arise from the county permitting process.

### D. Mitigation Strategy

The next step focuses on the Mitigation Team's task of developing a statewide, science-based strategy that will guide the use of the mitigation fund.

The mitigation program strategy would establish priorities for the use of compensatory mitigation funding based on factors/risks identified in the U.S. Fish and Wildlife Service's 12-Month Findings for Petitions to List Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (USFWS 2010) and in the Conservation Plan for Greater Sage-grouse in Idaho (2006). The strategy sets mitigation priorities with a landscape view of sage-grouse needs and highlights mitigation opportunities in Idaho based on best available science. In setting priorities, the strategy considers species and community size, landscape condition, and regional context. The strategy is responsive to the threats and risks described in the sage-grouse 12-month findings. The strategy will also generally describe the types of mitigation actions, project specifications, and best practices that are likely to produce measureable benefits for sage-grouse habitat. Finally, the strategy addresses both implementation and effectiveness monitoring requirements for mitigation actions funded through the program.

The Mitigation Framework's strategy will draw heavily from the State of Idaho's sage-grouse conservation plan but has a narrower focus. It is intended to provide the specific guidance on program priorities, accepted mitigation measures, and geographic areas of emphasis that potential mitigation project sponsors will need to know when they apply for funds. The strategy plays a crucial role in steering mitigation funding to those activities and places that can provide the most effective benefits for Idaho sage-grouse populations consistent with strategies to increase the viability of the species throughout its range.

To this end, the strategy will address one of the major policy questions that arise in the design of compensatory mitigation systems: how closely should the mitigation actions be linked to the type and location of the habitat that was originally affected by the infrastructure project. Stated in the alternative, does removal of the mitigation action from the area of impact improve the effectiveness of or benefit from the action. Some compensatory mitigation systems place a heavy emphasis on this link by favoring "in-kind" and "on-site" compensatory mitigation over



“out-of-kind” and “off-site” compensatory mitigation. The subcommittee members generally favor an approach that allows funding to flow to the projects and locations within Idaho that will provide the greatest overall positive impact on sage-grouse populations. The Mitigation Framework calls for a monitoring program that would assess habitat gains provided by mitigation actions and compare them with the mitigation objectives of the participating infrastructure projects. The nature and purpose of this monitoring is described more fully in Mitigation Program Step 4, below.

Once the strategy is complete, the Mitigation Team will develop project ranking criteria and procedures that will guide the selection of the mitigation actions that will receive funding. The goal is to fund projects that provide high quality, lasting benefits based on landscape scale analyses that actually compensate for project impacts.

#### E. Compensation Guidelines

The Mitigation Framework Program will develop guidelines that may be used by developers and/or regulators to determine the cost of meeting their compensatory mitigation objectives. These compensatory mitigation objectives determine the extent of compensatory mitigation for each project and are generally incorporated into project plans or permits.

The compensation guidelines will provide transparent, technically sound principles for determining how much it costs to deliver habitat mitigation for sage-grouse. In other words, the guidelines will represent best estimates of the true cost of implementing the mitigation actions needed to meet each project’s compensatory mitigation objectives. The guidelines may be used by the project developer and the Mitigation Framework Program Administrator to establish the in-lieu fee that the developer will contribute to the mitigation fund.

Specific valuation methods will be developed at a later time and will likely draw from compensatory mitigation systems used elsewhere in the West. Although the details have yet to be worked out, the following outline illustrates the core concepts and principles (shown in bold lettering) that are likely to be employed by the MOA parties in setting the Mitigation Framework’s in-lieu fee structure.

- A **common unit of measurement** would be established for describing and tracking both the project impacts and the benefits of any compensatory mitigation actions. This unit of measurement can be a physical unit such as “acres impacted” or more specifically “acres of summer brood rearing habitat impacted” or “habitat units” lost.
- While the “common unit of measurement” noted above addresses the area of habitat impacted and mitigated, **habitat compensation ratios** are used to address the **quality** of the habitat affected by the infrastructure project. These ratios could specify the number of acres of mitigation required per acre of impacted habitat based on the size, habitat quality/condition and function of the impacted habitat; for more critical or important habitat, more mitigation acres might be required. Thus, habitats with higher quality and importance could have higher compensation ratios.
- Several factors are taken into account in calculating how much it will cost to actually compensate for the acres or habitat units. The recommended approach is to evaluate on

the costs of implementing a conceptual **portfolio of potential mitigation actions** or offset activities that provide benefits for sage-grouse. This portfolio of model projects would include a balanced mix of accepted habitat protection and restoration measures reflecting the types of projects expected to be funded by the mitigation program (in accordance with the strategy discussed above). Examples of projects in this portfolio may include such actions as restoring sagebrush canopy and a native understory on recently burned land, improving riparian areas and wet meadows in early brood-rearing habitat, conservation easements to prevent habitat loss, and land management practices that improve sage-grouse habitat. Project costs include the full range of expenses needed to complete all phases of the mitigation action, including administration and monitoring. The average costs of these model mitigation actions per acre or habitat unit is the foundation of the in-lieu fee calculation.

- In addition, the in-lieu fee should also be adjusted to take into consideration the issue of **lag time** –the time between when habitat is lost at the impacted site relative to when habitat functions are gained at the compensation site.
- The fee also needs to account for **contingencies** associated with delivering compensatory mitigation, including an estimate of the **risk of failure** (i.e., the probability that offsite mitigation will not result in any measureable conservation outcomes) for each mitigation site or project.
- In addition to the fee calculated above, costs for establishing and operating the program, including travel, technical consultation and monitoring of program effectiveness must be included. This overhead fee could range from 5-15% depending on the size and complexity of the proposed mitigation program.

#### F. Program Structure and Oversight

The Mitigation Framework would be established through a memorandum of agreement (MOA) among the entities that would participate in its implementation. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program. The MOA would serve as a joint powers agreement for state and local government parties.

The MOA would establish the following administrative structure for the Mitigation Framework:

1. **Core Team:** A core group would oversee the Mitigation Framework program and provide policy-level guidance for the Science Team and Fund Administrator, described below. The Core Team would be composed of three to seven representatives of diverse perspectives among the MOA signatories.
2. **Science Team:** A team of experts drawn from MOA signatories and other targeted organizations will administer the science-based and technical aspects of the program. The Science Team would consist of several individuals with expertise in relevant areas such as habitat protection and restoration, landscape ecology/spatial analysis, wildlife biology, sage-grouse ecology, project development, and mitigation policy.

The Team would focus on developing the policies and statewide strategy that will guide the program, making requests for mitigation project proposals (RFPs), ranking mitigation proposals that will receive funding, tracking monitoring reports and project benefits, and evaluating program success.

3. **Program Administrator:** A program administrator will be responsible for fund management and administrative tasks. The program administrator will provide administrative support for the Mitigation Team, manage the mitigation account, and administer grants, contracts, and other agreements.
4. **Advisory Committee:** A broader advisory committee consisting of agencies, companies and organizations with the skills and commitment that will provide useful advice to the Core Team regarding the implementation of the Mitigation Framework.

The specific make up of each of these groups will be determined at a later time. Potential participants in the Mitigation Framework include but are not limited to representatives of:

State of Idaho:

Department of Fish and Game  
Office of Energy Resources  
Office of Species Conservation  
Idaho Department of Lands

United States:

Bureau of Land Management  
U.S. Fish and Wildlife Service  
U.S. Forest Service  
Natural Resources Cons. Service

Energy Companies:

Idaho Power  
Ridgeline Energy

Non-Governmental Organizations:

Idaho Conservation League  
The Nature Conservancy

Idaho Tribes

Idaho Sage-Grouse Advisory Committee  
Sage-Grouse Local Working Groups

Idaho Counties

Public Land Users (e.g., grazing interests)

G. Funding the Mitigation Program

The costs of administering the program will be sustained by the project developers that seek compensatory mitigation. Therefore, a portion of the in-lieu fee that project developers contribute to the mitigation account will be applied for program administration. As noted above, protecting and restoring sagebrush habitats are time consuming and expensive undertakings. Ensuring that these activities are conducted with strong oversight should be viewed as an exceptionally wise investment.

**III. Mitigation Program Steps**

The Mitigation Framework envisions a five-step process for developing, implementing, and monitoring compensatory mitigation.

#### A. Step 1 – Assessment of Project Impacts and Development of Mitigation Objectives

Assessment of project impacts should be undertaken by the project developers proposing new infrastructure projects and the government agencies that conduct environmental reviews of those projects. Although the Mitigation Framework process is not responsible for this step, it is nevertheless crucial to the integrity of the mitigation program. Specifically, the Framework's success in achieving its goal of offsetting major infrastructure project impacts on sage-grouse depends on an accurate accounting of those impacts.

For many projects, this analysis will be done as part of the environmental review procedures required by NEPA. As noted above, NEPA requires federal agencies to address the full range of direct, indirect and cumulative impacts of the proposed project, alternatives to the proposed action, and potential mitigation before they act on permit applications.

Once impacts have been assessed and compensatory mitigation objectives set, the project developer is ready to engage the Mitigation Framework, starting with determining the developer's in-lieu fee contribution.

#### B. Step 2 – Determine the In-lieu Fee Contribution

The goal of Step 2 is to use valuation techniques, such as the guidelines presented above, to convert the complex range of project impacts, including direct, indirect and cumulative impacts, into monetary terms that become the basis for the in-lieu fee payment. The accepted in-lieu fee compensatory mitigation plan could be a condition of the instrument approving the project (FONSI, ROD, right-of-way grant, conditional use permit, etc.) and thus legally requires the project developer comply with the approved mitigation plan.

#### C. Step 3 – Commitment of Mitigation Funds by Project Developer

Infrastructure project developers can employ the Mitigation Framework by entering into an agreement with the program administrator with regard to a specific infrastructure project. This project agreement sets forth the parties' respective responsibilities, including the project developer's commitment to pay the in-lieu fee. Importantly, the agreement provides that the project developer's funds can only be used for the purposes set forth in the Mitigation Framework. The agreement may also include "conditions" as requested by regulatory agencies or project developers. For instance, the agreement might provide that the in lieu fee will be used to fund mitigation actions in specific geographic areas in order to meet permit requirements. The program administrator, based on consultation with the MOA parties, may decline to enter into an agreement that is inconsistent with the Mitigation Framework principles or includes conditions that are burdensome or unworkable.

Once the agreement specifying the payment structure and schedule is signed, the project developer makes the required in-lieu fee deposits to an interest bearing account managed by the program administrator.

After the completion of this step, the project developer is no longer engaged in the Mitigation Framework – unless it has decided to participate as a MOA party.

D. Step 4 – Issue Request for Proposals (RFP) and Select, Implement, and Monitor Mitigation Actions

At least at annual intervals, the Mitigation Team will issue an RFP that invite private companies, non-governmental organizations, and agencies to submit proposals for sage-grouse habitat protection, restoration, and/or enhancement actions. The RFP will provide guidance to mitigation project sponsors on program priorities and criteria. These priorities and criteria will be drawn from the mitigation program strategy including identification of geographic areas where mitigation might provide the greatest benefits as well as identification of the threats that present the highest risk to the species or its core habitat. The Mitigation Team should also reach out to federal, state, and local agencies, non-governmental organizations and the general public in order to facilitate discussion, engage stakeholders, raise awareness of the program and generate responses to the RFP.

The RFP will solicit project proposals that contain an operation or implementation plan and address at least the following elements:

- Geographic area;
- Threats addressed and how the mitigation action project will offset impacts resulting from those threats;
- An analysis of current sage-grouse conditions in the area;
- Resource goals and objectives the mitigation action project will seek to provide;
- A description of any coordination with federal, state, tribal and local resource management and regulatory authorities or other stakeholder involvement required to complete the mitigation action (e.g., requirement for NEPA compliance or county permit);
- A description of recent or proposed projects and events in the vicinity of the proposed project, if any, such as fire rehabilitation treatments, restoration or enhancement treatments or other activities that complement the effectiveness or intent of the proposed, mitigation action;
- A description of the long term protection, management, stewardship for the project being implemented, and the entity responsible for these activities; and
- A commitment to periodic evaluation and reporting on the progress of the project in meeting stated goals and objectives, including a process for adaptively redirecting the project if necessary.

When selecting projects, the Mitigation Team will estimate the biological benefits of the projects activities, the likely success of those activities, the duration of benefit expected and measure those benefits in relation to the strategy and RFP objectives.

Mitigation Team and the program administrator will work together on continuing program administration and oversight including annual reporting of program activities, expenditures, and benefits. An annual program report will describe program activities, budget, and assessment of whether the mitigation strategy and associated projects are benefitting sage-grouse and at what level or scale.

The Mitigation Team and/or Program Administrator should implement a monitoring program to measure and validate whether project-specific objectives have been met. Monitoring is required of all compensatory mitigation actions to determine if the project is meeting its performance standards and objectives. As mentioned above, at regular intervals, the total habitat and/or population gains provided by the programs will be compared with the habitat/population losses associated with the participating infrastructure projects. The purpose of this comparison is to evaluate the mitigation program and make any necessary program adjustments – particularly if the monitoring shows that the mitigation benefits are not compensating for habitat losses. This comparison will not be a basis for imposing new, unexpected requirements on the infrastructure project developers.

#### **CONCLUSION**

The framework of policies, principles and procedures outlined above are meant to start a dialogue among parties engaged in sage-grouse conservation and infrastructure development. If these parties agree with the Mitigation Subcommittee that there is great value in establishing an Idaho-based compensatory mitigation program, then this framework will mark the beginning of an inclusive effort to fill in the details and complete the tasks needed to bring such a program into being. We have confidence in our collective ability to create a compensatory mitigation program that will benefit infrastructure developers, agencies, conservation interests, and – not least – Idaho's sage-grouse.

# Adaptive Regulatory Trigger Framework

## Population & Habitat Trigger Justification

### Triggers

Because unexpected events (e.g., wildfire, West Nile Virus) may result in a substantial loss of habitat or decline in sage-grouse populations, adaptive management triggers have been developed. These triggers are intended to improve sage-grouse population trends, protect the overall baseline population, preserve a buffer population, and conserve sage-grouse habitat.

The triggers have both population and habitat components. Population components consider population growth and change in lek size. The habitat component considers loss of breeding and/or winter habitat. Lek size has been related to population change in numerous studies (Connelly and Braun 1997, Connelly et al. 2004, Baumgart 2011, Garton et al. 2011). Garton et al. (2011) used both characteristics as well as number of active leks to assess change for sage-grouse populations throughout the west. A variety of researchers (Swensen et al. 1987, Connelly et al. 2000a, Miller et al. 2011) have shown that loss of winter or breeding habitats resulted in decreased sage-grouse populations. The adaptive management triggers set at a lambda value less than one, a 20% decline in males counted on lek routes, and a 20% loss of breeding or winter habitat as break points that would initiate a population or habitat trigger.

### Population Growth (Finite Rate of Change)

Although populations cannot be accurately estimated, lek counts of males provide a robust method for assessing population trend and estimating population growth ( $\lambda$ ) in an unbiased fashion. Calculating  $\lambda$  (finite rate of change) between successive years for a sage-grouse population is described in Garton et al. (2011). The ratio of males counted in a pair of successive years estimates the finite rate of change ( $\lambda_t$ ) at each lek site in that one-year interval. These ratios can be combined across leks within a population for each year to estimate  $\lambda_t$  for the entire population (or Conservation Zone) or combined across all leks to estimate  $\lambda_t$  for the state between successive years as:

$$\lambda(t) = \frac{\sum_{i=1}^n M_i(t+1)}{\sum_{i=1}^n M_i(t)}$$

where  $M_i(t)$  = number of males counted at lek  $i$  in year  $t$ , across  $n$  leks counted in both years  $t$  and  $t+1$ . Ratio estimation under classic probability sampling designs—simple random, stratified, cluster, and probability proportional to size (PPS)—assumes the sample units (leks counted in two successive years in this case) are drawn according to some random process but the strict requirement to obtain unbiased estimates is that the ratios measured represent an unbiased sample of the ratios (i.e., finite rates of change) from the population or other area sampled. This assumption seems appropriate for leks and the possible tendency to detect (or count) larger leks than smaller leks does not bias the estimate of  $\lambda_t$  across a population or region (Garton et al. 2011), but makes it analogous to a PPS sample showing dramatically increased precision over simple random samples (Scheaffer et al. 1996). Also precision can be estimated for  $\lambda$ .

Because small game populations (including sage-grouse) typically fluctuate among years due to weather and other environmental variables, a  $\lambda_t$  for any given year is not very meaningful. However, a series of years where  $\lambda_t$  remains at or above 1.0 indicates a stable to increasing population. Moreover, this situation would also provide strong evidence of the effectiveness of conservation actions that may have been employed.

#### Males Counted on Leks

Lek attendance by males has been used as an indicator of population trend in some areas since at least the early 1950s. For many years it was the only indicator used to assess status of sage-grouse populations. However, recent research has shown that male attendance at leks can be affected by severity of the previous winter, weather, timing of counts during spring, and a variety of other factors (Emmons and Braun 1984, Hupp 1987, Baumgart 2011). Baumgart (2011) indicated the probability of male sage-grouse attending leks in south-central Idaho varied among years and appeared to be tied to winter severity. Although lek data provide a powerful data set for assessing population trends over time (Garton et al. 2011), counts for a single year may not reflect trends very well. Thus using lek counts as a trigger must consider the inherent variation in these counts. Moreover, males counted on leks appear to have the most value for



assessing population change when used in conjunction with other indicators of population status (e.g., finite rate of change).

Emmons and Braun (1984) reported that lek attendance rates varied from 86% for yearling males to 92% for adult males. These rates were pooled over 5 day periods and may have overestimated attendance (Connelly et al. 2011). In contrast, Walsh et al. (2004) reported average daily male attendance rates of 42% (range = 7-85%) and 19% (range = 0-38%) for adult and yearling sage-grouse, respectively but these rates were not adjusted for detection rate and were likely biased low (Connelly et al. 2011). Moreover, this study involved very small sample sizes (17 adult males, 9 yearling males over 15 leks) and only one breeding season and it was not clear whether all leks in the study area were known and sampled. Preliminary data from Utah (D. Dahlgren, personal communication) indicated that in a study area about 30 miles south of Idaho male sage-grouse lek attendance rates varied from roughly 60% at the beginning of April to about 90% at the end of the month. Recent findings in Idaho (Baumgart 2011) predicted the probability of lek attendance for an adult male following an “average” winter would range from 0.894 (SE = 0.025) on week 3 (~1 April) to 0.766 (SE = 0.040) on week 8 (~ 5 May). Published information suggests that a change in maximum number of males counted on leks of say 10-15% cannot confidently be considered a reflection of population status. However, a 20% decline in maximum number of males counted on leks would likely not be related to lek attendance patterns but instead would reflect a population decline. Thus, the trigger was set at 20%.

#### Habitat Trigger

Numerous studies have documented the negative effects of habitat loss including fire and energy development on sage-grouse (Connelly et al. 2000b, Fischer et al. 1996, Nelle et al. 2000, Doherty et al. 2008), but few studies have related the amount of sagebrush habitat lost to population change. In a Montana study area with a non-migratory sage-grouse population, there was a 73% decline in breeding males after 16% of the study area was plowed (Swenson et al. 1987). Walker et al. (2007) indicated that the lowest probability for lek persistence within a landscape occurred where, within 6.4 km of a lek center, the area has < 30% sagebrush. Similarly, Wisdom et al. (2011) reported sage-grouse occupying landscapes with <27% sagebrush as dominant cover would have a low probability of persistence. Connelly et al. (2000a) showed that a fire in 1989 that removed 58% of the sagebrush cover in sage-grouse

breeding and winter habitat led to an almost 95% decline in the breeding population a few years later. Similarly, a fire that removed about 30% of breeding/winter habitat resulted in substantial population declines over the next few years (J. W. Connelly, unpublished data; Table 1). A 30% loss of breeding and winter habitat is thus far the lowest amount of habitat loss for which a population response could be detected and landscapes with < 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. Idaho is taking a more conservative approach than suggested by the literature. A soft trigger is set at a 10% loss of breeding or winter habitat in Core or Important management zones of a Conservation Area, which initiates a review of the management approach. A hard trigger is set at a 20% loss of breeding or winter habitat within a Core Habitat Zone of a Conservation Area, which automatically causes a change in management status of the corresponding Important Habitat Zone.

Table 1. Nest success (%) in SE Idaho study areas before and after a fire in the Table Butte study area. The fire occurred in August 2000.

Year	Area	
	Table Butte	Upper Snake
1999	54	
2000	45	61
2001 <sup>a</sup>	18	56
2002	20	65

Literature Cited

Baumgart, J. A. 2011. Probability of attendance and sightability of greater sage-grouse on leks: relating lek-based indices to population abundance. Dissertation, University of Idaho, Moscow.

Connelly, J. W., and C. E. Braun. 1997. A review of long- term changes in sage grouse populations in western North America. *Wildlife Biology* 3:123-128.

Connelly, J. W., C. A. Hagen, and M. A. Schroeder. 2011a. Characteristics and dynamics of greater sage-grouse populations. *Studies in Avian Biology* 38: 53-68.

Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies, Cheyenne, WY.

- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000a. Response of a sage grouse breeding population to fire in southeastern Idaho. *Wildlife Society Bulletin* 28:90-96.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.
- Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Emmons, S. R. and C. E. Braun. 1984. Lek attendance of male sage grouse. *Journal of Wildlife Management* 48:1023-1028.
- Fischer, R. A., K. P. Reese, and J. W. Connelly. 1996a. An investigation on fire effects within xeric sage grouse brood habitat. *Journal of Range Management* 49:194-198.
- Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.
- Hupp, J. W. 1987. Sage grouse resource exploitation and endogenous reserves in Colorado. Dissertation, Colorado State University, Fort Collins.
- Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. *Studies in Avian Biology* 38: 145-184.
- Nelle, P. J., K. P. Reese, and J. W. Connelly. 2000. Long-term effects of fire on sage grouse nesting and brood-rearing habitats in southeast Idaho. *Journal of Range Management* 53:586-591.
- Scheaffer, R. L., W. Mendenhall, III, and R. L. Ott. 1996. Elementary survey sampling. Wadsworth Publishing, Belmont, CA.
- Swenson, J. E., C. A. Simmons, and C. D. Eustace. 1987. Decrease of sage grouse *Centrocercus urophasianus* after plowing of sagebrush steppe. *Biological Conservation* 41:125-132.
- Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71:2644-2654.

Walsh, D. P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-count index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.

Wisdom, M. J., C. A. Meinke, S. T. Knick, and M. A. Schroeder. 2011. Factors associated with extirpation of sage-grouse. *Studies in Avian Biology* 38: 451--472.

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## Mapping of Breeding and Winter Use Areas

### Breeding

We used the Idaho Department of Fish and Game (IDFG) sage-grouse telemetry database, dating back to the early 1990's, to investigate distances between leks and nests. Within the telemetry database, we identified each time a nest location was recorded for a radio-collared female but removed duplicate telemetry locations for each nest, so there was only 1 location for each nest. Next, we assured that each nesting hen had a corresponding capture location recorded. We only included hens that were captured during the breeding season (March 1-June 30). We assumed that the lek closest to the point of capture represented the lek where the hen was bred. We also removed second nest attempts and nests recorded in subsequent years for that hen after her initial capture because we did not know what lek the hen may have visited following her initial nest attempt.

For each nest, we used Geospatial Modeling Environment© Version 0.7.2.0 (GME; Beyer 2012) to calculate the distance from the lek to the nest. We divided distances into 1-km categories (i.e. 0-1 km, 1.1-2 km, etc.) and summed the number of nests in each 1-km category. These data were used to calculate cumulative density curves. We also separated nests by the four Conservation Areas to investigate potential geographic variation within the state.

Statewide, 302 nests qualified for the analysis (Desert n = 34, Mountain Valleys n = 143, Southern n = 85, West Owyhee n = 39). A cumulative density histogram indicates that 80% of nests are within 10 km of the capture lek (Figure 1). Histogram results did not differ appreciably among Conservation Areas.

Based on these data, we assumed that we would capture 80% of the potential nesting areas within 10 km of active leks. Therefore, we buffered all leks active in 2011 (n = 510) by 10 km to encompass the breeding use areas. We also included 18 additional leks that were surveyed in both 2010 and 2012 (but not 2011) that had  $\geq 10$  males in at least one of those years and  $\geq 2$  males in the other year.

### Winter

We used a combination of sage-grouse radio-telemetry data and reported winter observations to guide mapping of winter use areas. Winter was defined as December 1–February 28. Observations included 1) observations recorded by IDFG biologists during big game aerial surveys; 2) observations reported in IDFG's Animal Conservation Database; and 3) GPS data collected from Idaho falconers.

We used the resulting winter locations (n = 2,691) to model winter use area. We used likelihood cross-validation in GME to calculate fixed kernel density estimates (Horne and Garton 2006). The resulting density contours provide a depiction of winter use areas.

### Combined Breeding and Winter Polygon and Management Zones

The breeding and winter use polygons were merged in ArcMap™, then overlaid on Core, Important, and General Management Zones (Figure 2). Next we clipped the breeding and winter polygon to Core and

Important Management Zones. We clipped out fires in Core and Important zones (1997-2011) (Figure 3). We also searched for older fires (1987-1996) in Wyoming big sagebrush habitats that LANDFIRE (2010) did not map as sagebrush and removed those fire areas when applicable. The resulting areas were divided into the 4 Conservation Areas and acreage calculated (Table 1). We also calculated the number of acres of 2012 in breeding and winter use areas.

## Literature Cited

Beyer, H. L. 2012. Geospatial Modelling Environment (Version 0.7.2.0). (software). URL: <http://www.spataleecology.com/gme>

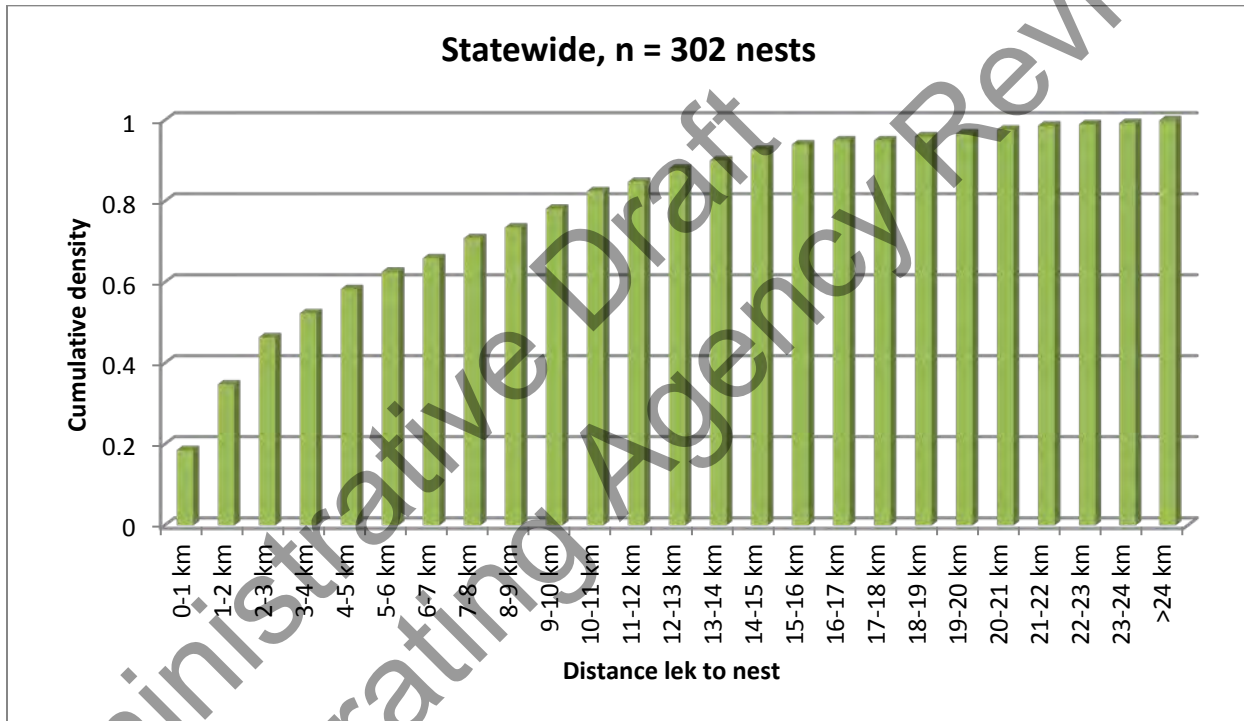
Horne, J. S., and E. O. Garton. 2006. Likelihood cross-validation versus least squares cross-validation for choosing the smoothing parameter in kernel home-range analysis. *Journal of Wildlife Management* 70(3):641-648.

LandFire: Landfire1.1.0. 2010. Existing vegetation type layer. U.S. Department of the Interior, Geological Survey. Available at: <http://landfire.cr.usgs.gov/viewer>.

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**Table 1. Acres of breeding and winter use areas in Core and Important Management Zones, and acres (and percent) of 2012 fires in breeding and winter use areas.**

Conservation Area	Total Core	Breeding & winter in Core	2012 fires in breeding & winter in Core	Total Important	Breeding & winter in Important	2012 fires in breeding & winter in Important
Desert	1,044,332	840,291	51,382 (6%)	751,139	408,605	6,968 (2%)
Mountain Valleys	1,949,461	1,640,415	384 (0%)	1,728,674	1,013,245	561 (0%)
Southern	947,800	568,921	6,674 (1%)	975,539	622,806	87,274 (14%)
West Owyhee	1,738,155	1,416,135	46,035 (3%)	633,855	590,627	7,370 (1%)



**Figure 1. Cumulative density histogram for distances between lek and nest.**

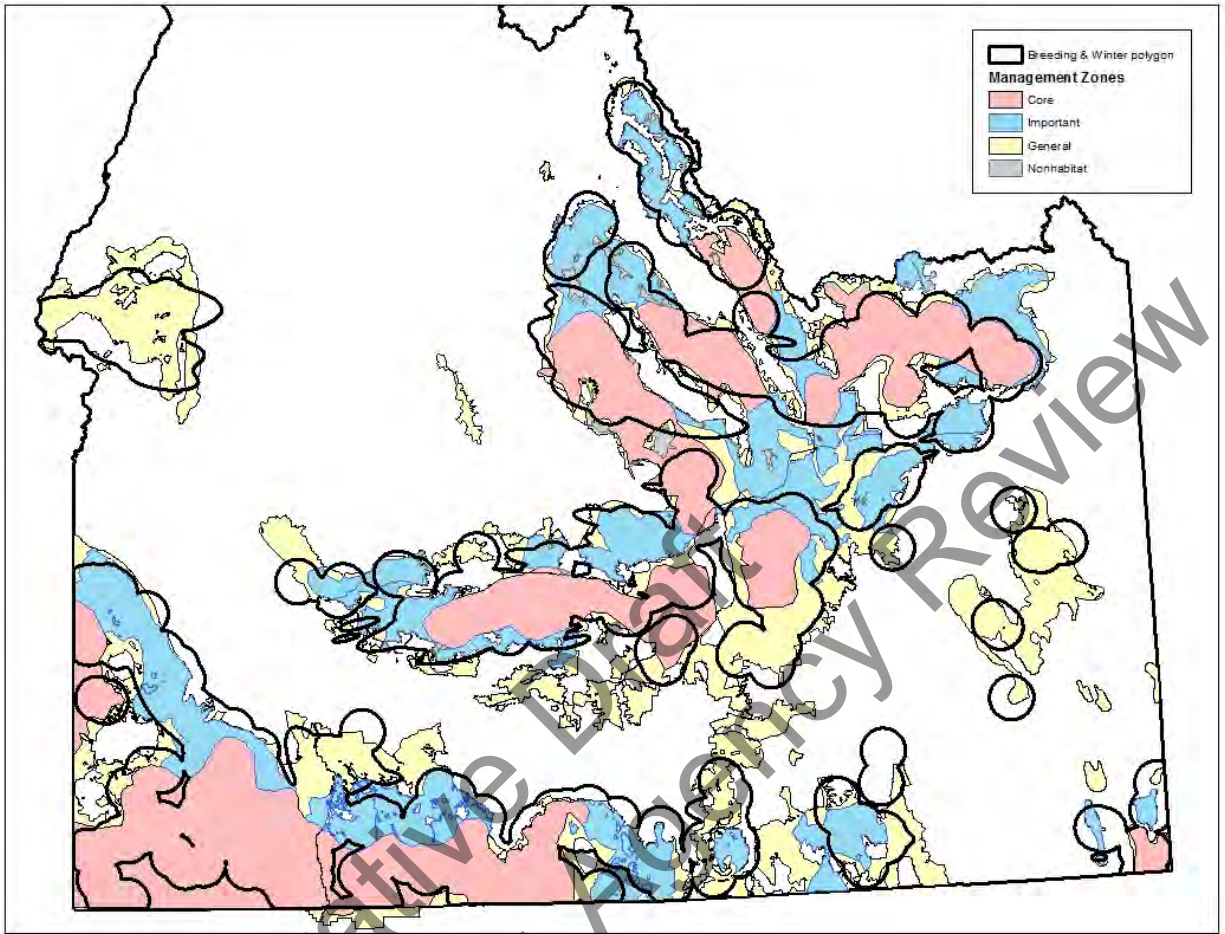


Figure 2. Breeding and winter use polygon overlaid on Core, Important, and General Management Zones.

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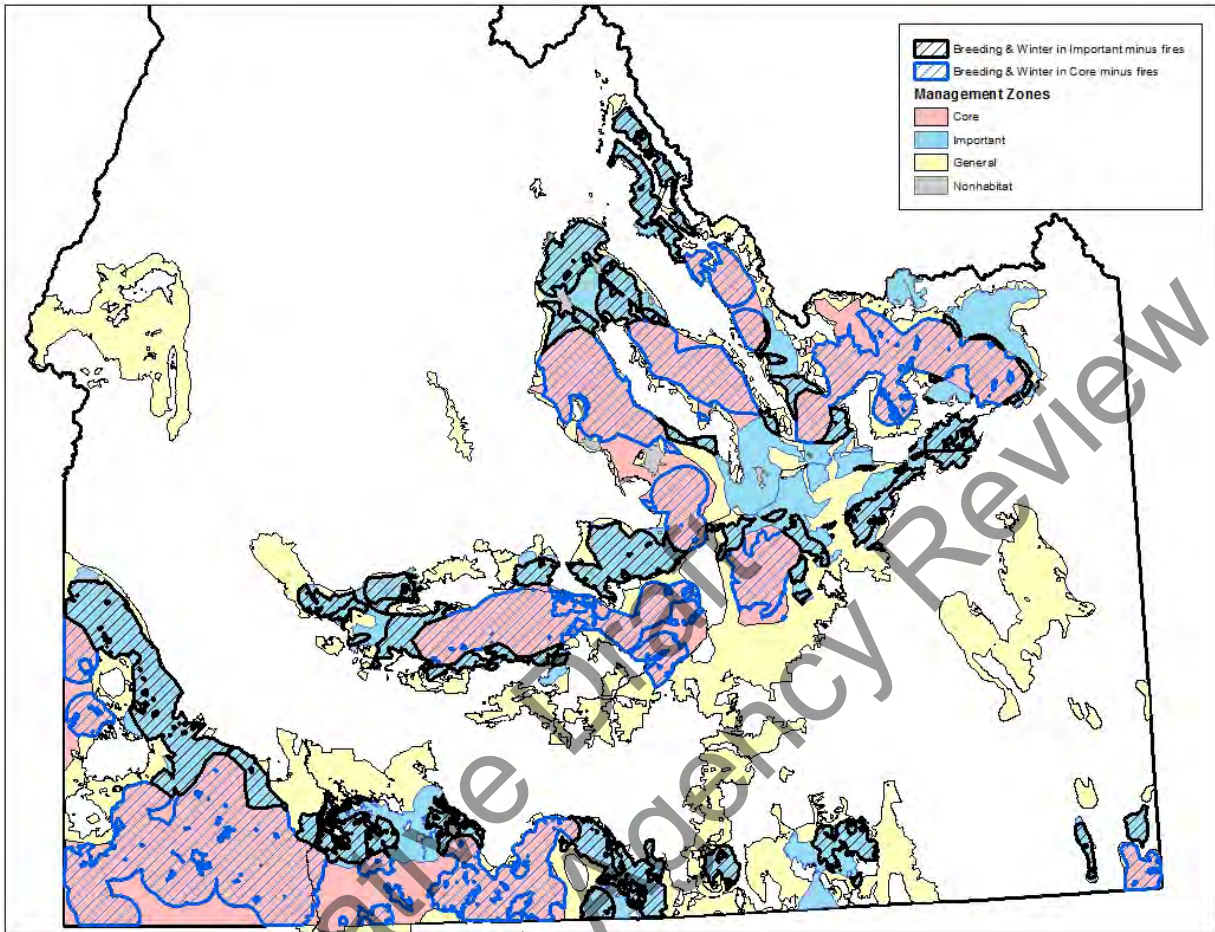


Figure 3. Breeding and winter use areas in Core and Important Management Zones, with recent fires (1997-2011) removed.

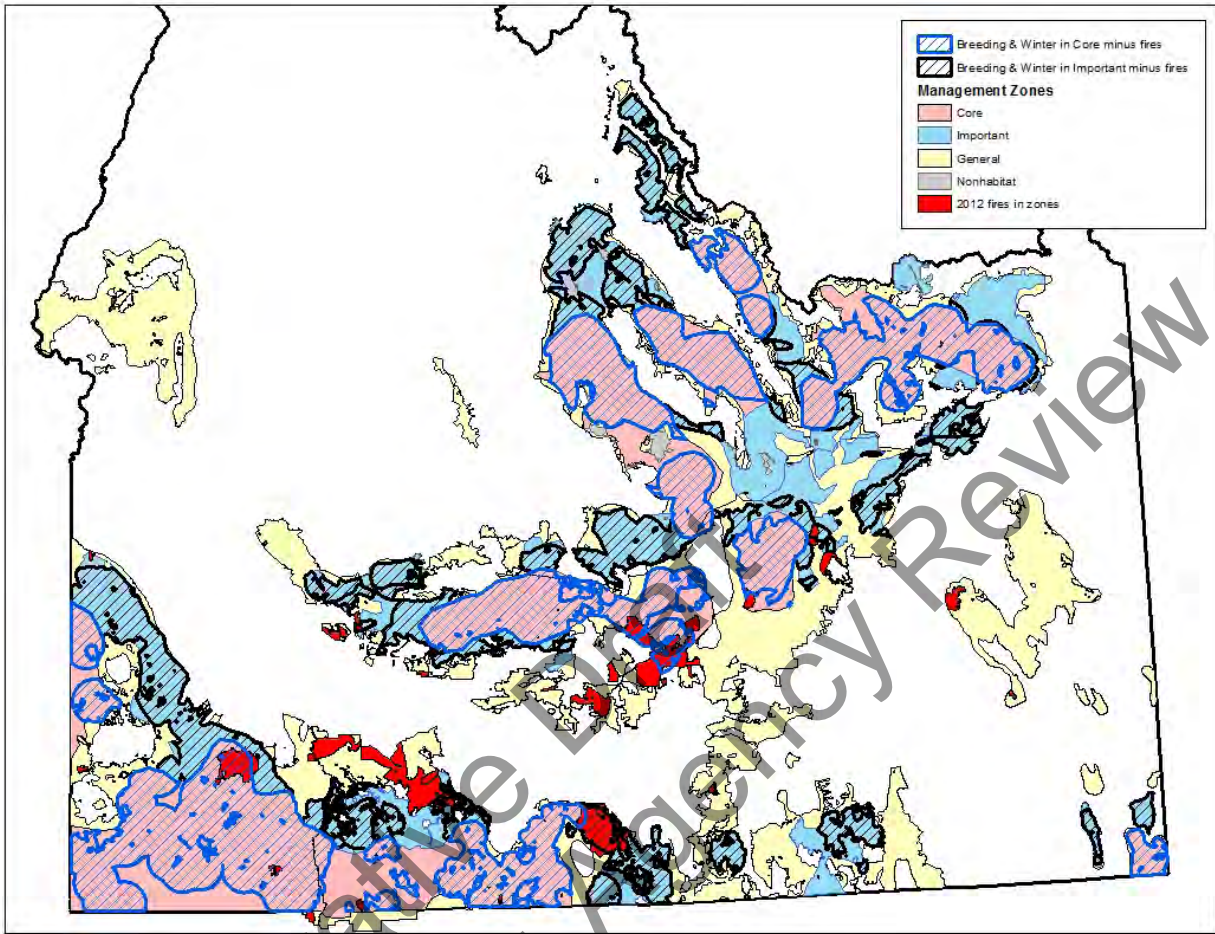


Figure 4. Breeding and winter use areas in Core and Important Management Zones with 2012 fires.

## 2012 Sage-grouse and Sharp-tailed Grouse Lek Survey

<input type="checkbox"/> Sage Grouse	County: _____
Lek Route Name (or enter `none`): _____	Date of Survey: _____
Observer: _____	Official Sunrise: _____
Weather (temp, wind, precip, cloud cover): _____	Start Time: _____ End Time: _____
Summary: Active Leks	Comments: _____
Total Males Counted _____	

Time	Statewide Lek ID	Lek Name	# Males	# Females	Lek Location*				Comments
					UTM Datum _____		PREFERRED		
					UTM Zone _____		WGS 84 Decimal Degrees		
					Easting	Northing	Latitude	Longitude	
				*Record location if lek has moved, if previously recorded location is inaccurate, or if lek is new. The preferred location format is WGS 84 decimal degrees.					

## GUIDELINES FOR CONDUCTING SAGE-GROUSE LEK ROUTES

Counts of male sage grouse attending leks are used to provide an index to population trends. Routes have been designed to survey grouse populations throughout the region. It is important these routes be conducted annually following standardized guidelines to ensure useful, quality data.

1. The starting and ending point for each route must remain the same each year. Do not change a route without consulting with the regional wildlife staff.
2. Always count all leks encountered along the route. Make an entry on the data sheet for each lek site encountered on the route. If no birds are present record a zero.
3. In years of high or increasing grouse numbers, satellite leks may be attended or new leks may form. Stop periodically to look and listen for new leks in likely areas.
4. A lek may have more than one activity center (i.e. distinct groups of males). If groups of birds are visible to each other but separated by a relatively long distance (e.g. 200 yards), you are still looking at a single lek.
5. Make all counts from ½ hour before sunrise to 1½ hours after sunrise. Do not drive more than 25 mph.
6. Count and report all males observed; numbers of females are recorded in a separate column.
7. Count each lek at least 4 times between 20 March and 30 April (dates may vary with elevation) with approximately 1 week between counts.
8. Avoid making counts during rainy, inclement weather.

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# Appendix R

## Custer and Owyhee County Plan Evaluation



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OCWG Sage-Grouse Management Plan BLM RMP/MFP Consistency Review – J.Beck – 4/25/2013

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbidge RMP Direction	Jarbidge RMP Compliance	Inclusion in Amendment EIS
Summary of the direction of the Owyhee County Sage-Grouse Management Plan							
Management actions described in the Owyhee County Plan are largely consistent with the existing Bruneau, Jarbidge and Owyhee RMP management direction, with some minor exceptions regarding seeded species, and could be implemented in conformance with those RMPs.							
<b>SAGE-GROUSE HABITAT INVENTORY ACTION PLAN</b>							
<b>A. Map locations of all known active and historical sage-grouse leks in Owyhee County by the end of 2001.</b>	SPSS1. MA 9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through development of plans by local sage grouse working groups or similar efforts.	Yes	Silent	Yes	Silent	Yes	Each action alternative within the LUPA describes a mapping convention for GRSG habitat which is based on lek locations. IDFG maintains information regarding lek locations and population monitoring which is described and utilized in the adaptive management strategies described in Alternatives D & E.
<b>B. Identify and map sage-grouse breeding (nesting and early brood) habitat associated with active leks by the end of 2004</b>	SPSS1. MA 9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through development of plans by local sage grouse working groups or similar efforts.	Yes	Silent	Yes	Silent	Yes	See above. The adaptive management strategy in Alternative E utilizes IDFG information with regard to nesting and brood-rearing habitat.
<b>C. Identify and map known sage-grouse wintering habitat by the end of 2001.</b>	SPSS1. MA 9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent	Yes	Silent	Yes	Silent	Yes	IDFG also maintains mapping of winter habitat that has been utilized in developing the GRSG mapping designations in the LUPA.



Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbridge RMP Direction	Jarbridge RMP Compliance	Inclusion in Amendment EIS
	guidance may become available through development of plans by local sage grouse working groups or similar efforts.						
<b>D. Perform a qualitative assessment of the sage-grouse breeding (nesting and early brood) habitat associated with active leks.</b>	Silent	Yes	Silent	Yes	Silent	Yes	This is not specifically addressed within the sub regional LUPA and would be more appropriate at the site specific scale.
<b>E. Map undesirable disturbance and habitat.</b>	Silent	Yes	Silent	Yes	Silent	Yes	As part of the evaluation for the LUPA, USGS and BLM mapped and quantified regional impacts and disturbances to GRSG that has been included in the evaluation. This report is USGS Open-file Report 2013-1098: Summary of Science, Activities, Programs, and Policies that influence the rangewide conservation of Greater Sage-grouse.
<b>SAGE-GROUSE HABITAT IMPROVEMENT ACTION PLAN</b>							
<b>A. Grazing Management.</b> <i>Sage-grouse habitat condition will be assessed through quantitative assessments conducted in accordance with the SAGE-GROUSE HABITAT INVENTORY ACTION PLAN (Paragraph D) on state and private land. Sage-grouse habitat conditions on lands managed by the Bureau of Land Management will be assessed through the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. Standard 8 addresses threatened and endangered plants and animals and sensitive animals including sage-grouse. If the assessment concludes, relative to sage-grouse, that the standard is not being met due to livestock grazing, the Local Working Group will establish an interdisciplinary review (ID) team at the request of an affected party. The ID team will normally consist of a wildlife biologist, range scientist, livestock management specialist, livestock operator(s) and other affected interests who wish to participate. The ID team structure may be modified by agreement of the affected interests if specific participants are not reasonably available. Upon review of all quantitative data and other available information and following a site visit, the ID team will make grazing management recommendations to the Local Working Group. This team will consider both short and long-term benefits to sage-grouse and impact</i>	VEGE1. MA 7. Implement grazing practices designed to meet Idaho Standards for Rangeland Health and conform to the Guidelines for Livestock Grazing Management (See Appendix L V ST-1).	Yes	Silent	Yes	<u>Livestock Grazing Management Objectives:</u>  The overall objective of the range program is to maintain or improve the soil, vegetation and watershed conditions within the resource area and to provide forage for livestock, wildlife, and wild horses.  <u>Wildlife Management Objectives:</u>  Wildlife habitat will be managed to maintain or increase wildlife numbers over the long term, and the total acres of unsatisfactory crucial habitat will be reduced over the long term.  <i>Management Unit Area 13 (East Devil) Objectives</i>  Maintain present areas of sage-grouse habitat.	Yes	Alternatives A, B, D, E & F would address grazing through application of the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management for lands in Idaho. Alternative B, D, E & F also include specific GRSG management objectives for vegetation and livestock that would be considered and included within the evaluations. Alternative E also includes adjustments to livestock grazing as a result of adaptive management triggers when grazing is determined to be a causal factor.

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbridge RMP Direction	Jarbridge RMP Compliance	Inclusion in Amendment EIS
<p>on other potentially affected species. The team may recommend additional sage-grouse habitat improvement actions based on quantitative assessments and other pertinent data. All grazing management recommendations will be developed on a site-specific basis with full consultation, cooperation and coordination with all affected landowners, management agency(s), permittee(s), lessee(s) and other affected interests. (Lead: Appropriate land management agency or private landowner). (Initiated in 1999 and Ongoing)</p>					<p><u>Range Resources Management Guidelines:</u></p> <p>Data from the range inventory, actual grazing use studies, forage utilization studies, long-term trend studies (when available) and the evaluation of wildlife needs will be used to arrive at the adjusted stocking levels.</p> <p><u>Terrestrial Wildlife Resources Management Guidelines:</u></p> <p>Forage/cover requirements will be incorporated into allotment management plans and will be specific to areas of primary wildlife use.</p> <p>Manage all wildlife habitat within the resource area to provide a diversity of vegetation and habitats.</p> <p><u>Sage-grouse Resource Management Guidelines:</u></p> <p>Maintain the density of sagebrush canopy coverage at 20 – 30% within nesting habitats and at least 20% in wintering habitats.</p>		
<p><b>B. Develop maps that identify sage-grouse habitat for high priority protection from wildfire.</b></p>	<p>SPSS1. MA 3. Protect and enhance habitat for a diversity of special status species through implementation of management actions identified in objectives SOIL 1 and 2, WATR 1 and 2, VEGE 1, RIPN 1, FORS 1 and 2, WDLF 1, FISH 1 and 2, RECT 3, WNES 1 and 2,</p>	Yes	Silent	Yes	<p><u>Fire Control Management:</u></p> <p>Full suppression on wild fires will be applied to the entire resource area.</p> <p><u>Appendix F – Fire Management:</u></p> <p>Full suppression is aggressive action taken on all fires which are on or are threatening public</p>	Yes	Each of the action alternatives identifies areas of highest priority for suppression activities to protect GRSG habitat.

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbidge RMP Direction	Jarbidge RMP Compliance	Inclusion in Amendment EIS
	HAZM 1 and ACEC 1.  SPSS1. MA 9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through development of plans by local sage grouse working groups or similar efforts.				land with sufficient forces to contain the fire during the first burning period. When multiple fires are experienced, suppression priority is given to fires threatening areas of highest value.  <i>Multiple Use Area 10 – Inside Desert and West Devil Suppression Priority:</i>  1) Private lands and structures. 2) Post Office Historical and Cultural Site. 3) Wildlife Habitat. 4) WSA boundary  <i>Multiple Use Area 13 – East Devil Suppression Priority:</i>  1) Private Property. 2) Salmon Falls Creek Canyon 3) Crucial wildlife habitat and riparian areas. 4) Recreational Facilities  <i>Multiple Use Areas 15 and 16 – Jarbidge Foothills and Diamond A Suppression Priorities:</i>  1) Private lands and structures. 2) Crucial wildlife habitat and riparian areas. 3) Bruneau and Jarbidge River Canyons. 4) Recreational sites.		
<b>C. Fire Rehabilitation.</b> <i>The sites of all future wildfires in high priority sage-grouse habitat identified in Section C will, regardless of potential for natural recovery, be reseeded with sagebrush and, when needed, grasses and forbs best adapted to the site to hasten recovery of the habitat. (Lead: Appropriate land management agency or private landowner). (The action</i>	Objective FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a	No. BLM decides seed mix based on ESR plan objectives and vegetative	Silent	No. Violates BLM policy	<u>Sage-grouse Resource Management Guidelines:</u>  Seed mixtures for range improvement projects and fire rehabilitation projects will include a mixture of grasses,	No – although not specifically addressed in the Jarbidge RMP, the requirement to plant sagebrush in	Alternatives CB, C, D E & F all encourage the use of natives species during rehabilitation and restoration activities. Alternatives C & F would require the use of natives, including sagebrush.

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbridge RMP Direction	Jarbridge RMP Compliance	Inclusion in Amendment EIS
<i>has been carried out since 2000 and is ongoing).</i>	wildfire.  Fire 2, MA 3. Apply rehabilitation seed mixtures to meet watershed, wildlife and riparian objectives.	community prior to the fire. Often we choose to do nothing based on the potential for natural recovery.			forbs and shrubs that benefit sage-grouse.  <u>Fire Management Resource Guidelines:</u>  Seedings will include appropriate seed mixtures to replace wildlife habitat that is burned.  <u>Appendix F – Fire Management:</u>  <i>Multiple Use Areas 6 and 7 – Saylor Creek West/Saylor Creek East</i>  Seed mix should contain shrub component to benefit wildlife and improve vegetative community.  <i>Multiple Use Area 10 – Bruneau-Jarbridge-Sheep Creek</i>  Burned areas should be allowed to revegetate to native grasses. If seeding is necessary, the mix should be native species if possible, and should improve wildlife habitat. Burned areas are not rehabilitated in limited suppression areas. <i>Multiple Use Areas 11 and 12 – Inside Desert/ West Devil</i>  Rehabilitation efforts will meet wildlife management objectives, in addition to providing forage for livestock and providing ground cover.  <i>Multiple Use Area 13 – East Devil</i>  Rehabilitation of burned areas will meet wildlife, as well as	known winter habitat is not in compliance with BLM ESR policy. The decision to allow natural recovery of burned areas is based on factors such as burn severity, seed availability, pre-burn vegetation and conditions, and is made following a wildfire.	

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Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbidge RMP Direction	Jarbidge RMP Compliance	Inclusion in Amendment EIS
					<p>other resource management objectives.</p> <p><i>Multiple Use Areas 15 and 16 – Jarbidge Foothills and Diamond A</i></p> <p>In the crucial wildlife winter ranges, use seed mixtures which benefit wildlife as well as livestock.</p>		
<p><b>D. Sagebrush Restoration.</b> Implement sagebrush restoration projects in historical sage-grouse habitat where historical fires have removed sagebrush cover. A minimum of 1,000 acres of combined federal, state, and private lands shall be targeted for restoration annually with seed mixtures that are best for sage-grouse and adapted to the site. (Lead: Appropriate land management agency or private landowner)</p>	<p>SSPS 1. MA 9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through development of plans by local sage grouse working groups or similar efforts.</p> <p>VEGE 1. MA 3. Implement prescribed burning practices in areas where it is determined that burning would improve rangeland health and increase native plant biodiversity in western juniper and big sagebrush vegetation types. Mechanical and chemical methods may also be used.</p>	Yes	<p>Objective RM-2: Over the next 15 years, treat 85,600 acres of suitable public land to increase forage production and reduce the acreage of range in poor condition.</p> <p>Objective WL-1: Protect and/or improve endangered species habitat within the Bruneau Planning Unit.</p> <p>Objective WL-2: Manage sensitive species habitat in the BPU to maintain or increase existing and potential populations.</p> <p>WL-4.4 Manage 520,000 acres of sage grouse range in the BPU to improve nesting, brood rearing, and winter habitats by: (1) improving all poor and fair big sagebrush, meadow, and riparian ecological sites to good ecological condition, and (2) referring to and addressing the "Guidelines for Habitat Protection in Sage Grouse Range" as published by the Western States Sage Grouse Committee, June 1974, when making management decisions affecting areas used by sage grouse in the BPU.</p>	Yes	<p><u>Management Prescriptions:</u></p> <p><i>Multiple Use Area 6 – West Saylor Creek</i></p> <p>Rehabilitate 150 acres of existing burns for terrestrial wildlife.</p> <p><i>Multiple Use Area 11 – Inside Desert</i></p> <p>Interseed or reseed 500 acres and rehabilitate 2000 acres of existing burns for terrestrial wildlife.</p> <p><i>Multiple Use Area 12 – West Devil</i></p> <p>Interseed or reseed 500 acres and rehabilitat 2,500 acres of existing burns for terrestrial wildlife.</p> <p><i>Multiple Use Area 13 – East Devil</i></p> <p>Interseed or reseed 1000 acres and rehabilitate 150 acres of existing burns for terrestrial wildlife.</p> <p><i>Multiple Use Area 15 – Jarbidge Foothills</i></p> <p>Interseed or reseed 3,750 acres</p>	Yes	Restoration and rehabilitation of GRSG habitat is addressed and promoted in Alternatives B, C, D, E & F; however, in Alternative C restoration actives would be primarily passive recovery.

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					<p>for terrestrial wildlife.</p> <p><i>Multiple Use Area 16 – Diamond A</i></p> <p>Rehabilitate 1,350 acres of existing burns for terrestrial wildlife.</p> <p><u>Range Resources Management Guidelines:</u></p> <p>Interseeding and reseeded projects in Multiple Use Areas with objectives to improve ecological condition to benefit wildlife or livestock will use shrub, forb and grass seed moisture that are normally found in that type of ecological zone///type.</p> <p>Priority #4 for vegetative treatment is areas where unacceptable wildlife habitat condition exists (appropriate seed mixtures for wildlife will be used).</p> <p><u>Terrestrial Wildlife Resources Management Guidelines:</u></p> <p>Vegetative manipulation projects will be designed to minimize impacts and improve wildlife habitat by including a variety of palatable shrubs, forbs and grass.</p> <p><u>Sage-grouse Resource Management Guidelines:</u></p> <p>Seed mixtures for range improvement projects and fire rehabilitation projects will include a mixture of grasses, forbs and shrubs that benefit</p>		

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<b>E. Juniper Encroachment.</b> <i>Using the maps created by the Habitat Inventory Action Plan, identify existing and potential loss of sage-grouse habitat due to juniper encroachment. The areas of greatest benefit to sage-grouse will be prioritized so that juniper control activities can be scheduled. Suitable methods of juniper eradication such as prescribed burning, chemical control, woodland harvest, chaining, and other mechanical means should be evaluated and employed where appropriate. Treat and eradicate juniper on a minimum of 500 acres of state land (IDL Plan) and 12,000 acres of federal land (Owyhee RMP) annually to enhance sage-grouse habitat by restoring healthy sagebrush-grassland communities. (Lead: Appropriate land management agency/ authority).</i>	RIPN 1. MA 5. Implement a juniper abatement plan for appropriate sites on which juniper is invading.  SOIL 1. MA6. Implement a juniper abatement plan for appropriate sites on which juniper is invading.	Yes	Silent	Yes	sage-grouse. Silent	Yes	Alternatives A, B, D, E & F all identify conifer encroachment and the need to remove, to varying levels, conifers from GRSG habitat. Alternative C does not support the removal of junipers.
<b>F. Juniper Treatment on Private Land.</b> <i>Funding will be identified to develop a 50/50 cost share program to assist private landowners in the reduction or eradication of seral juniper stands on their lands. (Lead: Owyhee LWG) (January 2005 and will be ongoing). These projects were demonstrations near leks affecting 5,000 acres as of 2012. This work is continuing through the Sage-Grouse Initiative (See "Program Funding Action Plan").</i>	Outside BLM's Jurisdiction						Not Applicable
<b>G. Juniper Treatment Grazing Policy.</b> <i>Initiate discussions with the BLM to review and seek change of the livestock grazing policy for prescribed burn programs that prohibits fall grazing use after a burn program has been completed. (Lead: Owyhee LWG) (Initiated January 2005 and ongoing).</i>	LVST 1. MA 7. Prescribed burning practices will be used in areas where it is determined that burning would improve rangeland health and increase biodiversity in big sagebrush and western juniper vegetation communities. Livestock grazing will be adjusted to ensure successful prescribed burns. Areas prescribed to be burned may require rest prior to burning and will require rest after burning for a minimum of two (2) growing seasons. Mechanical and chemical methods may also be used but in very limited areas	No	Silent	No	<u>Fire Management Resource Guidelines:</u>  All grazing licenses issued that include areas recently burned and/or seeded areas will include a statement concerning the amount of rest needed in the seedings or burn area. Normally two years of rest will be necessary to protect these areas.	No	This is not a LUP decision.

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbridge RMP Direction	Jarbridge RMP Compliance	Inclusion in Amendment EIS
	<p>where burning is not an option due to limited fuels or safety.</p> <p>VEGE 1. MA 4 Provide a minimum of two growing seasons rest from livestock grazing and other watershed disturbing activities following prescribed or wild fire.</p>						
<b>H. Forage Reserve Program.</b> <i>Seek sponsors to develop a forage reserve program to provide off site grazing opportunity when livestock are displaced during juniper treatment programs. (Lead: Owyhee LWG; ongoing).</i>	LVST 1. MA 13 If the opportunity presents itself as a result of current active permitted use being either relinquished or lost for any reason then the available carrying capacity may be utilized to resolve grazing issues anywhere within the resource area. Livestock could be transferred either temporarily or permanently in order to meet resource objectives.	Yes	Silent	Yes	Silent	Yes	The opportunity for this activity is support in Alternatives A, B, D & F.
<b>I. Invasive Species and Noxious Weeds.</b> <i>Seek additional funding to support the activities of the Jordan Valley Cooperative Weed Management Area, which is conducting a variety of weed control and/or eradication programs throughout the Owyhee River Watershed. Encourage the development of additional CWMA's in other areas of the County and seek additional funding as needed to support those programs. (Lead: Owyhee LWG)</i>	Silent	Yes	Silent	Yes	N/A		Alternatives A, B, C, D, E & F support this activity with various alternatives providing direction regarding prioritization of these activities within GRSG habitat.
<b>J. Development.</b> <i>The LWG will provide comment and utilize other means as available to supports the policies of the Owyhee County Comprehensive Plan and Owyhee County Land Use Plan for Federal and State Lands to promote economically viable and sustainable ranching operations in order to discourage conversion of rangeland to rural/ remote recreational home development. (Lead: Owyhee LWG; ongoing).</i>	WDLF 1. MA7. Retain all public land within crucial and other high quality wildlife habitats unless exchanging for land of equal or higher value and acquire additional high quality habitat through purchase or exchange with willing landowners. These include but are not limited to wetland/riparian habitats, crucial big game winter	Yes	Silent	Yes	Silent	Yes	Acres of public lands identified for disposal may have an impact on this activity it is not a forgone conclusion that lands disposed would contribute to urbanization. Each action alternative identifies GRSG habitat for retention and therefore the decision authority in the LUPA is limited.



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	habitat and isolated tracts and shrublands adjacent to agricultural areas that provide important cover for upland game. Isolated tracts will be grazed only if needed to maintain or improve wildlife habitat.						
<b>K. Habitat Fragmentation</b> – <i>The LWG, in cooperation with Federal, State, and Private partners, will attempt to minimize and/or mitigate habitat fragmentation associated with infrastructure developments (roads, fences, etc.).</i>	WDLF 1. MA 5. Design and implement vegetation treatments to improve habitat where juniper or shrub density is contributing to unsatisfactory habitat conditions. All treatments will be designed to protect scarce, unique and highly productive wildlife habitat types, retain large interconnected blocks of more common habitat types and accommodate specific wildlife habitat requirements including migration corridors for big game. Reseed burns with a variety of shrubs, forbs and grasses. Rest all burns and seedings from livestock grazing for a minimum of two growing seasons following treatment.	Yes		Yes	Silent	Yes	Alternatives B, C, D, E & F each address various approaches for minimizing habitat fragmentation.
<b>PREDATOR ACTION PLAN</b>							
<b>A. Using radio-telemetry tracking of sage-grouse, determine the effect of predation on sage-grouse (Lead: IDFG). This action item cannot be accomplished with the current level of telemetry studies and is tabled until funding is sufficient to conduct more extensive studies.</b>	SSPS 1. Monitoring. Monitor key populations and habitats or population/habitat objectives as identified in AMPs or other activity plans.		Silent	Yes	Silent	Yes	Predation control is managed by IDFG and for some avian species USFWS. This effort is separate from the LUPA and would be consistent with any of the alternatives.
<b>B. Perform artificial nest studies in selected parts of Owyhee County to compare artificial nest fate in different types of habitat. Use established techniques to reduce potential biases and to identify species of predators involved. (Lead: Wildlife Services and IDFG). Complete</b>	SPSS 1. MA7 Construct artificial nesting structures for ferruginous hawks and other special status species in areas where suitable nesting sites are determined to be limiting.	Yes	Silent	Yes	Silent	Yes	See above.

Owyhee County Sage-Grouse Management Plan Direction	Owyhee RMP Direction	Owyhee RMP Compliance	Bruneau MFP Direction	Bruneau MFP Compliance	Jarbridge RMP Direction	Jarbridge RMP Compliance	Inclusion in Amendment EIS
initial research by the end of 2002 and continue as needed.							
<b>HUNTING ACTION PLAN</b>							
<b>A. Review harvest data collected annually, and if the information indicates a need to change hunting season parameters, recommend hunting regulation changes in March of the following year to the Idaho Fish and Game Commission Lead: <u>Owyhee LWG and IDFG</u> (Initiated in 2000 and continuing annually).</b>	Outside BLM's Jurisdiction						Hunting and setting of seasons is done under the discretion and authority of the state wildlife agencies – IDFG and MT FWP.
<b>B. Maintain needed check stations and wing barrels. (Lead: IDFG) (Ongoing)</b>	Outside BLM's Jurisdiction						See above.
<b>C. Use a telephone survey of permit holders to estimate sage-grouse harvest in each county.</b>	Outside BLM's Jurisdiction						See above.
<b>D. Band sage-grouse in selected areas to help estimate harvest rates in those areas. (Lead: IDFG)</b>	SSPS 1. Monitoring Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.	Yes	Silent	Yes	Silent	Yes	While monitoring of the LUPA is included as a component for all alternatives, the utility in determining harvest rates from the proposed monitoring may not be appropriate.
<b>E. Re-evaluate this Hunting Action Plan annually. (Lead: IDFG) (Continuing annually)</b>	Outside BLM's Jurisdiction						See hunting above.
<b>SAGE-GROUSE RESEARCH AND MONITORING ACTION PLAN</b>							
<b>A. Provide a reliable estimate of the distribution and populations of sage-grouse in Owyhee County</b>	SSPS 1. Monitoring Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.	Yes	Silent	Yes	Silent	Yes	The GRSG habitat designations described in each action alternative are based on habitat and population data and modeling which comprise areas that have the highest conservation value to maintaining sustainable GRSG populations and include breeding, late brood-rearing and winter concentration areas.
<b>B. Coordinate efforts by IDFG, BLM, USAF and others to systematically survey (fly or by other means) and/or otherwise identify through landowner surveys all active leks and historical leks in the county by the end of the spring 2004 breeding season. (Lead: IDFG, LWG and University of Idaho)</b>	SSPS 1. Monitoring Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.	Yes	Silent	Yes	Silent	Yes	The LUPA would not change the coordination currently occurring with BLM and IDFG in the annual survey of leks.
<b>C. Determine which sage-grouse populations are non-migratory and migratory. (Lead: IDFG). (Four areas</b>	Silent	Yes	Silent	Yes	Silent	Yes	IDFG continues to monitor and survey populations to determine life history patterns.

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completed or in progress, two areas proposed, program is ongoing)							
D. Initiate radio-telemetry studies to determine causes of sage-grouse chick mortality by 2002. (Lead: IDFG). This action item cannot be accomplished with the current level of telemetry studies and is tabled until funding is sufficient to conduct more extensive studies.	Silent	Yes	Silent	Yes	Silent	Yes	IDFG develops and sponsors various population monitoring efforts including radio-telemetry studies.
E. Investigate the impact of different weather on variation in sage-grouse populations in Owyhee County. (Lead: IDFG) (ongoing).	WDLF 1. Monitoring. Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.	Yes	Silent	Yes	Silent	Yes	See above.
F. Investigate the impact of West Nile virus on sage-grouse populations in Owyhee County (Lead: IDFG) (ongoing).	Silent	Yes	Silent	Yes	Silent	Yes	See above.
G. Encourage research on the impacts of human physical disturbance on sage-grouse. (Lead: Owyhee County Natural Resource Committee). (ongoing).	Silent	Yes	Silent	Yes	Silent	Yes	See above.
H. Investigate the impacts of energy and infrastructure development on sage-grouse in Owyhee County.	Objective Land 3. Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas. Applications for use of the public lands will be evaluated on a case by case basis using current existing laws, regulations, and procedures.		Silent	Yes	Silent	Yes	The LUPA includes monitoring of activities addressed by management actions, of which infrastructure is a part.
<b>PROGRAM FUNDING ACTION PLAN</b>							
A. Obtain funding for juniper eradication projects as specified under the Habitat Improvement Action Plan beginning immediately. (Lead: Fundraising Subcommittee). (Ongoing).	Outside BLM's Jurisdiction						Outside the scope of BLM & Forest Service LUP decisions.
B. Obtain funding for fire rehabilitation	Outside BLM's Jurisdiction						Outside the scope of BLM & Forest

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projects as specified under the Habitat Improvement Action Plan beginning immediately. <b>(Lead: Fundraising Subcommittee). (Ongoing)</b>							Service LUP decisions.
<b>C. Obtain funding for sagebrush restoration projects as specified under the Habitat Improvement Action Plan beginning immediately. (Lead: Fundraising Subcommittee). (Ongoing).</b>	Outside BLM's Jurisdiction						Outside the scope of BLM & Forest Service LUP decisions.
<b>D. Habitat restoration is the best use of federal and state dollars and we should focus our efforts on this rather than predator control and basic telemetry studies. However, it is important to keep predator control as a tool in our toolbox in the future.</b>	Outside BLM's Jurisdiction						Each action alternative addresses priorities for habitat restoration and rehabilitation for GRSG habitat.
<b>E. Point landowners to Sage Grouse Initiative (SGI) funding which is available through the Natural Resources Conservation Service. Identify areas where SGI funding will have the greatest effect.</b>	Outside BLM's Jurisdiction						Outside the scope of BLM & Forest Service LUP decisions.

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Custer County Sage-Grouse Management Plan, BLM Challis RMP Consistency Review and Inclusion in GRS G Amendment

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<p>Summary of the direction of the Custer County Sage-Grouse Management Plan: Management actions described in the Custer County Plan are consistent with the existing Challis RMP management and direction and could be implemented in conformance with the Challis RMP.</p> <p>The County Plan requires the federal agencies (BLM &amp; Forest Service) to coordinate and maintain communication with the county and the counties' Natural Resources Advisory Committee. As part of this coordination the county requests documentation and research be available to support management decisions.</p> <p>The county plan uses different terms to designate habitat than described in the EIS (p. 10); however, the geographical designations, while not exact, are similar to those described in Alternative E.</p> <p>The county plan identifies predation as the primary threat in the county (p. 14). This threat is not shown as a primary threat on other threat descriptions (BLM, State, USFWS, Local Working Group). Predator control is not under the jurisdiction or authority of the BLM or FS and a specific alternative to address predator control has been eliminated from detailed analysis – see Chapter 2.</p>			
<p><b>Chapter 3: Plan Area and Habitat Characteristics</b></p>			
<p>Focus “conservation measures ... on the primary threats as they exist in Custer County...” Threats identified in Chapter 4 Threat Assessment – E. Custer Board of County Commissioners – primary threats are identified as 1. Excessive predation; 2. Improper management of public lands; 3. Wild horse and burro and other wildlife impacts.</p>	<p>Silent</p>	<p>Yes</p>	<p>Threats identified by the Custer Board of County Commissioners are different than those identified by the USFWS 2010 Finding, the 2006 Idaho Sage Grouse Plan, and the 2007 Challis Local Working Group Plan.</p>
<p>“Occupied sage-grouse habitat is categorized into a single delineation in Custer County. This will be known as suitable habitat... [this includes] All habitat that has been identified as either having lek's present or having the characteristics necessary to support the</p>	<p>Silent</p>	<p>Yes</p>	<p>Alternative C of the Draft Idaho and Southwest Montana Greater Sage-Grouse EIS (DEIS) combines all occupied habitat into one single category for management. Alternative E identifies Core and Important Habitat Zones most closely aligned</p>

Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>sage-grouse ... There is no good estimate of total acres of suitable habitat currently available. For purposes of discussion the areas identified in Appendix D1-D10 as it relates to Custer County in the Challis Sage-grouse LWG Conservation Plan as adopted in 2007 and Figure 3 in the 2009 amendment to the same plan will be used as points of reference.”; “Suitable habitat includes all seasonal habitats, including breeding habitats, early breeding habitats, summer late brood-rearing habitats and winter habitats.”</p>			<p>with the maps referenced from the LWG plan.</p>
<p><b>Chapter 4: Threat Assessment</b></p>			
<p>“...the BOCC has determined that the primary threats to the Greater Sage-Grouse in Custer County are the following: 1. Excessive Predation; 2. Improper management of public lands (i.e. failure to adapt grazing systems and uses in a timely manner consistent with weather and seasonal changes); 3. Wild Horse and Burro and other wildlife impacts.</p>		<p>Yes</p>	<p>See discussion above regarding threats.</p>
<p><b>Chapter 5: Plan Implementation</b></p>			
<p>“The BOCC shall be responsible for managing and implementing the Plan.”</p>	<p>Silent</p>	<p>No, Outside Scope of Plan</p>	<p>BLM maintains final authority or plans and implementation actions on public lands and described in the Federal Land Policy and Management Act; Forest Service maintains final authority for plans and implementation actions on national forest system lands as described in the National Forest</p>



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			Management Act.
<p><b>A. Implementation on Public Lands:</b> The principles and policies contained with this Plan shall be required for the management of sage-grouse and its habitat on public lands that contain suitable habitat as described in B. Habitat Characteristics.</p>	Silent	<p>The principles and policies of the Custer County GRS G Plan, while consistent with the Challis RMP, are not currently required under that plan.</p>	<p>Requirement on BLM and Forest Service administered lands would require a land use plan amendment to incorporate that guidance.</p>
<p><b>B. Implementation on Private Lands:</b> For private lands in the Plan Area, the principles and policies contained within this Plan are voluntary and encouraged to be implemented through Best Management Practices (BMP's) and conservation measures for the management of sage-grouse and its habitat as defined as suitable habitat and depicted in B Habitat Characteristics.</p>	Silent	<p>Implementation of activities on private lands is typically outside the scope of BLM planning.</p>	<p>Outside the scope of decisions within the EIS.</p>
<p><b>C.</b> "...require federal agencies to coordinate their plans and policies with the County, and ability to coordinate with state agencies, therefore, ensuring that all entities with responsibilities for the species and habitat are working together..."; "Implementation of this plan will be conducted through a formal coordination</p>	Silent	Yes	<p>BLM's obligation to coordinate land use inventory, planning and management activities is described under FLPMA Sec. 202 (c)(9)-(9) to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management</p>



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<p>process with all agencies that have jurisdiction and/or responsibility for the sage-grouse and/or its habitat.”</p>			<p>activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located ...In implementing this directive, the Secretary shall, to the extent he finds practical, keep apprised of State, local, and tribal land use plans; assure that consideration is given to those State, local, and tribal plans that are germane in the development of land use plans for public lands; assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans, and shall provide for meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands, including early public notice of proposed decisions which may have a significant impact on non-Federal lands ...Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.</p>



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<p>D. 1. Annual Review: Annual Coordination review, annual meeting, updates to the Plan as needed. The input shall be considered and incorporated where appropriate into a formal written Plan update to be approved by the BOCC within 120 days of the submittal date of the requested change.</p>	<p>Silent</p>	<p>Yes</p>	<p>See coordination responsibilities above. Updates to the plan may require land use plan amendments to incorporate into public land management if and when those changes affect land use planning level decisions.</p>
<p>D.2. New Scientific Information: If at any time between the annual review period with federal or state agencies, or private entities with property interests in the Plan Area become aware of or acquire new science regarding the species or its habitat in the Plan Area within Custer County that may warrant changes to the BMP's, conservation measures or policies within this Plan, then they shall submit a written report to the County, including the scientific review and supporting data, for the County's consideration. If the BOCC finds changes to the Plan are warranted, then it can initiate a formal review of the Plan in coordination with all entities.</p>	<p>Silent</p>	<p>Yes</p>	<p>Yes, see above for description of plan changes.</p>
<p>Chapter 6: Principles</p>			
<p>C. Custer County has a population of approximately 4,333, and therefore is considered a "small local jurisdiction" as defined by the Regulatory Flexibility Act (5 USC 601). All proposed rules for the purpose of managing the sage-grouse or its habitat by federal agencies requires an economic analysis and consideration of that analysis prior to the finalization of the</p>	<p>Silent</p>	<p>Yes</p>	<p>The Social and Economic Analysis has been shared with Custer County and the County has provided comments to the BLM. These comments have been incorporated into the social and economic analysis as appropriate.</p>

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proposed rule. This analysis shall be prepared in Coordination with Custer County.			
E. Sage-grouse management decisions shall be made based on the best available scientific information that is applicable to sage-grouse habitat in Custer County. The scientific information used will be consistent with standards of the Information Quality Act (44 USC 3516) (see definitions of Quality, Objectivity, Utility and Integrity), as verified by the County.	Silent	Yes	Comments on the Administrative Draft EIS identified specific concerns over cited and referenced scientific literature.
F. Land management plans of all government agencies that have ownership or management responsibilities for the lands or species within Custer County shall be consistent with the policies set forth in this plan subject to valid existing rights.	Silent	Yes	Guidance from the county plan is incorporated into one or more alternatives analyzed in detail within the DEIS.
H. No policies shall infringe on the private property rights of any landowner within Custer County. All species and land coverage information gathered on private property shall be treated as the property of the landowner and shall not be used by any private or government entity for any purpose unless express, written permission has been obtained from the landowner.	Silent	Implementation of activities on private lands is typically outside the scope of BLM planning.	Outside the scope of decisions within the EIS.



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<p>I. All sage-grouse habitat and species management programs that impact the County, administered by federal and state agencies, shall be coordinated with Custer County, and the data collected by state and federal agencies will be shared with the County in a timely manner and be provided to the County regardless of completeness.</p>	<p>Silent</p>	<p>Yes</p>	<p>See coordination discussion above.</p>
<p>J. All public lands within the Plan Area containing suitable habitat for sage-grouse shall be managed to continue the multiple-uses of the lands as required by 43 USC 1707(a)(7). No policies shall be implemented that prescribe the management of lands for a single purpose, but all functions of the land, including providing habitat for wildlife and supporting the productive uses of its resources, shall be considered with the objective of balancing and continuing all uses of the land. Unlike public owned land where there are many property interest holders and the multiple uses must be maintained, private land owners have more discretion to manage their property for the primary purpose of conserving sage-grouse, if so desired.</p>	<p>Silent</p>	<p>Yes</p>	<p>As part of the planning criteria the DEIS must follow applicable laws. In this case FLPMA directs land use planning for resources associated with public lands. FLPMA Section 202 (c) In the development and revision of land use plans, the Secretary shall– (1) use and observe the principles of multiple use and sustained yield set forth in this and other applicable law;</p>
<p>K. The ability of wildlife, including sage-grouse, to habituate to inanimate manmade structures and changes to the landscape shall be acknowledged.</p>	<p>Silent</p>	<p>Yes</p>	<p>Incorporation of applicable scientific references – see previous discussion regarding use of science.</p>

Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>L. All sage-grouse conservation measures enacted on public land or through a federal nexus shall be for the purpose of directly benefiting the species and its verified habitats. These measures shall be scientifically defensible. All data and information used to produce conservation measures shall be made available to the public and the County and shall be coordinated with the County. Additionally, the balance of impacts to other species and to human welfare must be weighed prior to approval and implementation. All planning efforts shall be governed through adaptive management principles to ensure that use of the latest scientific research on sage-grouse and their habitat, BMP's, technological advances, and incorporation of impact avoidance, minimization, and mitigation opportunities are vetted and utilized.</p>	<p>Silent</p>	<p>Yes</p>	<p>The purpose and need of the DEIS is to address greater sage-grouse habitats. See also discussion above regarding scientific information. See also discussion above regarding coordination. The DEIS contains an analysis of the social and economic environment. Implementation activities on Federal lands incorporate adaptive management principles as described in the Custer County Plan, this would apply to all alternatives addressed in the EIS, including Alternative A. In addition to these principles each action alternative (Alts B-F) contains a specific adaptive management strategy complete with adaptive management thresholds (triggers) and response.</p>
<p><b>Chapter 7: Policies</b></p>			
<p>A. Predation 1. Prior to implementing any conservation measures that decrease the productive use of the land for the benefit of the sage-grouse, the impact of predation must be considered. Measures must be put in place to control predation to the satisfaction of the BOCC, if found to be the cause of the impact. 2. The BOCC will coordinate with the</p>	<p>Silent</p>	<p>Yes</p>	<p>Direct predator control is outside the authority of BLM and outside the scope of potential decisions for the DEIS. Alternative E contains an adaptive management approach which includes identification of specific causes, where ascertainable, and appropriate management changes based on the identified cause(s). Alternatives B, C, D &amp; F include anti perch devices</p>



Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>Idaho Fish and Game to determine appropriate predator control measures.</p> <p>3. Encourage private landowners and citizens to document predator occurrences and provide these to the BOCC so that the proper agencies can be notified and appropriate control measures implemented.</p> <p>4. Anti-perch devices will be encouraged, but not required, for all existing and future transmission lines and structures that may have a deleterious affect on sage-grouse in suitable habitat.</p>			<p>as required design features. Alternative E does not require anti perching devices although they can be implemented as best management practices.</p>
<p><b>B. Livestock Grazing</b></p> <p>1. Maintain sustainable grazing consistent with historic land use and ranching practices.</p> <p>2. Livestock grazing is an important tool to properly manage sage-grouse habitat, and should not be removed from the Plan Area.</p> <p>3. Any grazing restrictions or conservation measures that are implemented through a grazing permit shall be based solely on the conditions and activities specific to that permitted grazing allotment.</p> <p>4. Annual precipitation measurements should become a part of annual operating plans. Although the County contains the states highest mountain ranges, it receives the least amount of precipitation of any county in Idaho, and therefore has a climate, topography and ecology that is unlike any other area with sage-grouse</p>	<p><u>Livestock Grazing</u></p> <p>Goal 1 - Rationale 1: Manage livestock grazing activities to ensure achievement and maintenance of, or significant progress toward achieving, fundamentals of rangeland health, and standards for rangeland health and guidelines for livestock grazing management (per 43 CFR 4180).</p> <p>Goal 2 - Rationale 2: Prescribed burns and seedings would be done to promote a variety of resource objectives including ecosystem health and diversity. See Rangeland Vegetation Treatment Projects Goal 1, #2 (p. 51) for further criteria).</p> <p>Goal 2 – Rationale 3: Use land treatments, range improvements, and improved grazing management as tools to achieve multiple use objectives. Evaluate existing seedings for retreatment before</p>	<p>Yes</p>	<p>Alternatives B, D &amp; E all continue to allow for livestock management. These alternatives also recognize proper livestock grazing as a potential tool to utilize in moving towards desired vegetation conditions that support greater sage-grouse habitat. Alternatives B, D, E &amp; F all continue to implement Standards for Rangeland Health which address conditions at the allotment level. All these alternatives also incorporate sage-grouse habitat management objectives (such as the Connelly guidelines) .</p> <p><b>4. How does present drought management protocol include or incorporate precipitation?</b></p> <p>Actions 6-11 are all included as components of Alternative E.</p>

Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>habitat. This uniqueness also contributes to areas with above average precipitation while areas just over the hill are receiving below average precipitation. If the monitoring data shows there is an increase in forage that supports additional livestock in a suitable habitat area, then increased grazing should be considered. If monitoring data shows a decrease in forage in a suitable habitat area, then a reduction in livestock can be considered as long as it is demonstrated that failure to do so would cause a deleterious effect on the sage-grouse.</p> <p>5. Add sage-grouse guidelines into management plans as desired conditions, recognizing livestock grazing may not always be a causal factor (State Alternative)</p> <p>6. Prioritize completion of land (range) health assessments and grazing permit NEPA analysis on allotments with declining sage-grouse populations, as verified by Custer County.</p> <p>7. Allotment Assessments will use published Characteristics of sage-grouse habitat and comply with 43 CFR 4180.2(c).</p> <p>8. Allotment management changes must be tailored to address specific problems when the cause of that problem has been determined using the best available science including the flexibility to change time on a unit, the number of livestock for</p>	<p>any new seedings are done within a given allotment. Authorize permanent increases in livestock preference as a result of range improvement projects only after an ID team has performed an allotment analysis and determined that resource objectives have been met.</p>		



Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>a designated period of time and season of use.</p> <p>9. Changes in grazing management should only occur when monitoring indicates sage-grouse objectives are not being met as a result of grazing practices.</p> <p>10. Management changes, when needed, must be tailored to specifically address habitat objectives that need improvement, but should not adversely affect the habitat of other species.</p> <p>11. Altering grazing schemes in allotments, where needed and appropriate, may be facilitated by enhanced grazing opportunities with introduced seeding or areas with lower values to sage-grouse. The unintended consequences of altering grazing use, such as possible increased risk of wildfire, must be carefully considered in any management proposal.</p> <p>(State Alternative)</p>			
<p><b>C. Wild Horse, Burro and Wildlife Management</b></p> <p>1. The BLM Challis Field Office shall follow herd management plans for wild horses and stay within appropriate management levels</p> <p>2. If it is determined, utilizing the best available science and monitoring data, including private data, that over grazing is causing a deleterious effect on suitable habitat, then the impact of wild horses, burros and wildlife must be considered first before any conservation measures are</p>	<p>Wild Horses and Burros</p> <p>Goal 1: Maintain a viable population of wild horses so as to achieve a thriving natural ecological balance in the Herd Management Area.</p> <p>Rationale: Required by the Wild Horse and Burro Act.</p> <p>1. Manage the wild horse herd for an appropriate management level of 185 animals in accordance with the 1985 U.S. District Court Consent Judgment and the current activity plan for the wild horse Herd Management Area. The herd would</p>	<p>Yes</p>	<p>The DEIS maintains existing guidance described in the Challis RMP with regard to wild horse herd management plans and appropriate management levels. Alternative E contains an adaptive management approach which includes identification of specific causes, where ascertainable, and appropriate management changes based on the identified cause(s).</p>



Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>taken to reduce domestic livestock grazing. Only after reductions in wild horses, burros and wildlife have been taken and not found to sufficiently reduce the impact can the reduction of domestic livestock be considered.</p> <p>3. If wildlife grazing is determined to be the cause of inadequate sagebrush form and cover, modifications of herd objectives shall be prioritized by the appropriate agencies.</p>	<p>vary from 185 to about 253 animals between roundups. Adjust horse numbers to a lower level if monitoring data show that the current appropriate management level is causing unacceptable levels or resource degradation.</p> <p><u>Wildlife Habitat</u> Goal 1 - Rationale 3: Monitor key habitat sites to ensure that big game populations do not exceed proper levels or damage important habitat components. Design monitoring to determine whether big game are adversely affecting progress toward the riparian and aquatic habitat conditions described in Attachment 15. (p. 127 of the Challis RMP)</p>		
<p><b>D. Mineral Development</b></p> <p>1. Mineral development can occur in suitable habitat utilizing best management practices and taking all reasonable measures to reduce impacts and avoid impacts to suitable habitat where possible.</p> <p>2. Conservation measures designed to protect suitable habitat shall not affect access to any existing or future mining claim.</p> <p>3. No federal land mineral withdrawals shall be made as an effort to conserve suitable habitat. Full access to all resources must be maintained in order to ensure a productive economy and the</p>	<p><u>Minerals</u> Goal 1: Manage the Federal mineral estate in the resource Area for oil, gas, and geothermal exploration and development, while minimizing adverse impacts to other resource values. Goal 2: Provide saleable and non-energy leasable minerals to meet local demand, while minimizing adverse impacts to other resources values. Goal 3: Maintain the availability of public lands for locatable mineral exploration and development. Minimize adverse effects of locatable mineral development. Minimize adverse effects of locatable mineral</p>	Yes	Alternative D & E allow for mineral development in GRS habitat with application of best management practices.



Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
health, safety and welfare of the citizens of Custer County.	development activity on other resources.		
<p><b>E. Recreation</b></p> <p>1. Any plan for creating new or additional recreational opportunities on federal lands in suitable habitat must provide Custer County a sage-grouse impact analysis for review.</p> <p>2. Limit motorized recreational use to existing roads, primitive roads, and trails, as verified by Custer County in suitable habitat.</p> <p>3. Any road, primitive road and trail closures must comply with Custer County’s Transportation Plan and must be coordinated with the BOCC.</p>	<p><u>Recreation Opportunities and Visitor Use</u></p> <p>Goal 3: Provide recreational opportunities for the remainder of the Resource Area not included in the SRMA, including areas specifically for unstructured outdoor experiences, trails, (e.g., hiking, horseback riding, bicycling), recreational mineral collecting, and OHV use.</p> <p>Goal 4: Enhance recreational opportunities through designation of additional existing roads into the BLM national Backcountry Byways program.</p> <p>Attempted to obtain a copy of the BOCC Transportation Plan and was told the final document has not been released.</p>	Yes	<p>Alternatives within the DEIS identify all GRS G habitat areas (Alts. B, C, E, F) as limited to existing roads and trails. Alternative D identifies all lands within the Challis Field Office as limited to existing roads and trails, where explicit decisions RMP have been made to manage an area as open, those areas will remain open. After the land use plan amendment is completed comprehensive travel and transportation management plans would be completed to identify designated roads and trails and the areas would then be managed as limited to designated roads and trails. Coordination with Custer County would occur as described previously.</p>
<p><b>F. Infrastructure and Roads</b></p> <p>1. Limit motorized travel to existing roads, primitive roads and trails as verified by Custer County in suitable habitat.</p> <p>2. Any road, primitive road, or trail closures must comply with Custer County’s Transportation Plan and must be coordinated with the BOCC.</p> <p>3. New infrastructure can be placed in suitable habitat, as long as, reasonable measures are taken to ensure there will be no deleterious effect on the sage-grouse, as determined by Custer County. Best Management Practices, as defined in the</p>	<p><u>Transportation</u></p> <p>Goal 1: Consistent with other resource objectives and values, provide an adequate road and trail system on the Challis Resource Area’s public lands to (a) satisfy the public needs for recreation, commodity production, access, and safety, and (b) facilitate management of BLM resources and programs.</p> <p>The Challis Travel Management Plan was approved in 2008 and has been implemented.</p>	Yes	<p>See travel and transportation discussion above. Infrastructure development is allowed with restrictions and/or conservation measures in Alternatives D &amp; E. The best management practices identified are included as a component of Alternative E.</p>

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State's Alternative (pg 43) shall be followed.			
<p><b>G. Fire Management and Wildfire</b></p> <p>1. During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al 2007).</p> <p>2. Prior to prescribed controlled burns near suitable habitat, all other fuel reduction methods shall be considered.</p> <p>3. In the event of a wildfire, coordinate with appropriate agencies in developing and implementing rehabilitation plans.</p> <p>4. When pursuing habitat restoration or rehabilitation, use native plant species, based on availability, and probability of successful establishment.</p>	<p><b>Fire Management</b></p> <p>Goal 1: Protect human life, property, and valuable resources from wildfire, and reduce the impacts of suppression activities. Use prescribed fire to protect property and valuable resources, improve range and timber resource conditions, and perpetuate the natural ecosystem.</p>	Yes	All actions described are included in Alternatives B, C, D, E & F. In addition Alternative C does not allow for prescribed burning as a tool to manage GRS habitat.
<p><b>H. Invasive Species</b></p> <p>1. The Cooperative Weed Management Areas (CWMA), in cooperation with all land managers, shall encourage the continuing inventory for invasive species.</p> <p>2. Areas of suitable habitat, where non-natives have invaded, shall be prioritized for treatment in coordination with the BOCC and the CWMA.</p> <p>3. The County's Invasive Species Plan shall be followed when any treatment, reseeding or restoration projects occur in</p>	<p>Goal 1: Reduce potential for new infestations of noxious weeds.</p> <p>Goal 2: Develop an active weed inventory program by training public land users and BLM personnel in weed identification.</p> <p>Rationale: 1 – coordinate with Federal, State, and local agencies and private landowners in the identification of weed treatment areas.</p>	Yes	All actions described are included within all of the analyzed alternatives.



Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
or around suitable habitat.			
<p><b>I. Areas of Critical Concern and Wilderness Study Areas</b> There shall be no new designations of ACEC's or WSA in Custer County. If such designations are being considered by federal land managers, then the county is to be informed immediately and the consideration of the designation coordinated with the County</p>	<p><b>Goal 1:</b> Maintain and protect important biological, cultural, scenic, and other natural systems or processes by highlighting management of areas containing these resources.</p>	No	<p>Alternatives B, D &amp; E do not include new designations of ACECs. While there are alternatives which do not identify the designation of new ACECs, the FEIS is consistent with FLPMA and inconsistent with the Custer County ACEC policy, which is inconsistent with federal law. This inconsistency cannot be resolved at the planning scale.</p>
<p><b>J. Monitoring and Habitat Category Changes</b>  <b>A.</b> All federal and state agencies, with management responsibilities in the plan area for the species and/or its habitat, shall provide the County with an annual update of the monitoring programs they have in place, data collected and specifics about their collection protocols. These agencies will inform the County of proposed research projects and allow for the County's input and collaboration prior to implementation.  <b>B.</b> All data shall be collected and studies prepared using protocols that will ensure the quality, utility, objectivity and integrity of the information as required under the Information Quality Act.  <b>C.</b> All data that is gathered in the Plan Area shall be shared with the County in a timely manner, and supplied to the County regardless of its state of completion.  <b>D.</b> Private landowners are also encouraged</p>	Silent	Yes	<p>See coordination discussion above. Alternative B, C, D, E &amp; F all include monitoring approaches and protocols that are accepted as appropriately collecting information within acceptable parameters to provide information to assess management activities described in the DEIS.</p>

Custer County Sage-Grouse Management Plan Direction – Plan Implementation	Challis RMP Direction	Challis RMP Compliance	Inclusion in Amendment EIS
<p>to monitor and share data collected on private property with the County.</p> <p>E. All data that is shared with the County that is not public information will be treated as confidential and used by the County only to help inform its policies and best management practices.</p>			

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# Appendix S

## BLM Areas of Critical Environmental Concern Evaluation and Forest Service Zoological Areas



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## **S. BLM ACEC Evaluation and Forest Service Zoological Areas**

### **S.1 Introduction**

During the scoping process for this LUPA/EIS the BLM invited the public to nominate or recommend areas on public lands for GRSG and their habitat to be considered as ACECs. In response to this invitation, the BLM received ACEC nominations from a number of interested organizations. In addition to nominating ACECs on BLM-administered lands, during scoping, interested organizations also identified potential GRSG-related RNAs for National Forest System lands.

FLPMA Section 103 (a) defines ACECs as public lands for which special management attention is required (when such areas are developed or used or when no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes or to protect life and safety from natural hazards. Section 202(c)(3) of the Federal Land Policy and Management Act (FLPMA) requires that priority be given to the designation and protection of areas of critical environmental concern (ACEC).

Research Natural Areas are areas with valuable ecological resources. These areas are protected and maintained in natural conditions, for the purposes of conserving biological diversity, conducting non-manipulative research and monitoring, and fostering education.

The identification and establishment of a national network of RNAs is Congressionally mandated in the National Forest Management Act (NFMA) (36 CFR Sec. 219.25; 36 CFR 251.23). The need for, and value of, research natural areas has a fundamental basis, as well, in NFMA which states that land and resource management plans will include a plan to monitor and evaluate the effects of implementing the management plan (36 CFR Sec. 219.11(d))

### **S.2 ACEC Nominations**

During the scoping process for this LUPA/EIS the BLM received specific ACEC nominations in scoping letters submitted by Western Watersheds Project, Wild Earth Guardians and the Greater Yellowstone Coalition. The Wild Earth Guardians letter represented a consortium of environmental organizations. Nominated ACECs identified by Western Watersheds Project contained various amounts and extents of sage-grouse habitat and non-habitat. Both Wild Earth Guardians and the Greater Yellowstone Coalition nominated areas within identified preliminary priority habitat. The boundary of the and GYC externally nominated ACECs were developed through identifying preliminary priority habitat within southwestern Montana and the Upper Snake areas, as described in their scoping letter. Wild Earth Guardians proposed two separate scenarios: 1) all preliminary priority habitat areas excluding significantly impacted lands near active oil and gas wells; and 2) a system of ACECs to provide for habitat needs of GRSG. Both of these scenarios were evaluated. Under the first scenario all PPH areas were delineated and evaluated and this resulted in 16 separate areas in Idaho, Utah and southwestern Montana, grouped by local working group area. Under the second scenario BLM evaluated PPH areas to describe a system of nominated ACECs which, in addition occurring with PPH areas, also contain



relatively intact and high quality habitat. This evaluation resulted in 18 separate areas throughout Idaho.

Using the above mentioned criteria, nearly all identified preliminary priority sage-grouse habitat in Idaho and Southwestern Montana was included within an ACEC nomination.

### **S.3 ACEC Evaluation Process**

Based on the nominations received, all identified PPH was taken through the evaluation process.

In compliance with BLM Manual 1613-Areas of Critical Environmental Concern, a BLM interdisciplinary team conducted an initial evaluation of all GRSG mapped occupied habitat to decide which if any areas should be carried forward for further evaluation in the land use planning process. The ACEC evaluations were conducted by the BLM's GRSGS core team, which included wildlife biologists and land use planners assigned to the project. Additional input was provided by specialists from each Field and District Office that has GRSG habitat within their respective boundaries. The BLM's multi-step evaluation process consisted of:

1. BLM core team evaluated external ACEC nominations to determine relevance and importance.
2. Habitat was broken down between southwestern Montana and Idaho, and within Idaho further delineated according to local working group boundaries.
3. Draft evaluation tables and maps were created that were reviewed by the full BLM IDT and ad hoc IDT members (which includes representatives from each field office).

### **S.4 Relevance and Importance Criteria**

As mentioned in the introduction, to be considered for designation as an ACEC, an area must meet the requirements of relevance and importance as described in the Code of Federal Regulations (43 CFR 1610.7.2). The definitions for relevance and importance are as follows:

#### **S.4.1 Relevance**

An area is considered relevant if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (for example, rare or sensitive archaeological resources and religious or cultural resources important to Native American Indians).
2. A fish and wildlife resource (for example, habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).
3. A natural process or system (for example, endangered, sensitive, or threatened plant species; rare, endemic, or relict plants or plant communities; and rare geologic features).

4. A natural hazard (for example, areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action could meet the relevance criteria if it is determined through the resource management planning process that it has become part of the natural process.

#### S.4.2 Importance

The value, resource, system, process, or hazard described above must have substantial significance to satisfy the importance criteria, which generally means it is characterized by one or more of the following:

1. Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared with any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to change.
3. Has been recognized as warranting protection to order to satisfy national priority concerns or to carry out the mandates of FLPMA.

As part of the ACEC evaluation process the BLM determined that the mere presence of GRSG or GRSG habitat does not constitute a significant wildlife resource (43 CFR 1610.7.2). Direction associated with the BLM's National GRSG planning strategy asked each State to identify preliminary priority habitat (PPH). PPH comprises areas that have been identified as having the highest conservation value to maintaining sustainable GRSG populations. It was determined that areas nominated for ACEC Designation did not meet the relevance criteria if they were outside identified preliminary priority habitat. Therefore potential ACEC boundaries were identified based on PPH delineated areas.

As part of the external nominations, proposed ACECs extend across State boundaries. In addition Wild Earth Guardians and GYC's proposals included all PPH independent of administrative boundaries, for the purposes of this evaluation proposed ACECs include both BLM-administered and National Forest System lands. Forest Service does not designate ACECs and therefore any identification of special areas on Forest Service administered lands would be referred to as Zoological Areas.

As a result of the evaluation process, it was determined that 7,272,100 BLM-acres delineated into 16 areas met the relevance criteria.

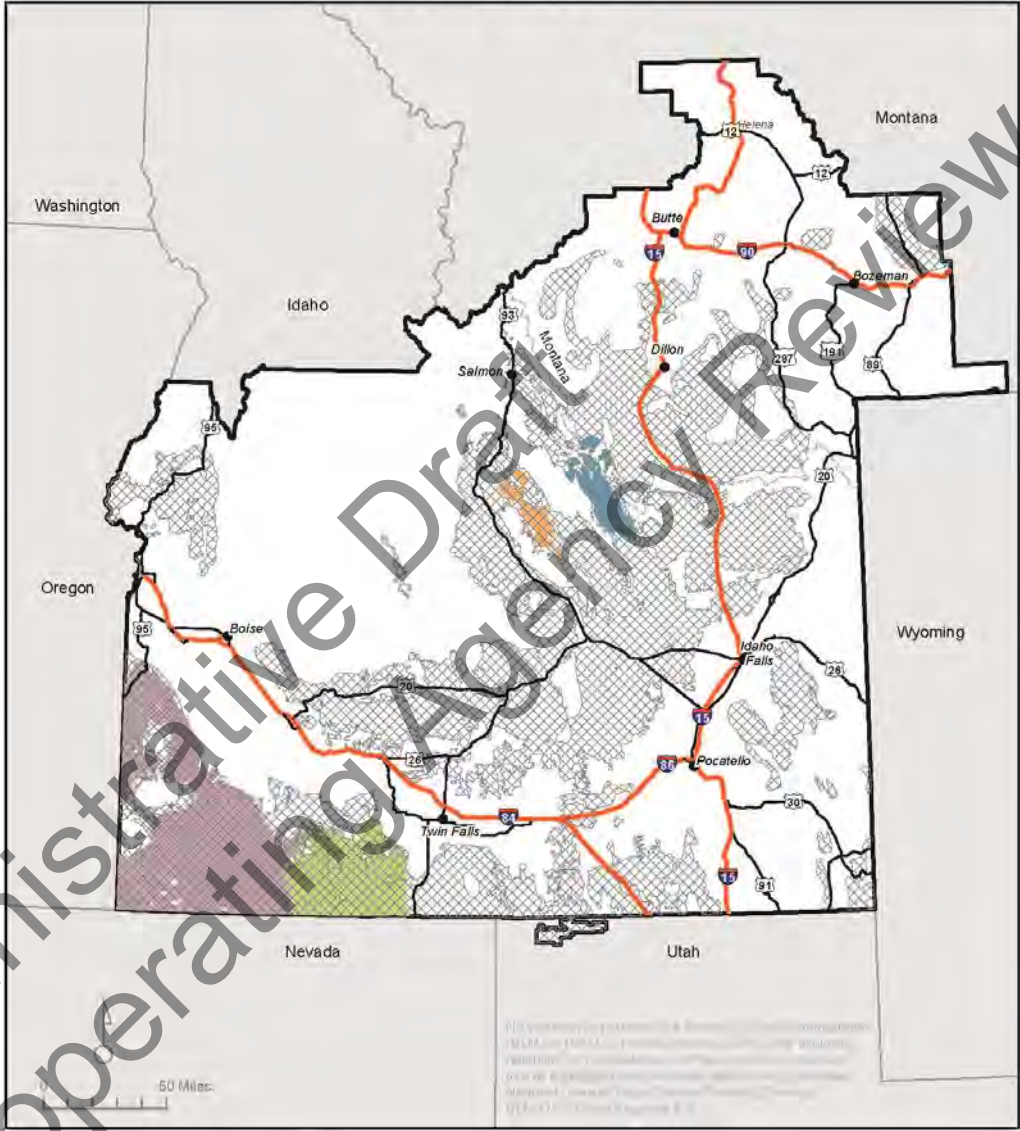
All areas that met the relevance criteria were determined to have importance because protection of GRSG is a national priority for BLM. **Table H.1**, Potential ACEC and Zoological Areas, includes information on each of the individual areas evaluated by the BLM and Forest Service. Nominations that met relevance and importance criteria are displayed on Maps H.1 – Western Watersheds; H.2 – Greater Yellowstone Coalition and Wild Earth Guardians All PPH Areas; H.3 – Wild Earth Guardians System of ACECs.

## S.5 Zoological Areas

After the BLM completed its ACEC evaluation process, the Forest Service evaluated GRSG habitat adjacent to potential ACECs found to have relevance and importance. The Forest Service is considering designating these areas as Zoological Areas to ensure consistent management across the landscape. When considering Zoological Areas, the Forest Service is not required to go through the same screening criteria that the BLM is required to go through when considering ACEC designation. In addition to considering zoological areas that are contiguous to BLM-administered lands, the Forest Service is considering designating some disconnected GRSG habitat as a zoological area.

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### Proposed ACECs, Alternative C



-  Occupied Habitat
-  ID-01 ID-OR Borderlands and Owyhee Front
-  ID-02 Sagebrush Sea
-  ID-03 Pahsimeroi
-  ID-04 Canyon\Big Timber Project & Birch Creek Watershed
-  Analysis Boundary

**Table H.1**  
**Potential ACEC and Zoological Areas (ACEC refers to BLM areas, ZOA refers to Forest Service areas)**

Delineation	Name	State	Description	Nominated By	Alternative	BLM Acres	FS Acres
ID-ACEC-C-01	ID-OR Borderlands and Owyhee Front	Idaho	BLM PPH within Owyhee and Bruneau Field Offices	Western Watersheds Project	C	1,795,610	0
ID-ACEC-C-02	Sagebrush Sea	Idaho	BLM PPH within the southern 2/3 of the Jarbidge Field Office	Western Watersheds Project	C	765,068	0
ID-ACEC-C-03	Pahsimeroi	Idaho	BLM PPH within the Pahsimeroi area of the Challis FO	Western Watersheds Project	C	128,579	0
ID-ACEC-C-04	Canyon/Big Timber Project and Birch Creek Watershed	Idaho	BLM PPH within the Canyon/Big Timber Project Area	Western Watersheds Project	C	169,796	0
MT-ACEC-F-01a MT-ZOA-F-01a	Clark Canyon	Montana	PPH West of Dillon	Greater Yellowstone Coalition & Wild Earth Guardians	F	198,770	29,845
MT-ACEC-F-02a MT-ZOA-F-02a	Lima	Montana	PPH West of I-15 and South of Clark Canyon Area	Greater Yellowstone Coalition & Wild Earth Guardians	F	54,393	52,698
MT-ACEC-F-03a MT-ZOA-F-03a	Red Rock	Montana	PPH Area primarily East of I-15	Greater Yellowstone Coalition & Wild Earth Guardians	F	202,088	83,509

**Table H.1**  
**Potential ACEC and Zoological Areas (ACEC refers to BLM areas, ZOA refers to Forest Service areas)**

Delineation	Name	State	Description	Nominated By	Alternative	BLM Acres	FS Acres
ID-ACEC-F-01a	Owyhee	Idaho	All PPH Areas	Wild Earth Guardians	F	1,796,060	0
ID-ACEC-F-02a	Jarbridge	Idaho	All PPH Areas	Wild Earth Guardians	F	769,426	0
ID-ACEC-F-03a ID-ZOA-F-01a	Shoshone Basin	Idaho	All PPH Areas	Wild Earth Guardians	F	122,674	66,850
ID-ACEC-F-04a ID-ZOA-F-02a	South Magic Valley	Idaho	All PPH Areas	Wild Earth Guardians	F	253,875	134,371
ID-ACEC-F-05a ID-ZOA-F-03a	Curlew	Idaho	All PPH Areas	Wild Earth Guardians	F	177,791	41,231
ID-ACEC-F-06a ID-ZOA-F-04a	Mountain Home	Idaho	All PPH Areas	Wild Earth Guardians	F	83,576	15,467
ID-ACEC-F-07a ID-ZOA-F-05a	North Magic Valley	Idaho	All PPH Areas	Wild Earth Guardians	F	997,642	13,408
ID-ACEC-F-08a	Big Desert	Idaho	All PPH Areas	Wild Earth Guardians	F	559,546	0
ID-ACEC-F-09a ID-ZOA-F-06a	Upper Snake	Idaho	PPH within areas described in July 2006 Idaho Sage-Grouse Conservation Plan; All PPH Areas	Greater Yellowstone Coalition; Wild Earth Guardians	F	936,010	182,093
ID-ACEC-F-10a ID-ZOA-F-07a	Challis	Idaho	All PPH Areas	Wild Earth Guardians	F	981,609	301,769
ID-ACEC-F-11a	West Central	Idaho	All PPH Areas	Wild Earth Guardians	F	77,224	0
ID-ACEC-F-12a ID-ZOA-F-08a	East Idaho Uplands	Idaho	PPH within areas described in July	Greater Yellowstone	F	55,826	1,623

**Table H.1**  
**Potential ACEC and Zoological Areas (ACEC refers to BLM areas, ZOA refers to Forest Service areas)**

Delineation	Name	State	Description	Nominated By	Alternative	BLM Acres	FS Acres
			2006 Idaho Sage-Grouse Conservation Plan; All PPH Areas	Coalition; Wild Earth Guardians			
UT-ZOA-F-01a	Sawtooth	Utah	All PPH Areas	Wild Earth Guardians		0	71,827
ID-ACEC-F-01b	Tent Creek	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	37,337	0
ID-ACEC-F-02b	Garat 4	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	27,411	0
ID-ACEC-F-03b	Garat 3	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	12,776	0
ID-ACEC-F-04b	Garat 2	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	13,166	0
ID-ACEC-F-05b	Garat 1	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	2,284	0
ID-ACEC-F-06b	Deep Creek Owyhee	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	58,823	0
ID-ACEC-F-07b	Deep Creek Bruneau	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	59,315	0
ID-ACEC-F-08b	Bruneau	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	306,508	0
ID-ACEC-F-09b	Big Springs	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	19,618	0
ID-ACEC-F-10b	Jarbidge Foothills	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	121,711	0
ID-ACEC-F-	Shoshone	Idaho	Extensive System of	Wild Earth	F	163,182	0

**Table H.1**  
**Potential ACEC and Zoological Areas (ACEC refers to BLM areas, ZOA refers to Forest Service areas)**

Delineation	Name	State	Description	Nominated By	Alternative	BLM Acres	FS Acres
11b	Basin/South Hills		ACECs	Guardians			
ID-ACEC-F-12b	Sawmill Canyon Sage-Grouse	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	4,979	0
ID-ACEC-F-13b	Wedge Butte	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	34,268	0
ID-ACEC-F-14b	Wildhorse	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	210,250	0
ID-ACEC-F-15b	Quaking Aspen Butte	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	148,345	0
ID-ACEC-F-16b	Bear Lake	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	42,909	0
ID-ACEC-F-17b	Table Butte/Camas Butte	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	72,903	0
ID-ACEC-F-18b	Medicine Lodge/Birch Creek	Idaho	Extensive System of ACECs	Wild Earth Guardians	F	112,184	165
ID-ZOA-F01b							



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# Appendix T

## Public Comment Response Report



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## Appendix T: Response to Comments on the Draft Land Use Plan Amendment/Environmental Impact Statement

### Introduction

After publishing the Draft LUPA/EIS, the BLM and Forest Service held a 90-day public comment period to receive comments on the Draft LUPA/EIS. The BLM and Forest Service received written comments on the Draft LUPA/EIS by mail, email, and submissions at the public meetings and oral comments transcribed at public meetings. Comments covered a wide spectrum of thoughts, opinions, ideas, and concerns. The BLM and Forest Service recognize that commenters invested considerable time and effort to submit comments on the Draft LUPA/EIS and developed a comment analysis methodology to ensure that all comments were considered, as directed by NEPA regulations.

According to NEPA, the BLM and Forest Service are required to identify and formally respond to all substantive public comments. The BLM and Forest Service developed a systematic process for responding to comments to ensure all substantive comments were tracked and considered. Upon receipt, each comment letter was assigned an identification number and logged into the BLM's comment analysis database, CommentWorks, which allowed the BLM and Forest Service to organize, categorize, and respond to comments. Substantive comments from each letter were coded to appropriate categories based on the content of the comment, retaining the link to the commenter. The categories generally follow the sections presented in the Draft LUPA/EIS, though some relate to the planning process or editorial concerns.

Comments similar to each other were grouped under a topic heading, and the BLM and Forest Service drafted a statement summarizing the issues contained in the comments. The responses were crafted to respond to the comments, and, if warranted, a change to the EIS was made.

Although each comment letter was diligently considered, the comment analysis process involved determining whether a comment was substantive or nonsubstantive in nature. In performing this analysis, BLM and Forest Service relied on the CEQ's regulations to determine what constituted a substantive comment.

A substantive comment does one or more of the following:

- Questions, with a reasonable basis, the accuracy of the information and/or analysis in the Draft LUPA/EIS
- Questions, with a reasonable basis, the adequacy of the information and/or analysis in the Draft LUPA/EIS
- Presents reasonable alternatives other than those presented in the Draft LUPA/EIS that meet the purpose and need of the proposed action and addresses significant issues
- Questions, with a reasonable basis, the merits of an alternative or alternatives
- Causes changes in or revisions to the proposed action

- Questions, with a reasonable basis, the adequacy of the planning process itself

Additionally, the BLM's NEPA Handbook (H-1790-1) identifies the following types of substantive comments:

Comments on the Adequacy of the Analysis: Comments that express a professional disagreement with the conclusions of the analysis or assert that the analysis is inadequate are substantive in nature but may or may not lead to changes in the Proposed LUPA/Final EIS. Interpretations of analyses should be based on professional expertise. Where there is disagreement within a professional discipline, a careful review of the various interpretations is warranted. In some cases, public comments may necessitate a reevaluation of analytical conclusions. If, after reevaluation, the manager responsible for preparing the EIS (Authorized Officer) does not think that a change is warranted, the response should provide the rationale for that conclusion.

Comments That Identify New Impacts, Alternatives, or Mitigation Measures: Public comments on a Draft EIS that identify impacts, alternatives, or mitigation measures that were not addressed in the draft are substantive. This type of comment requires the Authorized Officer to determine whether it warrants further consideration. If it does, the Authorized Officer must determine whether the new impacts, new alternatives, or new mitigation measures should be analyzed in the Final EIS, a supplement to the Draft EIS, or a completely revised and recirculated Draft EIS.

Disagreements with Significance Determinations: Comments that directly or indirectly question, with a reasonable basis, determinations regarding the significance or severity of impacts are substantive. A reevaluation of these determinations may be warranted and may lead to changes in the Final EIS. If, after reevaluation, the Authorized Officer does not think that a change is warranted, the response should provide the rationale for that conclusion.

Comments that failed to meet the above description were considered nonsubstantive. Many comments received throughout the process expressed personal opinions or preferences, had little relevance to the adequacy or accuracy of the Draft LUPA/EIS, represented commentary regarding resource management and/or impacts without any real connection to the document being reviewed, or were considered out of scope because they dealt with existing law, rule, regulation, or policy. These comments did not provide specific information to assist the planning team in making changes to the alternatives or impact analysis in the Draft LUPA/EIS and are not addressed further in this document. Examples of nonsubstantive comments include the following:

- The best of the alternatives is Alternative D (or A, B, or C).
- The preferred alternative does not reflect balanced land management.
- More land should be protected as wilderness.
- BLM needs to change the Taylor Grazing Act and charge higher grazing fees.
- I want the EIS to reflect the following for this area: no grazing, no logging, no drilling, no mining, and no OHVs.

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- More areas should be made available for multiple uses (e.g., drilling, OHVs, and ROWs) without severe restrictions.

Opinions, feelings, and preferences for one element or one alternative over another, and comments of a personal and/or philosophical nature, were all read, analyzed, and considered. However, because such comments are not substantive in nature, the BLM and Forest Service did not include them in the report and did not respond to them. While all comments were reviewed and considered, comments were not counted as “votes.” The NEPA public comment period is neither considered an election, nor does it result in a representative sampling of the population. Therefore, public comments are not appropriate to be used as a democratic decision-making tool or as a scientific sampling mechanism.

Comments citing editorial changes to the document were reviewed and incorporated. The Proposed LUPA/Final EIS has been technically edited and revised to fix typographic errors, missing references, definitions, and acronyms, and other clarifications as needed.

Copies of all comment documents received on the Draft LUPA/EIS are available by request from the BLM’s Idaho State Office. Comments received by mail, email, and at meetings, or delivered orally during the public meetings are tracked by commenter name and submission number.

### Campaign Letters

Several organizations and groups held standardized letter campaigns for the GRSG effort through which their constituents were able to submit the standard letter or a modified version of the letter indicating support for the group’s position on the BLM and Forest Service LUPA actions. Individuals who submitted a modified standard letter generally added new comments or information to the letter or edited it to reflect their main concern(s). Modified letters with unique comments were given their own letter number and coded appropriately. All commenters who used an organization’s campaign letter were tracked in the BLM and Forest Service commenter list and are available from the BLM and Forest Service upon request.

### How This Appendix is Organized

This appendix is divided into three main parts. The first part, Introduction, provides an overview of the comment-response process. The second part, Issue Topics, Responses, and Comments, is organized by the primary topic and then by specific issue subtopics that relate to an aspect of NEPA, the BLM and Forest Service planning processes, or specific resources and resource uses. The topics are labelled Sections 1 through 25. For example, all comment summaries that relate to aspects of the alternatives fall under the heading, “Section 1.3, Range of Alternatives.” Comments summaries and responses for baseline information (such as the information found in **Chapter 3**, Affected Environment) and impact analysis (**Chapter 4**) are found under the respective resource topic. For example, comment summaries and responses related to the affected environment and impact analysis on Fire and Fuels are under the “Section 7 – Fire and Fuels” heading. Each topic or subtopic contains a statement that summarizes all substantive comments received on that topic or subtopic and the BLM’s and Forest Service’s response to the summary statement. Excerpts of all substantive comments are posted on the project website: [http://www.blm.gov/ut/st/en/prog/planning/SG\\_RMP\\_rev.html](http://www.blm.gov/ut/st/en/prog/planning/SG_RMP_rev.html).

The terms preliminary priority management area (PPMA) and preliminary general management area (PGMA) were used in the Draft EIS to describe the relative prioritization of areas for GRSG

conservation. These are BLM and Forest Service terms used to differentiate the degree of managerial emphasis a given area would have relative to GRSG. As the BLM and Forest Service moved from a Draft EIS to a Proposed LUPA/Final EIS, such prioritizations are necessarily no longer “preliminary” in nature. As such, they have been replaced with the terms Priority Habitat Management Area (PHMA) and General Habitat Management Area (GHMA). Comments on the Draft LUPA/EIS referred to PPMA and PGMA. As such, the summary statements also use these terms. However, responses use the terminology used in the Proposed LUPA/Final EIS (PHMA and GHMA).

The third part, Commenter Lists, provides the names of individuals who submitted unique comment letters (not campaign letters) on the Draft LUPA/EIS. Commenters are listed alphabetically by the organization name or commenter’s last name.

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CommentWorks® Issue Report  
Initiative: ID-GRSG-AM

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## Issue Topics, Responses, and Comments

### Section 1 – NEPA

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#### Summary

The FEIS needs to identify an Environmentally Preferred Alternative, evaluate the plan according to the USFWS's Evaluation Criteria for Conservation Plans, and provide a summary comparison of the population effects under each alternative.

---

#### Response

1. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, ". . . specifying the alternative or alternatives which were considered to be environmentally preferable." This alternative(s) will be identified in the ROD.
2. The Policy for the Evaluation of Conservation Efforts (PECE) is the USFWS responsibility and will be used by USFWS during their evaluation of BLM/FS land use plans as appropriate.
3. The FEIS includes discussion of population effects in **Section 4.2**.

### Section 1.1 - Public Notification

---

#### Summary

BLM needs to publish the statistics for people that provided comment letters on the Draft EIS, as well as the comments, their responses, and changes made to the document in the FEIS.

---

#### Response

All substantive comments received on the Draft EIS were considered and reviewed for information that would result in changes to the document. Comments simply stating a preference for or against a specific alternative or opinions without reasonable basis were considered non-substantive since they do not meet the substantive comment requirement of BLM Handbook H-1790-1, Section 6.9.2.1. See **Chapter 6** for additional details on the comment analysis process.

Form letters, or identical letters submitted by different commenters, were identified as part of the DLUPA/DEIS comment response effort. Since these submissions are identical in nature, it is adequate for only one "master" form letter to be included as part of the comment response effort and reviewed

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for substantive comments. All form letters will be entered into the project decision file and all commenters will be entered into the project decision file as having submitted a comment during the DLUPA/DEIS comment period.

Index of parties, comments, and responses are provided in the FEIS. Changes made to the EIS are summarized in the beginning of each chapter.

## Section 1.2 - Cooperating Agency Relationships

---

### Summary

The BLM did not coordinate with state and local agencies that would be affected by the actions considered in the EIS, as required by NEPA and FLPMA. Several commenters requested additional coordination for BLM to consider.

---

### Response

Cooperating agency relationships are described in the Final EIS in **Section 6.3.1**, Cooperating Agencies. In December 2011, the BLM sent letters to five tribal governments within the Idaho and Southwestern Montana Sub-region inviting them to be cooperating agencies. The BLM also sent letters to over 60 local, state, and federal agencies inviting them to participate as cooperating agencies for the LUPA/EIS. To date, 29 agencies agreed to participate on the EIS as designated cooperating agencies, and have signed Memoranda of Understanding with the BLM's Idaho State Office (**Table 6-5**, Idaho and Southwestern Montana Sub-region Cooperating Agency Participation).

## Section 1.3 - Range of Alternatives

---

### Summary

1. The alternatives fail to meet NEPA adequacy because:
  - a. they (individually or collectively) do not meet the purpose and need for the action
  - b. alternatives were all largely the same, and that the BLM needed to provide more distinction (range) between them
  - c. BLM needs to consider the alternatives presented by Cooperating Agencies and Environmental Organizations, including the County alternatives, the Conservation Groups' alternative, and alternatives for the listing of the species or not listing the species.
  - d. specifically that Alternative D needed to include the Ecological Site Descriptions to provide adequate understanding of the current management
  - e. and the BLM and Forest Service failed to adequately define the No Action Alternative.

2. Commenters also suggested that BLM and Forest Service did not provide adequate rationale for the



need of the project.

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## Response

1. a. In accordance with NEPA, the BLM and Forest Service have discretion to establish the purpose and need for action (40 CFR 1502.13). CEQ regulations direct that an EIS "...shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR 1502.13). Also, under the CEQ regulations, the BLM and the Forest Service are required to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act [NEPA]." (40 CFR 1501.2(c)). The breadth or narrowness of the purpose and need statement has a substantial influence on the scope of the subsequent analysis. The purpose and need statement provides a framework for issue identification and will inform the rationale for alternative selection. The range of alternatives developed are intended to meet the purpose and need and address the issue; thereby providing a basis for eventual selection of an alternative in a decision (BLM NEPA handbook and Forest Service Handbook 1909.15 – National Environmental Policy Act Handbook Chapter 10 – Environmental Analysis). As stated in the DLUPA/EIS, the BLM and the Forest Service prepared the Idaho LUP amendment with an associated EIS to be applied to lands with GRSG habitat.

b. The BLM and the Forest Service considered a reasonable range of alternatives during the GRSG planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and GRSG in the planning area, the BLM and the Forest Service fully considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A).

Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping, and to maintain or increase GRSG abundance and distribution in the planning area. While the goal is the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate LUPA with the potential for different long-range outcomes and conditions.

The relative emphasis given to particular resources and resource uses differs as well, including allowable uses, restoration measures, and specific direction pertaining to individual resource programs. When resources or resource uses are mandated by law or are not tied to planning issues, there are typically few or no distinctions between alternatives. Meaningful differences among the six alternatives are described

in the FEIS in **Table 2-9**, Comparative Summary of Allocation Decisions of the Proposed Plan Amendment and Draft Alternatives, and in **Section 2.8**, Draft LUPA/EIS Alternatives.

c. Based on this alternative development process, the BLM and Forest Service considered input from cooperating agencies, environmental organizations, and the public. As described in **Section 2.8.3**, Alternative B, the BLM used the GRSG conservation measures in A Report on National Greater Sage-Grouse Conservation Measures (NTT 2011) to form BLM and Forest Service management direction under Alternative B. This is consistent with the direction provided in BLM Washington Office Instruction Memorandum 2012-044, which states that the BLM must consider all applicable conservation measures developed by the NTT in at least one alternative in the land use planning process.

During scoping for the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS, individuals and conservation groups submitted management direction recommendations for protection and conservation of GRSG and their habitat, including the Sage-grouse Recovery Alternative and proposed disturbance cap. The recommendations, in conjunction with resource allocation opportunities and internal sub-regional BLM and Forest Service input, were reviewed in order to develop BLM and Forest Service management direction for GRSG under Alternatives C and F.

Alternative D incorporates adjustments to the NTT report (NTT 2011) to provide a balanced level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses, and was developed in full cooperation with the Cooperating Agencies taking note of the agencies' concerns with socioeconomic issues.

Alternative E was based on inputs from the Idaho and Utah Governors' Offices for lands in each state in the sub-region.

Whether the GRSG is determined for listing by the USFWS is outside the jurisdiction of the BLM and Forest Service and beyond the scope of this EIS. As noted in the Purpose and Need, the BLM was to consider regulatory mechanisms that would protect the species and its habitat. As such, the BLM and Forest Service did not develop alternatives should the USFWS choose to list or not list the GRSG.

e. Ecological Site Descriptions are not necessary to describe the affected environment, but will be considered on a site-specific basis during project implementation as appropriate.

f. As clarified by the CEQ, the "no action alternative" for a land use plan amendment or revision means "no change" from current management or level of management intensity (CEQ 40 Questions, Question 3). The no action alternative may be thought of in terms of continuing with the present course of action. The No Action Alternative is described in Alternative A, and includes the current management for the programs within the scope of the analysis. However, the FWS determined that the current regulatory mechanisms were not "adequate" in their 2010 warranted but precluded for listing decision. Therefore, the No Action Alternative provides a baseline for comparison of the five action alternatives to the existing planning decisions.

2. The purpose and need is provided in **Chapter 1**. Under FLPMA, the Secretary of the Interior, acting

through the BLM has the discretion to engage in land use planning whenever appropriate for management of the public lands.

## Section 1.4 - Best Available Info Baseline Data

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### Summary

The EIS fails to meet NEPA adequacy for baseline data because the scale of baseline data used is too broad, the EIS failed to include the State and Transition models as part of the baseline information, and the No Action management actions, as presented, do not explain the regulatory mechanisms that are currently available to preserve GRSG habitat.

---

### Response

The CEQ regulations require an EIS to "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The description shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues" (40 CFR 1502.15). Additionally, the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS is a programmatic NEPA effort to conserve GRSG and its habitat across a broad geographic area. As such, the BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions.

The BLM and the Forest Service complied with these regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in **Chapter 3** and related appendices including **Appendices Y** through **CC** in the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS. For example, listing every water quality-impaired stream within the planning area by name would not provide useful information at this broad-scale analysis, particularly where the proposed plan alternatives did not vary the level of riparian protections to provide reduced levels for non-impaired streams. The riparian protections within each alternative were applied to all streams, whether or not they were water quality-impaired.

As specific actions come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. Site-specific concerns and more detailed environmental descriptions will be addressed when project-level reviews are tied to the analysis in this EIS (40 CFR 1502.20, 40 CFR 1508.28). In addition, as required by NEPA, the

public will be offered the opportunity to participate in the NEPA process for any site-specific actions.

## Section 1.5 - GIS Data and Analysis

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### Summary

Commenters noted several issues with the GIS data and analysis conducted in the Draft EIS:

- The maps and data layers do not provide enough detail to address "local ecological site variability". The data are too coarse and do not provide assurances to more localized decision making; some habitat areas are inaccurately identified in the maps.
  - BLM used old data layers to develop maps; BLM should use the newer data layers.
  - The BLM needs to be consistent in their edge-mapping across state boundaries when there are different data sets used.
- 

### Response

Before beginning the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The data needed to support broad-scale analysis of the planning area are substantially different than the data needed to support site-specific analysis of projects. The LUPA/EIS data and information is presented in map and table form and is sufficient to support the broad scale analyses required for land use planning.

Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service and Idaho and Montana state wildlife agencies. These data were used throughout the EIS, including **Chapters 2, 3, and 4**. The Draft EIS notes that the BLM and Forest Service would incorporate any refinements or updates if or when the data were made available.

As a result of these actions, the data gathered by the BLM and the Forest Service is of the appropriate scale and provided an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives.

A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data. The baseline data provides the necessary basis to make informed land use plan-level decisions. Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The BLM and the Forest Service will conduct subsequent project-specific NEPA analyses for projects proposed for implementation under the land use plan, which may include but are not limited to fuels treatment, habitat restoration, and conifer removal. The subsequent NEPA analyses for project-specific actions will tier to the land-use planning analysis and evaluate project impacts at the appropriate site-specific level (40 CFR 1502.20, 40 CFR 1508.28). As required by NEPA, the public will have the opportunity to participate in the NEPA process for site-specific actions.

Between the Draft and Final EIS, the BLM and Forest Service worked closely to resolve differences between GRSG habitats across state boundaries. These refinements are reflected in the Final EIS maps and GIS calculations.

## Section 1.6 - Indirect Impacts

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### Summary

BLM's overall impact analysis is deficient in the following areas:

1. Lack of discussion for where, when, and how BLM will have sufficient funding to implement the actions
2. The analysis does not distinguish between the effects of each alternative
3. The BLM and Forest Service did not fully analyze the No Action alternative by not acknowledging the existing laws and actions already in place that would manage the habitat

### Response

1. As a landscape level planning effort, none of the alternatives authorize site-specific activities on public lands. The agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies' budgets as appropriated annually through the Federal budget process. As a consequence, agencies' costs and differences in program costs across alternatives have not been quantified. Information has been presented in several resource impact sections on the types of costs that might be associated with various GRSG conservation measures.
2. **Tables 2-12 and 2-13** in the FEIS, when combined with the effects analysis in **Chapter 4**, adequately compares the effects between alternatives.
3. All alternatives, including the No Action Alternative, are subject to existing laws as described in **Sections 1.6 and 1.7**. The no action was fully analyzed; however, the Purpose and Need for this effort responds to the FWS's 2010 finding that existing regulatory mechanisms in existing land use plans are inadequate to protect the species; therefore, the no action is not sufficient to meet this Purpose and Need.

## Section 1.7 - Cumulative Impacts

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### Summary

The EIS cumulative impacts analysis is inadequate because it does not adequately identify the reasonably foreseeable future actions, present a comprehensive listing of the effects across all sub-regions, nor analyze how the alternatives' actions would affect actions and decisions in neighboring states/jurisdictions.



## Response

The BLM and the Forest Service thoroughly explained its consideration and analysis of cumulative effects in the Draft and Final LUPA/EIS in **Chapter 5** and has augmented this analysis for the FEIS. The Draft and Final LUPA/EISs considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and the Forest Service have complied fully with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level.

The DLUPA/EISs contains a qualitative discussion of cumulative effects at the WAFWA Management Zone scale to set the stage for a more quantitative analysis to be contained in the Proposed Land Use Plan Amendment/FEIS. Additional quantitative cumulative analysis was added to the Final EIS in **Chapter 5**, Cumulative Impacts.

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## Section 1.9 - Mitigation Measures

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### Summary

1. The BLM needs to include a monitoring, mitigation, and adaptive management plan/framework in the FEIS that will include specific criteria for determining GRSG conservation success and how the disturbance percentages will be calculated.
2. BLM needs to clarify the relationship between the disturbance thresholds and the monitoring framework.
3. The BLM needs to release the mitigation strategy for public review.

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## Response

Mitigation and monitoring frameworks were introduced in the DEIS in **Chapter 2** and in **Appendices F** and **E**, respectively. An Adaptive Management strategy was also introduced in **Chapter 2** of the DEIS. A more detailed mitigation framework, monitoring framework, and adaptive

management strategy has been incorporated into **Chapter 2** of the FEIS and **Appendices J, E, and G**, respectively.

Mitigation will be applied to all implementation actions/decisions that take place on Federal lands within GRSG habitat during the life of this plan. Mitigation has been further defined as Regional Mitigation and the Framework is in **Appendix J**. The Regional Mitigation Framework was developed to follow the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ 40 CFR 1508.20.

The Mitigation Framework, through the mitigation hierarchy, guides the BLM and Forest Service. The hierarchy direction is to first, avoid impacts entirely by not taking a certain action or parts of an action, second, if unable to avoid, minimize impacts by limiting the degree or magnitude of an action or parts of an action, and lastly, if avoidance or minimizing is not possible, compensate impacts associated with future implementation actions. If residual impacts to GRSG from implementation-level actions remain after applying avoidance or minimization measures, then compensatory mitigation projects will be used to offset the residual impacts in an effort to achieve the land use plan goals and objectives. As articulated in **Appendix J**, compensatory mitigation will occur on sites that have the potential to yield the greatest conservation benefit to GRSG, regardless of land ownership. These sites should be sufficiently "durable." According to BLM Manual Section 1794, durability is defined as "the administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

Specific mitigation strategies, based on the Framework, will be developed by regional teams (at the WAFWA Management Zone level) within one year of the issuance of the Record of Decision. These strategies will guide the application of the mitigation hierarchy to address GRSG impacts within that WAFWA Management Zone. The WAFWA Management Zone Regional Mitigation Strategy will be applicable to BLM and Forest Service lands within the zone's boundaries. Subsequently, the BLM's and Forest Service's NEPA analyses for implementation-level decisions that might impact GRSG will include analysis of mitigation recommendations from the relevant WAFWA Management Zone Regional Mitigation Strategy(ies).

The Monitoring Framework in **Appendix E** outlines the methods that the BLM and Forest Service will use to monitor and evaluate the implementation and effectiveness of the planning strategy and the land use plans to conserve the species and its habitat. The regulations for the BLM (43 CFR 1610.4-9) and the Forest Service (36 CFR 219.12) require that land use plans establish intervals and standards, as appropriate, for monitoring and evaluations, based on the sensitivity of the resource to the decisions involved.

Implementation monitoring results will provide information to allow the BLM and Forest Service to evaluate the extent that the decisions from the BLM and Forest Service LUPs to conserve GRSG and their habitat have been implemented. Effectiveness monitoring will provide the information to evaluate whether BLM and Forest Service actions achieve the objective of the planning strategy (BLM IM 2012-

044) and the conservation measures contained in the land use plans to conserve GRSG populations and their habitats.

Monitoring efforts will include data for measurable quantitative indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions. This information will assist the BLM and the Forest Service with identifying whether or not they are achieving their land use plan goals and objectives, reaching an adaptive management soft or hard trigger, as well as providing information relative to the disturbance cap. Specifically, habitat degradation (percent of human activity in a biologically significant unit), habitat availability (percent of sagebrush in a biologically significant unit), and habitat degradation intensity (density of energy facilities and mining locations) will be gathered to inform the disturbance cap measurement (Proposed Plan action AD-1).

Adaptive management is a systematic approach for improving resource management by learning from management outcomes. An adaptive approach involves exploring alternative ways to meet management objectives, anticipating the likely outcomes of alternatives based on the current state of knowledge, implementing one or more of these alternatives, monitoring to learn about the impacts of management actions, and then using the results to update knowledge and adjust management actions accordingly.

Incorporating adaptive management into the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS will ensure a degree of certainty that the decisions in the plan will effectively contribute to the elimination or adequate reduction of one or more threats to the GRSG and its habitat. The adaptive management approach incorporates a set of triggers in the plan, a soft and hard trigger. These triggers were developed to inform the BLM and Forest Service as to when the Federal agency needs to respond (take action) to address a declining trend in GRSG or GRSG habitat figures.

Soft triggers represent an intermediate threshold indicating that management changes are needed at the project/implementation level to address habitat and population losses. Hard triggers represent a threshold indicating that immediate action is necessary to stop a severe deviation from GRSG conservation goals and objectives as set forth in the BLM and Forest Service plans. The adaptive management soft and hard triggers and land use planning responses to these triggers are described and analyzed fully in this EIS (Proposed Plan actions AM-1 through AM-16).

The agencies will use the data collected from monitoring (**Appendix E**) to identify any changes in habitat conditions related to the goals and objectives of the plan. The BLM and Forest Service will use the information collected through monitoring to determine when adaptive management triggers are met.

## Section 2 – FLPMA

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### Summary

The DLUPA/EIS has failed to comply with the multiple-use mandates found in the BLM's FLPMA and the Forest Service's Multiple Use Sustained Yield Act because it has put protecting GRSG and GRSG habitat above legal requirements for balanced management.



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## Response

FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the task of striking a balance among the many competing uses to which public lands can be put. The BLM's multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The FLPMA also directs the BLM to develop and periodically revise or amend its Resource Management Plans (RMPs), which guide management of BLM-administered lands, and provides an arena for making decisions regarding how public lands would be managed and used.

Consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531), the Forest Service manages National Forest System land to sustain the multiple use of its renewable resources in perpetuity while maintaining the long-term health and productivity of the land. Resources are managed through a combination of approaches and concepts for the benefit of human communities and natural resources. Land management plans guide sustainable, integrated resource management of the resources within the plan area in the context of the broader landscape, giving due consideration to the relative values of the various resources in particular areas. The Forest Service is required by statute to have a national planning rule: the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, requires the Secretary of Agriculture to issue regulations under the principles of the Multiple-Use Sustained-Yield Act of 1960 for the development and revision of land management plans.

The Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve GRSG and to respond to the potential of its being listed (see **Section 1.2**, Purpose and Need). Both, the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated conservation measures to conserve, enhance, and restore GRSG habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS included alternatives (**Section 2.8**) that provided a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights.

Additionally, the BLM and the Forest Service developed the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS with involvement from cooperating agencies, including the USFWS, NRCS, and Idaho Department of Fish and Game, to ensure that a balanced multiple-use management strategy to address the protection of GRSG while allowing for utilization of renewable and nonrenewable resources on the public lands.



## Section 2.2 - Consistency with other state, county, or local plans

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### Summary

The BLM's actions considered in the alternatives conflict with local and state agency plans and policies; furthermore, the BLM did not review all of the county and state plans to ensure that conservation measures are as consistent as possible with other planning jurisdictions.

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### Response

To the extent possible under existing law, the BLM's land use plans must be consistent with officially approved or adopted resource-related plans of Indian tribes, other Federal agencies, and State and local governments (see 43 CFR 1610). The BLM has worked closely with State and local governments during preparation of the Draft LUPA/EIS. The LUPA/EIS lists the cooperating agencies actively involved in the planning process in **Section 6.3**. The BLM requested the state, county, and tribal government cooperating agencies assist in the consistency reviews by reviewing the range of alternatives associated with the Draft LUPA/EIS and identify potential inconsistencies between the alternatives and each agency's applicable plans. This allows the state, local, and tribal cooperating agencies to use their special expertise regarding the familiarity with their own state, local, or tribal plans. On the local level, it is a county's responsibility to accurately identify and communicate any inconsistencies between that county's plan and the proposed alternative.

The BLM works to find a balance among uses and needs as reflected in these local government plans and has done so in the preparation of the LUPA/EIS; a list of these plans can be found in **Section 1.7**, Relationship to Other Policies, Plans, and Programs. The BLM is aware that there are specific State or local laws relevant to aspects of public land management that are discrete from, and independent of, Federal law. However, BLM is bound by Federal law. As a consequence, there may be inconsistencies that cannot be reconciled. The FLPMA requires that BLM's land use plans be consistent with State and local plans "to the extent practical". In a situation where State and local plans conflict with Federal law, there will be an inconsistency that cannot be resolved. Thus, while State County and Federal planning processes, under FLPMA, are required to be as integrated and consistent as practical, the Federal agency planning process is not bound by or subject to County plans, planning processes, or planning stipulations. Clarification has been added in the FEIS in **Section 6.3.1**.

The BLM coordinates with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the States of Idaho and Montana has clear jurisdiction, such as wildlife populations, the BLM has worked closely with that State agency. In cases where a county or agency has expertise, such as local county socioeconomic information, the BLM has worked closely with the group to incorporate the information into the EIS.

## Section 2.4 - Planning Regs 43 CFR 1600

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## Summary

The BLM did not provide an explanation for how and why they defined the planning area as they did.

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## Response

The framework for the scope of analysis for the project is based upon the BLM and the Forest Service Planning and NEPA manual and handbooks definitions of the planning, decision, and analysis areas. Specifically, Forest Service Manual 1900-Planning Chapter, Zero Code defines the Area of Analysis as “The geographic area within which ecosystems, their components, or their processes are evaluated during analysis and development of one or more plans, plan amendments, or plan revisions. This area may vary in size depending on the relevant planning issue. For a plan, an area of analysis may be larger than a plan area. For development of a plan amendment, an area of analysis may be smaller than the plan area and include multiple ownerships.”

The definition of a Planning Area is the geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM’s jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for a RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices and/or states, as necessary. For this EIS, decision area includes those BLM and Forest Service lands and mineral estates within the sub-region boundaries.

Further details regarding delineation of the planning area and the GRSG habitats within it are presented in **Section 1.1**, **Section 2.6**, **Section 2.8**, and **Appendix N**.

## Section 3 - Other Laws

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### Summary

The BLM has failed to document how the EIS and/or actions considered in the EIS comply with other laws, including all Onshore Orders regulating oil and gas development, the Energy Policy Act of 2005 and Energy Policy and Conservation Act of 2000, the Taylor Grazing Act, the Mining and Minerals Policy Act, the Information Quality Act, the Wild Horse and Burro Act, other multiple use mandates (e.g., Multiple-Use Sustained Yield Act of 1960, Forest and Rangeland Renewable Resources Planning Act of 1974, National Forest Management Act of 1976), and compliance with other federal agency regulations.

## Response

The Final EIS **Section 1.7**, Relationship to Other Policies, Plans and Programs, states that the BLM and Forest Service will seek to be consistent with or complementary to other ongoing programs, plans, and policies. Additionally, in **Section 1.6**, Development of Planning Criteria, the BLM has a criterion stating that all BLM alternatives would comply with existing laws, regulations, and policies. The BLM and Forest Service have reviewed all actions in the Proposed LUPA and found them to be consistent and within the bounds of all required laws, regulations, and policies.

## Section 4 - Sage Grouse

*No comments are associated with this issue.*

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### Section 4.1 - NTT report/findings

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#### Summary

Commenters contended that the National Technical Team (NTT) report is not based on the best available science, contains technical and methodological errors, is not based on local conditions, and has not undergone adequate peer review. Commenters questioned why the NTT report was used when the IM requiring its use has expired.

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#### Response

The NTT was formed as an independent, science-based team to ensure that the best information about how to manage the GRSG is reviewed, evaluated, and provided to the BLM and the Forest Service in the planning process. The group produced a report in December 2011 that identified science-based management considerations to promote sustainable GRSG populations. The NTT report (NTT 2011) used the best current scientific knowledge to guide the BLM and Forest Service planning efforts through management considerations to ameliorate threats, focused primarily on priority GRSG habitats on public lands. The NTT report cited 122 references including published papers from the formal scientific literature such as Journal of Wildlife Management, Conservation Biology, Biological Conservation, Wildlife Biology, BioScience and others, as well as graduate theses and dissertations, conservation strategies, FWS 2010 finding, and others representing the best available science. The NTT report was intended to be used at a programmatic scale and may not reflect local conditions.

The BLM used the NTT report per BLM IM 2012-044 to construct an alternative that would meet the purpose and need. This report was not the only source of information for developing a range of alternatives (see Section 4.5, Range of Alternatives, in this report). BLM is implementing IM 2012-044 through the GRSG planning effort. When an IM expires without being superseded, it can still be applicable and provide guidance to the BLM. The fact that IM 2012-044 expired does not mean the BLM has no authority to continue to analyze the conservation measures identified in the NTT

Report. The BLM is appropriately considering and evaluating the measures in the NTT Report, in addition to any other relevant science, through the GRSG planning process.

## Section 4.2 – BER

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### Summary

The BER contains outdated baseline literature and the EIS should be updated with suggested literature.

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### Response

A baseline environmental report, titled Summary of Science, Activities, Programs, and Policies That Influence the Rangeland Conservation of Greater Sage-grouse (*Centrocercus urophasianus*) (referred to as the BER), was released on June 3, 2013, by the U.S. Geological Survey. The peer-reviewed report summarizes the current scientific understanding about the various impacts to GRSG populations and habitats and addresses the location, magnitude, and extent of each threat. The data for this report were gathered from BLM, Forest Service, and other sources and were the best available at the range-wide scale at the time collected. The report provides a framework for considering potential implications and management options, and demonstrates a regional context and perspective needed for local planning and decision-making.

The BLM and Forest Service reviewed the literature sources provided by commenters to determine if there were new or updated sources that should be considered in the EIS. As appropriate, **Chapters 3 and 4** were updated in the FEIS with additional information and analysis.

## Section 4.3 – COT

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### Summary

Commenters had two distinct views regarding the COT report. One group considered the report overly biased and not representative of the best available information. The other group suggested the DEIS was not fully consistent with the COT report habitat mapping and therefore requires revision to address those deficiencies.

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### Response

In March 2012, the FWS initiated a collaborative approach to develop range-wide conservation

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objectives for GRSG to inform the 2015 decision about the need to list the species and to inform the collective conservation efforts of the many partners working to conserve the species. In March 2013, this team released the Conservation Objectives Team (COT) report based upon the best scientific and commercial data available at the time that identifies key areas for GRSG conservation, key threats in those areas, and the extent to which they need to be reduced for the species to be conserved. The report serves as guidance to Federal land management agencies, State GRSG teams, and others in focusing efforts to achieve effective conservation for this species.

**Table 2-12** demonstrates how the BLM and Forest Service management actions under each alternative address the threats to the populations in the Idaho and southwestern Montana sub-region. In Idaho, Core and Important Habitat Zones under Alternative E were used to derive the PACs in the COT. The BLM and Forest Service have continued to work with the USFWS and State agencies to develop a proposed plan.

#### Section 4.4 - Policy Guidance

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##### Summary

The BLM and Forest Service should include additional information to improve consistency with USFWS's Policy for Evaluation of Conservation Efforts.

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##### Response

The BLM and Forest Service are working closely with the USFWS to ensure certainty of implementation and effectiveness to the extent possible. However, certain management actions, such as restoration activities, are contingent on funding availability and thus some uncertainty remains.

#### Section 4.5 - Range of Alternatives

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##### Summary

Commenters proposed revisions or requested additional details and clarifications to the alternatives related to GRSG. Topics of concern included:

- The size of lek buffers
- Need for and size of disturbance cap
- Restrictions on wind energy development
- Noise restrictions
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring
- Need for an improved definition of no net unmitigated loss
- Leasable mineral restrictions
- Juniper removal

- Existing and new fencing as they relate to sage-grouse strikes and mortality
- Lack of active habitat restoration
- Habitat monitoring

Commenters were concerned about greater sage-grouse habitat mapping, including suggesting clarifications or revisions to the habitat map and concerns about using the map for site-scale projects. Commenters were also concerned that Manual 6840 was not used as the baseline policy governing present GRSG conservation in the No Action alternative.

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## Response

As noted above in the response in Section 1.3, Range of Alternatives, of this report, **Section 2.4** of the FEIS describes how the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA and worked closely with the State with assistance from the USFWS.

Meaningful differences among the six alternatives are described in the FEIS in **Table 2-9**, Comparative Summary of Allocation Decisions of the Proposed Plan Amendment and Draft Alternatives, and in **Section 2.8**, Draft LUPA/EIS Alternatives. The issues below have been addressed in management actions and associated appendices prepared for the proposed plan and analyzed in **Chapter 4**.

Regarding the following issues:

- Lek buffers have been revised in the FEIS; in undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report “Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review” (Open File Report 2014-1239) in accordance with **Appendix B**.
- Additional specificity regarding the disturbance cap has been further explained in the FEIS; per the original April 2014 NPT guidance on disturbance, the Proposed LUPA/Final EIS would use the 3 percent disturbance cap at the Biologically Significant Unit (BSU) and project scale. Specific language has been included in the Proposed LUPA alternative (see **Chapter 2**, Proposed Plan action AD-1), as well as additional guidance for how they would be implemented and accounted for and what data is appropriate for determining disturbance (see **Appendix G**).
- Restrictions on wind energy development are described in the Proposed Plan, action LR-2.
- Noise and seasonal stipulations for both construction and long-term implementation of land use activities have been included in the FEIS (**Appendices B** and **C**).
- Livestock grazing management changes are described in the Proposed Plan actions RM-1 through RM-19 and include additional guidance provided for incorporating GRSG decisions into livestock grazing authorizations.
- Additional detail regarding adaptive management is provided in the Proposed Plan actions AM-1 through AM-16 and **Appendix G**. Monitoring is described in the Proposed Plan actions MON-1 through MON-7 and **Appendix E**. In the Proposed LUPA, additional clarifications are provided for the mitigation, monitoring, and adaptive management. See also response to comments in Section 1.9, Mitigation Measures, of this report.
- Additional specificity regarding the no net habitat loss objectives has been further explained in the FEIS in MIT-4 and **Appendix J**. Additionally, the Proposed LUPA/Final EIS includes guidance for net

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conservation gain when mitigating adverse impacts on GRSG.

- Leasable mineral restrictions are described in the Proposed Plan actions FLM-1 through FLM-7 and NEL-1 through NEL-3.
- Juniper removal is described in VEG-8.
- The BLM and Forest Service used the latest science in developing management actions related to fences that adequately address collision risk. No change has been made to the document regarding this issue in the FEIS (see Proposed Plan action RM-14).
- Site-specific projects are not identified in the broad-scale plan, but there are a number of restoration actions described in the Proposed Plan in the wildfire and vegetation management actions.
- The BLM and Forest Service, in coordination with the state, have clarified monitoring and mapping expectations in the FEIS (**Appendices E and F**).

A description of the habitat mapping process for each alternative was presented in **Section 2.6** of the DEIS, Detailed Description of Alternatives. The Proposed Plan describes updates to the map in MA-5 through MA-8 and **Appendix F**.

**Section 1.6.1** states that the LUPA would comply with all applicable BLM policies and guidance. Though not explicitly stated, this includes BLM Manual 6840.

#### Section 4.6 - Best Available Info Baseline Data

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##### Summary

Commenters suggested new or additional literature for the BLM and Forest Service to consider in the DLUPA/EIS related to:

- Determination of GRSG population size and trends
  - Effects of livestock grazing, predation, drought, noise, and anthropogenic development
  - Appropriate lek buffers and disturbance cap to incorporate
  - Mitigation
  - Hunting
  - Accuracy of the habitat mapping
  - Infrastructure
  - West Nile virus
- 

##### Response

As described in Section 1.4 of this comment report, the BLM and the Forest Service used the most recent and best information available that was relevant to a land-use planning-level analysis including the Baseline Environmental Report (BER; Manier et al. 2013), NTT report (NTT 2011), and COT report (USFWS 2013). Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, scientific literature, field and district office data.

Of the suggested studies and references put forth by the commenters, the BLM and Forest Service reviewed them to determine if they presented new information that would need to be incorporated into



the FEIS, were references already included in the Draft EIS, or if the references provided the same information as already used or described in the Draft EIS. Where relevant and applicable, the BLM and Forest Service included additional suggested literature in **Chapters 3** and **4** of the FEIS to supplement the analysis.

A description of the habitat mapping process for each alternative was presented in the DEIS in **Section 2.6**, Detailed Description of Alternatives.

## Section 4.7 - Impact Analysis

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### Summary

The BLM and Forest Service should conduct additional, more comprehensive analysis of the impacts on GRSG to provide more substantiated conclusions.

Commenters provided suggestions on how to improve or modify the impact analysis for GRSG in several topic areas including:

- Hunting
- Predation
- Anthropogenic disturbance, disturbance caps, and lek buffers
- Expanding on beneficial effects on GRSG from range improvements
- GRSG population size and trend
- Livestock grazing, fences, and trailing
- Noise as related to low-level military overflights
- Success of habitat improvement projects
- Prescribed fire
- Herbicides
- West Nile virus
- More detailed analysis of Alternative A
- Climate change
- Need to identify areas for restoration
- Coal suitability

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas.

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### Response

The LUPA/FEIS provides an updated and expanded discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As described in **Section 2.12.1**, coal was

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not an issue for analysis. As required by 40 CFR 1502.16, the LUPA/FEIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources should the proposal be implemented. The LUPA/FEIS provided sufficiently detailed information to aid in determining whether to proceed with the proposed plan in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. Therefore, effects on GRSG population levels are not required to be quantified as part of the impact analysis. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

Impacts from the alternatives on GRSG are described in **Section 4.2** of the FEIS. While a land use planning-level action is broad in scope and, therefore, does not require site-specific impact analysis, a thorough review of the EIS's impact analysis relevant to GRSG was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed LUPA/FEIS to provide the necessary information to make informed land use plan-level decisions (**Section 4.2**).

The facts that sagebrush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts from locatable mineral development are not sufficient methods of protecting GRSG and sagebrush habitat. Additionally, this concept was considered within the range of alternatives; Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment.

## Section 4.8 - Cumulative Impact Analysis

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### Summary

The BLM and Forest Service need to provide additional analysis regarding the cumulative effects of livestock grazing and land treatments. In addition, the agencies should predict GRSG population changes based on expected cumulative actions.

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## Response

As described in Section 1.7 of this comment report, the BLM and Forest Service analyzed cumulative effects to GRSG in the DLUPA/EIS in **Chapter 5** of the FEIS. The BLM and Forest Service expanded and quantified cumulative impacts for the proposed LUPA/FEIS. Section 4.7 of this comment report describes how land treatments and domestic livestock were addressed in the Environmental Consequences section of the DEIS. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On National Forest System lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and Forest Service have complied with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level. Therefore, effects on GRSG population levels are not required to be quantified as part of the cumulative impact analysis.

## Section 4.9 - Mitigation Measures

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### Summary

The BLM and Forest Service mitigation strategy is inadequate or needs clarifications. Topics of concern include:

- Certainty that mitigation will be implemented
- Lack of scientific evidence that mitigation and habitat restoration results in greater sage-grouse population increases
- Adequacy of the monitoring program
- Effectiveness of compensatory mitigation
- How mitigation proposals will be evaluated
- Siting of mitigation actions
- Durability of mitigation investments
- Consideration of using mitigation banks
- Creation of a mitigation program
- Framework behind exceptions and associated mitigation, e.g., science behind allowing exceptions;

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offsetting losses and prove mitigation is successful

- Need for mitigation given the restrictive management in the alternatives
- Link between compensatory mitigation and adaptive management

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## Response

A more detailed mitigation framework, monitoring framework, and adaptive management strategy have been incorporated into the Proposed LUPA/Final EIS, **Section 2.7**, Adaptive Management, Monitoring, and Mitigation and **Appendices J, E, and G**.

Further detailed descriptions of the mitigation, monitoring, and adaptive management frameworks are available in Section 1.9, NEPA Mitigation Measures, of this report.

## Section 5 – ACECs

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### Section 5.1 - Range of Alternatives

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#### Summary

Issue 1: In the Draft EIS/LUPA, the BLM and Forest Service did not accurately or consistently represent the number of ACECs being proposed under each alternative, particularly Alternative C.

Issue 2: Alternatives in the Draft EIS/LUPA do not provide an adequate range of management actions for ACECs by only considering new ACECs under two of the action alternatives (Alternatives C and F).

Issue 3: Whether through ACECs or another administrative designation, the BLM and Forest Service must ensure any administrative designation established for the protection of sage-grouse habitat will provide adequate non-discretionary protections.

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#### Response

Response 1: The FEIS has been revised to ensure consistent representation of proposed ACECs under Alternatives C and F.

Responses 2 and 3: As noted in Section 1.3, NEPA Range of Alternatives, of this report, the alternatives, including the management actions for the ACEC program, meet the purpose and need for the EIS. Alternatives within the EIS have established that not all protective management for the GRSG is limited to ACEC designation. Only Alternatives C and F proposed to establish ACECs for the protection and management of the GRSG. While the other alternatives do not propose such designations, they still contain similarly specific management prescriptions to manage and protect the GRSG and its habitat that would be equivalent to protections afforded via an ACEC or other

designations.

## Section 6 - Climate Change

### Section 6.4 - Cumulative Impact Analysis

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#### Summary

The EIS does not adequately address the cumulative effects of climate change on GRSG or GRSG habitat, including the cumulative effects of livestock grazing on vegetation communities and the likelihood of a changing climate to result in an increase in invasive weeds.

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#### Response

Assessing the impacts of grazing on climate change is outside the scope of this document, except as it pertains to reducing impacts on GRSG and GRSG habitat within the planning area and in consideration of valid existing rights and the BLM's multiple use mandate under FLPMA. The PRMP/FEIS does disclose the potential effects associated with global climate change on GRSG habitats in **Section 4.2**. However, pursuant to 40 CFR 1500.1(b), information must be "of high quality" in order to be considered in the analysis. As explained in **Section 4.1** of the EIS, it is speculative to attempt to predict the specific nature or magnitude of such changes.

## Section 7 - Fire and Fuels

### Section 7.1 - Range of Alternatives

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#### Summary

The BLM and Forest Service should examine the location and size of proposed fuel breaks in further detail as fuel breaks in large areas of intact sagebrush limit fire and related habitat destruction. Specifically, one commenter requests use of green-strips, including non-native species, for fuel breaks. Use of prescriptive fire as a management tool should be further examined.

Timelines for long-term fire management measures should be established in the FEIS. One commenter recommends that measures be implemented one year after the ROD. Implementation details of fire control measures should be specified. The BLM and Forest Service should acknowledge the importance of flexibility in fire management plans in the FEIS and allow for on-the-ground decision-making for effective fire management. Language within alternatives should be revised for clarity.

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## Response

Before using prescribed fire, the BLM assesses local conditions for potential invasive plant invasion. **Section 4.6.2**, Nature and Types of Effects, notes that while prescribed fire does have beneficial uses, the presence of invasive plants and the potential for invasive plants to spread after a prescribed fire would need to be evaluated on a site-specific basis. Alternatives B and E specifically note that prescribed burns should occur at higher elevation in the absence of cheatgrass. If the BLM were to use prescribed fire, the area would be evaluated on a site-specific basis with the intention of preventing cheatgrass invasion.

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### Section 7.2 - Best available information baseline data

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#### Summary

The FEIS should include citations indicating that implementation of fuel breaks in sagebrush systems reduces the rate of fire spread. In addition, citations should be provided to support the use of prescribed fire to improve GRSG habitat. The BLM and Forest Service should recognize livestock grazing as an effective fire management tool due to its role in controlling invasive plants and decreasing fuel loads.

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#### Response

The EIS affected environment section provides the appropriate information for the scope and scale of the project (see Section 1.4, NEPA Baseline Information of this report). However, upon BLM and Forest Service reviews and public comment suggestions, some sections in **Chapter 3** have been updated and revised to include clarifications or new information. The BLM and Forest Service could not find literature to support the use of prescribed fire in GRSG habitat. **Section 4.2.2**, Nature and Type of Effects, has been updated to include information about fuel breaks and prescribed fire, and to clarify the relationship between livestock grazing and fire.

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### Section 7.3 - Impact Analysis

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#### Summary

The DEIS does not contain sufficient analysis of indirect impacts of reduced grazing on fuel loads and related wildfire risk. Additionally, the analysis of impacts of fire suppression activities should be reexamined. It is particularly important that this analysis is clarified as lack of sufficient regulatory mechanisms for wildland fire was cited as a primary threat to GRSG in the FWS listing decision.

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## Response

The impact analysis provides the appropriate information for the scope and scale of the project (see Section 1.6, NEPA Impact Analysis, of this report). Upon BLM and Forest Service reviews and public comment suggestions, some sections in **Chapter 4** have been updated and revised to include clarifications to the text. **Section 4.2.2** in the FEIS has been revised to clarify the impacts of reduced grazing on fuel loads.

In addition, impacts analysis discussion has been modified to clarify the impacts of different suppression measures proposed by the alternatives.

Close coordination with federal, state, and private firefighting personnel, local fire departments and local expertise, such as RFPAs, will improve strategies for initial attack and developing comprehensive suppression strategies to minimize and reduce the size of wildfires threatening PHMA and IHMA following ignition. The creation of RFPAs will ensure better and faster initial attack on wildfires threatening PHMA and IHMA through the employment of additional trained firefighters and resources in rural parts of the GRSG Management Area.

## Section 8 - Fish and Wildlife

### Section 8.1 - ESA Consultation

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#### Summary

The BLM fails to address avoiding the potential to list the GRSG under the Endangered Species Act (ESA) and that the bird does not meet the criteria to be listed under the ESA.

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#### Response

As stated in **Chapter 1, Section 1.1**, Background, in the FEIS, this plan amendment effort is the result of the July 2011, BLM National Greater Sage-Grouse Planning Strategy (BLM 2011). The Strategy responds to the March 2010, US Fish and Wildlife Service (USFWS) 12-Month Finding for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (75 Federal Register 13910, March 23, 2010) (2010 Finding). In the 2010 Finding, the USFWS concluded that GRSG was “warranted, but precluded” for listing as a threatened or endangered species.



## Section 9 - Lands and Realty

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### Summary

The BLM should prohibit the construction of new permanent infrastructure within lands specially designated for GRSG protection, because studies show GRSG avoid areas with development.

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### Response

The alternatives consider a range of alternatives regarding ROW avoidance and exclusion as presented in **Table 2-11** of the FEIS. Additionally, the Proposed LUPA Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified in the Proposed LUPA alternative. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in the Proposed Plan actions AD-3 and AD-4 of the Final EIS. The BLM is currently processing applications for Gateway West and Boardman to Hemingway Transmission Projects and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project's NEPA review process, which will include analysis of conservations measures (see **Section 4.8**).

## Section 9.1 - Range of Alternatives

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### Summary

Commenters requested clarification regarding: types of exclusions, valid existing rights, aboveground fiber optic lines, and disposal under current land use plans.

Commenters also suggested additions to the range of alternatives considered and provided information on the feasibility of the alternatives (e.g., co-location, perch diverters, and burying lines).

Commenters noted that the document has contradicting management actions regarding geothermal development between lands and minerals sections.

Commenters noted that Alternative E did not adequately address the purpose and need.

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### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the GRSG planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and GRSG in the planning area, the BLM and the Forest Service fully



considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (Alternative A).

Proposed avoidance and exclusion area designations vary by alternative, as presented in **Tables 2-9 and 2-11** of the FEIS. Under Alternative D, all new ROWs, unless specifically excluded, would be avoided, whenever possible, see D-LR-3. Required design features that would apply to specific types of facilities in GRSG habitat are located in **Appendix B**.

The Draft LUPA/EIS included an alternative that allows for placement of fiber optic lines on existing infrastructure (Alternative D, Actions LR-6 and LR-7 in **Table 2-11** of the FEIS).

Under Alternative D, LR-9 (see **Table 2-11**), new power lines outside of existing ROWs, would be buried, where feasible. Reclamation of lands, once facilities are removed, are part of standard BMPs, shown in **Appendix B** of the FEIS. Amendments to existing facilities that are otherwise excluded may be allowed under Alternative D, LR-6. Under Alternative D, lands currently identified for retention within priority GRSG habitat would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority habitat (D-LR -19 and D-LR-21). Alternatives A through F propose retention of all utility corridors (**Table 2-11** of the FEIS).

Lands and minerals management actions did contradict on the topic of geothermal development (D-LR-3, page 2-162 of the DEIS and D-MLM-1, page 2-180 of the DEIS) and the FEIS corrects this contradiction.

The first of the assumptions under Lands and Realty Assumptions, **Section 4.8**, is that BLM and the Forest Service will recognize valid existing rights, as long as those ROWs comply with the terms and conditions of their ROW grant. The agencies will consider all safety concerns into all decisions to authorize a pipeline, including burying a transmission line.

See also Section 9, Lands and Realty, of this report, which further explains changes made to the Proposed LUPA alternative for allocations and management actions.

#### [Section 9.2 - Best available information baseline data](#)

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### Summary

Commenters raised concerns with the baseline assumption (as noted in Ellis 1984 and Connelly et al. 2000) that power lines and other vertical structures increase perching opportunities for raptors and increase the potential for GRSG to abandon leks.

Commenters suggested that the BLM and the Forest Service should have considered several additional references in their analysis, related to the relationship between GRSG and transmission lines. For example, commenters noted the DEIS did not include studies that found underground powerlines have

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more environmental impacts than overhead powerline placement.

Commenters questioned the data in **Table 3-36** of the DEIS, which includes the acreage of transmission lines within GRSG habitat.

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## Response

Many reports have been prepared for the development of management recommendations, strategies, and regulatory guidelines. The National Technical Team report (NTT 2011), Conservations Objectives Team (COT; FWS 2013), and the Summary of Science, Activities, Programs and Policies that Influence the Rangeland Conservation of Greater Sage-Grouse (also referred to as the Baseline Environmental Report [BER]; Manier et al. 2013) are the most widely used reports that have been incorporated in BLM and Forest Service EISs that address the effects of implementing GRSG conservation measures on lands they manage. Additionally, the BLM and the Forest Service developed the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS with involvement from cooperating agencies, including Idaho Department of Fish and Game to ensure that a balanced multiple-use management strategy to address the protection of GRSG while allowing for utilization of renewable and nonrenewable resources on the public lands.

Management actions included in the Draft LUPA/EIS for the underground placement of powerlines are intended to reduce the potential for long-term impacts on GRSG habitat and species viability. Literature referenced in the FEIS demonstrates that overhead powerlines provide perching opportunities for ravens and other avian predators.

The BLM and Forest Service has reviewed scientific literature provided by commenters regarding the effects of powerlines on GRSG, buffers, perch diverters, and overhead versus burying lines, and the EIS has been revised, as appropriate in **Section 4.2**.

Transmission acreages came from the peer-reviewed Baseline Environmental Report (Manier et al. 2013).

## Section 9.3 - Impact Analysis

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### Response

As described in Section 1.6 of this report, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Impacts to wind energy were discussed in the Draft LUPA/EIS **Chapter 4**, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as required design features. This is clarified in the FEIS (see **Section 4.2.5**).

Management actions included in the Draft LUPA/EIS for the co-location of new infrastructure in existing ROWs are intended to reduce the amount of surface disturbance in GRSG habitat and concentrate new development in habitat areas already affected by anthropogenic activities. The BLM and Forest Service recognize that co-location is not feasible in all circumstances, particularly for new powerlines. Requirements for colocation have been clarified in the proposed plan (AD-3 through AD-5).

## Section 10 - Leasable Minerals

### Section 10.1 - Range of alternatives

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#### Summary

The DEIS needs a better explanation on how valid existing rights are defined and how they will be protected, including fringe or preference right leases. The alternatives need to follow the NTT report recommendations more closely, as well as reflect current USFWS policy recommendations.

The BLM needs to clarify the location of non-leased Known Phosphate Areas in relation to GRSG habitat. The plan is potentially more restrictive to phosphate leasing than a listing under the ESA and did not properly define the environmental baseline for leasable minerals. Without prohibiting new phosphate mining in GRSG habitat, the LUPA does not protect GRSG from the potential impacts of selenium being released to the environment and poisoning wildlife, including GRSG, through transport in air and water and subsequent bioaccumulation. The EIS fails to explain or discuss the authority that the BLM has to close public lands to leasable mineral prospecting and leasing under the LUPA process under Alternatives B, C and D.

The reliance upon vague RDFs under Alternative D is a failure of the BLM to adopt best science that calls for specific restrictions based on observed GRSG response to surface disturbances.

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#### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the GRSG planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse

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impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and GRSG in the planning area, the BLM and the Forest Service fully considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/DEIS that best addressed the issues and concerns identified by the affected public. The DLUPA/DEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. BLM agrees that it cannot impose an NSO on an existing lease. A definition of valid and existing rights has been added to the glossary in the FEIS.

**Figure 3-13** has been improved to show phosphate lease status and KPLAs relative to GRSG habitat. There is no PHMA in the "phosphate patch" and IHMA only in the KPLA west of Bear Lake. There is some GHMA, northwest of Soda Springs, but not within KPLAs.

There are no existing leases in the ACECs proposed by Alternative C in the DEIS. In Alternative F (**Figures 2-45** and **2-46** in the DEIS), there are existing geothermal leases in the Raft River Valley, in the South Magic Valley ACEC (ID-04). There is moderate oil and gas potential in the Bear Lake part of the East Idaho Uplands proposed ACEC (ID-12). There are geothermal leases in the West Central proposed ACEC (ID-11).

Selenium bioaccumulation is not identified by the US Fish and Wildlife Service or the NTT Report as a major threat to GRSG and is not part of the conservation strategy being applied by the BLM. No change to the EIS has resulted from this comment.

According to 43 CFR 3501.17 and H-1601-1, Land Use Planning, the BLM has the authority to close areas to non-energy leasable mineral prospecting and leasing. The regulations providing this authority do not need to be described in the EIS because they are outlined in the CFR and describing all governing regulations in the EIS would be impracticable.

KPLAs are areas known to contain a valuable deposit of phosphate. Their only significance is that those lands must be leased competitively. A person can obtain a non-competitive phosphate lease on lands outside KPLAs, but only through a successful prospecting program.

Upon review of the preferred alternative, public comments, and coordination with project cooperating agencies, the Proposed LUPA includes allocations for PHMA to be closed for non-energy leasable minerals, while IHMA and GHMA would be open.

The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Wording from NNT report has been added to the discussion of RDFs in the FEIS.

## Section 10.2 - Best available information baseline data

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## Summary

The oil and gas conditions in the Payette area are different than those studied in the NTT report and should not be used as baseline data. The impacts described by Johnson et al. 2011 are overstated and should be replaced by information from Coates et al. 2013.

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## Response

The reasonably foreseeable development scenario for oil and gas assumes a conventional oil and gas field, as unconventional fields have not been discovered nor are they anticipated to be discovered in Idaho. The current development occurring in the Payette area of Idaho is not within GRSG habitat.

Under the Proposed LUPA, areas within SFAs would be open to fluid mineral leasing and development and geophysical exploration subject to NSO without waiver, exception, or modification. Areas within PHMA and IHMA would be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (FLM-3). GHMA would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations. Additionally, the Proposed LUPA would incorporate required design features and best management practices appropriate to the management area as COAs when post leasing activity is proposed into any post-lease authorizations.

## Section 10.3 - Impact Analysis

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### Summary

The analysis in the DEIS describing impacts on leasable mineral development is insufficient.

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### Response

The acres of unleased KPLA land unavailable for development by alternative has been corrected in the Chapter 4 tables in the FEIS. The section describing the impacts from leasable minerals management for Alternative E has been revised. The impacts of non-energy leasable minerals management actions to socio-economics have been included in the FEIS and the impacts with respect to disturbance caps have been analyzed in more detail.

## Section 10.4 - Cumulative impact analysis

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### Summary

The DEIS did not adequately analyze cumulative impacts of management actions on leasable mineral

development, including impacts to the Western Phosphate Field, the American agriculture industry, and national food security.

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## Response

The BLM and the Forest Service thoroughly explained their consideration and analysis of cumulative effects in the LUPA/FEIS in **Section 5.2.8**. The LUPA/FEIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On National Forest System lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

Additional information on the cumulative impacts on the Western Phosphate Field, unleased KPLAs, socio-economic impacts from loss of phosphate resources, reasonably foreseeable actions, and proposed conservation measures have been added to **Sections 5.2.8** and **5.2.14** (minerals and socio-economics cumulative impacts, respectively).

## Section 11 - Livestock Grazing

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### Summary

Commenters noted that retirement of grazing permits is not necessarily permanent and highlighted several effects of permit retirement. Further, there is a limit to BLM's ability to devote grazing districts to purposes other than grazing.

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### Response

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43 USC 1711 Sec 201 (a)). BLM land use planning regulations, found at 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. The BLM may designate

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lands as "available" or "unavailable" for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to make lands unavailable for livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions. BLM land use plans may make some, or all, of the land within grazing districts unavailable for grazing during the life of the plan. Further, land use plans may impose restrictions and limitations on grazing or any other grazing management related action intended to achieve the land use planning goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A "chiefly-valuable-for-grazing" determination was originally made for most of the public lands pursuant to the Taylor Grazing Act ("TGA," see, 43 USC § 315a). This determination need only be revisited when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district during FLPMA land use planning. (*See* USDI Solicitor Opinion, "Clarification of M-37008, May 13, 2003"). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as "chiefly-valuable-for-grazing" per the TGA for purposes of establishing grazing districts within the public domain. This TGA determination does not contradict the BLM's authority or responsibility to manage those lands to achieve resource condition goals and objectives identified during land use planning as required by FLPMA's multiple use and sustained yield mandate.

## Section 11.1 - Range of alternatives

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### Summary

Multiple commenters requested that the alternatives require closure of voluntarily relinquished allotments. Commenters questioned why changes to grazing management are needed when livestock grazing is not listed as a primary threat to GRSG. More than one commenter noted that grazing should only be restricted where it can be shown that grazing is directly related to the failure to meet GRSG habitat objectives. Additionally, commenters stated that the DEIS failed to consider increased grazing and question the rationale behind this decision. Some commenters also requested additional consideration of reduced grazing levels and utilization levels, as well as temporary or permanent closure of all or some GRSG habitat to grazing.

Several commenters requested that the LUPA/EIS provide specifics regarding habitat assessment schedules and application of standards, use ecological site descriptions, require immediate application of certain terms and condition to permits, and impose grazing restrictions for priority or general habitat.

### Response

The Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. See response in Section 1.3 NEPA Range of Alternatives of this report. The DEIS analyzed a range of alternatives including no grazing and a 25 percent reduction in grazing. Reduction in AUMs under

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Alternative F would be specified in site specific decisions at the permit renewal level. Language in the FEIS for Alternative F reduction has been clarified.

Livestock grazing is identified by USFWS as a threat to GRSG in the March 23, 2010 Federal Register Notice, and therefore it is addressed in this LUPA. Existing regulatory mechanisms, including the fundamentals for rangeland health, would continue to provide the basis for managing grazing in GRSG habitat. However, the proposed plan would provide additional consistency in application of BLM rangeland health standards and guidelines relative to GRSG habitat, and would provide additional guidance for prioritizing land health assessments and review of grazing permits to ensure that grazing management is compatible with attainment of GRSG habitat objectives within the planning area. In addition, RDFs and best management practices would be adopted to reduce effects of range improvements and livestock trailing across public lands. Grazing use would be modified when it is identified as the cause for not meeting GRSG objectives. The intent of the land use plan amendment is to change management under all resource programs, where necessary, to benefit GRSG habitat. Standards and Guidelines assessments result in a determination of causal factors for non-achievement of any applicable standard, including standards for wildlife habitat. Where livestock management is determined to be a causal factor for non-achievement of a standard, management must be modified to conform with applicable guidelines.

The BLM is required to follow the grazing regulations, including the decision process at 43 CFR 4160, when modifying permit or leases. Upon BLM review of the public comments and input from cooperating agencies, the grazing management actions has been revised and clarified in the Proposed LUPA (see management actions RM-1 through RM-19), and includes additional guidance as to how the BLM will incorporate GRSG decisions from the amendment into grazing permits and leases.

## Section 11.2 - Best available information baseline data

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### Summary

Multiple commenters asserted and presented citations supporting their position that grazing has the potential to benefit GRSG by controlling cheatgrass and reducing wildfire risk. Other commenters presented citations supporting the position that grazing damages GRSG habitat and increases cheatgrass risk.

Several commenters requested more detailed information about current grazing management and habitat conditions in the planning area.

Other commenters noted the importance of ranching in the local economy, and also that ongoing collaboration between private ranchers and federal agencies has helped preserve GRSG habitat and should be acknowledged in the EIS.

### Response

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Before beginning the LUPA/EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of



data necessary to support informed management decisions at the land-use plan level. The BLM and the Forest Service also used the most recent and best information available that was relevant to a land-use planning-level analysis (refer to response in Section 1.4, NEPA Baseline data- Best Available Science, in this report for additional information).

**Section 3.3**, discusses the current level of grazing in the planning area and management systems in place. Impacts of current and historic grazing on other resource and resource uses are discussed under the appropriate resource and resource use headings (i.e. **Section 3.2**, Special Status Species - Greater Sage-Grouse). **Section 4.2.2** in the DEIS provides an overview of the ecological impacts of livestock grazing. The DEIS analyzed the effects of no grazing and reduced grazing on components of sage-grouse habitat, including changes in wildfire risk and cheatgrass incursion. See changes to **Section 3.7**, Wildland Fire Management, for additional discussion of cheatgrass-wildfire dynamics. Discussion of socioeconomic impacts of current grazing operations in the planning area is discussed in **Section 3.23**, Socioeconomics.

Additional language has been added to the FEIS (**Section 4.5**) recognizing the role of Rural Fire Protection Associations and other collaboration efforts

### Section 11.3 - Impact Analysis

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#### Summary

Some comments detailed beneficial impacts of grazing, and the adverse impacts of grazing restrictions to livestock operations, Rangeland Fire Protection Associations, and the local economy.

One commenter notes that limitations on water developments can have impacts on grazing management and need to be clarified and analyzed in greater detail.

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#### Response

Impacts to livestock grazing from current livestock grazing management are addressed in **Section 4.6** of the DEIS. Impacts to the socioeconomic aspect of livestock grazing are discussed in **Section 4.15** of the DEIS.

While a land use planning-level action is broad in scope and, therefore, does not require site-specific impact analysis, a thorough review of the EIS's impact analysis relevant to grazing and indirect socioeconomic impacts and was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions (see changes in **Section 4.15**). Impacts to Rangeland Fire Protection Associations

are discussed in **Section 4.5**, Wildland Fire Management. BMPs for livestock developments including water have been revised in the FEIS and related impacts on livestock grazing management have been clarified.

## Section 12 - Locatable Minerals

### Section 12.4 - Cumulative impact analysis

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#### Summary

The DLUPA/DEIS fails to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range.

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#### Response

Due to the variation in types of minerals and occurrence and development potential across the range, and the types of data available for the planning area compared to the entire GRSG range, cumulative impact analysis across the entire GRSG range would not provide meaningful, appropriate analysis. The total number of acres proposed for withdrawal under certain alternatives is included in each of the Great Basin sub-region Draft LUPA/EISs. The Draft LUPA/EIS has met the NEPA/CEQ requirements for cumulative impacts analysis in each of the respective sub-regional EISs. Information explaining the rationale behind the chosen geographic extent of the cumulative impact analysis area has been added to **Section 5.3.8**, Locatable Minerals, of the Final EIS.

## Section 13 - Recreation

### Section 13.1 - Range of alternatives

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#### Summary

In the LUPA/EIS, the BLM and Forest Service should incorporate additional management actions (e.g. Special Recreation Permit/Special Use Permit stipulations, OHV noise regulations, seasonal restrictions on OHV events near leks, rerouting of OHV events away from leks, and hunting) to limit the potential for impacts on GRSG from recreation activities. Any management actions limiting recreation activities in GRSG habitat should be based on the best available science with proven habitat conservation results.

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#### Response

The EIS considers an adequate range of alternatives to protect GRSG, including varying levels of restriction on recreational activities and Special Recreation Permits/Special Use Permits (see **Table 2-11** and proposed plan management REC-1 and REC-2). During subsequent implementation-level travel management planning, new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including speed. New travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions during subsequent implementation level travel management planning. 43 CFR 8340 requires all OHVs to comply with state laws including noise and spark arrester requirements (see proposed plan management TM-3, TM-4, and **Appendix L**).

Contemporary hunting seasons in the Idaho and Southwest Montana Sub-region are very conservative with respect to their length and bag limits. **Sections 1.5.3** and **2.11.2** of the FEIS describe why detailed analysis of hunting and elimination of hunting are outside the scope of this planning effort.

## Section 14 - Socioeconomics and Environmental Justice

### Section 14.3 - Impact Analysis

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#### Summary

The socioeconomic analysis in the DEIS is overly broad and does not provide sufficient analysis of impacts to individuals, local communities or counties. The DEIS should also expand analysis of the restrictive management actions on planning area operators, communities and services including but not limited to grazing operators and mining.

Finally, the analysis methodology is inadequate to provide a comprehensive analysis of direct, indirect, and cumulative analysis of the socioeconomic impacts on the planning area communities.

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#### Response

As described in Section 1.6, of this report, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that

the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Impacts were considered on numerous resources, resource uses, and socioeconomic conditions, which included grazing, recreation, and mineral development, among others (**Section 4.15** of the FEIS). A county by county IMPLAN analysis is less desirable or not feasible for those resources analyzed with IMPLAN, as the input data is often not available at the county level. In addition, a discussion of impacts at the county level does not capture the indirect and induced impacts that occur beyond county borders.

The DLUPA/EIS describes the methodology and assumptions used for conducting the impact analysis (see **Section 4.15.1** of the FEIS). The methodology and assumptions provide an adequate starting point for discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.24, the DLUPA/EIS identified methodologies used and made reference to the scientific and other sources relied upon for conclusions in the analysis. Based on these methodologies and assumptions, the DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

## Section 15 - Soil

### Section 15.2 - Best available information baseline data

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#### Summary

One commenter notes that the DEIS lacks references to support discussion of macrobiotic crusts.

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#### Response

Chapters 3 and 4 in the FEIS have been revised to include additional references to support the discussion of macrobiotic crusts.

## Section 16 - Travel Management

### Section 16.1 - Range of alternatives

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#### Summary

The Draft LUPA/EIS failed to consider a full suite of travel management-related management actions that would protect GRSG habitat while allowing for continued administrative access, particularly for existing livestock grazing permittees. Commenters proposed that management actions should be

included in the proposed plan to prohibit and reclaim/restore roads in GRSG habitat, limit motorized events, close PPH to OHV use, apply additional seasonal travel restrictions, and apply a maximum route density within proximity of leks in PPH and PGH. Commenters also requested that proposed management actions preserve motorized access on existing routes per the 3-State OHV and National Route Designation decisions and maintain administrative access in grazing allotments.

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## Response

**Section 1.4** of the FEIS describes how the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this Draft LUPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

During subsequent implementation-level travel management planning new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including noise levels and speed. The route designation process will be completed as subsequent implementation level planning using current travel management policies and will include public and local agency involvement. Addressing these issues at the implementation level allows the BLM and Forest Service to take new information into account as it becomes available.

Needs for administrative access to valid existing rights, grandfathered uses, or permitted activities would be taken into consideration during site-specific NEPA analysis. Restrictions applied to recreational OHV use may not apply to permitted administrative uses.

The BLM and Forest Service have not added a restriction that would limit road densities to less than 0.09 km per km<sup>2</sup> (Wisdom et al. 2011) in GRSG habitat because the threshold established by Wisdom used coarse road data. When taking into consideration actual road density information, use of this threshold is not appropriate. Based on the GRSG Monitoring Framework, the Proposed LUPA includes surface disturbance direct areas of influence when calculating acreage for the disturbance cap, which would include consideration of existing disturbance (e.g., existing roads) when determining whether a project should be deferred or permitted.

## Section 16.2 - Best available information baseline data

## Summary

**Chapter 3** of the Draft LUPA/EIS does not depict the number of acres designated as open to cross-country motorized travel.

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## Response

Current travel management designation acres have been added to **Section 3.10** of the FEIS.

## Section 16.3 - Impact Analysis

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### Summary

For various reasons, commenters asserted that the Draft LUPA/EIS did not adequately analyze the impacts of proposed management actions on travel management. For example, commenters contend that the analysis is not based on sound science or is narrowly focused and uses studies that only demonstrate the negative effects from OHV use; does not adequately describe the magnitude of OHV vs. “naturally occurring” impacts across alternatives; and does not distinguish between motorized and non-motorized impacts. Commenters further request the BLM and Forest Service consider conducting site-specific studies to support proposed management and assert that there would be indirect effects (e.g., ban on new road construction) incurred by existing ROW authorization holders by deferring travel management planning.

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### Response

As described in Section 1.6 of this comment report, the LUPA/FEIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. Further, as described in Section 1.4 of this comment report, the BLM used the most recent and best available information that was relevant to a land use planning-level analysis.

The mechanism being used to determine landscape-level travel area designations (open/limited/closed) is 43 CFR 8340 which regulates OHV travel on public lands. BLM does not have a similar regulation for non-motorized travel. Non-motorized travel can be regulated through supplementary rules. Supplemental rules and site specific route designations will be addressed at the implementation level in the future.

New construction related to power line access would be exempted under 43 CFR 8340.05 (3).

While multiple studies on OHV use have been cited, BLM is using the BLM Travel Management Manual and Handbook (M-1626 & H-83421) to address travel planning in the EIS and will continue to

use the same policy for future implementation and planning.

## Section 16.5 - Mitigation measures

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### Summary

The LUPA/EIS should adopt additional travel-related mitigation measures to educate the public and prevent the spread of invasive species from travel-related sources through mitigation measures such as those described at [playcleango.org](http://playcleango.org).

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### Response

The BLM and Forest Service reviewed the measures provided by commenters on [playcleango.org](http://playcleango.org). The measures were found to be similar to those already provided in **Appendix B**, RDFs, of the Proposed LUPA/FEIS. Results from reviewing the impact analysis confirmed that the outcomes from the suggested mitigation measures would be the same as those described in the Draft LUPA/EIS, therefore no change is needed.

## Section 17 - Tribal Interest

### Section 17.1 - Consultation requirements

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#### Summary

The BLM should consider additional areas for ACEC designation and should consult with the Shoshone-Bannock Tribes about these designations.

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#### Response

The BLM and Forest Service recognize their responsibility to ensure that meaningful consultation and coordination concerning GRSG planning is conducted with federally recognized tribes, including the Shoshone-Bannock Tribes, to consider tribal treaty rights and trust resources. Tribal consultation is described in **Chapter 6** of the FEIS.

### Section 17.4 - Impact Analysis

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## Summary

The BLM must ensure tribes, in particular the Shoshone-Bannock Tribe, maintain opportunities to access the public domain, exercise off-reservation treaty rights, and continue their traditional customs and practices.

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## Response

The BLM and Forest Service recognize their responsibility to consider potential impacts to Tribal resources.

Article 4 of the Fort Bridger Treaty, signed in 1868, retains the Eastern Band Shoshone and Bannock Tribes' rights to hunt, fish, gather natural resources, and provide other associative right necessary to effectuate these rights. Other treaties ensure similar rights for other tribes. These rights will be respected throughout the planning and implementation processes.

## Section 18 - Vegetation Sagebrush

### Section 18.1 - Range of alternatives

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## Summary

Commenters recommended that the preferred alternative include:

- Specific vegetation treatment acreage objectives
- Passive sagebrush restoration
- Limitations on vegetation treatments in sagebrush areas. To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions.
- Establish priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment.
- Restore non-native seedings to increase GRSG habitat
- Apply additional restrictions for herbicide application in GRSG habitat
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe.
- Include specific objectives to measure success in invasive species eradication

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## Response

As described in Section 1.3 of this comment report, the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

Some of the recommended components were addressed in the DEIS and additional information has

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been included in the FEIS as detailed below.

- Specific vegetation treatment acreage objectives are presented in the vegetation modeling results (**Table 2-5**). Additionally, the Proposed LUPA includes a vegetation objective stating that in all SFAs and PHMAs, the desired condition is to maintain a minimum of 70 percent of lands capable of producing sagebrush with 10 to 30 percent sagebrush canopy cover. The attributes necessary to sustain these habitats are described in *Interpreting Indicators of Rangeland Health* (BLM Tech Ref 1734-6).
- Passive sagebrush restoration is included in Alternative C of the DEIS. In some areas passive restoration may not be sufficient to improve GRSG habitat and active restoration may be necessary (Davies et al. 2011) (see pp 4-8, 4-9, 4-54, and 4-101 of the DEIS).
- Limitations on vegetation treatments (e.g., prescribed fire) in sagebrush areas, including winter range, is included in Alternative D (See FM-2, FM-6, FM-13, and VEG-2 in **Table 2-11** of the FEIS). To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions. In addition, VEG-2 states: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on Wildfire and Invasive Species Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to GRSG seasonal habitats.
- Priorities for pinyon-juniper removal are addressed in the DEIS. BLM and Forest Service would remove standing and encroaching trees within at least 3 km of occupied sage-grouse leks and other habitats (e.g., nesting, wintering and brood rearing) to reduce the availability of perch sites for avian predators, as resources permit (see **Appendix B**). Management changes to grazing could be considered under proposed plan management action VEG-4.
- Alternative C in the DEIS supports restoration of native vegetation to areas that have been seeded with non-native species (C-VG-7, **Table 2-11** of the FEIS). The proposed plan provides direction for restoring non-native seedings (see VEG-7).
- Herbicide/Pesticide BMPs are covered under the Vegetation Treatment PEIS (BLM 2007). The Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS tiers to the analysis in this document.
- This EIS is intended to provide guidance regarding treatment methods, priorities, objectives, and the conditions under which these treatment objectives would occur. Specifics regarding treatment effectiveness, funding and implementation would be covered in site-specific management actions. BLM and Forest Service would follow agency-specific monitoring requirements.

## Section 18.2 - Best available information baseline data

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### Summary

The DEIS fails to provide adequate baseline information related to sagebrush vegetation. Commenters questioned the source of BLM data and requested the FEIS utilize additional baseline data on cheatgrass

extent and evaluate effectiveness of continuing programs against weeds and juniper encroachment. Commenters provided additional literature to consider. Commenters also advocated an adaptive approach to vegetation management based on site-specific habitats.

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## Response

As described in Section 1.4 of this comment report, the BLM and Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

Adaptive management has been incorporated into the Proposed LUPA, as noted above in Section 1.9, Mitigation Measures. The Proposed LUPA incorporates hard and soft triggers, and were developed to inform the BLM and Forest Service as to when the Federal agency needs to respond (take action) to address a declining trend in GRSG or GRSG habitat. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

The BLM and Forest Service has clarified the vegetation modeling and data sources in **Appendix X**.

## Section 18.3 - Impact Analysis

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### Summary

Commenters express concern about unintended or undesirable impacts of vegetation management programs to control weeds or restore sagebrush habitat. The DEIS inadequately analyzes impacts from vegetation restoration.

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### Response

As described in Section 1.6 of this comment report, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives.

## Section 18.4 - Cumulative impact analysis

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### Summary

BLM's cumulative impacts analysis for vegetation failed to consider the impacts of limited resources on GRSG protection.

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## Response

Funding and availability of resources is outside the scope of this EIS.

## Section 18.5 - Mitigation measures

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### Summary

Commenters requested detailed plans of action and clarification on mitigation and monitoring, including timing of re-seeding and restoration after fire.

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### Response

Mitigation is detailed in **Appendix J**. The Mitigation Framework is incorporated in the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS and was developed to achieve a net conservation gain to the species by implementing conservation actions. Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can help achieve the greatest conservation benefit for GRSG and its habitats.

If impacts to GRSG or its habitat from authorized land uses remain after applying avoidance and minimization measures, then compensatory mitigation projects will be used to fully offset impacts to achieve conservation benefits. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

Specific mitigation strategies, based on the Mitigation Framework, will be developed by regional teams within one year of the issuance of the Record of Decision and be consistent with the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ regulations at 40 CFR 1508.20.

Mitigation measures for specific projects are implementation-level decisions and will be included in site-specific analysis which is outside the scope of this EIS.



## Section 19 - Vegetation Riparian

### Section 19.1 - Range of Alternatives

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#### Summary

The BLM and Forest Service should consider additional management approaches for riparian vegetation, including removal of invasive tamarisk, limitations on or removal of livestock grazing, and maintenance of GRSG habitat objectives.

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#### Response

As described in Section 1.3 of this comment report, the Idaho and Southwestern Montana Greater Sage-Grouse LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. Habitat objectives for riparian areas are described in HM-Obj-2 and **Table 2-3**. A reasonable range of management for riparian areas is presented in **Table 2-11**, LG/RM-29 through LG/RM-33.

### Section 19.2 - Best Available Info Baseline Data

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#### Summary

The BLM should disclose baseline data related to Proper Functioning Condition (PFC) of riparian areas in GRSG habitat and the BLM should address whether PFC protects stability of riparian habitat for GRSG.

The BLM should also modify current PFC assessment methods to address GRSG needs, and should focus on site-specific management of riparian habitat to balance competing uses.

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#### Response

Comprehensive PFC data is not available on a sub-regional level but is displayed when available. PFC of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to GRSG. Modifications to PFC methods and descriptions of site-specific management are outside the scope of this planning effort.

### Section 19.5 - Mitigation Measures

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## Summary

The BLM should modify current PFC assessment methods to address GRSG needs. In addition, the BLM should focus on site-specific management of riparian habitat to balance competing uses.

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## Response

PFC of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to GRSG.

Adaptive management has been incorporated into the Proposed LUPA, as noted above in Section 1.9, Mitigation Measures. The Proposed LUPA incorporates hard and soft triggers, and were developed to inform the BLM and Forest Service as to when the Federal agency needs to respond (take action) to address a declining trend in GRSG or GRSG habitat. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs. Site-specific management is outside the scope of this effort.

## Section 20 - Water

### Section 20.3 - Impact Analysis

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## Summary

The EIS fails to address impacts on the soil and watershed conditions resulting from grazing-sourced manure, soil erosion and pathogen contamination under each alternative and to provide appropriate mitigation measures. Such an analysis should include a list of impaired waters and the sources of contamination for those waters. The EIS also fails to address the negative impact on GRSG of restricting or removing water developments under Alternative D.

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## Response

During preparation of the EIS, it was determined that impacts on soil and water from management actions in the LUPA would be negligible or beneficial and thus did not warrant an extensive analysis in **Chapter 4**. Analysis of impacts on soil and water would be conducted during the NEPA review of implementation-level projects.

**Section 4.2.2** has been revised to include impacts from restriction/removal of water developments.

## Section 21 - Wild Horse and Burros

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### Summary

Livestock and wild horses were inappropriately grouped together in management actions. Some commenters were also concerned with the 25 percent proposed reduction of AML under Alternative F and the basis for reduction; they requested reevaluation of reduction based on the fact that wild horse habitat overlaps a minimal percentage of GRSG habitat.

The proposed management should provide flexibility to increase AML/AUM and/or open HAs if data becomes available demonstrating that genetic viability of wild horses and burros is threatened.

Commenters also stated that the preferred alternative would give the BLM too much discretion to reduce AMLs or zero out HMAs which would violate the BLM's legal mandate to protect WHB.

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### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the GRSG planning process in full compliance with the NEPA. See Section 1.3, NEPA Range of Alternatives, in this report for an expanded explanation on what constitutes a reasonable range of alternatives.

The BLM protects, manages, and controls wild horses in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended), the purpose of which is to "manage wild horses and burros within herd management areas (HMAs) designated for their long-term maintenance, in a manner designed to achieve and maintain a thriving natural ecological balance (TNEB) and multiple use relationships." The FLPMA directs the BLM to manage wild horses and burros as one of numerous multiple uses including mining, recreation, domestic grazing, and fish and wildlife. It also required a current inventory of wild horses and burros. Additional guidance is found in 43 CFR 4700, Protection, Management, and Control of Wild Free-roaming Horses and Burros.

Adjusting AML and/or opening HAs is outside the scope of this project. However, adjusting AML does fall within the legal mandate of the BLM to protect WHB and other resources. Through the BLM's program of monitoring and analysis of data, AMLs have been established and will continue to be adjusted based on available data. AMLs can be adjusted based on the limitations and capability of the range, including the four habitat components (forage, water, cover, and space), while managing for healthy populations of WHBs in balance with other uses and resources (including GRSG). An explanation of the relationship between AMLs and AUMs has been included in the FEIS in **Section 3.6**.

### Section 21.1 - Best available information baseline data

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## Summary

The BLM should provide documentation of critical genetic data on each of the wild horse and burro herds in the planning area. This will provide BLM basis for identifying which HMAs would not be feasible to place AML reductions on while maintaining genetically viable herds. The BLM should also provide exact population data for all wild horse populations in HMAs and HAs and clearly defined maps of HMAs and HAs. Finally, any land policy changes resulting from the GRSG plan must be in conformance with the National Academy of Sciences 2013 recommendations for reform of the federal wild horse management program.

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## Response

The prerequisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The baseline data provided in **Chapter 3** and various appendixes in the Draft LUPA/DEIS is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the Draft LUPA/DEIS. A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data (see response to Section 1.4 in this report for more details).

Much of the data in the DLUPA/EIS is presented in qualitative and map form, and is sufficient to support the coarse-scale analyses required for land use planning. The FEIS includes a map of HMAs and HAs (**Figure 3-2**). Population data is included in **Table 3-19** of the DEIS. These maps and tables have been reviewed for accuracy prior to inclusion in the FEIS.

Genetic documentation of WHB is an ongoing implementation level process used to monitor the genetic health of BLM's wild horse and burro populations (see BLM IM 2009-061).

The National Academy of Sciences report has been considered in the development of the FEIS and actions appropriate to the land management planning level included as appropriate. Findings of the National Academy of Sciences would also be considered under separate site-specific NEPA actions.

## Section 21.2 - Impact Analysis

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## Summary

The impacts on GRSG from wild horses and burros are not distinguished from livestock which inaccurately portrays the threat from wild horses and burros.

The DEIS contains contradictions, such as where the DEIS states that "Under all alternatives, no direct change would occur to areas allocated as HMAs/WHBTs for wild horses and burros", then the report proceeds to summarize how every single alternative would restrict wild horse and burro usage in their own federally designated habitats.

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## Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives for a land use planning effort (see detailed response in Section 1.6, NEPA Impacts Analysis of this comment report).

The USFWS identified grazing as a threat in the NTT and COT report but did not specifically distinguish between livestock and WHB grazing. However, within the DEIS, the BLM and Forest Service did analyze impacts on WHB and domestic livestock grazing separately and also analyzed the impacts on GRSG from WHB and domestic livestock grazing separately. Impacts on GRSG from WHB and domestic livestock grazing are identified in **Section 4.2** of the DLUPA/DEIS. Impacts on WHB from GRSG management strategies are identified in **Section 4.4** of the Proposed LUPA/FEIS.

BLM appropriately analyzed the impacts to WHB from actions not related to changes in AML.

Text in the WHB impact section has been reviewed and relationship between allocation and management actions clarified in the FEIS.

## Section 22 – Lands with Wilderness Characteristics

### Section 22.1 - Range of Alternatives

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## Summary

All lands with wilderness characteristics that overlap with GRSG habitat represent good opportunities for GRSG conservation and should be analyzed to see how managing those lands to protect wilderness characteristics would coincide with GRSG conservation. The BLM should consider lands with wilderness protection as an alternative to ACEC protection for some areas.

The BLM should complete lands with wilderness characteristics inventories and the DEIS should consider potential lands with wilderness characteristics in the scope of this process.

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## Response

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, "In some circumstances, consideration of management alternatives for lands with

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wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document regarding lands with wilderness characteristics will not be completed.

## Section 22.2 - Best Available Info Baseline Data

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### Summary

The BLM should work with Upper Snake Field Office staff to ensure lands with wilderness characteristics inventories and management are consistent between this EIS/LUPA and the Upper Snake RMP.

The BLM must provide a map of the lands with wilderness characteristics and where it overlaps with priority habitat. If the BLM does not complete lands with wilderness characteristics inventories, the BLM should use GIS to inventory roadless areas and consider these as potential lands with wilderness characteristics for planning purposes.

The FEIS should explain how the BLM will comply with the 2014 appropriations bill for the Department of the Interior, Environment and Related Agencies and with Secretary Salazar’s Secretarial Order No. 3310.

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### Response

BLM Upper Snake Field Office continues to evaluate lands with wilderness characteristics within the planning area. Decisions related to lands with wilderness characteristics will be addressed in the Upper Snake LUP/FEIS.

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, “In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document related to lands with wilderness characteristics will not be completed.

The BLM is not making decisions on lands with wilderness characteristics in this planning effort. Doing so is outside the purpose and need and scope of this EIS. As noted in Section 1.3, NEPA Range of

Alternatives, of this report, the alternatives meet the purpose and need for the EIS. Alternatives within the EIS have established that not all protective management for the GRSG is limited to identification of lands with wilderness characteristics and can be accomplished through other means.

Secretarial Order 3310 (issued in December of 2010) was never implemented, the Department of Defense and Full-Year Continuing Appropriations Act of 2011 (PL112-10) prohibited the use of funds to implement the Secretarial Order during fiscal year 2011. The primary direction under S.O. 3310 was the designation of "Wild Lands" that were to be derived from wilderness characteristics inventories. Since that time BLM has provided additional policy in 2012 in the form of Manuals 6310 and 6320 which excludes any designation of "Wild Lands" but continues to provide direction for the inventory of public lands for wilderness resources under FLPMA sections 201 and 202 which is considered appropriate under the Appropriations Act of 2014.

## Section 23 - Predation

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### Summary

Some commenters state that the BLM does not adequately address the threat of predation or fully analyze the direct, indirect, and cumulative impacts of predation on GRSG populations; predation was identified as a threat by the state of Idaho. Others question the analysis of impacts from anthropogenic structures on predation of GRSG, given that the USFWS did not identify predation as a primary threat to GRSG.

### Response

As stated in **Section 2.11.3** in the Proposed LUPA/FEIS, predator removal is outside the scope of LUPA. The threat of predation is described in **Section 3.2.1** and the potential effects of predation on GRSG populations are addressed in **Section 4.2**.

The BLM and the Forest Service have authority to manage the habitat and have provided an updated analysis in **Section 4.2** of the FEIS to describe how the numerous management actions across the range of alternatives could affect the habitat and indirectly the effects of predation. Altering the sagebrush habitat of the GRSG can create an influx of predators into an area and lead to a population decline. Roads, fences, power lines, and other infrastructure as well as the development of trails and other disturbances may improve access for potential predators near GRSG habitat and increase risks to the species.

## Section 24 – Noise

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## Summary

Noise studies cited in the DEIS are not public and therefore the results are not reproducible; alternative data should be utilized.

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## Response

Blickley et al.'s research on noise and GRSG has since been published :

Blickley J.L, D. Blackwood, and G.L. Patricelli. 2012. Experimental evidence for the effects of chronic anthropogenic noise on abundance of greater sage-grouse at leks. Conservation Biology Vol 26. No 3. 461-471

This literature has been added to **Section 4.2** in the FEIS.

## Section 25 - Weeds

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### Summary

Issue 1: The BLM and Forest Service should analyze past vegetation treatment programs and commenters recommended scientific literature on effects of vegetation treatments.

Issue 2: The EIS should include baseline data on cheatgrass in planning area.

Issue 3: Partnerships with private landowners to control cheatgrass should be considered in the FEIS.

---

### Response

Response 1: As described in Section 1.4 of this comment report, the BLM and Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

As a result of these actions, the BLM and Forest Service gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in detail in the DLUPA/EIS. The BLM and Forest Service utilized the available data to provide an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives in **Sections 4.2** and **4.3** of the EIS.

Analysis of proposed weed treatment methods tiers off of analysis in the Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) [BLM 2007].

Response 2: Potential occurrence of cheatgrass has been modeled (**Section 3.3.5** of the FEIS), and

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acres of cheatgrass potential in GRSG habitat are shown in the DEIS based on Manier et al. 2013 (see **Table 3-15, Acres of Cheatgrass Potential within GRSG Habitat**) Information presented is appropriate for the planning level actions and analysis and accurate, comprehensive data across the sub-region are not readily available. Further analysis will occur on a site-specific basis at the implementation level.

Response 3: Cooperation with all landowners would be undertaken as feasible and is included in the range of alternatives.

**Commenter Lists**

<b>Organizations, Conservation Groups, Businesses</b>
Livestock Association
Agrium Conda Phosphate Operations
American Bird Conservancy
American Exploration and Minind Association
Arimo Corporation
Avian Power Line Interaction Committee
AWHP
Backcountry Hunters and Anglers
Beaverhead County Commission
Beaverhead Outdoors Association
BlueRibbon Coalition, Inc.
Board of Cassia County Commissioners
Brackett Livestock Inc.
Capital Trail Vehicle Association (CTVA)
Cassia County Commissioners
Center for Biological Diversity
Central Idaho Rangelands Network (CIRN)
Challis Local Working Group
Custer County Commissioners
Defenders of Wildlife
Department of Defense
Double M Farm
DreamCatcher Wild Horse and Burro Sanctuary
EPA, region 10
Faulkner Land and Livestock
Gooding Soil and Water Conservation District

Greater Yellowstone Coalition
Guerry, Inc
Gusman Livestock Co.
Hagenbarth Livestock
Helmick Ranch
Holland Ranch Company, HRL, Inc.
Idaho Cattle Association
Idaho Conservation League
Idaho Farm Bureau
Idaho Mining Association
Idaho Native Plant Society
Idaho Power
Idaho Recreation Council
Idaho State Senate
Idaho Wildlife Federation
Idaho Woll Growers Association
Industrial Minerals Association
Intermountain Range Consultants
International Mountain Bicycling Association
Ireland Bank
J Lazy S Angus Ranch
J.R. Simplot Company
Jaca Livestock
Jarbidge Sage-Grouse Working Group
Jefferson County
Jerome County
Jerome Peterbilt
Lava and Sage Group
Madison County Board of Commissioners
Magic Valley Cattle Association
Makale Livestock LLC
Matador Cattle Company
Mom and Pop Products

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Montana Fish, Wildlife and Parks
Montana Wollgrowers Association
Montana Petroleum Assoc
Motorcycle Industry Council
Mountain Home Local Working Group
Murdock Brothers Ranch
Natioanl Mining Association
North Magic Valley LWG
NorthWestern Energy
NRCS
Owhyhee County Farm Bureau
Owyhee Cattlemen's Association
Owyhee County
Pale Horse Cattle Co.
Percy Ranch
Petan Company of Nevada, Inc
Pioneer PR and Development LLC. Trifold Media Company
Prairie Falcon Audubon
Prescott Land and Livestock
Public Lands Advocacy
Public Lands Council/National Cattlemen's Beef Association
Rabo AgriFinance
Recreational Off-Highway Vehicle Association
Rocky Mountain Power
Sage Hen
Sagebrush Habitat Conservation Fund
Salmon Falls Land and Livestock Co.
SBS Associates LLC
Shaw Cattle Co
Shoshone-Bannock Tribes
Simplot Livestock Co.
Soda Springs Plant

Southwestern Montana Stockman's Association
Specialty Vehicle Institute of America
Spencer Ranch Inc.
SS Cattle Company LLP
Stevenson Intermountain Seed, Inc.
The Nature Conservancy
The University of Montana-Western
The Wilderness Society
Theodore Roosevelt Conservation Partnership
Twin Falls Highway District
U.S. Fish and Wildlife Services
Washington County Commissioners
Weiser River Cattle Association
Western Counties Alliance
Western Energy Alliance
Western Range Service
Western Watersheds Project
WHE/AWHPC
Wild Earth Guardians
Wood River Soil and Water Conservation District
Y-3 II Ranch
<b>Individuals</b>
Albee, Stanley
Anderson, Jason
Auld, Misty
Baker, Bill
Baker, Sarah D.
Baldwin, Cody & Polly
Balfour, Douglas J.
Barkell, Larry W.
Barnard, Sue Ellen
Bauchman, Stephen
Bean, Von

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Chandler, Terry
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Dixon, Matt
Doane, Margaret
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Farmer, Delbert
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Hoskins, Curtis
Howard, Doug
Howard, Shell
Hubbard, Bill
Ingram, Gary and Jackie
Ipsen, Mark
Jayo, Leslie
Jones, Bill
Justice, Kimberly
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Kauer, Melva
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Lichley, Laurie
Line, Richard
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Little, David
Lord, Jeff
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Lufkin, Carl
Lufkin, Robin
Lynch, Janet
Lyons, Charles
Lyshe, Steve
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Mulkey, Bruce L.
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Murdock, Tanner
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Nettleton, Paul
Nevin, Kandace
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Osborn, Leah
Osborne, Deland
Oster, Sherry
Otter, C.L. Butch
Pantone, Pamela
Payne, Ted and Dorothy
Perkins, Rod
Peters, John
Peterson, Tom
Piper, Andy
Poorman, Gayle Buhner and Paul
Pratt, Wendy
Proubasta, Dolores
Public, Jean
Ramadorai, Kari
Reeder, Chad
Reeser, D
Richards, Tony and Brenda
Ricketts, John
Ridley, Ramona
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Rocklein, Christian
Rovner, Jeffrey
Salvin, Katie
Santarsiere, Andrea
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Saterwhite, Lee
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Stanford, Shane and Laci
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Thompson, Matthew
Thompson, Robyn
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Thompson, Ted
Tingey, Jerry
Udy, David L.
VanDer Meullan, Dan
Veselka, Dave and Cathy
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Weaver, Ron
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Whittakers, F. James

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Zocco, Rachelle

Administrative Draft  
Cooperating Agency Review

# Appendix U

## Detailed Description of the No Action Alternative



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U. Detailed No Action Alternative

U.1 Existing GRSG Guidance in Land Use Plans

U.1.1 Introduction

Nearly all LUPs within the Idaho and southwestern Montana sub-region have some guidance regarding GRSG and/or sagebrush habitats. These goals, objectives, and actions for BLM and objectives, standards, and guidelines for the Forest Service are presented by LUP in Table G-1 below.

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<b>Bureau of Land Management</b>
<b>Bruneau Field Office – Bruneau MFP</b>
<i>Special Status Species – Wildlife, Sage-grouse</i>
<b>Objective (WL-4):</b> Manage upland game and waterfowl habitats in the BPU to increase populations of the highly desired species.
Action (WL-4.4): Manage 520,000 acres of sage grouse range in the BPU including those areas under Wilderness IMP classification and within IMP management guidelines to improve nesting, brood rearing and winter habitats.
Action (WL-4.4(1)): To improve the quality of sage grouse nesting and brood rearing habitats, all poor and fair big sagebrush, meadow, and riparian ecological sites should be improved and managed for good ecological condition, based on the SCS ecological site classification system.
Action (WL-4.4(2)): When making management decisions affecting areas used by sage grouse in the BPU, refer to and address the “Guidelines for Habitat Protection in Sage Grouse Range” as published by the Western States Sage Grouse Committee, June, 1974. Significant among these are: <ul style="list-style-type: none"> <li>a) Manage sage grouse habitat by maintaining the density of sagebrush canopy cover at 20-30% within nesting habitats and at least 20% in present wintering habitats and in areas known to have supported wintering concentrations within the previous ten years. Canopy cover should not be confused with hiding cover.</li> <li>b) Designate sage grouse nesting and wintering habitat as “active” wildfire suppression areas wherein fire suppression activities are geared to fire behavior and the potential resource threat from any fire after it has been initially evaluated. If significant sage grouse cover is destroyed by any fire, sagebrush seed will be included in any mixture used in fire rehabilitation projects, seeded at a rate sufficient to reestablish suitable cover for sage grouse.</li> <li>c) In brood rearing areas where the big sagebrush canopy cover is 20% or greater, improve herbaceous vegetation by sagebrush manipulation and seeding of small irregular areas. These manipulations must not however, reduce the existing sagebrush canopy below 10%. Carefully evaluate the sage grouse response of these habitat manipulations before expanding the program to a large scale. Prescribed burning in most cases will be used for the cover alteration.</li> <li>d) No rehab projects will be implemented where live sagebrush crown cover is less than 20%, or on steep upper slopes (20% + gradient) where big sagebrush is 12 inches or less in height.</li> <li>e) Range vegetal control/rehab projects within two miles of known strutting grounds will be limited to practices which also enhance sage grouse habitat since this area constitutes the breeding complex for sage grouse.</li> <li>f) No vegetal control using herbicides will be conducted along streams, meadows, or secondary dry/intermittent drainages. A minimum of a 100 yard strip of living sage will be retained on each edge of meadows and drainages.</li> <li>g) Restrict during March-May any intensive disturbance activities such as gravel pit operation or ORV</li> </ul>



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<p>aces within 2 miles of sage grouse strutting grounds and avoid the establishment of major roads within 1/2 mile.</p> <p>h) Restrict vehicular traffic to existing roads from November 1 to February 28 in sage grouse wintering habitats.</p> <p>i) Retain in public ownership all tracts of land on which strutting grounds are located and all lands within a two-mile radius of those strutting grounds, but allow exchanges if higher quality habitat can be acquired and such exchanges are in the public interest.</p> <p>j) Prescribed burning shall be the primary tool for habitat improvement.</p>
<p><i>Livestock Grazing</i></p> <p>Action (RM1.1): Implement AMPs on 14 allotments and less-intensive management on 5 allotments (Overlay RM-4). Allotments are listed in priority order. Adjust management or exclude grazing on sage grouse brood-rearing areas to improve habitat. Design grazing management to improve crucial antelope winter/early spring ranges. Establish grazing systems and seasons to meet bighorn sheep requirements.</p>
<p><b>Burley Field Office - Cassia RMP</b></p>
<p><i>Special Status Species – Wildlife, Sage-grouse</i></p> <p>Objective: Management Areas 2, 4, 7, 10: Maintain or improve sage grouse winter habitat and sage grouse strutting/brood-rearing habitat. (# of acres of habitat is identified in each Management Area in the LUP)</p> <p>Action: Management Areas 9, 11, 13: Maintain or improve sage grouse brood-rearing habitat. (# of acres of habitat is identified in each Management Area in the LUP)</p> <p>Action: Allow for limited vegetation manipulation in areas of known sage-grouse brood-rearing areas and winter areas. Refer to Sage-grouse Management in Idaho, Wildlife Bulletin Number 9, Idaho Department of Fish and Game 1981, for habitat requirements for sage-grouse.</p>
<p><i>Livestock grazing</i></p> <p>Action: Implement livestock grazing systems that will provide a 20-40% canopy cover of brush, an average plant height of 20" and 50% average utilization of grass understory in upland game habitat areas.</p>
<p><i>Fluid Minerals (Oil and Gas, Tar Sands, and Geothermal Resources)</i></p> <p>Action: Management Area 4: Open to leasing subject to the following stipulation: No exploration/development work in sage grouse strutting/brood-rearing habitat from April 11 through June 15.</p> <p>Action: Management Areas 2, 7, 9, 10, 11, 13: Open to leasing subject to the following stipulation: No exploration/development work in sage grouse strutting/brood-rearing habitat from April 1 through June 15.</p>
<p><b>Burley Field Office - Twin Falls MFP</b></p>
<p><i>General Wildlife</i></p> <ol style="list-style-type: none"> <li>1. Through the use of intensive grazing management systems maintain and enhance nesting-brood rearing complexes and wintering areas for sage grouse.</li> <li>2. Limited work will be permitted along streams, meadows or secondary drainages (dry and intermittent). A 100-yard strip (minimum) of living sagebrush will be retained on each edge of meadows and drainages for protection of sage grouse habitat. Install protective fencing on selected springs, seeps, meadows, and well overflow areas, as they become identified, to protect succulent forage and improve sage grouse habitat.</li> <li>3. Give sage grouse nesting, brood-rearing, and winter habitat needs priority consideration in these habitat areas. The guidelines developed by IDFG will guide the habitat management of these areas. Maintain existing range improvement practices that exist within these habitat areas. The key in determining the nesting-brood rearing habitat sites will be the location of leks relative to the 2-mile radius rule. Multiple use management of these areas will aim at maintaining adequate nesting cover. Brood-rearing needs in these are will strive to maximize succulent forbs and insects. management of wintering areas will be to maintain adequate sagebrush cover in identified winter areas.</li> </ol>



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

4. Provide improved upland game bird habitat by planting vegetation which will out compete noxious weeds, are non-spreading in nature but will provide the same benefits as many of the noxious weeds. Until this can be accomplished, herbicide and pesticide use will have to be selective.
5. Enhance upland game habitat by developing the following wildlife enclosures.
6. Implement the following cooperative farm agreements to enhance upland game bird habitat.
7. All land treatment proposals affecting brushy islands or buffer strips, should receive multiple resource input to assure consideration of the wildlife habitat needs and keep the needed patches and islands of brush habitat. The existing islands and leave areas from the initial projects will remain leave areas in future maintenance unless wildlife input indicates that the areas are not critical habitat, in which case treatment can be done in a manner that benefits the wildlife values.
8. Improve upland game habitat by making all existing and future water developments available to all upland game birds. Improve the Chukar habitat by installing permanent water sources in Chukar range. Construct and install bird guzzlers along Salmon Falls Creek Rim for Chukar and near the juniper trees by Mule Creek for quail. Install additional guzzlers as locations become identified.
9. Provide upland game habitat, primarily pheasants and public hunting areas, by: maintaining small isolated parcels of public land which are surrounded by private land in public ownership (these tracts must be in legal subdivision); in all future desert land entries, Carey Act, public sales, land exchanges, etc.; retain a minimum of 15 percent of the land in public ownership; retain the following isolated parcels in public ownership and maintain them in their present condition until such time when the surrounding private land goes in to agriculture.
10. Improve and maintain terrestrial, aquatic and wetland-riparian habitat for upland games species throughout the planning unit.
11. Acquire the following parcel of land to provide additional upland game habitat: T 10 S, R 18 E, Section 11 N 1/2 N1/2 SE 1/4
12. Maintain and enhance habitat for sharptailed grouse through the use of intensive grazing management systems. Maintenance of a 12 inch high grass understory is important. Maintain present cover on public lands adjacent to dry land grain fields. Protect grass areas intermixed with bitterbrush and sagebrush in draws and small canyons with dense stands of berry producing vegetation.
13. Allow vehicular use and oil and gas exploration without restriction except during the period from March 15 through June 15 in critical sage grouse nesting-brood rearing complexes. During this period, vehicular use will be limited to existing roads and trails.
14. Close critical sage grouse wintering areas to snowmobiling.
15. Determine the boundary of each agricultural trespass, determine the party in violation, settle the damages due the government based on fair market value: 1.) Terminate the unauthorized use by one of the following actions. Restore the land to its prior stat for multiple resource management. 2.) Enter into cooperative wildlife farming agreement. Use the Sieks Act authority where applicable. 3.) Enter into an agricultural lease with multiple resource values identified and collect fair market value rental for the government. 4.) Dispose of the farmed land to the private sector through public sale. Sites containing any of the following criteria will be retained in public ownership for multiple use resource management: a. cultural or archeological b. natural history values c. threatened or endangered plant species d. threatened or endangered animal species and their habitats e. critical wildlife habitat such as mule deer winter, sage grouse winter, pheasant winter, pheasant nesting, etc.
16. Modify multiple-use recommendation to finalize the Twin Falls Off-Road Vehicle Designation Plan based on the Step recommendations. Complete the designation plan and an EA through public review as needed local motorcycle and 4-wheel clubs. Change the ORV limitation in mule deer critical winter range from the date November 1 to November 15. Designate area between powerline and Salmon Falls Creek as limited to existing roads and trails (Accept CRM-1.5 WL-4.2). Limit ORV use in sage grouse nesting and strutting areas (Accept WL-2.12).

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<p>17. Practice limited fire suppression on the existing seedings and proposed seedings with modifications as shown in RM-2.3 RM2.4 and RM-2.5 Multiple Use Recommendations that provide for normal fire suppression on sage grouse ranges antelope and mule deer winter ranges, mule deer critical summer range and isolated tracts</p> <p>18. Do not use aerial retardant on resource value Class II lands except when needed to protect or ensure the safety of private property, structures, livestock, general public and fire suppression personnel. Do not use aerial retardant on any open waters such as reservoirs ponds, streams and springs. Aerial retardant can be used to aid in protecting identified sage grouse, antelope and mule deer winter areas, mule deer critical summer range and isolated tracts.</p> <p>19. Modify the multiple use recommendation to include all the identified area and to agree with the range multiple use recommendation RM-2.7 RM2.7 says practice limited fire suppression on existing seedings and proposed seedings with the modifications shown in RM-2.3 RM-2.4 and RM2.5. Aggressive fire suppression will be initiated to protect wildlife values on sage grouse strutting grounds, antelope and mule deer winter range, mule deer critical summer range and on the Twin Falls-Cassia Isolated Sikes Act Tracts. Fire management will consult closely with the area manager on actions in these areas.</p>
<b>Twin Falls District - Fire Management Direction Amendment</b>
<i>Wildland Fire Management</i>
GOAL: Maintain, protect, and expand sage grouse source habitats.
Action: Suppress wildland fires in source habitats (Figure 3-3), except where WFU would benefit habitat.
Action: Allow WFU in sage grouse source habitats for the benefit of the habitat only after site specific project level coordination with IDFG (Figure 3-3).
Action: Conduct vegetation treatments in areas that pose a wildland fire risk to source habitats.
Action: Treat areas within source habitats that have low resiliency (i.e., areas characterized by low species diversity, undesirable composition, and dead or decadent sagebrush).
Action: When multiple wildland fire ignitions occur, the criteria for establishing suppression priorities would follow the two prioritization criteria described under Section 2.4.4.1, followed by the following prioritization:
<ul style="list-style-type: none"> <li>• Minimize risks to sage-grouse source, key, and restoration habitats.</li> <li>• Minimize risks to habitats occupied by T&amp;E species.</li> <li>• Minimize risks to resources where changes in fuel accumulation and fire occurrence have occurred (i.e., FRCC 2 and FRCC 3 areas).</li> </ul>
Action: Use AMR to wildland fire in all sage grouse restoration and key habitats and healthy wildlife habitats.
GOAL: Treat sage grouse key and restoration habitats to expand source habitats. Improve and maintain sage grouse Restoration (R1-3) and key habitats.
Action: Use appropriate management response to wildland fire in all sage grouse restoration and key habitats and healthy wildlife habitats.
Action: WFU may be allowed in historically frequent fire regimes to restore fire's natural role and in sage grouse restoration and key habitats for the benefit of the habitat only after site specific project level consultation/collaboration with IDFG (Figure 3-3).
Action: Conduct vegetation treatments in restoration and key habitats to reduce risk of wildland fire and reconnect restoration and key habitats.
Action: Treat areas of restoration and key habitats that have low resiliency characterized by low species diversity.
Action: T&E and Candidate species with recovery plans, conservation agreements, and conservation strategies will be protected as specified in their respective plans/agreements/strategies. These protections include such measures as adequate habitat and range for a given species, including mitigation measures for

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

multiple land use activities authorized by the BLM.
Action: R.1 PRESCRIBED FIRE: Leave adequate untreated sagebrush areas for loafing/hiding cover near leks for sage-grouse.
Action: R.1 PRESCRIBED FIRE: Avoid the use of prescribed fire or other sagebrush treatments in habitats prone to the expansion or invasion of cheatgrass or other invasive species unless adequate measures are taken to control the invasive species and ensure subsequent dominance by desirable perennial species. In many—if not most—cases, this will likely require chemical treatments and reseeding.
Action: R.2 ANNUAL GRASSLANDS Seed used in sage-grouse habitat restoration seedings, burned area rehabilitation projects, and hazardous fuels/wildland urban interface projects will be tested and certified as weed-free, based on prevailing agency policy and protocol. Private landowners are encouraged to use only certified seed, as well.
Action: R.2 ANNUAL GRASSLANDS Design vegetation treatments in areas of high fire frequency to facilitate firefighter safety; reduce the risk of extreme fire behavior; reduce the risk and rate of fire spread to stronghold, key, and restoration habitats(sic sage-grouse); reduce fire frequencies; and shorten the fire season.
Action: R.2 ANNUAL GRASSLANDS Human activities such as fence and pipeline maintenance or construction, facility maintenance, utility maintenance, or any project or related work at or within 1 km (0.6 miles) of occupied leks that results in or will likely result in disturbance to lekking birds should be avoided from approximately 6:00 PM to 9:00 AM. In general, this guideline should be applied from March 15 through May 1 in lower elevation habitats and March 25 through May 15 in higher elevation habitats.
Action: R.4 CONIFER ENCROACHMENT Remove Douglas fir or other conifers where they are encroaching on wet meadows, riparian areas, or sagebrush stands that provide potential sage-grouse habitat.
Action: R.4 CONIFER ENCROACHMENT Remove juniper, Douglas fir, pinyon pine, or other trees within at least 100 m (330 ft) or an 8-acre area of occupied sage-grouse leks. The purpose of this procedure is to reduce perching opportunity for raptors or other avian predators within view of leks. Techniques could include chainsaw, chipper, or other suitable mechanical means. Ensure cutting and slash disposal is completed between approximately July 15 and January 30 to minimize disturbance to grouse that may be in the vicinity (e.g., males at leks, nesting females, and young broods). This practice serves to reduce raptor predation on sage-grouse by eliminating potential perches, thereby improving survival, recruitment, and productivity. It may be particularly valuable where avian predation may be of greater concern such as in areas with fragmented habitat, nearby infrastructure features, and/or in the case of small, isolated sage-grouse populations.
Action: R.4 CONIFER ENCROACHMENT Where juniper or other conifer species have encroached upon sagebrush communities at larger scales, employ prescribed fire, chemical, mechanical (e.g., chaining, chipper, chainsaw, or commercial sale), or other suitable methods to reduce or eliminate juniper. Priority should be given to areas where there is a strong likelihood for recovery of perennial herbaceous vegetation or where preparatory and follow-up actions (e.g., control of invasive species and seeding) are likely to be successful. Whenever possible, but especially if sagebrush habitat is limited locally, use juniper-control techniques that are least disruptive to the affected stand of sagebrush. For example, if junipers are only scattered, and the associated sagebrush community is otherwise relatively healthy, cutting junipers with chainsaws will remove the encroachment threat while allowing for immediate use of the sagebrush by sage-grouse. In all cases, control efforts should be planned using interdisciplinary expertise.
GOAL: Protect and enhance sage grouse stronghold habitats.
Action: Suppression Priorities: Minimize risk to source, key, and restoration sage grouse habitat. Minimize risk to threatened, endangered, and candidate species habitat. Minimize risk to resources where changes in

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fuel accumulation and fire occurrence have occurred.
Action: Design vegetation treatments potentially affecting Greater sage-grouse (in Low-elevation Shrub, Mid-elevation Shrub, and Mountain Shrub), conservation measures identified in Appendix R would be considered.
Action: Manage fuels and fire across the sagebrush steppe landscape to provide habitat for a variety of sagebrush-obligate wildlife species as well as other resource benefits. Progress made toward DFC would result in improved habitat for sagebrush steppe obligate species.
<b>Challis Field Office – Challis RMP</b>
<i>Special status species</i>
Goal: Maintain populations of special status species and/or their habitat over the range of natural distribution and habitat conditions. Eliminate the need for listing of sensitive and candidate species and contribute to recovery of listed species by increasing the number or size of populations or by removing threats to species and their habitats.
Objective: Within 10 years, develop BLM Species Management Plans or other types of conservation plans for at least five of the species inventoried under Special Status Species, Goal 1, #4 and 5 above.
<i>Wildlife Habitat</i>
Objective: In the following wildlife habitat areas, unless NEPA analysis and consultation with the IDFG determine that restrictions on a permitted activity are not necessary, BLM permitted activities (other than permitted livestock use, unless restricted elsewhere) would be (1) restricted to prevent disturbance during the specified crucial periods, and (2) designed to eliminate adverse effects (in consultation with the IDFG and other interested publics): Habitat Area Restricted Period Sage Grouse Strutting Grounds 3/1-5/15 Sage Grouse Nesting/Brood-rearing Areas 4/15-6/30
<b>Dillon Field Office – Dillon RMP</b>
<i>Travel and Transportation</i>
See Appendix X pg. 214 Roads and Motorized Vehicles <i>Issue: Roads may increase sage grouse mortality through collisions with vehicles, displacement because of human disturbance, or other factors.</i> 1. Identify, map, quantify, and evaluate impacts of existing roads, including 2-tracks, in relation to known lek locations and sage grouse winter ranges. 2. Consider impacts to sage grouse when designing new roads and modifying existing roads. 3. Consider seasonal use restrictions or signing to avoid disturbance of critical times, such as winter and nesting periods.
<i>Issue: Roads and their associated disturbances and cumulative effects contribute to the loss of habitat and declining sage grouse populations.</i> 1. Develop a transportation management plan across ownership boundaries in critical sage grouse habitats. 2. Participate in travel planning efforts and educate the general public about the impacts of roads on sage grouse and critical habitat. 3. Consider buffers, removal, realignment, or seasonal closures where appropriate to avoid degradation of habitat. 4. Re-vegetate closed roads with plant species beneficial to sage grouse. 5. Close and re-vegetate travel ways in sage grouse habitats where appropriate. 6. Provide sage grouse habitat information during the planning phases of transportation development, working with MDOT, FHWA, industry, counties, etc.
<i>Recreation and Visitor Services</i>

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<p>Appendix X pp. 214 Recreational Disturbance of Sage Grouse</p> <p><i>Issue: Management of lek viewing may be necessary.</i></p> <p>Action 5. Issue special use permits for certain activities with distance and timing restrictions to maintain the integrity of breeding habitat.</p>
<p><i>Lands and Realty</i></p> <p>See appendix X pg. 213</p> <p>Powerlines and Generation Facilities</p> <p><i>Issue: Existing power lines near a lek, brood-rearing habitat, or winter habitat increases the risk of predation on sage grouse by raptors.</i></p> <ol style="list-style-type: none"> <li>1. Document the segment(s) of line causing problems.</li> <li>2. Determine by cooperative action- agencies, utilities, and landowners- whether or not modification of poles to limit perching will prevent electrocution of raptors and decrease predation on sage grouse.</li> <li>3. Emphasize the following if perch prevention modifications do not work to protect sage grouse and sagebrush habitat:             <ol style="list-style-type: none"> <li>a) reroute the line using distance, topography, or vegetative cover; or</li> <li>b) bury the line.</li> </ol> </li> <li>4. Explore opportunities for technical assistance and funding.</li> <li>5. Remove power line when use is completed.</li> </ol> <p><i>Issue: Existing power line is causing consistent or significant collision mortality on sage grouse.</i></p> <ol style="list-style-type: none"> <li>1. Document the segment(s) of line causing consistent or biologically significant mortality- with agencies, utilities, and landowners cooperating in the effort.</li> <li>2. Initiate collision prevention measures using guidelines (Avian Power Line Action Committee 1994) on identified segments. Measures are subject to restriction or modification for wind and ice loading or other engineering concerns, or updated collision prevention information.</li> <li>3. Remove power lines that traverse important sage grouse habitats when facilities being serviced are no longer in use or when projects are completed.</li> </ol>
<p><i>Range Management</i></p> <p>Pg. 69 Action 3 - identifies SG habitat as priority habitat.</p> <p>3 Consider the following habitats priority wildlife habitats:</p> <ul style="list-style-type: none"> <li>• all listed and special status species habitats, with grizzly bear and lynx receiving the most emphasis in coniferous forest habitats, and sage grouse receiving the most emphasis in sagebrush steppe habitats</li> <li>• coniferous forest and sagebrush habitats that provide important big game winter habitat</li> <li>• sagebrush habitats that provide bighorn sheep year-long or seasonal habitats</li> <li>• sagebrush habitats that provide sage grouse breeding, early brood rearing, or winter habitat</li> <li>• mountain mahogany and sagebrush steppe habitat associations in the Lima Sweetwater Breaks key raptor management area</li> <li>• all riparian and wetland habitats</li> </ul> <p>4 Consider the following species priority wildlife species:</p> <ul style="list-style-type: none"> <li>• all listed and special status species, with grizzly bear, lynx, and sage grouse receiving the most emphasis</li> <li>• bighorn sheep</li> </ul> <p>Pg. 73 Actions 42, 43, 44</p> <p><i>Sagebrush Steppe Wildlife Habitats</i></p> <ol style="list-style-type: none"> <li>42. Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.</li> <li>43. Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other</li> </ol>

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<p>wildlife species that use sagebrush habitat including wintering antelope and mule deer.</p> <ul style="list-style-type: none"> <li>• In habitats with predominately mountain big sage-brush, manage sites with the potential to support sagebrush in a manner that maintains &gt; 70 percent of those areas in canopy closure of 5 to 25 percent.</li> <li>• In habitats that include predominately Wyoming big sagebrush, manage sites with ecological potential to maintain sagebrush over at least 60 per-cent of those areas in a canopy closure of 5 to 25 percent.</li> <li>• Maintain an herbaceous understory emphasizing multiple species of native forbs and grasses, recognizing that herbaceous productivity decreases at &gt;10-15 percent canopy cover.</li> <li>• Emphasize restoration and rehabilitation of sage-brush in areas that are capable of supporting sage-brush and contribute to the distribution and connectivity of patches.</li> </ul> <p>44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards.</p> <p>Appendix X – pg. 208 Grazing Management <i>Issue: Conflicting priorities for land uses, species, and habitats.</i></p> <ol style="list-style-type: none"> <li>1. Use scientific data and historic information to establish baseline information when evaluating soil conditions and ecological processes and when monitoring seasonal sage grouse habitats.</li> <li>2. Set specific habitat objectives and implement appropriate grazing management to achieve those objectives and maintain or improve vegetation condition and trends.</li> </ol>
<p>Appendix X pg. 208 action 3 Grazing Management <i>Issue: Conflicting priorities for land uses, species, and habitats.</i></p> <ol style="list-style-type: none"> <li>3. Offer private landowners incentives when and where appropriated to achieve sage grouse objectives.</li> </ol>
<p>Appendix X pg. 208 <i>Issue: Some sagebrush communities may have been significantly altered by past grazing management practices.</i></p> <ol style="list-style-type: none"> <li>1. Implement appropriate grazing management strategies and range management practices where soil conditions and ecological processes will support sage grouse and desired commodities and societal values.</li> <li>2. Establish suitable goals for sagebrush communities that have deteriorated to such an extent that livestock management alone may not contribute to habitat objectives.</li> </ol>
<p>Pg. 55 <i>Goal</i> Restore and maintain riparian wetland areas so that at least 955 miles of streams and 2,050 acres of wetlands are in proper functioning condition. Design management to achieve objectives (Desired Future Conditions) or initiate an upward trend in 20 years.</p> <p>Appendix X - Grazing Mngmt pg. 209 <i>Issue: Riparian areas (wet meadows, seeps, streams) are important resources for sage grouse and livestock.</i></p> <ol style="list-style-type: none"> <li>1. Design and implement livestock grazing management practices (riparian pastures, seasonal grazing, development of off-stream water facilities, etc.) to achieve riparian management objectives.</li> <li>2. Modify or adapt pipelines and natural springs, where practical, to create small wet meadows as brood habitat.</li> <li>3. ensure the sustainability of desired soil conditions and ecological processes within upland plant</li> </ol>

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<p>communities following implementation of strategies to protect riparian areas. This can be achieved by:</p> <ul style="list-style-type: none"><li>• protecting natural wet meadows and springs from over-use while developing water for livestock, and</li><li>• plan the location, design, and construction of new fences to minimize impacts on sage grouse.</li></ul>
<p>Pg 51 Action 14</p> <p>Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools.</p> <p>Appendix X pg. 215</p> <p><i>Issue: The age distribution of sagebrush may have been altered by management, such as a young stand recovering from disturbance or a mature stand with poor regeneration.</i></p> <ol style="list-style-type: none"><li>1. Map and inventory areas believed to be deficient in quality of habitat or exhibiting poor health.</li><li>2. Evaluate the site potential and desired condition, and develop specific objectives accordingly within specific landscapes.</li><li>3. If sagebrush is lacking:<ol style="list-style-type: none"><li>a) develop and implement grazing practices that influence sagebrush growth,</li><li>b) inter-seed historical breeding and winter habitats with the appropriate sagebrush species,</li><li>c) identify and promote seed sources for habitat restoration efforts,</li><li>d) encourage the voluntary use of sagebrush in habitat incentive programs, such as the Conservation Reserve Program, and work to develop additional funding sources for such programs,</li><li>e) reclaim and/or re-seed areas disturbed by treatments when necessary, and</li></ol></li><li>f) promote sage plantings, where appropriate, on project areas occurring within sage grouse habitats.</li></ol> <p><i>Issue: The plant community has been altered and lack a diverse herbaceous understory.</i></p> <ol style="list-style-type: none"><li>1. Map and inventory areas believed to be important sage grouse breeding habitats.</li><li>2. Evaluate the site potential and desired condition within the context of a larger landscape.</li><li>3. Develop and implement techniques to increase herbaceous diversity and density in sagebrush-steppe within ecological limits.</li><li>4. Ensure that grazing practices allow plants to grow to seed ripe on a rotational basis.</li><li>5. Adjust livestock grazing management when necessary, such as the season of use/projects, to promote forb establishment and recruitment.</li><li>6. Identify large areas of introduced plant species, such as crested wheat, and determine if restoration efforts are deemed appropriate.</li><li>7. Inter-seed appropriate breeding habitats with forbs as identified by the specialists and affected interests.</li></ol>
<p>Pg. 73 Action 44</p> <p>44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards.</p> <p><i>Issue: It is important to maintain viable sagebrush habitat and populations of sage grouse while eradicating infestations of noxious weeds.</i></p> <ol style="list-style-type: none"><li>1. Employ integrated weed management treatment methods such as a combination of biological and cultural, such as grazing, mowing, or seeding treatments in conjunction with herbicides to manage weeds in sage grouse habitat.</li></ol>



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<p>2. Use the most selective herbicides where chemical treatment is appropriate, to minimize loss of non-target plant species.</p> <p>3. Restore plant communities with desired species adapted to the site, using proven management techniques where biologically feasible. A restoration program may be necessary if conditions prevent natural plant species.</p>
<p>Appendix X pg. 211 <i>Issue: Water discharge and impoundments can degrade or inundate breeding, nesting, and winter habitat.</i></p> <p>1. Design impoundments and manage discharge so as not to degrade or inundate leks, nesting sites, and wintering sites.</p> <p>2. Protect natural springs from any source of disturbance or degradation from energy-related activities.</p>
<p>Appendix X pg 209 <i>Issue: Potential for sage grouse to be disturbed or displaced by concentrations of livestock near leks or winter habitat.</i></p> <p>1. Discourage concentration of livestock on leks or other key sage grouse habitats.</p> <ul style="list-style-type: none"> <li>• Avoid placement of salt or mineral supplements near leks during the breeding season (March-June), and</li> <li>• Avoid supplemental winter feeding of livestock, where practical, on sage grouse winter habitat and around leks</li> </ul> <p><i>Issue: Existing fences near breeding, brood-rearing, or winter habitats can increase the risk of collision mortalities and / or predation on sage grouse by hawks, eagles, and ravens by providing perches.</i></p> <p>1. If portions of existing fences are found to pose a significant threat to sage grouse as strike sties or raptor perches, mitigate through moving or modifying posts, implementation of predator control programs, etc. Actions may include increasing the visibility of the fences by flagging or by designing “take-down” fences.</p> <p>2. Offer private landowners incentives when and where appropriate to achieve sage grouse objectives.</p>
<p><i>Fluid Minerals</i></p> <p>RMP Final EIS Alt. C Pg. 53 Table 6 lists stipulations that were analyzed. Winter/Spring habitat – NL Leks – NL ½ mile buffer Breeding habitat – NSO</p> <p>NL = no lease NSO = no surface occupancy</p> <p>Under Alternative C, 80 percent (1,086,596 acres) of the planning area would not be available for oil and gas leasing. This includes all the lands identified in Alternative B, plus lands in these additional locations:</p> <ul style="list-style-type: none"> <li>• Sage Grouse Winter/Spring Range</li> <li>• Lands within 1/2 mile of Sage Grouse Strutting Grounds (leks)</li> </ul>
<p>Appendix X, pg 210-211 Mining and Energy Development <i>Issue: Energy development may adversely affect sage grouse.</i></p> <p>1. Work cooperatively – agencies, utilities, and landowners – to identify and map important seasonal ranges for sage grouse.</p> <p>2. Complete a broad scale assessment to identify important areas that require additional protection or conservation during land use planning and leasing of energy reserves.</p> <p>3. Prioritize areas relative to their need for protection – ranging from complete protection to availability for</p>

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<p>moderate to high levels of energy development.</p> <ol style="list-style-type: none"><li>4. Encourage development in incremental stages to stagger disturbance (federal leases range from 3-10 years); design schedules that include long-term strategies to localize disturbance and recovery within established zones over a staggered time frame.</li><li>5. Provide technical assistance to private landowners who lease privately owned fee minerals.</li><li>6. Use off-site mitigation, such as the creation of sage-brush habitat, or purchase conservation easements with industry dollars to offset habitat losses.</li><li>7. Remove facilities and infrastructure when use is completed.</li><li>8. Enhance our understanding of the effects of energy development through:<ol style="list-style-type: none"><li>a) pre-activity inventory,</li><li>b) monitoring over the life of the development, and</li></ol></li></ol> <p>c) Annual evaluations.</p> <p><i>Issue: Increased roads, pipelines, and power lines can fragment sagebrush habitats.</i></p> <ol style="list-style-type: none"><li>1. Develop a comprehensive infrastructure plan prior to energy development activities to minimize road densities.</li><li>2. Avoid locating roads and power lines in crucial sage grouse breeding, nesting, and wintering areas.</li><li>3. See conservation actions for siting and constructing power lines.</li></ol> <p>4. Use minimal surface disturbance to install roads and pipelines and reclaim site of abandoned wells to natural communities.</p> <p><i>Issue: Energy-related facilities located within 2 miles of a sage grouse lek can degrade habitat quality within existing leases.</i></p> <ol style="list-style-type: none"><li>1. Locate storage facilities, generators, and holding tanks outside the line of sight and sound of important breeding habitat.</li><li>2. Minimize ground disturbance in sagebrush stands with documented use by sage grouse:<ol style="list-style-type: none"><li>a) breeding habitat – the lek and associated stands of sagebrush,</li><li>b) nesting habitat – stands of sagebrush within 2 miles of a lek, and</li><li>c) wintering habitat – sagebrush stands with documented winter use by sage grouse with portions that would remain above the snow even during years of deep-snow conditions.</li></ol></li><li>3. Concentrate energy-related facilities when practicable.</li></ol>
<p><i>Wildland Fire Management</i></p> <p>Appendix X pg.207 Conservations measures for Fire Management</p> <p><i>Issue: Reduction of sagebrush by prescribed fire.</i></p> <ol style="list-style-type: none"><li>1. Sites should not be burned unless:<ol style="list-style-type: none"><li>a) biological and physical limitations of the site and impact on sage grouse are identified and considered,</li><li>b) management objectives for the site, including those for wildlife, are clearly defined,</li><li>c) potential for weed invasion and successional trends are well understood, and</li><li>d) capability exists to manage the post-burn site properly, including a funded monitoring schedule, to achieve a healthy sagebrush community.</li></ol></li><li>2. Develop local or regional guidelines, such as the Beaverhead-Deer Lodge Forest/FWP guidelines in the intermountain valleys, or consider the following guide-lines if fire is used as a tool elsewhere:<ol style="list-style-type: none"><li>a) analyze cumulative effects of sagebrush treatment by considering ecological units, evaluate the degree of fragmentation, and maintain a good representation of mature sagebrush,</li><li>b) predict effects for the length of time necessary for sagebrush to return to desired condition for deter-mine treatment types and intervals,</li></ol></li></ol>

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<p>c) identify suitable patch size based on site-specific characteristics of the natural community and treat patches in a mosaic pattern that provides sagebrush cover for snow capture, hiding cover, and a seed source,</p> <p>d) use available literature to research the effects of fire on sagebrush communities,</p> <p>e) use caution in reducing sagebrush cover in and following drought periods,</p> <p>f) work cooperatively with public agencies, academia, and private landowners to establish conservation objectives for the project area, and</p> <p>g) map all burns within one year of treatment, monitor vegetative response, and develop a GIS layer of burn history.</p> <p>3. Develop treatments to improve habitats over the long term if sagebrush stands do not meet objectives for sage grouse, such as confining treatments to small patches.</p> <p>4. Consider mechanical treatment as the primary method and prescribed fire as a secondary method to remove conifers that encroach on sage grouse habitat, except where forested habitat is limited.</p> <p>5. Avoid treatments to sage grouse habitat in areas that are susceptible to invasion by cheatgrass or other invasive plant species. Treatment will be accompanied by restoration, and reseeded if necessary, to re-establish native vegetation.</p> <p>6. Protect sagebrush along riparian zones, meadows, lakebeds, and farmlands that include important sage grouse habitat:</p> <ul style="list-style-type: none"><li>a) winter habitat,</li><li>b) breeding habitat, and</li><li>c) nesting habitat.</li></ul> <p>7. Wash vehicles and heavy equipment for fires prior to arrival at a new location to avoid introduction for noxious weeds.</p> <p>Livestock Grazing Pg 43 Action 16</p> <p>16. Rest vegetation treatment areas (e.g., prescribed burns) from livestock grazing up to one year prior to treatment (if necessary) to maintain fine fuels for burning, and for a minimum of two growing seasons following treatment to promote recovery of vegetation. Livestock rest for less than two growing seasons could be justified on a case-by-case basis.</p>
<p>Appendix X pg.208 Conservations measures for Fire Management <i>Issue: Reduction of sagebrush by wildfire.</i></p> <p>1. Schedule annual coordination meetings – with appropriate resource staff including fire specialists, wildlife biologists, and range ecologists – to incorporate new sage grouse habitat and other wildlife habitat information needed to set wildfire suppression priorities related to resources. Distribute updates to fire dispatchers for initial attack planning.</p> <p>2. Identify the location of know sage grouse habitat and other wildlife habitats of concern, such as latitude and longitude with a polygon and radius, to avoid disturbance or degradation by temporary facilities, such as fire camps, staging areas, and helibases.</p> <p>3. Incorporate known sage grouse habitat information into each Wildfire Situation Analysis to help determine appropriate suppression plans and prioritize multiple fires.</p> <p>4. Retain unburned areas of sage grouse habitat, such as interior islands and patches between roads and fire perimeter, unless compelling safety, resource protection, or control objectives are at risk.</p> <p>Appendix X pg.208</p>



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<p><i>Issue: Rehabilitation and restoration of sagebrush grass-lands.</i></p> <ol style="list-style-type: none"> <li>1. Assure that long-term wildfire rehabilitation objectives are consistent with the desired natural plant community.</li> <li>2. Re-vegetate burned sites in sage grouse habitat within one year unless natural recovery of the native plant community is expected. Areas disturbed by heavy equipment will be given priority consideration.</li> <li>3. Emphasize native plant species adapted to the site that are readily available and economically and biologically feasible.</li> <li>4. Monitor the site and treat for noxious weeds.</li> <li>5. Allow a minimum of two growing seasons of rest from grazing by domestic livestock unless there are specific restoration objectives using livestock.</li> </ol> <p>WAFWA guidelines are incorporated in Appendix X and include restoration guidelines.</p>
<p><b>Four Rivers Field Office - Cascade RMP</b></p>
<p><i>Wildlife – Sage-grouse</i></p>
<p>Action: No sagebrush control work would be allowed on sage grouse nesting and wintering habitat where live sagebrush canopy cover is less than 20%.</p>
<p>Action: Treatment measures should be applied in irregular patterns using topography and other ecological considerations to minimize adverse effects to the sage grouse resource.</p>
<p>Action: Where fire is used as a habitat management tool, it should be used in such manner as to result in a mosaic pattern of shrubs and open areas, with openings, optimally from 1 to 10 acres in size.</p>
<p>Action: Maintain the density of sagebrush canopy coverage at 20-30% within nesting habitats and at least 20% in wintering habitats.</p>
<p>Action: No control of sagebrush would be considered in any area known to have supported important wintering populations of sage grouse in the past 10 years.</p>
<p>Action: Seed mixtures for range improvement projects and fire rehabilitation projects will include a mixture of grasses, forbs and shrubs that benefit sage grouse.</p>
<p>Action: Improve sage grouse brood rearing habitat where sagebrush canopy cover is greater than 20% by removing sagebrush in small irregular areas and then reseeding.</p>
<p>Action: Sage Grouse Winter Range Occupancy Restrictions for Oil, Gas, Geophysical Exploration and Development and Major Construction 12/1 to 2/15 Entire Habitat Area</p>
<p>Action: Sage Grouse Breeding Grounds Occupancy Restrictions for Oil, Gas, Geophysical Exploration and Development and Major Construction 2/15 to 6/30 Entire Habitat Area</p>
<p>Action: Sage Grouse Nesting/Brood Rearing Occupancy Restrictions for Oil, Gas, Geophysical Exploration and Development and Major Construction 4/15/6/30 2-mile radius from lek</p>
<p><i>Special Status Species – Wildlife, Sage-grouse</i></p>
<p>Objective: Manage 185,860 acres of sage grouse habitat to improve brooding and nesting habitat.</p>
<p><b>Four Rivers Field Office – Kuna MFP</b></p>
<p>Wildlife</p>
<p>Objective WL-1: Protect and/or improve endangered species habitat within the Kuna Planning Unit.</p>
<p>Objective WL-2: Manage sensitive species habitat in the KPU to maintain or increase existing and potential populations.</p>
<p>WL-4.4 Manage 83,600 acres of sage grouse range to improve nesting, brood rearing, and winter habitats by: (1) improving all poor and fair big sagebrush, meadow, and riparian ecological sites to good ecological condition, and (2) referring to and addressing the "Guidelines for Habitat Protection in Sage Grouse Range" as published by the Western States Sage Grouse Committee, June 1974, when making management decisions affecting areas used by sage grouse in the KPU.</p>
<p><i>Livestock Grazing</i></p>

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RM1.1 Implement AMPs on 7 allotments and less-intensive management on 19 allotments (Overlay RM-4). Allotments are listed in priority order. Adjust management or exclude grazing on sage grouse brood-rearing areas to improve habitat. Design grazing management to improve crucial antelope winter/early spring ranges.
RM-1.8 Treat an estimated 4,600 acres (2,900 acres brush control and 1,700 acres brush control and reseeded) to reduce invasion of less desirable species, improve range condition, and increase grazing capacity, subject to the following conditions: a. If sprays are used, maintain a buffer of 150 feet around perennial streams and riparian habitat. b. Allow for a sufficient forage-to-cover ratio to meet wildlife needs in winter ranges for mule deer, antelope, and sage grouse. c. Design projects with irregular control lines, feathered edges, and natural contours. On sites treated by mechanical means, drainages and occasional brush islands will be left untreated.
<b>Four Rivers Field Office - Morley Nelson Snake River Birds of Prey National Conservation Area</b>
<i>Vegetation - General</i>
Goal: The uplands would provide habitats to increase the populations of shrub obligate animals.
Goal: Sagebrush and salt desert shrub communities would be the dominant vegetation type and would include a mosaic of multi-aged shrubs, forbs, and native and adapted non-native perennial grasses.
Objective: Limit further loss of existing native shrub habitat to no more than 30,000 acres and increase the acres of restored shrub habitat.
<i>Wildlife</i>
Goal: The distribution, abundance, and quality of wildlife habitats would be maintained or improved to provide food, cover, and space for healthy populations of game and nongame wildlife through the seasons, as well as through various life stages.
Goal: Distribution and condition of habitats would contribute to the long-term viability of federally listed and BLM sensitive species and to their resilience to environmental change.
Convert approximately 100,000 acres of annual grasslands to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects. This is in addition to habitat restoration projects.
<b>Jarvis Field Office - Jarvis RMP</b>
<i>Vegetation - Rangeland</i>
Action: No chemical control of sagebrush will be allowed.
Goal: Manage all ecological sites on mule deer, pronghorn, elk, bighorn sheep and sage grouse habitat currently in fair or poor ecological condition, for good ecological condition.
<i>Special Status Species – Wildlife, Sage-grouse</i>
Goal: Protect and enhance endangered, threatened, and sensitive species habitats in order to maintain or enhance existing and potential populations within the planning area.
Objective: Where applicable, “Guidelines for Habitat Protection in Sage Grouse Range” and “Sage Grouse Management Practices” (Technical Bulletin No. 1) – Western States Sage Grouse Committee, June 1974, and 1982 respectively, will be followed.
Action: No control work would be allowed where live sagebrush cover is less than 20%.
Action: Treatment measures should be applied in irregular patterns using topography and other ecological considerations to minimize adverse effects to the sage grouse resource.
Action: Maintain the density of sagebrush canopy coverage at 20-30% within nesting habitats and at least 20% in wintering habitats.
Action: No control of sagebrush would be considered in any area known to have supported important wintering populations of sage grouse in the past 10 years.
Action: Seed mixtures for range improvement projects and fire rehabilitation projects will include a mixture



**Table G-1  
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of grasses, forbs, and shrubs that benefit sage grouse.
Action: Improve sage grouse brood rearing habitat where sagebrush canopy cover is greater than 20% by removing sagebrush in small irregular areas and then reseeded.
Action: Wildlife Habitat Occupancy Restrictions: No occupancy in sage grouse winter range (entire habitat area) from December 1 through February 15.
Action: Wildlife Habitat Occupancy Restrictions: No occupancy in sage grouse breeding grounds (entire habitat) from February 15 through June 30.
Action Wildlife Habitat Occupancy Restrictions: No occupancy in sage grouse nesting/brood rearing habitat within 2 miles radius from a lek from April 15 through June 30.
Goal: Priority for habitat management will be given to habitat for listed and candidate threatened or endangered species and sensitive species.
<i>Livestock Grazing</i>
Objective: Maintain present levels of upland game bird nesting and cover habitat.
<i>Lands and Realty</i>
Action: Any public lands where rare, endangered, threatened, or sensitive species of plant or animal are known to live (or nest) would be found unsuitable for disposal, unless mitigation is possible.
<i>Fluid Minerals</i>
Action: Occupancy for oil and gas activities will be restricted in crucial wildlife habitats as shown in Table 1. (see sage-grouse section for occupancy restrictions).
<b>Owyhee Field Office – Owyhee RMP</b>
<i>Soil and Water</i>
Action: Implement a juniper abatement plan for appropriate sites on which juniper is invading.
<i>Wildlife</i>
Action: Design and implement vegetation treatments to improve habitat where juniper or shrub density is contributing to unsatisfactory habitat conditions. All treatments will be designed to protect scarce, unique and highly productive wildlife habitat types, retain large interconnected blocks of more common habitat types and accommodate specific wildlife habitat requirements including migration corridors for big game. Reseed burns with a variety of shrubs, forbs and grasses. Rest all burns and seedings from livestock grazing for a minimum of two growing seasons following treatment.
Action: Retain all public land within crucial and other high quality wildlife habitats unless exchanging for land of equal or higher value and acquire additional high quality habitat through purchase or exchange with willing landowners. These include but are not limited to wetland/riparian habitats, crucial big game winter habitat and isolated tracts and shrublands adjacent to agricultural areas that provide important cover for upland game. Isolated tracts will be grazed only if needed to maintain or improve wildlife habitat.
<i>Special Status Species – Wildlife, sage-grouse</i>
Objective (SPSS 1): Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.
Action (9): Identify, protect, and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through the development of plans by local sage grouse working groups or similar efforts.
Action (1): Prepare, revise, and implement Habitat Management Plans (HMPs) and other resource activity plans and cooperate in the development and implementation of Recovery Plans, Conservation Agreements and Strategies and species management plans to ensure that objectives for special status plant and animal species are incorporated and met.
Action (4): Acquire additional high quality habitat for special status species through purchase or exchange

**Table G-1**  
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with willing landowners.
<i>Wildland Fire Management</i>
Objective (FIRE 5): Modify standard suppression techniques to protect sensitive resource values.
Action (2): Use any and all available fire suppression techniques to protect the Silver City area, cultural ACECs, and unique wildlife habitat areas.
<b>Pocatello Field Office - Pocatello RMP and Malad MFP</b>
<i>Wildlife - Malad</i>
Objective: Improve and maintain the sage grouse habitat to support current sage grouse population numbers (1200 birds on public lands) through 1985.
Decision: At least 20% of live vegetation left within land treatment projects will be composed of sagebrush where sage grouse needs have been identified. A 100 yard sage brush buffer will be retained along meadows and perennial drainages.
Decision: Vegetative control will exclude known sage grouse winter areas.
<i>Wildlife - Pocatello</i>
Objective: Improve 3,126 acres of sage grouse and sharp-tailed grouse seasonal ranges from fair to good ecological range condition.
<i>Wildland Fire Management – Malad &amp; Pocatello</i>
Goal: Protect and enhance sage grouse source habitats as well as enhance key ecological components in plant and animal communities.
Objective: Maintain, protect, and expand sage grouse source habitats.
Action: Suppress wildland fires in source habitats, except where WFU would benefit habitat.
Action: Allow WFU in sage grouse habitats for the benefit of the habitat only after site-specific project level coordination with IDFG.
Action: Conduct vegetation treatments in areas that pose a wildland fire risk to source habitats.
Action: Treat areas with source habitats that have low resiliency (i.e., areas characterized by low species diversity, undesirable composition, and dead or decadent sagebrush)
Action: Following wildland fire, WFU and prescribed fire treatments, use chemical, mechanical, and seeding treatments with appropriate plant materials to attempt to stabilize sites and prevent dominance of invasive, annual vegetation, and noxious weeds.
Action: Use native plant materials where determined to be appropriate and practical at the project-implementation level.
Objective: Treat sage grouse key and restoration habitats to expand source habitats. Improve and maintain sage grouse Restoration (R1-3) and key habitats.
Action: Use AMR to wildland fire in all sage grouse restoration and key habitats and healthy wildlife habitats.
Action: WFU may be allowed in historically frequent fire regimes to restore fire's natural role and in sage grouse restoration and key habitats for the benefit of the habitat only after site-specific project level consultation/collaboration with IDFG.
Action: Conduct vegetation treatments in restoration and key habitats to reduce risk of wildland fire and reconnect restoration and key habitats.
Action: Treat areas of restoration and key habitats that have low resiliency characterized by low species diversity.
Objective: Apply Greater sage-grouse conservation measures and management restrictions for fire suppression and fire and non-fire vegetation treatments for the following disciplines:
Action: Implement the following Greater sage-grouse conservation measures:
Conservation Measures Considered in Developing Vegetation Treatments Potentially Affecting Greater Sage-



**Table G-1**  
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<p>Grouse</p> <p>Prescribed Fire</p> <ul style="list-style-type: none"><li>• Prior to planning prescribed burns or other vegetation management treatments in sagebrush communities, ensure that sage-grouse seasonal habitats have been mapped (see 5.3.2 for additional discussion of mapping).</li><li>• Once seasonal habitats have been mapped, ensure that proposed project areas have been evaluated on the ground in the context of the appropriate seasonal habitat characteristics (see 5.3.2).</li><li>• Avoid the use of prescribed fire and other sagebrush-reduction projects in areas where sagebrush is limiting on the landscape or in habitats that currently meet, or are trending toward meeting, breeding or winter habitat characteristics.</li><li>• If the analysis shows that a vegetation treatment may still be advisable, design habitat-manipulation projects to achieve the desired objectives, considering the following:<ul style="list-style-type: none"><li>▪ Where prescribed burning, or other treatments, in sage-grouse habitats may be warranted (e.g., sagebrush cover exceeds desired breeding or winter habitat characteristics; understory does not meet seasonal habitat characteristics and restoration is desired; there is a need to restore ecological processes; or a proposed treatment site is in an exotic seeding being managed for overall sage-grouse benefits on the surrounding landscape).</li><li>▪ Project design should be done with interdisciplinary input and in cooperation with IDFG.</li><li>▪ Ensure that any proposed sagebrush treatment acreage is conservative in the context of surrounding seasonal habitats and landscape.</li><li>▪ Where appropriate, ensure that treatments are configured in a manner that promotes use by sage-grouse (see Connelly 2000 for additional discussion).</li><li>▪ Leave adequate untreated sagebrush areas for loafing/hiding cover near leks for sage-grouse.</li></ul></li><li>• Evaluate and monitor prescribed burns, and other treatments, as soon as possible after treatment and periodically thereafter to determine whether the project was successful and is meeting or trending toward desired objectives.</li><li>• Avoid the use of prescribed fire or other sagebrush treatments in habitats prone to the expansion or invasion of cheatgrass or other invasive species unless adequate measures are taken to control the invasive species and ensure subsequent dominance by desirable perennial species. In many—if not most—cases, this will likely require chemical treatments and reseeded.</li><li>• Plan, execute, and monitor prescribed fires in a manner that provides for adequate control and provision for contingency resources.</li><li>• Ensure that burn plans address the importance of preventing escaped fires when prescription fires are planned in the vicinity of stronghold and key habitat.</li></ul> <p>Annual Grasslands</p> <ul style="list-style-type: none"><li>• Local working groups (LWG), land management agencies, IDFG, and other partners should work closely together to identify and prioritize annual grassland areas for restoration. Work cooperatively to identify options, schedules, and funding opportunities for specific projects.</li><li>• In general, the priority for implementation of specific sage-grouse habitat restoration projects in annual grasslands should be given first to:<ul style="list-style-type: none"><li>▪ Sites adjacent to or surrounded by sage-grouse stronghold habitats, then</li><li>▪ Sites outside stronghold habitats but adjacent to or within approximately two miles of key habitat, and</li><li>▪ Sites beyond two miles of key habitat. The intent here is to focus restoration outward from existing, intact habitat.</li></ul></li></ul>
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**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

- All seeding project designs should include measures for noxious weed control and monitoring for at least 3 years following implementation.
- Seed used in sage-grouse habitat restoration seedings, burned area rehabilitation projects, and hazardous fuels/wildland urban interface projects will be tested and certified as weed-free, based on prevailing agency policy and protocol. Private landowners are encouraged to use only certified seed, as well.
- In designing rehabilitation and restoration projects, use the best available science relative to seeding technology and plant materials. Use of NRCS's "VegSpec" website may be helpful. VegSpec is a web-based decision support system that assists land managers in the planning and design of vegetation establishment practices. VegSpec uses soil, plant, and climate data to select plant species that are site-specifically adapted, suitable for the selected practice, and appropriate for the purposes and objectives for which the planting is intended. (See <http://plants.usda.gov>).
- Design vegetation treatments in areas of high fire frequency to facilitate firefighter safety; reduce the risk of extreme fire behavior; reduce the risk and rate of fire spread to stronghold, key, and restoration habitats; reduce fire frequencies; and shorten the fire season.
- Where rangelands are dominated by annuals (such as cheatgrass) or where they border farmlands or railroad right-of-ways, convert cheatgrass areas to perennials, or establish buffers of perennial species to reduce the risk of fire spread from railroad or agriculture-related activities (e.g., sparks from trains, field burns, burn barrels), where appropriate and feasible.
- To discourage the spread of invasive annuals and noxious weed seed, require the washing of fire vehicles (including undercarriage) prior to deployments and prior to demobilization from wildfire incidents.
- Human activities such as fence and pipeline maintenance or construction, facility maintenance, utility maintenance, or any project or related work at or within 1 km (0.6 miles) of occupied leks that results in or will likely result in disturbance to lekking birds should be avoided from approximately 6:00 PM to 9:00 AM. In general, this guideline should be applied from March 15 through May 1 in lower elevation habitats and March 25 through May 15 in higher elevation habitats.

#### Perennial Grasslands

- LWGs, land management agencies, IDFG, and other partners should work closely together to identify and prioritize perennial grasslands (exotic versus native) where plant species diversity or sagebrush is limiting on the landscape. Further, they should work cooperatively to identify options, schedules, and funding opportunities for reestablishing sagebrush in higher priority areas.
- When seeding sagebrush, source-identified, tested seed adapted to local conditions should be used.
- One or more of the following approaches for restoring sagebrush should be considered to improve likelihood of success (see Dalzell 2004 and Monsen et al. 2004):
  - Use of the "Oyer" compact row seeder, which compacts soil and presses seed into the surface.
  - Use of the Brillion cultipacker seeder, where seed is broadcast over the surface followed by cultipacking.
  - Transplant bare-root or containerized stock in small critical areas to establish a seed source.
  - Use the "mother plant" technique, and transplant bare-root or containerized stock in select locations throughout the area to establish a seed source.
- For large areas (e.g., large wildland fires), aerial seed onto a rough seedbed (Monsen et al. 2004) coupled with one or more of the above options.



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

- In established stands of introduced perennial grasses, transplant sagebrush into strategic patches or strips in critical sites or throughout the area. Scalp spots or strips to reduce grass competition prior to planting. Or, as an alternative to scalps, consider the use of herbicides (see Monsen et al. 2004, Volume 3).
- Where the diversification of crested wheatgrass or similar seedings with native species of grasses, forbs, and/or shrubs is desired, Pellant and Lysne (2005) recommend a three-step process:
- Reduce competition of crested wheatgrass to facilitate the establishment and persistence of the desired species. Possibilities include use of livestock, capitalizing on drought episodes that reduce grass vigor, herbicides such as glyphosate, and mechanical treatments.
  - Introduce desired, site-adapted species through drill seeding; aerial seeding followed by harrow, cultipacker or churning; livestock trampling; or transplanting container stock, bareroot stock, or individual plants from native sources ("wildings"). Lambert (2005) provides descriptions, recommended seeding rates, and other useful information for nearly 250 species of native and non-native grasses, forbs, and shrubs.
  - As part of post-treatment management, ensure that livestock grazing and rest intervals are matched with the phenology and life history characteristics of the desired/seeded/transplanted species. Implement monitoring to clearly document how, what, when, and where treatments were implemented. Follow up with suitable effectiveness monitoring to document success of the treatments relative to project objectives.

#### Conifer Encroachment

- LWGs, land management agencies, IDFG, and other partners should work closely together to identify and prioritize conifer encroachment areas for further management action. Work cooperatively to identify options, schedules, and funding opportunities for specific projects. For western juniper, Miller et al. (2005) provide *Guidelines for Selecting the Most Appropriate Management Actions*, pages 54–57.
- IDFG, land management agencies, LWGs, and other partners should work closely together to identify leks where conifer encroachment may be affecting lek attendance or nearby habitat quality.
- Remove Douglas fir or other conifers where they are encroaching on wet meadows, riparian areas, or sagebrush stands that provide potential sage-grouse habitat.
- Remove juniper, Douglas fir, pinyon pine, or other trees within at least 100 m (330 ft) or an 8-acre area of occupied sage-grouse leks. The purpose of this procedure is to reduce perching opportunity for raptors or other avian predators within view of leks. Techniques could include chainsaw, chipper, or other suitable mechanical means. Ensure cutting and slash disposal is completed between approximately July 15 and January 30 to minimize disturbance to grouse that may be in the vicinity (e.g., males at leks, nesting females, and young broods). This practice serves to reduce raptor predation on sage-grouse by eliminating potential perches, thereby improving survival, recruitment, and productivity. It may be particularly valuable where avian predation may be of greater concern such as in areas with fragmented habitat, nearby infrastructure features, and/or in the case of small, isolated sage-grouse populations.
- Where juniper or other conifer species have encroached upon sagebrush communities at larger scales, employ prescribed fire, chemical, mechanical (e.g., churning, chipper, chainsaw, or commercial sale), or other suitable methods to reduce or eliminate juniper. Priority should be given to areas where there is a strong likelihood for recovery of perennial herbaceous vegetation or where preparatory and follow-up actions (e.g., control of invasive species and seeding) are likely to be successful. Whenever possible, but especially if sagebrush habitat is limited locally, use juniper-control techniques that are least disruptive to the affected stand of sagebrush. For example, if junipers are only scattered, and the associated sagebrush community is otherwise relatively healthy, cutting junipers with chainsaws will remove the

**Table G-1**  
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<p>encroachment threat while allowing for immediate use of the sagebrush by sage-grouse. In all cases, control efforts should be planned using interdisciplinary expertise.</p> <p>Where juniper control around leks is planned, monitor leks for at least three consecutive years post-treatment to document effects on lek attendance. Ideally, two to three years of pre-treatment monitoring is also recommended, but this may not always be feasible.</p>
<p>Suppression Restrictions</p> <p><u>Fire Management</u></p> <ul style="list-style-type: none"><li>• A Wildland Fire Situation Analysis will be initiated as per the Redbook (Interagency Standards for Fire and Aviation Operations).</li><li>• Interagency cooperation will be maintained to facilitate coordinated fire management activities across administrative boundaries.</li><li>• Wildland fire suppression activities will continue to exercise Tribal trust responsibilities.</li><li>• In the event a wildland fire escapes initial attack, a BLM resource advisor will be assigned to ensure that resource management concerns are adequately addressed and that necessary mitigation occurs. If one of the following is being threatened or has the potential to be threatened, the appropriate manager will be notified with the following information and a resource advisor will be dispatched: 1) Public health and safety, 2) WUI, 3) Sage grouse habitat and, 4) Any ACEC, Resource Natural Area (RNA), congressionally delegated watershed or any other area of significant concern.</li><li>• Prior to wildland fire season potential areas of conflict between archeological resources and wildland fire suppression activities should be identified.</li></ul> <p><u>Noxious Weeds</u></p> <ul style="list-style-type: none"><li>• To minimize spread of noxious weeds, equipment used for extended attack or Type I/II incidents should be cleaned before arriving on-site and prior to leaving the incident. Staging areas and fire camps should avoid sites with noxious weed infestations.</li></ul> <p><u>Vegetation</u></p> <ul style="list-style-type: none"><li>• Blading should occur on existing roads where possible. Blading through undisturbed areas, especially those supporting native cover types, should be avoided unless necessary to protect life, property, or resource values.</li></ul> <p><u>Wildlife</u></p> <ul style="list-style-type: none"><li>• When conducting fire suppression actions, species with recovery plans, conservation agreements, Partners in Flight species, and Birds of Conservation Concern will be protected as specified in their respective plans and or agreements.</li><li>• Establishment of control lines, base camps, and support facilities in known SSS habitat will be avoided unless life and property are threatened.</li></ul> <p><u>Threatened, Endangered, and Candidate Species</u></p> <p>The following restrictions apply to Proposed, Threatened, Endangered and Candidate species and to “designated” critical habitat.</p> <ul style="list-style-type: none"><li>• Fire fighter safety and public safety are top priorities in response to fire suppression. At no time will the activities described in this EIS compromise fire fighter safety and public safety.</li></ul>



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- The BLM will coordinate annually with the USFWS to update species status in the planning area.
- Field Managers will ensure resource staff initiates emergency consultation with the USFWS whenever suppression activities may impact listed species habitat and, more specifically, during emergency suppression actions to protect life and property.
- Control lines, base camps, support facilities, and other suppression-related facilities should not be established within:
  - 1/2 mile of known bald eagle or yellow-billed cuckoo nests (February 1-August 15)
  - 1 mile of occupied gray wolf den sites (April 15 - June 30)
  - 300 feet of occupied Ute ladies'-tresses habitat
  - 300 feet of all water bodies and springs occupied by T & E and Candidate species
  - Secure habitat within designated grizzly bear management unit (BMU).
- Minimum Impact Suppression Techniques (MIST) guidelines will be followed in occupied T&E and Candidate species habitat where appropriate (Appendix T in Interagency Standards for Fire and Aviation Operations, 2005). MIST guidelines direct suppression techniques, procedures, tools, and equipment that least impact the environment. Wet-lining (using water to soak/saturate fuels) is the preferred fireline construction tactic.
- Field Managers will assign a Resource Advisor or other designated representative as per the current Red Book guidance.
  - BLM will notify USFWS when appropriate to discuss T&E species mitigation within the suppression area to assure conservation practices are being followed to avoid adverse effects.
  - When Incident Management Teams (IMTs) are required, the Resource Advisor will brief the IC about conservation measures needed to avoid adverse effects.
- Where grizzly bears may reasonably occur:
  - The BLM Resource Advisor will brief all fire crews on general operating procedures including proper bear safety, sanitation, and food storage.
  - Incident Commanders, Fire Management Officers, and Scouts should be equipped with and trained to use bear deterrent spray.
  - Garbage should be disposed of in bear-proof containers when possible and removed from camps daily, preferably in the evening.
- No water-dipping by helicopters will occur within 1/2 mile of any occupied bald eagle nest.
- Fuel storage, fuel trucks, and refueling activities will not occur within 300 feet of live waters containing T&E and Candidate species. The current Planning Area Hazardous Material plan will be followed to ensure T&E and Candidate species and habitat will not be adversely affected in the event of a spill.
- Dozer blading should not occur within 300 feet of perennial streams or their tributaries occupied by T&E and Candidate species.
- Drafting equipment for pumps will be properly screened to prevent entrapment of T&E fish species. Maximum screen mesh size shall be 3/32-inch diameter.
- Any sump created by blocking flow in any occupied T&E habitat will be performed in coordination with a natural resource specialist to prevent dewatering.
- If chemical products will be injected into the system, water will not be pumped directly from the streams. If chemicals are needed, water will be pumped from a portable tank, or a backflow check valve will be used.
- Application of retardant or foam (aerial or ground) will be avoided within 300 feet of perennial streams or their tributaries occupied by T&E and Candidate species pursuant to the current Red Book guidance.
- To minimize spread of noxious weeds, equipment used for extended attack or Type I/II incidents

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should be cleaned before arriving on-site and prior to leaving the incident. Staging areas and fire camps will avoid sites with noxious weed infestations.

TES Reporting Requirements

Because of the programmatic nature of this EIS process, the exact timing, site-specific suppression methods, location, and size of fires are currently unknown. In order to monitor the impacts of wildland fire-suppression activities, the Level I team will meet immediately after the fire season to review a summary of activities (fire suppression) that may have occurred in or adjacent to T&E and Candidate habitat. If the Level I team identifies fire-suppression activities for which more information is needed to ascertain potential effects to the environmental baseline for a particular listed or candidate species, BLM will provide a report providing the necessary information identified by the Level I team to the USFWS Snake River Fish and Wildlife Office or the Eastern Idaho Field Office no later than December 31 for the preceding 12-month period. The types of information that may be needed include:

- The location, timing, size, intensity, and suppression activities used for each fire.
- Any mitigations used during fire-suppression activities to avoid effects to T&E and Candidate species and habitat, any T&E and Candidate species or habitat affected, and the estimated extent of effects.
- Results of post-fire reviews and monitoring.

Fire and Non-Fire Vegetation Treatment Restrictions

Fire and non-fire vegetation treatment restrictions will be applied to site-specific restoration and hazardous fuels reduction treatment actions for the following disciplines:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Vegetation</li> <li>• Air Quality</li> <li>• Cultural Resources and Historic Trails</li> <li>• Hazardous Materials and Abandoned Mine Sites</li> <li>• Livestock Grazing</li> <li>• Placeholder Species</li> </ul> | <ul style="list-style-type: none"> <li>• Recreation</li> <li>• Riparian Areas</li> <li>• Special Designations (WSAs, ACECs)</li> <li>• Visual Resources</li> <li>• Wildlife</li> <li>• Threatened, Endangered, and Candidate Species</li> </ul> |
|---|---|

The following fire and non-fire vegetation treatment restrictions will be applied to site-specific restoration and hazardous fuels reduction treatment actions occurring throughout the Planning Area, consistent with NFP policy and LUP direction.

Vegetation Management

- No chemical treatment would conflict with existing or future national vegetative treatment guidance. To reduce potential resource impacts from chemical treatments, herbicide use would conform to application criteria described in the 1991 document, Environmental Impact Statement for Vegetation Treatment on BLM Lands in Thirteen Western States or in subsequent revisions and/or replacements of this document. Use would conform to instructions from BLM Manual 9011 Chemical Pest Control, as well as label restrictions and current policies and state statutes. In addition, the prescription for herbicide application (desired, optimum environmental conditions) would evaluate off-site migration and non-target species by assessing wind speed and direction, temperature, precipitation forecast, soil



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infiltration potential, constraints on overland water transport due to precipitation or flooding, establishment of riparian buffer strips, and risk to special status species. Fishery and/or wildlife biologists would assist project planners in selecting appropriate herbicides for use among or near terrestrial and aquatic flora and fauna sensitive to herbicides.

- The economic effects of alternative fuels management practices would be considered. Local involvement and economic benefits from fuels reduction projects would be promoted.
- Collaboration with local partners to assess WUI areas would be continued, and existing mitigation plans would be updated to implement fuels treatments.
- There would be no Healthy Forest Restoration Act treatments in old-growth forests.
- Vegetation treatment activities would continue to exercise Native American Tribal trust responsibilities.
- Fuels treatments would be utilized to reduce the overall threat of the establishment and spread of noxious/invasive plant species.
- The economic effects of alternative fuels management practices would be considered. Local involvement and economic benefits from fuels reduction projects would be promoted.
- Collaboration with local partners to assess WUI areas and to update existing County Wildfire Protection Plans (CWPPs) would continue.

Wildlife

- Seasonal guidelines may be applied if needed to mitigate the impacts to big game species from planned fuels management and vegetation treatments as specified in the LUPs identified in Table 1.2.
- Restrictions may be imposed on fuels management and vegetation treatment projects in areas supporting nesting raptors as per amended LUPs (Table 1.2). Treatment proposals would be coordinated with IDFG.
- Species with recovery plans, conservation agreements, Partners in Flight species, and Birds of Conservation Concern will be protected as specified in their respective plans/agreements.
- Habitat Conservation Assessment and Conservation Strategies have been prepared and are currently being implemented for the following BLM sensitive species: Townsend's big-eared bat, wolverine, spotted bat, white headed woodpecker, trumpeter swan, northern goshawk, Columbian sharp-tailed grouse, greater sage grouse (Idaho plan pending), mountain quail, Idaho dunes tiger beetle, Bonneville cutthroat trout, bull trout, Yellowstone cutthroat trout, red band trout and leather sided chub.
- Vegetation treatments proposed in areas supporting sage grouse and sharp-tailed grouse would be coordinated with IDFG and would be implemented under LUP guidance or restrictions.
- Seasonal guidelines may be applied to mitigate the impacts to big game species from planned vegetation treatments as specified in LUPs.
- During implementation, the Proposed Plan Amendment directs collaboration with the appropriate local, state, and federal agencies to promote public education on species at risk, including their importance to the human and biological community and the rationale behind the protective measures that would be applied to their habitats.

Threatened, Endangered, and Candidate Species

The following restrictions apply to proposed habitats occupied by T&E and Candidate species and designated critical habitat.

- Treatment activities may occur near or adjacent to T&E and Candidate species habitat and will be designed to minimize or mitigate impacts to habitat occupied by T&E and Candidate species and designated critical habitat so that the species or their habitats will not be adversely affected. All related

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fire and non-fire vegetation treatment activities in areas that may affect T&E and Candidate species would be conducted in consultation with USFWS. Further, all such activities would be designed and implemented in such a manner that potential impacts to T&E and Candidate species from disturbance or habitat modification would be extremely unlikely to occur or would be so small as to not be meaningfully measured, detected, or analyzed.

- T&E and Candidate species with recovery plans, conservation agreements, and conservation strategies will be protected as specified in their respective plans/agreements/strategies. These protections include such measures as adequate habitat and range for a given species, including mitigation measures for multiple land use activities authorized by the BLM.
- Herbicide applicators will obtain a weather forecast for the area prior to initiating a spraying project to ensure no extreme precipitation or wind events could occur during or immediately after spraying. Aerial application of herbicides will not occur during periods of inversion. Spraying will follow label instructions.
- Fuels management and vegetation treatment activities would be conducted according to standards and guidelines in The Pacific Bald Eagle Recovery Plan, 1986. The planning area within the Greater Yellowstone Ecosystem would conduct fuels management and vegetative treatments according to standards and guidelines in the Greater Yellowstone Bald Eagle Management Plan (Greater Yellowstone Bald Eagle Working Group 1996). No vegetation treatment activities would occur within a one-half-mile radius of bald eagle nesting zones from February 1 to July 31. No activities would occur within one half mile (direct line of site) or one quarter mile of winter bald eagle concentration sites from November 1 to March 1.
- Riparian cottonwood forests with willow understories that may be impacted by fuels management and vegetation treatments would be surveyed for yellow-billed cuckoos prior to initiating project activities. When developing vegetation treatment projects, no ground-based application of herbicides would occur from May 1 to August 31 within 200 feet of occupied yellow-billed cuckoo habitat.
- Aerial application of chemicals would not occur from May 1 to August 31 within one-half mile of occupied yellow-billed cuckoo habitat.
- Fuels management and vegetation treatment areas within the BMUs would be coordinated with U.S. Forest Service activities to comply with road density restrictions and number and juxtaposition of management activities with BMUs, as provided for in the Grizzly Bear Recovery Plan (USFWS 1993) or the Final Conservation Strategy for the Grizzly Bear in the Yellowstone Area (USFWS 2003).
- When developing vegetation treatment projects, open and total motorized access routes or trail density within BMUs would not increase. When developing vegetation treatment projects within BMUs, the Bureau will coordinate with the Interagency Grizzly Bear Committee to develop/implement sanitation guidelines.
- Gray wolf (*Canis lupus*) populations in the area, which includes portions of the Planning Area, have been designated as experimental/nonessential. Presence or absence of gray wolf dens or rendezvous sites in fuels management or vegetation treatment areas would be determined prior to initiating projects. In the event active den or rendezvous sites are established within the planning area, vegetation treatments would be designed and implemented to minimize noise disturbance or habitat modifications within one mile of the den or rendezvous sites from April 15 to June 30.
- Fuels management and vegetation treatments that may occur within the Little Lost River drainage would be conducted according to standards and guidelines developed for bull trout (*Salvelinus confluentus*) Riparian Habitat Conservation Areas on BLM lands within the geographic range of bull trout (U.S. Fish and Wildlife Service 1999a, 2002).



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<ul style="list-style-type: none"> <li>• No aerial application of herbicides would occur within one half mile of all water bodies and springs containing listed snails, Columbia spotted frog, and bull trout.</li> <li>• No ground-based applications of herbicides, surfactants, or adjuvants would occur within 100 feet of perennial streams or their live water tributaries occupied by listed snails, Columbia spotted frog, and bull trout.</li> <li>• Dozer blading would not occur within 300 feet of streams that have habitat occupied by T&amp;E or Candidate Species.</li> <li>• Ground-disturbing activities other than tree and shrub planting will not occur within 300 feet of all water bodies and springs containing listed snails, Columbia spotted frog and bull trout.</li> <li>• No aerial application of herbicides would occur within one-half mile of all water bodies and springs containing listed snail, Columbia spotted frog and bull trout species.</li> <li>• Treatments will follow PACFISH/INFISH guidelines in bull trout habitat.</li> <li>• For those portions of the Snake River drainages where fuels management and vegetation treatments have the potential to effect populations of T&amp;E Snake River mollusks, the Bureau will consult with the Service to ensure mitigation measures are adequate to avoid adverse effects to Snake River mollusks.</li> </ul>
<b>Salmon Field Office – Lemhi RMP</b>
<i>Vegetation – General</i>
<p>Action:</p> <ol style="list-style-type: none"> <li>1. The Idaho Department of Fish and Game shall be given at least two years notice prior to any vegetation manipulation project.</li> <li>2. Brush control projects will be designed to maximize edge effect to the extent possible. Islands of untreated sagebrush will be incorporated into project design as necessary to provide cover for sage grouse and other species.</li> <li>3. Proposed brush manipulation projects on sage grouse winter and/or nesting range or antelope winter and/or fawning range must have a predicted neutral or beneficial effect on these species.             <ol style="list-style-type: none"> <li>a. The sagebrush canopy cover will not be reduced below 10 percent on sage grouse brood rearing areas.</li> <li>b. The sagebrush canopy cover will not be reduced below 20 percent on sage grouse nesting and wintering areas.</li> <li>c. The sagebrush canopy cover will not be reduced below 10 percent on general antelope ranges. Winter ranges and spring fawning areas will not be treated unless overall benefits to antelope will result.</li> </ol> </li> <li>4. Brush control proposals within 2 miles of known strutting grounds will be subject to on-site inspection by BLM and Idaho Department of Fish and Game personnel to determine prohibited areas.</li> <li>5. As a rule, no brush control will be allowed within 100 yards of streams, meadows, or secondary drainages (dry and intermittent). The desirability of increasing or decreasing the width on specific areas will be determined via on-site evaluation by BLM and Idaho Department of Fish and Game personnel.</li> <li>6. A mixture of grasses, forbs, and shrubs (if appropriate) will be used in all range rehabilitation or improvement projects.</li> </ol>
<i>Wildlife</i>
<p>Objective: Provide forage for 9,350 deer, 2,194 elk, 2,950 antelope, and 200 bighorn sheep. Improve 4,000 acres of elk winter/spring range; 17,000 acres of deer, antelope, and sage grouse seasonal ranges; and 22,000 acres of non—game habitat from fair to good ecological range condition to good. Improve 7,320 acres of seasonal elk and bighorn sheep ranges. Provide a more consistent water supply on 81,000 acres of antelope, sage grouse, and non-game habitat in the Gilmore and Muddy Creek area. Preserve habitat values of 30 small isolated seeps and wet meadows created by livestock water developments. Enhance big game movement and safety. Protect the future integrity of the elk breeding area in McDevitt Creek and antelope migration corridor near Center Ridge. Enhance the integrity and availability of 69,057 acres of crucial habitat of raptors, waterfowl, elk, and other wildlife. Improve the quality of 10,400 acres of crucial elk and bighorn habitat.</p>



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Action: Crucial habitat will be enhanced through adoption of no surface occupancy restrictions on 69,057 acres available for mineral leasing. The quality of 8,800 acres of big game habitat will be improved through restrictions on livestock use and timber management and harvest.
Action: Seasonal restrictions will continue to be applied where they are needed to mitigate the impacts of human activities on important seasonal wildlife habitat. Approximately 60 percent (226,000 acres) of the resource area lies within areas potentially subject to restriction. During any given year, the authorized officer may waive seasonal restrictions if actual conditions do not warrant them. Seasonal wildlife restrictions related to GRSG: Sage Grouse Strutting Grounds 03/01 — 04/30 Sage Grouse Nesting & Brood-rearing 04/30 — 06/30
<i>Livestock Grazing (Range Management)</i>
Action: All new fence construction will comply with the Lemhi Resource Area fencing policy dated May 20, 1983 which is as follows:  It shall be standard policy for the Lemhi Resource Area that:  A. All wire fences constructed subsequent to this policy statement shall be 3 wire only. B. Wire spacing shall be as follows: a. Top wire shall be set no higher than 38” from ground level. b. Bottom wire shall be smooth and set at a minimum of 18” from ground level. c. Midwire shall be set at 26” from ground level unless: 1. Bighorn sheep are involved (34”) 2. Fence is adjustable for antelope (29”) C. All new fences shall be flagged (e.g. cloth strips, survey flagging) between every other post.
<b>Shoshone Field Office - Craters of the Moon National Monument RMP</b>
<i>Vegetation - General</i>
Goal: There is no net loss, and preferably a net gain, of sagebrush steppe communities over the life of the plan.
Goal: Continuity of habitat for special status species and general wildlife are emphasized.
Action: VEG-2: Existing sagebrush steppe communities will be protected to prevent loss of shrub cover and managed to promote a diverse, desirable grass and forb understory.
Action: VEG-3: Annual grasslands and highly degraded sagebrush steppe communities will be restored to achieve a mosaic of shrubs, forbs, and grasses capable of sustaining native animal populations
Action: VEG-4: Restoration projects will be prioritized relative to locations of key Greater sage-grouse habitats and population strongholds. Emphasis will be on projects that restore annual grasslands and degraded sagebrush steppe communities, as well as enlarging and connecting habitats in good condition.
Action: VEG-5: National and Idaho state habitat guidelines for Greater sage-grouse and sagebrush steppe obligates developed by interagency working groups regarding composition and structure of sagebrush habitats on a landscape scale will be adopted to guide sagebrush steppe management.
Action: VEG-8: Aggressive protection of existing sagebrush steppe communities and proactive restoration of areas with poor to fair biotic integrity through both active and passive means (see Figure 6) will be emphasized.
Action: VEG-9: Approximately 80,000 acres of BLM-administered land (11% of the entire Monument) will



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<p>be restored. About 31,000 acres of annual grassland and 49,000 acres of highly degraded low elevation sagebrush steppe (poor to fair biotic integrity) will be treated to control cheatgrass and restore big sagebrush cover with a perennial understory.</p>
<p>Action: VEG-10: All special status species in the Monument will be inventoried with monitoring plans established, particularly when and where adverse impacts may occur.</p>
<p>Action: VEG-11: Actions and stipulations necessary to protect special status species and their habitats will be made part of land use authorizations (e.g., limiting fragmentation of special status species populations when considering road maintenance) and fire planning.</p>
<p>Action: VEG-12: Use of native plants will be emphasized in rehabilitation and restoration projects, and only native plants will be used for rehabilitation or restoration projects within the Pristine Zone. Integrated weed management principles will be used to:</p> <ul style="list-style-type: none"> <li>• detect and eradicate all new infestations of noxious weeds;</li> <li>• control existing infestations; and</li> <li>• prevent the establishment and spread of weeds within and adjacent to the planning area.</li> </ul>
<p>Action: Restoration treatments in areas supporting sage-grouse wintering habitats would be limited from December 1 through March 1.</p>
<p>Action: Restoration treatments in areas supporting sage-grouse breeding habitat would be limited from March 1 through April 30, and grouse nesting habitat April 30 through June 15.</p>
<p>Action: Sage-grouse Key and Source habitats would be maintained and enhanced when possible within Low- and Mid-Elevation Shrub types. Restoration treatments would generally be limited in habitats supporting live sagebrush communities. Treatments to enhance and restore habitat would be focused in areas where the sagebrush component is lost or dead and the understory degraded.</p>
<p><i>Wildlife</i></p>
<p>Goal: High-quality habitats for sagebrush obligate species are provided.</p>
<p>Action: WLIFE-7: Actions and stipulations necessary to protect special status species and their habitats will be made part of land use authorizations (e.g., limiting fragmentation of special status species populations when considering road maintenance) and fire planning.</p>
<p><i>Special Status Species – Wildlife, Sage-grouse</i></p>
<p>Goal: Greater sage-grouse restoration habitat (R1 &amp; R2) will achieve significant progress towards reclassification as Key habitat.</p>
<p>Goal: Species composition in key Greater sage grouse habitat will reflect site potential.</p>
<p>Action: WLIFE-8: Active and historic leks will be protected from disturbance during the Greater sage-grouse breeding season. Some examples of potential protective measures as presented in the Idaho Sage-grouse Advisory Committee's 2006 Conservation Plan for the Greater Sage-grouse in Idaho include the following:</p> <ul style="list-style-type: none"> <li>• Apply use restrictions where needed and appropriate on existing roads or trails near occupied leks to minimize nonessential activity between 6:00 PM to 9:00 AM (in general this guideline should be applied from approximately March 15 through May 1).</li> <li>• Avoid human activities such as fence maintenance or construction or any project or related work at or near (1 km or 0.6 mile) occupied leks that results in or will likely result in disturbance to lekking birds, between 6:00 PM to 9:00 AM (in general this guideline should be applied from approximately March 15 through May 1).</li> <li>• Avoid creating unnecessary disturbances related to livestock management activities near occupied leks whenever possible.</li> <li>• Improve the dissemination of information to elementary and high school students, hunters, resource user groups, and others to increase their understanding of Greater sage-grouse and sagebrush steppe conservation issues.</li> <li>• Monitor leks in a manner that minimizes disturbance to Greater sage-grouse following established protocol</li> </ul>

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

(Idaho Sage-grouse Advisory Committee 2006, Sections 5.2.1.1 and 5.2.1.2).
Note: Road closures or restrictions during the Greater sage-grouse breeding season will not apply to agency (BLM and NPS) vehicles, including Idaho Department of Fish and Game vehicles and personnel who conduct necessary Greater sage-grouse inventory.
Action: WLIFE-9: Consistent with Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (USDI BLM 1997) determinations, livestock grazing management will be modified as necessary to ensure that key Greater sage-grouse habitat achieves site potential.
<i>Wildland Fire Management</i>
Action: VEG-16: Wildland fire will be suppressed to protect life and property, healthy sagebrush steppe communities, recent rehabilitation and restoration projects, cultural sites, and the Little Cottonwood Creek watershed.
Action: VEG-17: Fire will be managed to maximize protection and restoration of sagebrush steppe in the Passage and Primitive Zones.
Action: VEG-20: In the event of wildland fire, burned areas will be rehabilitated when necessary to restore the appropriate mosaic of sagebrush species and subspecies, along with a diverse perennial understory, and to suppress invasive and noxious weeds.
<i>Comprehensive Trails and Travel Management</i>
Action: The NEPA Analysis which accompanies the Comprehensive TMP will include, at a minimum, cumulative effects assessments of road density and fragmentation of sage-grouse habitat.
<b>Shoshone Field Office - Magic MFP</b>
<i>Special Status Species – Wildlife, Sage-grouse</i>
Goal: Habitat Improvement
Objective: Establish vegetation... in conjunction with existing brush along Magic Reservoir.
Action: Provide adequate forage for sage grouse broods.
Goal: Habitat Maintenance
Objective: Determine winter use and strutting areas for maintenance of habitat.
Action: Inventory to determine if there is winter sage-grouse use within close proximity to their strutting grounds. If winter use is identified, adequate sagebrush should be maintained within the use areas.
Action: All sagebrush control projects that lie within 2-mile radius of sage-grouse strutting grounds will be designated... to not have any adverse impacts on nesting grouse.
Action: Maintain sagebrush within the 2-mile radius of sage-grouse strutting grounds.
Goal: Habitat Expansion
Objective: Establish a 10-15% density of summer succulent forbs approximately 14,000 acres.
Action: Sage-grouse summer habitat would be expanded.
<i>Wildland Fire Management</i>
Goal: Control big sagebrush only with chemicals or fire where it will not impair adequate nesting success of Sage grouse.
Objective: Maintain sagebrush within 2-mile radius of known grouse strutting grounds.
Goal: Control big sagebrush using chemicals or fire.
Objective: Maintain sagebrush outside of the 2-mile radius of known grouse strutting grounds.
Action: Strive for about 50% reduction in the amount of big sagebrush.
<i>Livestock Grazing</i>
Goal: Artificial Treatment (Brush Control)

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Objective: Improved forage and range conditions.
Action: Coordination/Planning on brush control within areas inside the identified primary nesting areas for sage grouse.
Action: Brush control designed such that they will not have any adverse impacts on nesting grouse.
<b>Shoshone Field Office - Sun Valley MFP</b>
<i>Vegetation – Rangeland</i>
Goal: (NC, BW, & M) Appendix 1 of MFP Decision Number 6, Habitat Management – Vegetation Manipulation
Objective: Maintain crucial habitat
Action: Every effort should be made to delay sheep bands from utilizing known sage grouse nesting areas until about the first week in June, or until young sage grouse have hatched in the particular locality.
Action: Livestock should not be permitted to heavily use known important sage grouse wintering areas.
Action: No sagebrush should be treated or removed until a comprehensive multiple-use management plan (MFP) has been formulated for the area.
Action: Sagebrush control should include provisions for long-term quantitative and qualitative measurements of vegetation before and after control to acquire data on the effects of wildlife habitat.
<i>Special Status Species – Wildlife, Sage-grouse</i>
Goal: (NC, BW, & M) Appendix 1 of MFP, Habitat Management – Vegetation Manipulation
Objective: Maintain crucial habitat
Action: No control work should be considered where live sagebrush cover is less than 20%, or on steep upper slopes with skeletal soils where big sagebrush is 12 in. or less in height.
Action: Control of vegetation within the breeding complex should not be undertaken within 2 miles of leks, or on nesting and brood areas.
Action: No control of sagebrush should be considered in any area known to have supported important wintering concentrations of sage grouse within the past 10 years.
Action: When sagebrush control is found to be unavoidable in sage grouse range, all treatment measures should be applied in irregular patterns using topography and other ecological considerations to minimize adverse effects to the sage grouse resource.
<i>Wildland Fire Management</i>
Goal: (NC, BW, & M) Appendix 1 of MFP, Habitat Management – Vegetation Manipulation
Action: No winter burns of sagebrush habitat in identified important wintering sites.
Action: Fire should be avoided during spring/summer when it could destroy ... young sage grouse.
<b>Shoshone Field Office - Bennett Hills/Timmerman Hills MFP</b>
<i>Soil &amp; Water - WATERSHED in MFP</i>
Objective: Selectively control heavy stands of brush which are competing with or have replaced herbaceous vegetation desirable for watershed protection in the following delineated areas. (W 1.4.)
Action: Selective brush control may be undertaken within two-mile radius of sage grouse strutting grounds, sage grouse wintering areas, and deer winter range subject to coordinated assessment by the Area Manager and Wildlife Biologist.
<i>Vegetation – General</i>
Action: Forbs composition at the desired level of 20-25% is the accepted Wildlife Recommendations for the entire area. This goal puts additional constraints on spraying of sagebrush with chemicals which also reduce forbs. It may be that some reduction could be accepted for the short term if long term benefits in forb production could be attained. Another possible mitigating measure might be to aerial seed some forbs following sagebrush spray project.
<i>Vegetation – Rangeland</i>
Dempsey Allotment: Action: Coordinate land treatment proposal in the allotment where critical deer winter

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

range sage grouse range and lands potentially valuable for agriculture have not been identified to assure all multiple use conflicts are mitigated prior to project implementation Criteria to be used in mitigating conflicts are found in Appendix I MFP Step II, See Step II Overlay for coordinated control areas.
Indian Allotment: Action: Allow coordinated land treatment on sage grouse winter range.
Clover Creek Allotment: Action: Allow coordinated land treatment on sage grouse winter range.
Davis Mountain Allotment: Action: Allow coordinated land treatment on sage grouse winter range. See Appendix I, MFP Step II.
Black Canyon Allotment: Action: Allow coordinated land treatment on sage grouse winter range and strutting grounds. See Appendix 1, MFP Step II.
Rattlesnake Allotment: Action: Allow coordinated land treatment on sage grouse winter range and nesting areas. See criteria in Appendix I, MFP Step II.
North Shoshone Allotment: Action: Allow coordinated land treatment on sage grouse winter range and nesting grounds. Refer to criteria in Appendix 1, MFP Step II.
Kinzie Butte Allotment: Action: Allow selective brush control within two mile radius of sage grouse strutting grounds.
Marsh Spring Allotment: Action: Allow coordinated land treatment within 2 mile radius of sage grouse strutting grounds. See criteria referred to in 2 above.
Macon Flat Allotment: Action: Allow coordinated land treatment on sage grouse winter range and nesting grounds. Refer to criteria in #2 above.
Picabo Cattle Allotment - Action: Selectively control sagebrush to increase livestock forage, improve watershed conditions, and improve species composition for sage grouse brood rearing within the accepted guidelines (RM Appendix II) for sagebrush control.
Tikura Allotment - Action: Selectively control sagebrush to increase livestock forage, improve watershed conditions, and improve species composition for sage grouse brood rearing within the accepted guidelines (RM Appendix II) for sagebrush control.
Richfield Allotment - Action: Selectively control sagebrush to increase livestock forage, improve watershed conditions, and improve species composition for sage grouse brood rearing within the accepted guidelines (RM Appendix II) for sagebrush control.
Tack Allotment - Action: Selectively control sagebrush to increase livestock forage, improve watershed conditions, and improve species composition for sage grouse brood rearing within the accepted guidelines (RM Appendix II) for sagebrush control.
Timmerman Hills Sheep Allotment - Action: Selectively control sagebrush to increase livestock forage, improve watershed conditions, and improve species composition for sage grouse breed rearing within the accepted guidelines (RM Appendix I) for sagebrush control.
<i>Wildlife – Sensitive Species – Sage-grouse</i>
Goal: Sage grouse are an important wildlife resource within the planning area in which most of the birds live their entire life cycle. The objective is to increase the huntable population of this species within the area. (p. 4)
Objective: The three key habitat requirements of this species are strutting and nesting areas brood rearing areas and winter areas. The strutting grounds should not be disturbed and adequate sagebrush cover should be maintained within the nesting areas to provide for nesting sage grouse. (p. 4)
Objective: In the brood rearing areas the key factor is wet meadow areas which provide succulent forage during the summer months. These areas should be maintained and improved.(p. 4)



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Objective: Since the primary ingredient in the sage grouse winter diet is sagebrush it will be necessary to maintain adequate brush within the winter areas to provide for the anticipated population of sage grouse.(p. 4)
Objective: Improve 283,000 acres of sage grouse brood rearing habitat in the Bennett Hills and Timmerman Hills Planning Units in order to provide adequate food, cover, and water for pre hunting season population of 20,000 sage grouse by 1990. (WL 6.)
Action: Selectively reduce sagebrush throughout those portions of sage grouse brood rearing habitat that does not encompass either critical deer winter range or winter sage grouse habitat. (WL 6.1.)
Objective: Manage the existing sagebrush on 283,000 acres of nesting habitat and 38,000 acres of winter habitat in order to provide the necessary nesting cover and winter forage and cover for pre hunting season population of 20,000 sage grouse in the two planning units. (WL 7.)
Action: Selectively control sagebrush within 2-mile radius of strutting grounds in a manner that will not adversely impact present and future nesting sage grouse populations.
Action: Selective brush control may be under taken on sage grouse wintering areas only after careful consideration that remaining sagebrush habitat will be adequate for projected sage grouse populations. (WL 7.1.)
<i>General wildlife</i>
Objective: Manage the upland game bird habitat throughout the two planning units and provide diversity of vegetative species in order to provide variety of habitats for the five species of upland game birds. (WL 8.)
Action: Establish livestock grazing systems in order to establish diverse vegetative composition 15-20 percent shrubs, 20-25 percent forbs, and 50-65 percent grasses throughout the upland game bird habitat. (WL 8.3.3)
Objective: Upland Game Birds: An important part of their (sic upland game birds) habitat requirements can be provided on the National Resource Land by maintaining sagebrush for escape and winter cover. (pp. 4-5)
Action: Small parcels of National Resource Land identified as having important upland game habitat and situated adjacent to private land will be retained in public ownership and managed for upland game birds.
Objective: Forbs and grasses are also an important component of the life cycle of the upland game bird species. Consideration of this need should be part of the development of the allotment management plans in those areas which lie adjacent to the developed agricultural lands. (p. 5)
<b>Shoshone and Burley Field Offices - Monument RMP</b>
<i>Vegetation - Rangeland</i>
Action: "Sage Grouse Management in Idaho" (Autenrieth 1981) will be used as a reference to assist in the design of proposed projects in sage grouse habitat.
Action: Where wildlife habitat is a major consideration, areas will be burned to create a mosaic of shrubby and herbaceous vegetation. Burned areas will be rested from livestock grazing for two growing seasons following treatment.
<i>Special Status Species – Wildlife – Sage-grouse</i>
Objective: Protection of brush pockets will be important in maintaining or enhancing habitat for sage grouse, pronghorn, mule deer, and non-game wildlife.
Action: Maintain and enhance sage grouse habitat by maintaining adequate, suitable areas of brush and providing additional forbs for brood rearing.
Action: A Sage Grouse Habitat Management Plan will be prepared to guide management in the sage-grouse winter habitat area covering about 67,000 acres in Laidlaw Park, Little Park, and Paddleford Flat west of Carey.
Action: Suitable forbs will be included in range seedings in this area.
Goal: Monitoring and evaluation will be conducted to determine whether the RMP decisions are being implemented, whether the objectives of the RMP are being accomplished, and whether the RMP continues to be consistent with related plans. If a variation warranting management concern is found, the reasons for the variation will be examined and corrective actions will be taken as appropriate.

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Objective: Variation From RMP Warranting Management Concern - Any decrease below 1982 sage-grouse population levels.								
Action: Monitoring lek trends annually.								
Objective: Variation From RMP Warranting Management Concern - More acres of brush burned than planned for brush control.								
Action: Monitor nesting and winter habitats through analysis of fire reports.								
Objective: Variation From RMP Warranting Management Concern - 20 percent decrease in key species.								
Action: Monitor nesting and winter habitats by measuring frequency of key forbs.								
Action: Priority will be given to habitat for listed candidate, threatened and endangered species and sensitive species.								
<i>Wildland Fire Management</i>								
Objective: Protection of brush pockets will be important in maintaining or enhancing habitat for sage grouse, pronghorn, mule deer, and non-game wildlife.								
Upper Snake Field Office – Upper Snake RMP								
<i>Vegetation - General</i>								
Action: Use chemical, mechanical, seeding, and prescribed fire treatments as appropriate to achieve DFC. In perennial grass, invasive annual grasses, and juniper-invaded cover types, restore the sagebrush steppe with an aggressive sagebrush seeding effort, using the appropriate sagebrush subspecies for the treatment area.								
Action: Conduct fire/non-fire vegetation treatments in non-WUI areas with the following goals: <ul style="list-style-type: none"> <li>• Diversify perennial grass to speed reestablishment of sagebrush cover.</li> <li>• Enhance structural and species diversity in degraded low-elevation sagebrush steppe.</li> <li>• Reduce shrub and juniper density in mid-elevation shrub.</li> <li>• Reduce invasive species or noxious weeds in all vegetation types.</li> <li>• In mountain shrub, rejuvenate old, decadent shrubs and increase cover and density of desirable herbaceous species.</li> </ul>								
Action: Design vegetation treatments in concert with wildlife species and their season of use (e.g., winter, lekking, transitional, nesting, hibernation) while maintaining required habitat characteristics such as but are not limited to: <ul style="list-style-type: none"> <li>• Providing cover for wildlife</li> <li>• Maintaining diversity</li> <li>• Treating in a mosaic pattern</li> <li>• Providing travel corridors</li> <li>• Mimicking natural historic disturbances (e.g., fingering, uneven patches).</li> </ul>								
Action: As appropriate, to move vegetation cover types towards the DFC, use various methods (e.g., prescribed fire, mechanical, chemical, WFU) to treat on an <i>annual</i> basis the following footprint acres.								
<table border="1"> <thead> <tr> <th>Cover Type</th> <th>Acres treated</th> </tr> </thead> <tbody> <tr> <td>Wyoming/Basin Big Sagebrush</td> <td>45,010–49,750</td> </tr> <tr> <td>Mountain Big Sagebrush</td> <td>8,165–9,025</td> </tr> <tr> <td>Low Sagebrush</td> <td>95–105</td> </tr> </tbody> </table>	Cover Type	Acres treated	Wyoming/Basin Big Sagebrush	45,010–49,750	Mountain Big Sagebrush	8,165–9,025	Low Sagebrush	95–105
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**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<i>Vegetation - Rangeland</i>
Objective: Control invasive species/noxious weeds and poisonous plants to decrease the overall number of areas occupied. Minimize the likelihood of introduced new species of invasive species/noxious weeds and prevent weeds from becoming established.
Action: Priority treatment areas include: <ul style="list-style-type: none"> <li>• Wilderness study areas/areas of critical environmental concern/research natural areas</li> <li>• Special status species (SSS) habitats</li> </ul>
<i>Special Status Species – Wildlife - Sage-grouse</i>
Goal: Ensure public lands are managed to conserve species and their habitats, while providing for favorable conditions that support their continued existence.
Objective: Maintain, improve, or increase habitat for sensitive species to prevent them from becoming listed species (i.e. Federal T&E).
Action: Maintain existing partnerships and establish new partnerships (e.g., Greater sage-grouse working groups, IDFG, local cave groups) that help manage sensitive species habitat on BLM-administered public lands. Coordinate with state and other federal agencies to support research efforts, develop partnerships, and develop outreach and educational opportunities to inform the public about sensitive species habitats and populations.
Action: Pursue conservation easements, land acquisitions, cooperative management efforts, and other programs to support conservation of sensitive species and linkage corridors to improve habitat connectivity.
Action: Reduce impacts to sensitive species habitat by implementing measures such as but not limited to: <ul style="list-style-type: none"> <li>• Implement distance and timing stipulations.</li> <li>• Consider placement of, rerouting, modifying, or removing infrastructure (e.g., facilities, powerlines, pipelines, fence lines) or project location.</li> <li>• Consider placement of range improvements.</li> </ul>
Action: Inventory potential habitat and monitor population trends.
Action: Permitted/authorized activities (mining, recreation, land use authorizations, grazing, etc.) within sensitive species habitat may be modified (e.g., closed, limited or restricted access, season of use) to reduce potential conflicts or impacts (e.g., disturbance, habitat degradation).
Action: Manage livestock grazing in special status species habitat according to Standard 8 (Special Status Species) under Idaho Standards for Rangeland Health.
Objective: Maintain, improve, or increase habitat for sensitive species to preclude them from becoming listed species (i.e., federally threatened or endangered).
Action: Manage Greater sage-grouse habitat consistent with appropriate conservation plans (e.g., Conservation Plan for the Greater Sage-grouse in Idaho [ISAC 2006]), local working group (e.g., Upper Snake, Challis, Eastern Idaho Uplands, Big Desert, and Magic Valley) and IDFG conservation strategies (e.g., Idaho Comprehensive Wildlife Conservation Strategy [IDFG 2005a]), including future revisions or amendments, and current BLM guidance, by: <ul style="list-style-type: none"> <li>• Reducing/controlling invasive species/noxious weeds</li> <li>• Reducing/limiting disturbance during breeding, nesting, and early brood rearing</li> <li>• Establishing setbacks or buffers</li> <li>• Maintaining/improving habitats through proactive vegetation treatments</li> <li>• Maintaining nesting habitat</li> </ul>



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<ul style="list-style-type: none"> <li>Applying livestock management techniques (e.g., sheep-bedding, herding, salting, water hauling, varying season of use, adjusting livestock numbers, developing alternative sources of water, and converting spring developments to a closed system).</li> </ul>
Action: Limit physical, mechanical, and audible disturbance within 0.5 miles of active leks from March through June (Sharp-tailed Grouse)
<i>Wildland Fire Management</i>
Action: In designing vegetation treatments in Low- and Mid-elevation Shrub and Mountain Shrub that could potentially affect Greater Sage-grouse, conservation measures would be implemented.
Objective: Maintain, protect, and expand Greater sage-grouse stronghold/source habitats.
Action: Conduct vegetation treatments in areas that pose a wildland fire risk to Greater sage-grouse Key habitat.
Action: Strategically place treatments on a landscape scale to prevent wildland fire from spreading into intact sagebrush steppe habitat (e.g., leks, breeding or brood rearing area) or WUI.
Action: WFU may be allowed in historically frequent fire regimes to restore fire's natural role and in Greater sage-grouse habitat for the benefit of the habitat only after site-specific project-level coordination with the Idaho Department of Fish and Game.
Action: Suppress wildland fires in stronghold/source habitats, except where WFU would benefit habitat.
Goal: Protect and enhance sage grouse source habitats as well as enhance key ecological components in plant and animal communities.
Objective: Make progress towards DFC in the low-elevation shrub, perennial grass, invasive annual grass, mid-elevation shrub, mountain shrub, and juniper vegetation types.
Action: In perennial grass, invasive grass, and juniper invaded cover types, restore sagebrush steppe with an aggressive sagebrush seeding effort, using the appropriate sagebrush subspecies for the treatment area.
Objective: Maintain, protect, and expand sage grouse source habitats.
Action: Allow WFU in sage grouse habitats for the benefit of the habitat only after site-specific project level coordination with IDFG.
Objective: Treat sage grouse key and restoration habitats to expand source habitats. Improve and maintain sage grouse Restoration (R1-3) and key habitats.
Action: Use AMR to wildland fire in all sage grouse restoration and key habitats and healthy wildlife habitats.
Action: WFU may be allowed in historically frequent fire regimes to restore fire's natural role and in sage grouse restoration and key habitats for the benefit of the habitat only after site-specific project level consultation/collaboration with IDFG.
Action: Conduct vegetation treatments in restoration and key habitats to reduce risk of wildland fire and reconnect restoration and key habitats.
Objective: Apply Greater sage-grouse conservation measures and management restrictions for fire suppression and fire and non-fire vegetation treatments.
Action: Implement the following suppression restrictions:
<p><i>Fire Management</i></p> <ul style="list-style-type: none"> <li>In the event a wildland fire escapes initial attack, a BLM resource advisor will be assigned to ensure that resource management concerns are adequately addressed and that necessary mitigation occurs. If one of the following is being threatened or has the potential to be threatened, the appropriate manager will be notified with the following information and a resource advisor will be dispatched: 1) Public health and safety, 2) WUI, 3) Sage grouse habitat and, 4) Any ACEC, Resource Natural Area (RNA), congressionally delegated watershed or any other area of significant concern.</li> </ul>
<i>Noxious Weeds</i>



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<ul style="list-style-type: none"><li>• To minimize spread of noxious weeds, equipment used for extended attack or Type I/II incidents should be cleaned before arriving on-site and prior to leaving the incident. Staging areas and fire camps should avoid sites with noxious weed infestations.</li></ul> <p><u>Special Designations (WSAs, ACECs)</u></p> <ul style="list-style-type: none"><li>• Fire camps and staging areas should be placed outside of special management areas.</li><li>• Use of natural firebreaks and existing roads and trails to contain a wildland fire would be encouraged.</li><li>• The resource values, hazards present, and management prescriptions within specific areas would be evaluated when applying guidelines to ACECs.</li></ul> <p><u>Vegetation</u></p> <ul style="list-style-type: none"><li>• Blading should occur on existing roads where possible. Blading through undisturbed areas, especially those supporting native cover types, should be avoided unless necessary to protect life, property, or resource values.</li></ul> <p><u>Wildlife</u></p> <ul style="list-style-type: none"><li>• When conducting fire suppression actions, species with recovery plans, conservation agreements, Partners in Flight species, and Birds of Conservation Concern will be protected as specified in their respective plans and or agreements.</li><li>• Establishment of control lines, base camps, and support facilities in known SSS habitat will be avoided unless life and property are threatened.</li></ul> <p><u>Threatened, Endangered, and Candidate Species</u></p> <p>The following restrictions apply to Proposed, Threatened, Endangered and Candidate species and to “designated” critical habitat.</p> <ul style="list-style-type: none"><li>• The BLM will coordinate annually with the USFWS to update species status in the planning area.</li><li>• Field Managers will ensure resource staff initiates emergency consultation with the USFWS whenever suppression activities may impact listed species habitat and, more specifically, during emergency suppression actions to protect life and property.</li><li>• Minimum Impact Suppression Techniques (MIST) guidelines will be followed in occupied T&amp;E and Candidate species habitat where appropriate (Appendix T in Interagency Standards for Fire and Aviation Operations, 2005). MIST guidelines direct suppression techniques, procedures, tools, and equipment that least impact the environment. Wet-lining (using water to soak/saturate fuels) is the preferred fireline construction tactic.</li><li>• Field Managers will assign a Resource Advisor or other designated representative as per the current Red Book guidance.<ul style="list-style-type: none"><li>○ BLM will notify USFWS when appropriate to discuss T&amp;E species mitigation within the suppression area to assure conservation practices are being followed to avoid adverse effects.</li><li>○ When Incident Management Teams (IMTs) are required, the Resource Advisor will brief the IC about conservation measures needed to avoid adverse effects.</li></ul></li><li>• To minimize spread of noxious weeds, equipment used for extended attack or Type I/II incidents should be cleaned before arriving on-site and prior to leaving the incident. Staging areas and fire camps will avoid sites with noxious weed infestations.</li></ul>
<p>Action: Implement the following fire and non-fire vegetation restrictions:</p> <p><u>Vegetation Management</u></p> <ul style="list-style-type: none"><li>• No chemical treatment would conflict with existing or future national vegetative treatment guidance. To reduce potential resource impacts from chemical treatments, herbicide use would conform to application criteria described in the 1991 document, Environmental Impact Statement for Vegetation Treatment on BLM Lands in Thirteen Western States or in subsequent revisions and/or replacements of this document. Use would conform to instructions from BLM Manual 9011 Chemical Pest Control, as well as</li></ul>

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label restrictions and current policies and state statutes. In addition, the prescription for herbicide application (desired, optimum environmental conditions) would evaluate off-site migration and non-target species by assessing wind speed and direction, temperature, precipitation forecast, soil infiltration potential, constraints on overland water transport due to precipitation or flooding, establishment of riparian buffer strips, and risk to special status species. Fishery and/or wildlife biologists would assist project planners in selecting appropriate herbicides for use among or near terrestrial and aquatic flora and fauna sensitive to herbicides.

- Fuels treatments would be utilized to reduce the overall threat of the establishment and spread of noxious/invasive plant species.

Livestock Grazing

- All treatment areas would be rested from livestock grazing until project-specific monitoring identified in site-specific project plans and/or NEPA documents show that resource objectives have been met. Resumption of grazing would be determined on a case-by-case basis.

Placeholder Species

- Plant materials used in re-vegetation actions would be native when appropriate and practical. However, desirable non-native species may be used in re-vegetation actions on harsh or degraded sites, when native seed is not available, or where they would structurally mimic the natural plant community and prevent soil loss and invasion by exotic annual grasses and noxious weeds. The species used would be those that have the highest probability of establishment on these sites. These "placeholders" would maintain the area for potential future native restoration. Native seed would be used more frequently and at larger scales as species adapted to local areas become more available.

Wildlife

- Species with recovery plans, conservation agreements, Partners in Flight species, and Birds of Conservation Concern will be protected as specified in their respective plans/agreements.
- Habitat Conservation Assessment and Conservation Strategies have been prepared and are currently being implemented for the following BLM sensitive species: Townsend's big-eared bat, wolverine, spotted bat, white headed woodpecker, trumpeter swan, northern goshawk, Columbian sharp-tailed grouse, greater sage grouse (Idaho plan pending), mountain quail, Idaho dunes tiger beetle, Bonneville cutthroat trout, bull trout, Yellowstone cutthroat trout, red band trout and leather sided chub.
- Vegetation treatments proposed in areas supporting sage grouse and sharp-tailed grouse would be coordinated with IDFG and would be implemented under LUP guidance or restrictions.

Threatened, Endangered, and Candidate Species

The following restrictions apply to proposed habitats occupied by T&E and Candidate species and designated critical habitat.

- Treatment activities may occur near or adjacent to T&E and Candidate species habitat and will be designed to minimize or mitigate impacts to habitat occupied by T&E and Candidate species and designated critical habitat so that the species or their habitats will not be adversely affected. All related fire and non-fire vegetation treatment activities in areas that may affect T&E and Candidate species would be conducted in consultation with USFWS. Further, all such activities would be designed and implemented in such a manner that potential impacts to T&E and Candidate species from disturbance or habitat modification would be extremely unlikely to occur or would be so small as to not be meaningfully measured, detected, or analyzed.
- T&E and Candidate species with recovery plans, conservation agreements, and conservation strategies will be protected as specified in their respective plans/agreements/strategies. These protections include such measures as adequate habitat and range for a given species, including mitigation measures for



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<p>multiple land use activities authorized by the BLM.</p> <ul style="list-style-type: none"><li>• Herbicide applicators will obtain a weather forecast for the area prior to initiating a spraying project to ensure no extreme precipitation or wind events could occur during or immediately after spraying. Aerial application of herbicides will not occur during periods of inversion. Spraying will follow label instructions.</li></ul>
<p>Action: Implement the following Greater sage-grouse conservation measures:</p> <p>Prescribed Fire</p> <ul style="list-style-type: none"><li>• Prior to planning prescribed burns or other vegetation management treatments in sagebrush communities, ensure that sage-grouse seasonal habitats have been mapped (see 5.3.2 for additional discussion of mapping).</li><li>• Once seasonal habitats have been mapped, ensure that proposed project areas have been evaluated on the ground in the context of the appropriate seasonal habitat characteristics (see 5.3.2).</li><li>• Avoid the use of prescribed fire and other sagebrush-reduction projects in areas where sagebrush is limiting on the landscape or in habitats that currently meet, or are trending toward meeting, breeding or winter habitat characteristics.</li><li>• If the analysis shows that a vegetation treatment may still be advisable, design habitat-manipulation projects to achieve the desired objectives, considering the following:<ul style="list-style-type: none"><li>○ Where prescribed burning, or other treatments, in sage-grouse habitats may be warranted (e.g., sagebrush cover exceeds desired breeding or winter habitat characteristics; understory does not meet seasonal habitat characteristics and restoration is desired; there is a need to restore ecological processes; or a proposed treatment site is in an exotic seeding being managed for overall sage-grouse benefits on the surrounding landscape).</li><li>○ Project design should be done with interdisciplinary input and in cooperation with IDFG.</li><li>○ Ensure that any proposed sagebrush treatment acreage is conservative in the context of surrounding seasonal habitats and landscape.</li><li>○ Where appropriate, ensure that treatments are configured in a manner that promotes use by sage-grouse (see Connelly 2000 for additional discussion).</li><li>○ Leave adequate untreated sagebrush areas for loafing/hiding cover near leks for sage-grouse.</li></ul></li><li>• Evaluate and monitor prescribed burns, and other treatments, as soon as possible after treatment and periodically thereafter to determine whether the project was successful and is meeting or trending toward desired objectives.</li><li>• Avoid the use of prescribed fire or other sagebrush treatments in habitats prone to the expansion or invasion of cheatgrass or other invasive species unless adequate measures are taken to control the invasive species and ensure subsequent dominance by desirable perennial species. In many—if not most—cases, this will likely require chemical treatments and reseeding.</li><li>• Plan, execute, and monitor prescribed fires in a manner that provides for adequate control and provision for contingency resources.</li><li>• Ensure that burn plans address the importance of preventing escaped fires when prescription fires are planned in the vicinity of stronghold and key habitat.</li></ul> <p>Annual Grasslands</p> <ul style="list-style-type: none"><li>• Local working groups (LWG), land management agencies, IDFG, and other partners should work closely together to identify and prioritize annual grassland areas for restoration. Work cooperatively to identify options, schedules, and funding opportunities for specific projects.</li><li>• In general, the priority for implementation of specific sage-grouse habitat restoration projects in annual grasslands should be given first to:<ul style="list-style-type: none"><li>○ Sites adjacent to or surrounded by sage-grouse stronghold habitats, then</li></ul></li></ul>

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- Sites outside stronghold habitats but adjacent to or within approximately two miles of key habitat, and
  - Sites beyond two miles of key habitat. The intent here is to focus restoration outward from existing, intact habitat.
  - All seeding project designs should include measures for noxious weed control and monitoring for at least 3 years following implementation.
  - Seed used in sage-grouse habitat restoration seedings, burned area rehabilitation projects, and hazardous fuels/wildland urban interface projects will be tested and certified as weed-free, based on prevailing agency policy and protocol. Private landowners are encouraged to use only certified seed, as well.
  - In designing rehabilitation and restoration projects, use the best available science relative to seeding technology and plant materials. Use of NRCS's "VegSpec" website may be helpful. VegSpec is a web-based decision support system that assists land managers in the planning and design of vegetation establishment practices. VegSpec uses soil, plant, and climate data to select plant species that are site-specifically adapted, suitable for the selected practice, and appropriate for the purposes and objectives for which the planting is intended. (See <http://plants.usda.gov>).
  - Design vegetation treatments in areas of high fire frequency to facilitate firefighter safety; reduce the risk of extreme fire behavior; reduce the risk and rate of fire spread to stronghold, key, and restoration habitats; reduce fire frequencies; and shorten the fire season.
  - Where rangelands are dominated by annuals (such as cheatgrass) or where they border farmlands or railroad right-of-ways, convert cheatgrass areas to perennials, or establish buffers of perennial species to reduce the risk of fire spread from railroad or agriculture-related activities (e.g., sparks from trains, field burns, burn barrels), where appropriate and feasible.
  - To discourage the spread of invasive annuals and noxious weed seed, require the washing of fire vehicles (including undercarriage) prior to deployments and prior to demobilization from wildfire incidents.
  - Human activities such as fence and pipeline maintenance or construction, facility maintenance, utility maintenance, or any project or related work at or within 1 km (0.6 miles) of occupied leks that results in or will likely result in disturbance to lekking birds should be avoided from approximately 6:00 PM to 9:00 AM. In general, this guideline should be applied from March 15 through May 1 in lower elevation habitats and March 25 through May 15 in higher elevation habitats.
- Perennial Grasslands
- LWGs, land management agencies, IDFG, and other partners should work closely together to identify and prioritize perennial grasslands (exotic versus native) where plant species diversity or sagebrush is limiting on the landscape. Further, they should work cooperatively to identify options, schedules, and funding opportunities for reestablishing sagebrush in higher priority areas.
  - When seeding sagebrush, source-identified, tested seed adapted to local conditions should be used.
  - One or more of the following approaches for restoring sagebrush should be considered to improve likelihood of success (see Dalzell 2004 and Monsen et al. 2004):
    - Use of the "Oyer" compact row seeder, which compacts soil and presses seed into the surface.
    - Use of the Billion cultipacker seeder, where seed is broadcast over the surface followed by cultipacking.
    - Transplant bare-root or containerized stock in small critical areas to establish a seed source.
    - Use the "mother plant" technique, and transplant bare-root or containerized stock in select locations throughout the area to establish a seed source.
  - For large areas (e.g., large wildland fires), aerial seed onto a rough seedbed (Monsen et al. 2004) coupled



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with one or more of the above options.

- In established stands of introduced perennial grasses, transplant sagebrush into strategic patches or strips in critical sites or throughout the area. Scalp spots or strips to reduce grass competition prior to planting. Or, as an alternative to scalps, consider the use of herbicides (see Monsen et al. 2004, Volume 3).
- Where the diversification of crested wheatgrass or similar seedings with native species of grasses, forbs, and/or shrubs is desired, Pellant and Lysne (2005) recommend a three-step process:
- Reduce competition of crested wheatgrass to facilitate the establishment and persistence of the desired species. Possibilities include use of livestock, capitalizing on drought episodes that reduce grass vigor, herbicides such as glyphosate, and mechanical treatments.
  - Introduce desired, site-adapted species through drill seeding; aerial seeding followed by harrow, cultipacker or chaining; livestock trampling; or transplanting container stock, bareroot stock, or individual plants from native sources ("wildings"). Lambert (2005) provides descriptions, recommended seeding rates, and other useful information for nearly 250 species of native and non-native grasses, forbs, and shrubs.
  - As part of post-treatment management, ensure that livestock grazing and rest intervals are matched with the phenology and life history characteristics of the desired/seeded/transplanted species. Implement monitoring to clearly document how, what, when, and where treatments were implemented. Follow up with suitable effectiveness monitoring to document success of the treatments relative to project objectives.

#### Conifer Encroachment

- LWGs, land management agencies, IDFG, and other partners should work closely together to identify and prioritize conifer encroachment areas for further management action. Work cooperatively to identify options, schedules, and funding opportunities for specific projects. For western juniper, Miller et al. (2005) provide *Guidelines for Selecting the Most Appropriate Management Actions*, pages 54–57.
- IDFG, land management agencies, LWGs, and other partners should work closely together to identify leks where conifer encroachment may be affecting lek attendance or nearby habitat quality.
- Remove Douglas fir or other conifers where they are encroaching on wet meadows, riparian areas, or sagebrush stands that provide potential sage-grouse habitat.
- Remove juniper, Douglas fir, pinyon pine, or other trees within at least 100 m (330 ft) or an 8-acre area of occupied sage-grouse leks. The purpose of this procedure is to reduce perching opportunity for raptors or other avian predators within view of leks. Techniques could include chainsaw, chipper, or other suitable mechanical means. Ensure cutting and slash disposal is completed between approximately July 15 and January 30 to minimize disturbance to grouse that may be in the vicinity (e.g., males at leks, nesting females, and young broods). This practice serves to reduce raptor predation on sage-grouse by eliminating potential perches, thereby improving survival, recruitment, and productivity. It may be particularly valuable where avian predation may be of greater concern such as in areas with fragmented habitat, nearby infrastructure features, and/or in the case of small, isolated sage-grouse populations.
- Where juniper or other conifer species have encroached upon sagebrush communities at larger scales, employ prescribed fire, chemical, mechanical (e.g., chaining, chipper, chainsaw, or commercial sale), or other suitable methods to reduce or eliminate juniper. Priority should be given to areas where there is a strong likelihood for recovery of perennial herbaceous vegetation or where preparatory and follow-up actions (e.g., control of invasive species and seeding) are likely to be successful. Whenever possible, but especially if sagebrush habitat is limited locally, use juniper-control techniques that are least disruptive to the affected stand of sagebrush. For example, if junipers are only scattered, and the associated sagebrush community is otherwise relatively healthy, cutting junipers with chainsaws will remove the encroachment threat while allowing for immediate use of the sagebrush by sage-grouse. In all cases, control efforts should be planned using interdisciplinary expertise.

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<ul style="list-style-type: none"> <li>Where juniper control around leks is planned, monitor leks for at least three consecutive years post-treatment to document effects on lek attendance. Ideally, two to three years of pre-treatment monitoring is also recommended, but this may not always be feasible.</li> </ul>
<p><i>Livestock Grazing</i></p> <p>Action: Manage livestock grazing consistent with the Conservation Plan for the Greater Sage-grouse in Idaho (ISAC 2006) and local working group plans (e.g., Big Desert Plan), implementing conservation measures such as, but not limited to:</p> <ul style="list-style-type: none"> <li>Implementing grazing management systems (e.g., herding, rest rotation, deferred rotation) to ensure adequate nesting habitat within the breeding landscape</li> <li>Adjusting grazing use distribution to benefit occupied Greater sage-grouse breeding habitat, through herding, salting, and water source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs)</li> <li>Identifying and/or developing strategically located forage reserves</li> <li>Moving sheep bedding grounds away from Greater sage-grouse leks</li> <li>Placing salt/mineral supplements in existing disturbed sites, areas with reduced sagebrush cover, seedings, or cheatgrass sites</li> <li>Considering the impact of range improvement placement on Greater sage-grouse</li> <li>Modifying fences when impacts to Greater sage-grouse are identified.</li> </ul>
<p><i>Fluid Minerals (Oil and Gas, Tar Sands, and Geothermal Resources)</i></p> <p>Action: Identify the following lands as open to leasing, subject to seasonal and controlled surface use restrictions (≈560,560 acres). These restrictions would be changed only by waiver, exception, or modification as outlined by the criteria listed in Appendix Process for Fluid Mineral Leasing.</p> <p>Seasonal wildlife guidelines (Approximately 456,560 acres):</p> <ul style="list-style-type: none"> <li>Greater sage-grouse strutting and nesting areas—activity allowed 6/16 to 1/30 (lands in the Big Lost MFP [BLM 1983])</li> <li>Sharp-tailed grouse and Greater sage-grouse strutting grounds—activity allowed 5/1 to 3/1 (lands in the Medicine Lodge RMP)</li> <li>Sharp-tailed grouse and Greater sage-grouse nesting and brood rearing areas—activity allowed 7/1 to 5/1 (lands in the Medicine Lodge RMP)</li> <li>Sharp-tailed grouse and Greater sage-grouse winter range—activity allowed 4/1 to 12/1 (lands in the Medicine Lodge RMP)</li> <li>Sharp-tailed and Greater sage-grouse nesting and brood rearing areas within the Tex Creek Wildlife Management Area—activity allowed 7/1 to 3/31</li> </ul>
<p><i>Mineral Materials</i></p> <p>Action: Develop conditions of approval that require operators to comply with mineral material regulations to protect the following surface resource values:</p> <ul style="list-style-type: none"> <li>Sharp-tailed grouse and Greater sage-grouse strutting, nesting, and brood rearing areas</li> <li>Sharp-tailed grouse and Greater sage-grouse winter range</li> <li>Special status species habitats.</li> </ul>
<p><b>Forest Service</b></p>
<p><b>Beaverhead-Deerlodge National Forest – Beaverhead-Deerlodge National Forest Plan</b></p>

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<i>Vegetation – Forest &amp; Woodlands</i>	
Objective: Grassland/Shrubland/Riparian: Reduce conifer encroachment on 74,000 acres of riparian areas, shrublands, and grasslands.	
<i>Wildlife</i>	
Goal: Sage Grouse: Sagebrush habitat supports sage grouse and pygmy rabbit populations by providing suitable sage grouse brood-rearing habitat on at least 40% of the sagebrush habitat within 18 kilometers of documented active or inactive sage grouse leks and the area mapped as potential pygmy rabbit habitat.	
Objective: Sage Grouse: Maintain or improve sagebrush height, and canopy and grass-forb canopy of sagebrush habitat, emphasizing habitat within 18 kilometers of documented active or inactive sage grouse leks and the area mapped as potential pygmy rabbit habitat.	
Sensitive and Federally Listed Species: Information in the following sources should be considered when designing projects that may affect sensitive species or federally listed species. <ul style="list-style-type: none"> <li>• Management Plan and Conservation Strategies for Sage Grouse in Montana</li> </ul>	
Standard 8: Within 18 kilometers of documented active or inactive sage grouse leks, do not remove sagebrush within 300 meters of riparian zones, meadows, lakebeds or farmland, unless site specific analysis indicates such removal promotes achievement of the sagebrush habitat goal. Springs developed for livestock water in these areas must be designed to maintain free water and wet meadows.	
<b>Boise National Forest – Boise National Forest Plan</b>	
<i>Vegetation – General</i>	
Desired Condition - Grassland and Shrubland Vegetation: Chapter 3, p. III-29 (Vol. 1, FLRMP) Grasslands and shrublands exhibit variable patterns of multiple-aged shrubs, grasses, and forbs. Shrublands are found in mosaics of canopy closures across the landscape, reflecting a combination of successional development, disturbance regimes and management activities. Some mid- to high-elevation grasslands are primarily meadow complexes that are dominated by sedges, rushes, grasses, and forbs.	
Appendix A - Vegetation, p. 17 (Vol. 2, FLRMP) Shrublands: Shrublands occur on areas not classified as forestland and where shrub cover has the potential to be >10 percent. Desired conditions have been developed for some shrubland communities that occur on the Forest. The shrubland groups reflect the LANDFIRE Environmental Site Potentials (ESPs) (refer to the Vegetation Classification section for descriptions of shrubland types). Like the forested vegetation, these groupings reflect similar environmental characteristics, site productivity, and disturbance regimes. Table A-9 displays the fire regimes for the shrubland communities.	
Table A-9. Shrubland environmental site potential groups by fire regime	
<b>Fire Regime</b>	<b>Shrubland Environmental Site Potential Group</b>
Mixed1	Low Sagebrush
Mixed1-Mixed2	Mountain and Wyoming Big Sagebrush
	Montane Shrub
Desired Condition Ranges for Sagebrush Species: Mt. Big Sagebrush: Grass/Forb = <10% Canopy Cover over 13-33% of area. Low = 10-25% Canopy Cover over 27-47% of area. Moderate = 26-35% Canopy Cover over 12-32% of area	



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<p>High = &gt;36% Canopy Cover over 8-28% of total area Wyoming Big Sagebrush: Grass/Forb = &lt;10% Canopy Cover over 25-30% of area. Low = 10-25% Canopy Cover over 20-35% of area. Moderate = 26-35% Canopy Cover over 13-33% of area High = &gt;36% Canopy Cover over 12-32% of total area Low Sagebrush: Grass/Forb = &lt;10% Canopy Cover over 0-20% of area. Low = 10-25% Canopy Cover over 80-100% of area. Moderate = 26-35% Canopy Cover over 0% of area High = &gt;36% Canopy Cover over 0% of total area</p>
<p>Guideline: VEGU06 - When sagebrush cover types are determined to need rest from livestock grazing following a wildfire, areas should be rested for a minimum of two growing seasons. Evaluate whether additional rest is needed after two growing seasons. Base this determination on the following factors: a) The ecological status of the sagebrush community prior to the wildfire, b) How long the sagebrush community had a density or canopy closure greater than 15 percent prior to the wildfire, c) The severity and intensity of the fire, d) The amount, diversity, and recovery of forbs, grasses and palatable shrubs that are present after 2 years of rest in relation to desired conditions. In areas other than sagebrush cover types, an appropriate rest period should be determined. Base this determination on the following factors: soil conditions, the amount, diversity and recovery of forbs, grasses, and palatable shrubs in relation to the desired condition that are present after the 2 years of rest.</p>
<p>Guideline: BTGU03 - When available and not cost-prohibitive, seeds and plants used for seedings and plantings in revegetation projects should originate from genetically local sources of native species. When project objectives justify the use of non-native plant materials, documentation explaining why non-natives are preferred should be part of the project planning process.</p>
<p><i>Special Status Species – Wildlife – Sage-grouse</i></p>
<p>Objective: TEOB07 - During fine-scale analyses, identify practices or facilities that are adversely affecting TEPC species or their habitats, and prioritize opportunities to mitigate, through avoidance or minimization, adverse effects to TEPC species.</p>
<p>Objective: TEOB19 - During fine-scale analyses in areas where TEPC species occur, identify opportunities to maintain desired habitat conditions or restore degraded habitat for TEPC species.</p>
<p>Objective: TEOB28 - During fine-scale analyses in areas where dispersed and developed recreation practices or facilities are identified as a potential concern or problem contributing to adverse effects to TEPC species or degradation of their habitats, evaluate and document where the problems are and prioritize opportunities to mitigate, through avoidance or minimization, adverse effects to TEPC species.</p>
<p>Standard: TEST04 - Management actions that have adverse effects on Proposed or Candidate species or their habitats, shall not be allowed if the effects of those actions would contribute to listing of the species as Threatened or Endangered under the ESA.</p>
<p>Standard: TEST05 - For management actions that include application of insecticides, herbicides, fungicides, or rodenticides, mitigation shall avoid or minimize adverse effects on TEPC species or their habitats.</p>
<p>Standard: TEST06 - Management actions shall be designed to avoid or minimize adverse effects to listed species and their habitats. For listed fish species, use Appendix B for determining compliance with this standard.</p>
<p>Standard: TEST12 - Mitigate, through avoidance or minimization, management actions within known nest or</p>



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denning sites of TEPC species if those actions would disrupt reproductive success during the nesting or denning period. During project planning, determine sites, periods, and appropriate mitigation measures to avoid or minimize effects.
Standard: TEST13 - Mitigate, through avoidance or minimization, management actions within known winter roosting sites of TEPC species if those actions would adversely affect the survival of wintering or roosting populations. During project planning, determine sites, periods, and appropriate mitigation measures to avoid or minimize effects.
Standard: TEST29 - Avoid or minimize adverse effects from locatable mineral operations to TEPC animal species or their habitats.
Guideline: TEGU03 - Management actions in occupied Proposed or Candidate species habitat should be modified or relocated if the effects of the actions would contribute to a trend toward ESA listing for these species.
Guideline: TEGU05 - The Forest should cooperate with USFWS and NMFS as appropriate by providing information, data, and assistance for the evaluation of species that are petitioned, or proposed, or candidates to be listed under the ESA, and for evaluation of proposed critical habitat.
Guideline: TEGU06 - Coordinate with Forest resource specialists to consider TEPC habitat needs when designing and implementing management activities that may affect TEPC species and their habitats.
Guideline: TEGU08 - Fire Resource advisors should be trained in techniques to mitigate, through avoidance or minimization, adverse effects to TEPC species.
Guideline: TEGU10 - Land exchanges that would result in a net loss of quality or quantity of habitat for TEPC species should not be considered unless benefits of the exchange outweigh the benefits to those species in the long term.
Guideline: TEGU12 - Where the authority to do so was retained, proposed or existing special use authorizations should be issued, re-issued, or amended upon expiration, only if adverse effects of the authorizations on TEPC species can be minimized.
<i>Management Area Direction</i>
The Lower South Fork Boise River MA on the Mountain Home Ranger District:
<ul style="list-style-type: none"> <li>• Vegetation Objective 0133 - Within the 1992 Foothills Fire area, maintain existing and newly established shrub stands in the Mountain Big Sagebrush and Bitterbrush vegetation groups to improve shrub diversity.</li> <li>• Wildlife Resources Guideline 0140 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> <li>• Rangeland Resources Guideline 0156 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> <li>• Rangeland Resources Guideline 0157 - Whenever possible, modify developed springs and other water sources to restore free-flowing water and wet meadows in sage grouse habitat.</li> <li>• Fire Management Objective 0159 - Limit the use of prescribed fire in existing and newly established stands of mountain big sagebrush and bitterbrush within the 1992 Foothills Fire area in order to restore canopy closure, and restore or maintain shrub diversity.</li> </ul>
<b>Caribou-Targhee National Forest – Caribou National Forest Revised Forest Plan</b>
<i>Special Status Species – Wildlife - Sage-grouse</i>
Objective: Sage Grouse: Within five years of signing the ROD, map functional and degraded sage grouse nesting and winter habitat within 5 miles of known leks. Identify opportunities to increase quality or quantity of that habitat
Action: Standard: In project analyses affecting the habitats listed below, assess impacts to habitat and populations for the following management indicator species:

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<ul style="list-style-type: none"> <li>• Grassland and open canopy sagebrush habitats--Columbian Sharp-tailed Grouse</li> <li>• Sagebrush habitats--Sage Grouse</li> <li>• Mature and old forest habitats--Northern Goshawk</li> </ul>
Action: Standard: Cooperate with other state and federal agencies and private landowners to survey, inventory, and manage habitats for sage grouse and Columbian sharp-tailed grouse
Action: Guideline: Current guidelines for sage and sharp-tailed grouse management, such as Connelly et al. (2000), should be used as a basis to develop site-specific recommendations for proposed sagebrush treatments
Action: Guideline: Management activities should consider proximity to active lek locations during site-specific project planning. Those within 10 miles of an active sage grouse lek and 2 miles of active sharp-tailed grouse leks should be considered further for suitability as grouse habitat
Action: Guideline: If management activities would impact courtship, limit physical, mechanical, and audible disturbances in the breeding complex during the breeding season (March to May) within three hours of sunrise and sunset each day.
Action: Guideline: Where management actions will disturb nesting grouse, avoid manipulation or alteration of vegetation during the nesting period (May to June)
Action: Guideline: In sagebrush habitats, manage herbaceous cover to conceal nests through the first incubation period for ground and low shrub-nesting birds. It is assumed that proper use of rest-rotation or deferred-rotation grazing should meet these conditions, although not every year on every area (Idaho Partners in Flight 2000)
<b>Caribou-Targhee National Forest - Curlew National Grassland Management Plan</b>
<i>Vegetation - Rangeland</i>
Grassland-wide Goal: Sagebrush is managed to maintain current levels of sagebrush in the >15% canopy cover class--about 60% of the Grassland. Emphasis will be on creating and maintaining areas suitable for sage grouse nesting habitat over the long term.
Grassland-wide Standard: Conduct a risk assessment for all sagebrush herbicide treatments, including aerial applications, using the most current Multi-Regional Risk Assessment.
Grassland-wide Standard: Areas where threetip sagebrush ( <i>Artemisia tripartita</i> ), rabbitbrush, and horsebrush have canopy cover values of greater than 5 percent will be carefully evaluated before treatment due to their ability to sprout after disturbance.
Grassland-wide Guideline: Emphasize native plant species where they would meet the desired resource conditions. Introduced species may be used in project seedings: (1) where native species would not meet the objectives of erosion control, such as in high use or impact areas, and where the effects on local, native flora is minimal; (2) on sites that are currently dominated by introduced species and the use of non-native species has not degraded the adjacent native flora; (3) on sites where the management objective is to use non-native species in one area to prevent degradation of other natural areas; or (4) when native seed is unavailable or cost prohibitive.
Grassland-wide Goal: Manage sagebrush community habitats to reduce fragmentation and maintain or restore connectivity at the Grassland level.
Grassland-wide Objective: Assess the changes to sagebrush habitats in the Greater Curlew Valley, including canopy cover, adjacent land use, understory conditions, every five years. Coordinate this effort with the Natural Resource Conservation Service and Greater Curlew Valley Sage Grouse Local Working Group.
Grassland-wide Guideline: Identify and maintain those habitats that have sagebrush with native understory vegetation.
Grassland-wide Guideline: Manage for a mosaic of age and structural sagebrush communities across the Grassland in patches of at least 320 acres.



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Guidelines: Prescription 6.5 – Rangeland Vegetation And Upland Bird Habitat Management, Vegetation Consider maintaining dense (>15%) sagebrush cover adjacent to private land that has less sagebrush than is desirable for quality sage grouse habitat.
Grassland-wide Goal: Habitat conditions on the Grassland contribute to sustaining populations of sage and Columbian sharp-tailed grouse in the Greater Curlew Valley.
<i>Special Status Species – Wildlife - Sage-grouse</i>
Grassland-wide Goal: Continue coordination with the Greater Curlew Valley Sage Grouse Local Working Group and other interested parties to manage sage grouse populations on the Curlew National Grassland.
Grassland-wide Goal: Maintain and increase, where possible, the distribution and abundance of sage grouse.
Grassland-wide Objective: Develop a map in cooperation with Idaho Department of Fish and Game to identify functional and degraded breeding habitat and winter habitat within two years of signing the Record of Decision.
Grassland-wide Standard: The habitat requirements of management indicator species (MIS) will be considered in all resource development projects. The MIS for sagebrush habitat is sage grouse and for riparian/wetland areas is a breeding bird complex.
Grassland-wide Guidelines: Management activities will consider proximity to active lek locations during site-specific project planning.
Grassland-wide Guidelines: If management actions would impact courtship, limit physical, mechanical and audible disturbances within the breeding complex during the breeding season (March – May) within three hours of sunrise or sunset.
Grassland-wide Guidelines: Where management actions may disturb nesting grouse, avoid manipulation or alteration of vegetation during the nesting period (May-June).
Standard: Prescription 6.5 – Rangeland Vegetation And Upland Bird Habitat Management, Wildlife Do not treat sagebrush within 0.25 miles of an active sage grouse lek.
Guideline: Prescription 6.5 – Rangeland Vegetation And Upland Bird Habitat Management, Wildlife Time treatment practices to provide the least impact to wildlife with emphasis on upland game birds.
Guideline: Prescription 6.5 – Rangeland Vegetation And Upland Bird Habitat Management, Wildlife Current guidelines for sage and sharp-tailed grouse management will be used as a basis to develop site-specific recommendations for proposed sagebrush treatments. Lek buffers as described in the most current guidelines do not apply to the Grassland, because of the highly fragmented nature of the area and the distance that hens are known to move to nest (Biologist Meeting 10/24/01). Rationale for deviation from the other guidelines will be identified in the site-specific project analysis.
Guideline: Prescription 6.5 – Rangeland Vegetation And Upland Bird Habitat Management, Wildlife When implementing vegetation seeding treatments, provide for a seed mix with species that are preferred by native upland birds during the pre-nesting, nesting and brood-rearing periods, where possible. See Appendix C.
<i>Cultural Resources and Tribal Coordination</i>
Goal: Grassland-wide Desired Future Conditions: Functional restoration of the ecosystem provides the capability to support harvestable levels of species of interest to the tribes.
<i>Recreation and Visitor Services</i>
Grassland-wide Guidelines: Manage dispersed recreation use such that activities do not adversely impact wildlife species such as upland game birds during critical periods of the annual life cycle.
<i>Other Administrative Designations</i>
Standards: Prescription 3.4.1 – Special Wildlife Areas, Vegetation: Native and non-native grass, forb and shrub species will be used in the composition for revegetation after disturbance and reflect those species preferred by native grouse for pre-nesting, nesting and brood rearing.
<b>Salmon-Challis National Forest – Salmon National Forest Plan</b>

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

<i>Wildlife</i>
Goal: Provide habitat of sufficient quantity and quality to sustain populations of management indicator species (p. IV-1)
Action: Habitat for each vertebrate wildlife species on the Forest will be managed to insure viable or target populations (p. IV-19).
<i>Livestock Grazing</i>
General Direction: Coordinate range improvement and management activities with wildlife habitat needs, especially on key habitat areas such as winter ranges, calving areas, riparian areas, and sage-grouse leks (p. IV-22).
<b>Salmon-Challis National Forest – Challis National Forest Plan</b>
<i>Wildlife and Fish</i>
Goal 1: Provide habitat to ensure viability and recovery of threatened and endangered and Forest Service sensitive plants and animals.
Objective 1 – Implement the T&E Recovery Plans as they are approved
Goal 2 – Maintain or improve the current productivity level of wildlife and fish habitat
Objective 4 – Place priority on improving essential wildlife and fish habitats (e.g., aspen, mahogany, riparian, aquatic) and seasonal ranges.
Objective 5 – Manage Forest vegetation to provide habitat diversity for all species
Emphasize habitat improvement for Threatened and Endangered Species, Forest Service Sensitive, and economically and socially important species
The Elk Habitat Relationships for Central Idaho, Guidelines for Management of Pronghorn Antelope and the Western State Sage Grouse Guidelines will be used as guides.
Management Area Direction – East Fork: Maintain or improve quality of wet meadows, springs, mule deer and elk winter range, elk calving and sage grouse brood-rearing areas.
Inventory wildlife habitat with emphasis on refining winter ranges, key sage grouse seasonal ranges, riparian areas, wet meadows, aspen types and on identifying improvement needs
Within key sage grouse habitat, manage to increase forbs and provide adequate sagebrush cover
Management Area Direction – South Lost River: Cooperate with Idaho Department Of Fish and Game in transplant of Bighorn sheep and sage grouse. Use Sage Grouse Workshop Guidelines in identifying criteria for Habitat evaluation.
Management Area Direction – Sawmill Canyon: Maintain quality and use of MIS big game and grouse summer forage areas, emphasizing complexes comprising moist habitats. Protect moose and elk calving and grouse brood-rearing areas.
Management Area Direction- Antelope Creek: Improve quality and use of big-game winter range and other critical habitat; emphasize complexes comprising moist habitats. Sage-grouse Workshop Guidelines should be used as a guideline.
<b>Sawtooth National Forest – Sawtooth National Forest Revised Forest Plan</b>
<i>Vegetation - General</i>
Shrubland desired conditions are represented by canopy cover of shrubs based on the following groupings:
<ul style="list-style-type: none"> <li>▪ Grass/Forb = &lt;10% canopy cover</li> <li>▪ Low = 10–25% canopy cover</li> <li>▪ Moderate = 26–35% canopy cover</li> <li>▪ High = ≥36% canopy cover</li> </ul>

**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Table A-11. Desired Condition Ranges for Low Sagebrush Environmental Site Potential Groups

Canopy Cover	Percent of Area
Grass/Forb	0–20
Low	80–10
Moderate	0
High	0

Table A-12. Desired Condition Ranges for Mountain Big Sagebrush and/or Basin Big Sagebrush ESP Groups

Canopy Cover	Percent of Area
Grass/Forb	13–33
Low	27–47
Moderate	12–32
High	8–28

Table A-13. Desired Condition Ranges for Wyoming Big Sagebrush

Canopy Cover	Percent of Area
Grass/Forb	25–30
Low	20–35
Moderate	13–33
High	12–32

Table A-14. Desired Condition Ranges for Montane Shrub Environmental Site Potential Groups

Canopy Cover	Percent of Area
Grass/Forb	0
Low	5–25
Moderate	5–25
High	60–80

*Special Status Species – Wildlife – Sage-grouse*

Desired Condition: The amount, distribution, and characteristics of source habitat are present at levels necessary to support persistence of native and desired non-native wildlife species within their respective ranges across the planning unit. For Region 4 Sensitive species, management actions retain desired source habitat conditions, or lead to restoration of those conditions. Habitat conditions contribute to the persistence of species and do not lead to listing under the ESA or as a Region 4 Sensitive Species. Human activities do not affect source environments in a manner that prevents wildlife populations from attaining desired distribution and abundance during critical life stages. Habitat conditions support sustainability of species of socio-economic and tribal interest.

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Goal: TEGO02 - Habitat within the respective ranges of Proposed or Candidate species contributes to keeping them from becoming listed under ESA.
Goal: TEGO04 - Environmental conditions and habitat components support reproductive needs important to sustainable populations of Threatened, Endangered, Proposed, and Candidate (TEPC) species.
Goal: TEGO05 - Well-distributed habitat capable of maintaining self-sustaining, complex interacting groups of TEPC species exists within their respective ranges across the planning unit.
Goal: TEGO06 - Habitat capable of maintaining stable or increasing trends in abundance of TEPC species in all recovery units within the planning unit exists.
Objective: TEOB01 - Continue to map and update locations of species occurrence and habitat for TEPC species during fine- or site/project-scale analyses. Incorporate information into a coordinated GIS database and coordinate with the Idaho Conservation Data Center.
Objective: TEOB02 - Cooperate with USFWS and NMFS to develop an Information and Education program for special use authorizations within TEPC habitat.
Objective: TEOB03 - Identify and reduce road-related effects on TEPC species and their habitats using the Watershed and Aquatic Recovery Strategy (WARS), <i>the Vegetation and Wildlife Habitat Restoration Strategy and Source Environment Restoration Strategy</i> , and other appropriate methodologies.
Objective: TEOB05 - Coordinate with research for TEPC species to determine basic life history requirements and potential effects from management activities. Coordinate efforts and information with the Idaho Conservation Data Center, universities, Forest Service Research Stations, etc.
Objective: TEOB07 - During fine-scale analyses, identify practices or facilities that are adversely affecting TEPC species or their habitats, and prioritize opportunities to mitigate, through avoidance or minimization, adverse effects to TEPC species.
Objective: TEOB11 - Update appropriate NRIS database modules for TEPC species and their habitats on a biennially basis to incorporate latest field data.
Objective: TEOB14 - During mid- or project-scale analysis, identify and prioritize opportunities for restoration of habitat linkage zones for terrestrial TEPC species to promote genetic integrity and species distribution (refer to Wildlife Source Environment Restoration Strategy Map in Appendix E).
Objective: TEOB18 - During fine-scale analyses in areas where TEPC species occur, identify opportunities to maintain desired habitat conditions or restore degraded habitat for TEPC species.
Objective: TEOB21 - Develop Integrated Weed Management plans to maintain or restore habitats for TEPC plants and other native species of concern where they are threatened by noxious weeds or non-native invasive plants.
Objective: TEOB22 - Develop operational resources (maps, keys, desk guides, etc.) within 1 year of signing the ROD, to coordinate TEPC species concerns and practical mitigations, and include those resource tools in the Fire Management Plan. Consult with NMFS and USFWS on operational resources on an annual basis. As part of this process consider the following relative to initial attack: <ul style="list-style-type: none"> <li>a) How these resource tools will be provided to initial attack personnel.</li> <li>b) Locations or identification of occupied TEPC plant habitat, TEPC fish-bearing streams, surface water with direct delivery to TEPC fish bearing streams and associated RCAs.</li> <li>c) Criteria and potential mitigation concerning decisions to place incident bases, camps, helibases, helispots, and other centers for incident activities within occupied TEPC plant habitat or RCAs.</li> <li>d) Criteria and potential mitigation concerning decisions to use draft hoses in TEPC fish-bearing streams that do not have appropriate screening.</li> <li>e) Criteria and potential mitigation concerning decisions to use chemical retardant, foam or other additives in RCAs where surface waters have direct delivery to TEPC fish-bearing streams.</li> <li>f) Criteria and potential mitigation concerning decisions to use heavy equipment in RCAs.</li> </ul>



**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

Objective: TEOB25 - Use land acquisition, exchange, and conservation easements, where appropriate, to meet riparian and aquatic goals and objectives, and to facilitate restoration of TEPC species habitat.
Objective: TEOB26 - Where the authority to issue special-use authorizations and agreements was not retained (i.e., FERC, mineral leases), work with permit holders to negotiate changes to meet TEPC species desired habitat conditions.
Objective: TEOB27 - During fine-scale analyses in areas where dispersed and developed recreation practices or facilities are identified as a potential concern or problem contributing to adverse affects to TEPC species or degradation of their habitats, evaluate and document where the problems are and prioritize opportunities to mitigate, through avoidance or minimization, adverse effects to TEPC species.
Standard: TEST04 - Management actions that have adverse effects on Proposed or Candidate species or their habitats, shall not be allowed if the effects of those actions would contribute to listing of the species as Threatened or Endangered under the ESA.
Standard: TEST05 - For management actions that include application of insecticides, herbicides, fungicides, or rodenticides, mitigation shall avoid or minimize adverse effects on TEPC species or their habitats.
Standard: TEST12 - Mitigate, through avoidance or minimization, management actions within known nest or denning sites of TEPC species if those actions would disrupt reproductive success during the nesting or denning period. During project planning, determine sites, periods, and appropriate mitigation measures to avoid or minimize effects.
Standard: TEST13 - Mitigate, through avoidance or minimization, management actions within known winter roosting sites of TEPC species if those actions would adversely affect the survival of wintering or roosting populations. During project planning, determine sites, periods, and appropriate mitigation measures to avoid or minimize effects.
Standard: TEST29 - Avoid or minimize adverse effects from locatable mineral operations to TEPC animal species or their habitats.
Guideline: TEGU02 - For proposed actions that may affect potential habitat of TEPC species, identify potential habitat and determine species presence within or near the project area. Document the rationale for not identifying potential habitat and determining species presence for TEPC species in the project record.
Guideline: TEGU03 - Management actions in occupied Proposed or Candidate species habitat should be modified or relocated if the effects of the actions would contribute to a trend toward ESA listing for these species.
Guideline: TEGU05 - The Forest should cooperate with USFWS and NMFS as appropriate by providing information, data, and assistance for the evaluation of species that are petitioned, or proposed, or candidates to be listed under the ESA, and for evaluation of proposed critical habitat.
Guideline: TEGU06 - Coordinate with Forest resource specialists to consider TEPC habitat needs when designing and implementing management activities that may affect TEPC species and their habitats.
Guideline: TEGU08 - Fire Resource advisors should be trained in techniques to mitigate, through avoidance or minimization, adverse effects to TEPC species.
Guideline: TEGU10 - Land exchanges that would result in a net loss of quality or quantity of habitat for TEPC species should not be considered unless benefits of the exchange outweigh the benefits to those species in the long term.
Guideline: TEGU12 - Where the authority to do so was retained, proposed or existing special use authorizations should be issued, re-issued, or amended upon expiration, only if adverse effects of the authorizations on TEPC species can be minimized.
<i>Rangeland Resources</i>
Guideline: RAGU05 - Where rangeland facilities or practices have been identified as potentially contributing to the degradation of water quality, aquatic species, wildlife species of concern, or occupied sensitive or watch plant habitat, facilities and practices causing degradation should be considered for relocation, closure, or



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

changes in management strategy, alteration, or discontinuance.
<i>Recreation and Visitor Services</i>
Objective: REOB01 During fine-scale analyses in areas where recreation facilities are identified as a potential concern or problem contributing to degradation of water quality, aquatic species, wildlife species of concern or occupied sensitive or Watch plant habitat, evaluate and document the location of the facilities causing degradation and prioritize opportunities to mitigate effects. (REOB01).
Objective: REOB20 - During fine-scale analyses in areas where recreational trails are identified as a potential concern or problem contributing to degradation to other resources, evaluate and document the location of the trail degradation and prioritize opportunities to mitigate effects.
Guideline: REGU07 Where recreation facilities or practices have been identified as potentially contributing to degradation of water quality or aquatic species, wildlife species of concern or occupied sensitive and watch plant habitat, facilities and practices causing degradation should be considered for relocation, closure, changes in management strategy, alteration, or discontinuance.
<i>Lands and Realty</i>
Guideline: LSGU01 - Acquisitions of land and interest in lands should be guided by the following criteria: Priority 1 Acquisitions: (not listed in any order of priority) a) Lands and associated riparian ecosystems on water frontage such as lakes and major streams. b) Critical habitat lands needed for protection of TEPC fish, wildlife, or plant species. c) Other environmentally sensitive lands, such as important wetland and riparian areas. d) Lands needed for the protection of significant historical or cultural resources when these resources are threatened or when management may be enhanced by public ownership. e) Lands that enhance recreation opportunities, public access, and protection of aesthetic values. f) Lands needed for protection and management of administrative and Congressionally designated areas. g) Lands needed to reduce expenses of both the Forest Service and the public in administration and utilization. Consolidation of split estates. h) Lands with water rights that can be used to accomplish purposes for which the National Forest was created, or related resource obligations. Priority 2 Acquisitions: (not listed in any order of priority) a) Key tracts of an ecosystem that are not urgently needed, but will promote more effective management of the ecosystem and will meet specific needs for vegetative management, watershed management, research, public recreation, or other defined management objectives. Generally, these tracts will support consolidation objectives. b) Buffer lands needed for protection of lands acquired for purposes listed above. c) Lands needed to protect resource values by eliminating or reducing fire risks, soil erosion and occupancy trespass. Priority 3 Acquisitions: All other lands desirable for inclusion in the National Forest System.
<i>Locatable Minerals</i>
Objective: MIOB08 - During fine-scale analyses in areas where mine facilities are identified as a potential concern or problem contributing to degradation of water quality, aquatic species, wildlife species of concern or occupied sensitive or Watch plant habitat, evaluate and document where the contributing mine facilities are and prioritize opportunities to mitigate effects.
Guideline: MIGU11 - Where mine facilities or practices have been identified as potentially contributing to degradation of water quality, aquatic species, wildlife species of concern, or occupied sensitive and watch plant habitat, facilities and practices causing degradation should be considered for relocation, closure, changes

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

in management strategy, alteration, or discontinuance.
<i>Travel and Transportation</i>
Objective: FROB12 - During fine-scale analyses in areas where roads and facilities are identified as a potential concern or problem contributing to degradation of water quality, aquatic species, wildlife species of concern or occupied sensitive or Watch plant habitat, evaluate and document where the contributing facilities are and prioritize opportunities to mitigate effects.
<i>Management Area Direction</i>
Management Areas on the Minidoka District: MA-11 – Rock Creek (Sawtooth LRMP, Volume 1 pages III-228-237)
<ul style="list-style-type: none"> <li>• Vegetation Objective 1116 - Restore and maintain sagebrush and bitterbrush composition, age class, and canopy cover components (as described in Appendix A) in the Low Sage, Basin Big Sage, and Mountain Big sagebrush vegetation groups, with emphasis on improving wildlife winter ranges and sage grouse habitat near the Forest Service boundary.</li> <li>• Wildlife Resources Guideline 1124 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> <li>• Rangeland Resources Objective 1141 – When possible, modify developed springs and other water sources to restore natural free-flowing water and wet meadows in sage grouse habitat.</li> <li>• Rangeland Resources Guideline 1142 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
MA-12 – Cottonwood Creek (Sawtooth LRMP, Volume 1 pages III-238-245)
<ul style="list-style-type: none"> <li>• Vegetation Objective 1215 - Restore shrub composition in the Low Sage, Basin Big Sage, and Mountain Big Sagebrush cover types; with emphasis on improving wildlife winter ranges in areas degraded by increasing juniper cover.</li> <li>• Wildlife Resources Guideline 1225 - Management actions in sage grouse habitat should be designed to meet desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore cover conditions.</li> <li>• Rangeland Resources Guideline 1233 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
MA-13 – Trapper Creek/Goose Creek (Sawtooth LRMP, Volume 1 pages III-246-255)
<ul style="list-style-type: none"> <li>• Vegetation Objective 1321 - Restore canopy covers to desired conditions, as described in Appendix A, within the Basin Big Sagebrush, Low Sage, and Mountain Big Sagebrush vegetation groups where these groups have been altered.</li> <li>• Non-native Plants Objective 1327 - Reduce cheatgrass by restoring native perennial grass/forb composition of plant communities in the Low Sage, Basin Big Sage, Pinyon-Juniper, and Mountain Big Sagebrush vegetation groups below 6,000 feet elevation.</li> <li>• Wildlife Resources Guideline 1329 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> <li>• Rangeland Resources Objective 1342 - Whenever possible, modify developed springs and other water sources to restore natural free-flowing water and wet meadows in sage-grouse habitat.</li> <li>• Rangeland Resources Guideline 1344 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
MA-14 – Shoshone Creek (Sawtooth LRMP, Volume 1 pages III-256-262)

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<ul style="list-style-type: none"> <li>• Vegetation Objective 1048 - Restore and maintain sagebrush and bitterbrush composition, age class, and canopy cover components (as described in Appendix A) in the Low Sage, Basin Big Sage, and Mountain Big sagebrush vegetation groups, with emphasis on improving wildlife winter ranges and sage grouse habitat near the Forest Service boundary.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1413 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Objective 1418 – Whenever possible, modify developed springs and other water sources to restore natural free-flowing water and wet meadows in sage-grouse habitat.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Guideline 1419 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
<p>MA-15 – Albion Mountains (Sawtooth LRMP, Volume 1 pages III-264-271)</p> <ul style="list-style-type: none"> <li>• Vegetation Objective 1513 - Restore mountain big sagebrush canopy cover to desired conditions, as described in Appendix A, in Robinson Creek headwaters, Big Rocky Creek, Summit Creek, North and South Carson Creeks, Myers Canyon, and Fairchild Creek.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1524 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
<p>MA-16 – Howell Creek (Sawtooth LRMP, Volume 1 pages III-272-281)</p> <ul style="list-style-type: none"> <li>• Vegetation Objective 1618 - Restore Mountain Big Sagebrush canopy cover to desired conditions, as described in Appendix A, in Broad Hollow, Brim Canyon, and Cooney Hollow.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1631 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Objective 1644 - Whenever possible, modify developed springs and other water sources to restore free-flowing water and wet meadows in sage grouse habitat.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Guideline 1645 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks</li> </ul>
<p>MA-17 – Independence Lakes (Sawtooth LRMP, Volume 1 pages III-282-289)</p> <ul style="list-style-type: none"> <li>• Vegetation Objective 1712 - Restore and maintain shrubland communities, particularly the Basin Big Sage vegetation group, as described in Appendix A.</li> </ul>
<ul style="list-style-type: none"> <li>• Vegetation Objective 1713 - Restore Mountain Big Sagebrush canopy cover and juniper densities to desired conditions, as described in Appendix A, in the Dry Creek area to address fire hazard.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1725 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore cover conditions.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Objective 1736 - Whenever possible, modify developed springs and other water sources to restore free-flowing water and wet meadows in sage grouse habitat.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Guideline 1737 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
<p>MA-18 – Raft River (Sawtooth LRMP, Volume 1 pages III-290-299)</p> <ul style="list-style-type: none"> <li>• Vegetation Objective 1818 - Restore and maintain species composition, productivity, vigor, and canopy</li> </ul>



**Table G-1  
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cover (as described in Appendix A) of the Mountain Big Sagebrush vegetation group in the George Peak, The Meadows, and the Rosevere Point areas.
<ul style="list-style-type: none"> <li>• Wildlife Resources Objective 1826 - Restore or maintain sage grouse habitat through shrubland vegetation management.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1828 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
MA-19 – Black Pine (Sawtooth LRMP, Volume 1 pages III-300-309)
<ul style="list-style-type: none"> <li>• Vegetation Objective 1917 - Restore canopy cover, as described in Appendix A, within the Mountain Big Sagebrush and Pinyon-Juniper cover types in the southern and western portions of the management area.</li> </ul>
<ul style="list-style-type: none"> <li>• Vegetation Objective 1919 - Evaluate the need for sagebrush re-establishment in the northern portion of the management area that burned in 1999 and 2000.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 1929 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Objective 1933 - Whenever possible, modify developed springs and other water sources to restore natural free-flowing water and wet meadows in sage grouse habitat.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Guideline 1934 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
MA-20 – Sublett (Sawtooth LRMP, Volume 1 pages III-310-317)
<ul style="list-style-type: none"> <li>• Vegetation Objective 2013 - Restore canopy cover to desired levels (described in Appendix A) within the Basin Big Sagebrush and Mountain Big Sagebrush vegetation communities. Restore native perennial grass/forbs composition of plant communities in these same areas</li> </ul>
<ul style="list-style-type: none"> <li>• Vegetation Objective 2014 - Restore riparian vegetation along Sublett Creek through management of dispersed recreation and livestock grazing.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 2017 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Objective 2025 - Whenever possible, modify developed springs and other water sources to restore free-flowing water and wet meadows in sage grouse habitat.</li> </ul>
<ul style="list-style-type: none"> <li>• Rangeland Resources Guideline 2026 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.</li> </ul>
MA-05 – Little Wood River (Sawtooth LRMP, Volume 1 pages III-144-163)
<ul style="list-style-type: none"> <li>• Vegetation Objective 0532 - Restore structure and species composition in the Alpine Meadows, Dry Meadows, and Mountain Big Sagebrush vegetation groups in the Little Wood River and Copper Creek drainages where these groups have been altered due to fire exclusion and permitted and recreational livestock grazing.</li> </ul>
<ul style="list-style-type: none"> <li>• Wildlife Resources Guideline 0541 - Management actions in sage-grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage-grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
Management Areas on the Fairfield District: MA-07 – Little Smokey Creek (Sawtooth LRMP, Volume 1 pages III-164-173)
<ul style="list-style-type: none"> <li>• Vegetation Objective 0720 - Restore the herbaceous component of the Mountain Big Sagebrush</li> </ul>

**Table G-1  
GRSG and Sagebrush Habitat Guidance in Land Use Plans**

communities adjacent to riparian areas in narrow drainages.
<ul style="list-style-type: none"> <li>Vegetation Objective 0721 - Restore hydric and woody shrub species composition and density in bottom riparian areas within the Grindstone Creek, Carrie Creek, Worswick Creek, Red Rock Creek, Rosetta Creek, Wood Gulch, Camp Creek, Sawmill Creek, and Cannonball Creek drainages, where vegetation has been altered by livestock grazing.</li> </ul>
<ul style="list-style-type: none"> <li>Wildlife Resources Guideline 0727 - Management actions in sage-grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage-grouse habitat in the management area has less than 10 percent canopy cover, actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
MA-09 – Lime Creek (Sawtooth LRMP, Volume 1 pages III-208-217)
<ul style="list-style-type: none"> <li>Vegetation Objective 0917 - Restore the herbaceous plant ground cover component of the Mountain Big Sagebrush vegetation group in the South and North Fork Lime Creek drainages.</li> </ul>
<ul style="list-style-type: none"> <li>Wildlife Resources Guideline 0924 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.</li> </ul>
MA-10 – Soldier Creek/Willow Creek (Sawtooth LRMP, Volume 1 pages III-218-227)
Vegetation Objective 1016 - Restore and maintain canopy closures (as described in Appendix A), and restore the herbaceous plant ground cover component of low-elevation benches and slopes within the Mountain Big Sagebrush vegetation group to reduce the effects of fire exclusion and livestock use in the Soldier Creek and Willow Creek areas.
Vegetation Objective 1016 - Restore and maintain canopy closures (as described in Appendix A), and restore the herbaceous plant ground cover component of low-elevation benches and slopes within the Mountain Big Sagebrush vegetation group to reduce the effects of fire exclusion and livestock use in the Soldier Creek and Willow Creek areas.
Wildlife Resources Guideline 1024 - Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush, as described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.
Rangeland Resources Guideline 1042 - When constructing or reconstructing fences, design or relocate them to avoid potential sage grouse mortality near leks.
<b>Targhee National Forest</b>
<i>Vegetation – Rangeland (“non-forested”)</i>
Goal: Use vegetation management to achieve a broad array of multiple-use and ecosystem management objectives, including maintenance, improvement, and restoration of
<ul style="list-style-type: none"> <li>forest health,</li> <li>scenic viewsheds and corridors,</li> <li>wildlife habitat effectiveness and quality,</li> <li>hazardous fuels reduction,</li> <li>biological diversity of plant and animal communities, riparian and watershed health and function, vegetation structure, composition, and distribution in larger landscapes</li> </ul>
Guideline: Sagebrush/grassland habitats. Within big sagebrush ( <i>Artemisia tridentata</i> & varieties)/grassland habitats strive for canopy coverage distributions on a subwatershed basis (generally 2,000 to 6,000 acres in size) of
<ul style="list-style-type: none"> <li>Less than five percent of a subwatershed in a less than five percent canopy coverage class.</li> </ul>



**Table G-1**  
**GRSG and Sagebrush Habitat Guidance in Land Use Plans**

- Seventy-five percent of a subwatershed in a well distributed mosaic of canopy coverage, ranging from 5-30 percent.
- Twenty percent of a subwatershed in a greater than 30 percent canopy coverage class.

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# Appendix V

## Greater Sage-Grouse Habitat Delineations





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# A Framework to Identify Greater Sage-grouse Preliminary Priority Habitat and Preliminary General Habitat for Idaho

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April 2012



## Executive Summary

In September 2011, Idaho BLM completed initial efforts to model greater sage-grouse (sage-grouse) priority areas and general areas (PAs and GAs) for Idaho, using Western Association of Fish and Wildlife Agencies' Sage-grouse Management Zone IV for the analysis boundary, to provide regional context. This initial effort mapping effort is referred to hereinafter as Version 1, and is described in detail in Chapter 1. The delineation of PAs in Version 1 was based solely on sage-grouse breeding bird (lek) density and lek connectivity models described in the literature. Sage-grouse GAs were modeled using BLM's Currently Occupied Habitat map and a sage-grouse population persistence model, which is essentially an index of sagebrush cover on the landscape. Version 1 was used during winter 2012 for public scoping for BLM and U.S. Forest Service (FS) sage-grouse planning strategy effort.

While the Version 1 map provided a repeatable means for displaying sage-grouse preliminary priority areas based on lek information, additional internal discussions and input from local and regional sage-grouse experts and others identified a need for refinements. This led to an update, referred to hereinafter as Version 2, described in detail in Chapter 2. In Version 2, the terms Preliminary Priority Habitat and Preliminary General Habitat (PPH/PGH) were formally adopted, to provide consistency with terminology in BLM national policy. New information incorporated into Version 2, includes 1) additional lek data, 2) seasonal habitat information, 3) identified movement and migration corridors, 4) addition of local sage-grouse priority areas of the Challis Local Working Group, 5) areas of habitat connectivity, 6), incorporation of refinements suggested by the U.S. Forest Service, and 7) exclusion of modeled agricultural and timber lands.

In addition to refining the sagebrush components of PPH and PGH in greater detail in Version 2, we also incorporated certain potential restoration habitats as a subset of PPH. Many of these areas, currently characterized as perennial grasslands or conifer encroachment areas, have recently undergone (or may, in the foreseeable future) various efforts to enhance or restore habitat extent or improve connectivity. The final, overall map for PPH/PGH Version 2 is shown in Chapter 2, Figure 8. Figure 9 provides additional detail regarding the various vegetation categories of PPH including sagebrush, perennial grassland and conifer encroachment.

To facilitate future discussions of possible conservation actions or activities within PPH and PGH, Chapter 3 provides general suggestions for consideration. Depending on the nature and extent of sage-grouse habitat conditions locally and on the broader landscape, conservation efforts in some PPH or PGH areas may require more of a focus on habitat maintenance, to retain current habitat values. Conversely, other areas may require more of a focus on habitat improvement or restoration. Alternative approaches or strategies for management of PPH/PGH may also be identified as BLM and conservation partners move forward with sage-grouse conservation efforts.

## Introduction

In March 2010, U.S. Bureau of Land Management (BLM) Washington Office Instruction Memorandum (IM) 2010-071 (Bureau of Land Management 2010) directed field office managers to implement appropriate conservation actions in priority sage-grouse habitat. Subsequent guidance (Washington Office IM 2012-043) provided interim conservation measures for use within preliminary priority habitat (PPH) and preliminary general habitat (PGH) areas, while BLM is amending land use plans. PPH is defined as areas that have been identified as having the highest conservation value to maintaining greater sage-grouse populations; PGH is defined as areas of occupied seasonal or year-round habitat outside of priority habitat.

The purpose of this paper is 1) to document the background, rationale and processes used in identifying greater sage-grouse (sage-grouse) PPH and PGH for Idaho; and, 2) to describe preliminary considerations for use of this information in conservation planning.

Many areas of sage-grouse habitat in Idaho are contiguous with habitats in the neighboring states of Utah, Nevada, Oregon, and Montana. Therefore we chose to use the Western Association of Fish and Wildlife Agencies (WAFWA) Sage-grouse Management Zone IV (MZ IV; Figure 1) as the primary analysis boundary, to provide a regional context for Idaho's PPH and PGH. While MZ IV encompasses the vast majority of the sage-grouse habitat in Idaho, it excludes habitat in the Bear Lake Plateau area located in the extreme southeastern portion of the state. This area is associated with WAFWA MZ II (Wyoming Basin) so PPH/PGH in that part of Idaho was identified separately.

It should be noted that due to the regional scale of the analysis and nature of the modeling techniques used, PPH and PGH may encompass inclusions of non-habitat especially at finer, more local scales. Consequently, additional information including local knowledge will be necessary when planning more site specific conservation efforts and in interpreting PPH/PGH.

The process leading to the most current (April 2012) PPH/PGH map involved two versions. Version 1 was completed in September 2011, and relied solely on sage-grouse breeding bird density and lek connectivity information for delineating priority areas. Early in the process we assigned the terms "Priority Area" (PA) and "General Area" (GA) for simplicity. These labels are retained in the forthcoming discussion and associated map figures for Version 1 to maintain the integrity of the original documentation, metadata and map labels. Version 1 also was used as the basis for Idaho's PPH/PGH map shown during public scoping for BLM's sage-grouse planning strategy in winter 2012.

Version 2 was completed in April 2012, following scoping, and incorporated additional important information provided by Idaho Department of Fish and Game, BLM, US Forest Service and others, including sage-grouse seasonal habitats, movement corridors, habitat connectivity, locally important leks and telemetry data. Version 2 also incorporates filters for agriculture and timber lands, excluding those areas from PPH/PGH, and more closely aligns with Idaho's "Sage-grouse Habitat Planning Map" which has been in use since 2000, for general conservation planning purposes. Overall, Version 2 provides a more detailed and comprehensive

portrayal of preliminary PPH/PGH in the state, and is intended to replace Version 1 in its entirety.

## **Background-Related Mapping Efforts**

Other sage-grouse habitat mapping efforts over the past decade have guided sage-grouse conservation planning in Idaho, and provide important context for the sage-grouse habitat mapping/modeling efforts described in this document.

Idaho Sage-grouse Habitat Planning Map: In 2000, Idaho BLM drafted “*A Framework to Assist in Making Sensitive Species Habitat Assessments for BLM-Administered Public Lands in Idaho-Sage-grouse*” (Sather-Blair et al. 2000). This document, released to Idaho BLM field offices via Idaho BLM IM 2000-059 (Bureau of Land Management, 2000) outlined recommended field protocols for assessing sage-grouse habitats and also described a process for mapping sage-grouse habitat and potential restoration areas at the broad scale, to aid in conservation planning in the state. The resulting *Idaho Sage-grouse Habitat Planning Map* (sometimes referred to informally as the “Key habitat map”) has been updated annually since that time, based primarily on wildfire polygons, expert opinion and/or other new information. However, this map displays only general habitats (i.e., key habitat, defined as areas of generally in-tact sagebrush that provide sage-grouse habitat during some portion of the year, and potential restoration areas comprised of perennial grasslands, annual grasslands and conifer encroachment areas.). It does not reflect the relative importance or priority of those habitat areas with respect to sage-grouse population characteristics.

Sage-grouse Strongholds and Isolated Populations: Additional state and federal agency collaborative mapping efforts in Idaho during the past decade identified sage-grouse population areas assumed to be “strongholds” or “isolated populations”, based on local biological expertise and lek information. This map was briefly utilized by Idaho BLM and conservation partners as a means to identify potentially important population areas as well as several presumed isolated populations. However, this map was never updated from the original version (c.a. 2002) due to a lack of adequate sage-grouse population-level information, and has since been abandoned pending the availability of more suitable and defensible population data and analytical techniques.

Seasonal Habitat Models: In 2006, the Idaho Sage-grouse Advisory Committee (SAC) completed the “*Conservation Plan for the Greater Sage-grouse in Idaho*” (State Plan; Idaho Sage-grouse Advisory Committee 2006), which incorporated recent science and conservation measures into a more comprehensive state-level sage-grouse conservation plan. Recognizing the limitations of the Idaho Sage-grouse Habitat Planning Map, the SAC recommended in a 2009 update to Chapter 6 of the State Plan, that Idaho “continue to explore and review emerging remote-sensing tools and products that would have the capability and accuracy to refine or replace the Sage-grouse Habitat Planning Map.” As a follow-up to that recommendation, Idaho BLM and Idaho Department of Fish and Game (IDFG) embarked on a Challenge Cost Share project in 2010 to model sage-grouse general habitat and seasonal habitats using telemetry, observational, land cover and climatic data. These spatial models (Knetter et al., *in progress*) may be useful in future refinements to sage-grouse habitat maps and models.

Breeding Bird Density: To provide a more consistent analytical foundation and to further promote the mapping of sage-grouse priority habitats at the state level, the BLM Washington Office in 2010 entered into an Assistance Agreement with the U.S. Fish and Wildlife Service (FWS) to model sage-grouse “breeding bird density”, or “BBD” at three scales: 1) across the range of the species; 2) by WAFWA sage-grouse management zone; and 3) by individual state, following Doherty et al. (2011).

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## Chapter 1: Version 1- September 2011- Modeling Sage-grouse Priority and General Areas (PAs and GAs)

**Study Area:** Stiver et al. (2006) identified seven “sage-grouse management zones” (Figure 1) within the geographic distribution of the greater sage-grouse, based on sage-grouse populations and subpopulations occurring within seven floristic provinces (Connelly et al. 2004). These zones reflect ecological issues and similarities conducive to more effective and efficient conservation planning.

Idaho is almost entirely within MZ IV with the exception of a small corner of southeastern Idaho. Zone IV also includes portions of southwestern Montana, northwestern Utah, northern Nevada and southeastern Oregon. While Idaho comprises the majority of MZ IV, numerous sage-grouse leks and potentially important habitats and populations/subpopulations occur in proximity to Idaho’s border in the adjoining MZ IV states. Therefore, Idaho BLM chose to expand its priority area analysis to incorporate available sage-grouse and habitat information for those adjoining states. This approach has important conservation implications in that it incorporates aspects of interstate population and habitat connectivity that would be overlooked if we limited the scale of analysis to Idaho. A regional approach to sage-grouse conservation planning such as this warrants consideration by other states that are a part of multi-state WAFWA management.

**Methods and Results:** A primary goal in modeling draft PAs and GAs was to integrate currently available population and habitat data and current modeling techniques into a transparent and repeatable framework. A second goal was to ensure that the draft PAs and GAs were driven by the biology and ecology of sage-grouse. Lek data were acquired, with permission, from state wildlife agencies within MZ IV. For habitat data, BLM Idaho used the BLM currently occupied habitat (COH) model (Durtsche et al. 2009) and assumed for purposes of this analysis that the COH product provides a reasonable portrayal of occupied sage-grouse habitat across the range of the species. Other seamless sage-grouse habitat models were not available however new habitat models can be considered and incorporated into the PA analysis as they become available.

In modeling sage-grouse PAs, BLM Idaho used 1) a Breeding Bird Density (BBD) index of sage-grouse abundance based on male attendance at leks, and 2) lek connectivity to inform the broader spatial distribution of leks. BLM Idaho assumed that BBD adequately informs the PA model as to the relative “importance” of areas with respect to recent breeding bird numbers. Lek connectivity informs the PA model as to the likely, longer-term connectedness between leks, assuming that leks in proximity to one another are more “connected” than those farther apart (Knick and Hanser 2011). Spatial data on sage-grouse late brood-rearing, fall or winter habitats were not readily available, and therefore not included in the model. However, given the buffers (6.4 km and 8.5 km) used in the BBD component and the 18 km window of the lek connectivity analysis, a significant portion of these non-breeding habitats are likely included.

**Breeding Bird Density:** BBD analyses involve ranking leks by attendance (e.g. highest to lowest numbers of males) and summing the number of males until a desired percent-population threshold is met (e.g., the top 25%, 50%, 75% etc., of the population). With lek locations and

abundance being large drivers in the model, BBD results are, by definition, highly correlated with breeding habitat.

We evaluated two BBD methods: 1) the original Doherty et al. (2011) model which uses a 10-year time period (2001-2010), the most recent average annual maximum lek counts, and a minimum male count =1 to identify high male abundance areas and 2) a modified Doherty version using a more restricted rule set of a 5 year time period (2006-2010), maximum lek count over the 5-yr period, and minimum male count of 2. This modified rules et incorporates the assumptions currently used to designate “occupied leks” in Idaho by IDFG. In both methods we followed the Doherty et al. (2010) lek buffering approach (add 74.6 – 76.0). Specifically, leks in the 1-75% BBD percentiles were buffered by 6.4 km (4 miles) to account for a majority of nesting areas and 76-100% BBD percentiles were buffered by 8.5 km (5.3 miles) (Doherty et al. 2010 citing Holloran and Anderson 2005), since leks in those classes tend to be farther apart, in lower densities, and potentially in more fragmented habitat.

We compiled 2001 – 2010 male Sage-grouse lek attendance data within MZ IV from state fish and wildlife agencies in Idaho, Nevada, Utah, Oregon, and Montana. A total of 1,655 leks were analyzed to evaluate the original Doherty et al. (2010) method and n=1,481 leks for the modified version (Figure 2). Summary statistics for both datasets were evaluated based on the average and range of male lek counts by lek and the total maximum male lek counts across all leks. While the modified Doherty method identified fewer total leks, the average male counts and total males were highest of the two datasets, better reflecting current populations. In addition, we had concerns with the longer term, ten-year dataset regarding lek location reliability, and variable survey efforts or techniques (i.e., ground vs. aerial) across MZ IV. As a result, we selected the modified Doherty method for the subsequent BBD analysis.

To allow incremental examination of the entire BBD profile, we developed a Python-based model to spatially delineate BBD at 1 percent intervals. We then quantified the amount of greater sage-grouse COH using a modification of Durtsche et al. (2009) at each BBD percent to identify potential patterns or thresholds of COH and non-habitat across the entire BBD profile (Figure 3). The Durtsche et al. (2009) COH map likely underestimates habitat since COH in recent wildfires (since 2006) was omitted from this dataset. Therefore, we used burn severity data from the USGS Monitoring Trends in Burn Severity site ([www.mtbs.gov](http://www.mtbs.gov)) to update the COH map (Figure 4). Fire polygons (30m pixels) classified as 1=no burn, or 2=low severity were reclassified to the pre-fire land cover type and identified as either COH or not. These areas were then added to the original Durtsche et al. (2009) map. For this exercise, we assumed that areas of low burn severity retained largely the same habitat as before the burn (i.e. patchy burn with small unburned areas). Due to our limited ability to effectively characterize “burn severity” in shrub ecosystems, it is likely that COH in the low severity category is overestimated.

Our results indicate no significant pattern or threshold in COH across the BBD percentage profile (Figure 3). Therefore, we examined two potential thresholds: 1) the BBD 75% value and associated proportion of COH and 2) the associated BBD percent that encompasses 80% of the COH. The 75% BBD captures approximately 60% of the available COH (~40% of available non-habitat) in MZ IV. The remaining 40% habitat (which occurs outside the 75% BBD) is likely the more fragmented habitat (Doherty et al. 2011). The 90% BBD is required to capture



80% of available COH; however, there is a much higher proportion (70%) of non-habitat included, suggesting that the use of the 90% BBD would lead to overstating priority area boundaries. Since BBD is highly correlated with breeding habitat and the BBD 75% class captures the “top” 75% of males along with 60% of the COH, we recommend that the BBD 75% threshold be used as the “high abundance” (or “population”) component of our priority area mapping effort. This threshold provides a meaningful baseline population component for the PA analysis, by conservatively encompassing the least fragmented breeding habitats that are of greatest importance for conservation.

Lek Connectivity: We used the more inclusive Doherty et al. (2010) rule set (i.e., 10 year timeframe, 1 male minimum) to identify lek points for the lek connectivity analysis. We assumed that this more comprehensive, ten-year dataset would yield a more realistic connectivity extent since the sage-grouse is a relatively long-lived bird, and the modified 5-year dataset may not be sufficient for this purpose. We used a kernel density analysis to create a utilization distribution surface. We modified Hagen (2011) and populated a 1 km grid with lek presence and analyzed kernel density using a neighborhood of 18 km. Knick and Hanser (2011) found an 18 km area to be a reliable connectivity threshold for greater sage-grouse (GSG; i.e., leks within 18 km of one another tend to be more connected than those farther out). The resulting “surface” was used to categorize 2 levels of connectivity: 75% (local connectivity) and 90% (seasonal/migratory connectivity) utilization distributions (Figure 5 A and B). Local lek connectivity (75% utilization contour) appears to encompass the “general” lek distribution patterns across MZ IV; therefore, we recommend that local connectivity be used to represent the “lek connectivity” component of our priority area mapping effort.

The connectivity analysis assumed straight-line distances among lek points. Therefore, similar to the BBD analysis, some areas of non-habitat are encompassed within the resulting polygons. In addition, the connectivity analysis does not account for topography, thus overestimating connectivity results in linear basin and range systems (e.g., the Challis/Salmon area). For example, applying the 18 km connectivity neighborhood to leks occurring within narrow valley bottoms, that average only 12 km in width, likely captures some adjacent areas of nonhabitat on nearby steep, timbered or rocky slopes.

MZ IV Sage-grouse Priority Area Delineation: For PA delineation, we integrated aspects of “population” and “habitat”. To portray a population context, we intersected the 75% breeding density polygons with the 75% utilization local connectivity polygon (Figure 6). For context, the resulting PAs are also shown overlapping the 2010 version of the Idaho age-grouse Habitat Planning Map (Figure 7; BLM 2010b).

For each PA polygon within MZ IV, we then assigned a unique alpha identification code and calculated summary statistics. Summary statistics included total polygon area, total number of leks, maximum male attendance, average maximum male attendance and standard deviation, as well as total area and percent of COH within the polygon (Table 1). We then used total maximum male attendance to rank the 30 priority area polygons. In aggregate, the PA polygons capture approximately 94% of the identified MZ IV male lek population. Additional statistics found in Table 1 are also reported to help inform future PA and GA evaluations.

MZ IV Sage-grouse General Area Delineation: We used sage grouse population persistence methods (modified Aldridge et al., 2008) to inform GSG General Area delineations within MZ IV. We evaluated long-term sage-grouse population persistence as a function of sagebrush cover on the landscape. We analyzed sage-grouse population persistence based on the availability of sagebrush within a defined area, under the assumption that the modified COH model served as an adequate representation of sage-grouse habitat/sagebrush within the analysis area. Based on recent lek connectivity work (Knick and Hanser 2011), 18 km was assumed to be an effective distance for characterizing local lek connectivity over most of MZ IV. However, in the linear basin and range systems (e.g., the Challis/Salmon region in Idaho) general valley floor width was less than 18 km (range 8 – 16 km) and could potentially overestimate persistence. Therefore, we selected a smaller 12 km distance to more accurately reflect available area. We used the USGS National Hydrologic Dataset 4<sup>th</sup> order hydrologic units to identify the linear basin and range systems within MZ IV (Figure 8 A). We resampled the modified 2009 COH model (30m) to 1 km (with an inclusion threshold of 50% COH). The resulting 1 km grid cells (value 1, 0) were then analyzed using a moving window analysis and separate 12 km and 18 km neighborhoods (Figure 8 B). The resulting combined map “surface” was then used to categorize persistence probability. Areas of 25-65% probability represent *Low* sage-grouse population persistence over the long-term, and areas > 65% probability represent *High* sage-grouse population persistence (Aldridge et al. 2008) (Figure 8 B).

We used a persistence threshold of  $\geq 25\%$  to identify the General Area polygons within MZ IV (Figure 8 C). All or portions of certain GA polygons may be important to sage-grouse in terms of connectivity between PA polygons or as refugia in the event of stochastic events in PAs. In some cases, areas are designated as GAs because lek data are lacking due to limited surveys, resulting in BBD or connectivity values that are too low to be captured by the PA model.

Management Zone IV PAs and GAs shown in Figure 9 spatially depict those areas in the MZ IV landscape where sage-grouse conservation efforts might be focused to greater or lesser degrees, depending on management and policy objectives. Given limited resources, conservation efforts generally should focus first on habitats occurring within the PA areas. It must be recognized though, that given the population-centric nature of the PA model and associated analysis buffers, areas of sage-grouse habitat as well as non-habitat are included in those polygons. Consequently, finer-scale habitat information will be necessary at the local, site-specific level. It is also important to recognize that depending on the area of the map or specific PA or GA under consideration, there may be differing management opportunities, strategies, and decision-space for the conservation of sage-grouse. Portions of some PAs or GAs are likely very crucial to local or regional sage-grouse populations or for maintaining connectivity. To identify these areas, additional information is required and is discussed below,

To further refine our understanding of the spatial context of PAs and GAs across MZ IV, and to facilitate discussions of potential management activities within or among these areas, we examined the contribution of a suite of variables to assist in identifying important conservation areas. We combined our continuous persistence, connectivity, and BBD model surfaces to create a single, composite view of the MZ IV landscape. We combined the full range of persistence probability (1-100%) information with lek connectivity (1-100%) and finally the BBD data (with lek counts normalized from 1-100). The resulting map (Figure 10) displays the full range of

surface values to help provide additional spatial context, inform conservation efforts within PA polygons, and to assist in the development of subsequent finer-scale management strategies. In Figure 10, “hotspots” of blue colors indicate those areas of greater relative “importance”, to sage-grouse in MZ IV, where the combination of lek connectivity, BBD and population persistence on the landscape appears to be comparatively high relative to other areas of the map.

*Priority Area and General Area Delineation for the Bear Lake Plateau (MZ II):* The Bear Lake Plateau area of extreme southeastern Idaho occurs outside of the MZ IV analysis area discussed above. Due to floristic similarities and a closer association with populations and habitats in adjacent areas within Utah and Wyoming, this portion of Idaho is encompassed by the adjacent Wyoming Basin MZ II. While available sage-grouse population and habitat information for this portion of Idaho are somewhat limited, the area nonetheless contains potentially important sage-grouse habitats and populations that should be considered by conservation planners and managers in Idaho.

Logistical and time limitations precluded us from developing a full MZ II analysis; therefore, we incorporated other available data to develop the PA map for this portion of southeastern Idaho. We examined BBD results (Doherty et al. 2011) for MZ II and Key Habitat data from Idaho’s 2010 Sage-grouse Habitat Planning Map. Specifically, we selected the 75% BBD polygons occurring within the Bear Lake Plateau area and merged them with the Idaho Key Habitat data. We then applied a 1 km buffer to the 75% BBD to assist in aggregating the polygons. Any Key Habitat polygons intersecting and extending beyond the 75% BBD polygon were included as part of the final Bear Lake Plateau PA (Figure 11). Remaining key habitat areas not intersected by the 75% BBD and associated 1 km buffer were designated as sage-grouse GAs. Figure 12 displays the full, composite map of MZ IV and Bear Lake Plateau PAs and GAs.

#### **Initial Delineation of Preliminary Priority and Preliminary General Habitat:**

On December 9, 2011, the BLM and US Forest Service published a Notice of Intent (NOI) in the Federal Register inviting the public to participate in public scoping meetings to evaluate greater sage-grouse conservation measures in land use plans throughout Idaho and Southwestern Montana, and elsewhere within the general range of the species. A sixty-day scoping period for this effort commenced on January 9, 2012. In conjunction with scoping, Idaho BLM made available to the public a map of PPH/PGH for the Idaho/SW Montana planning subregion (Figure 13). The Idaho portion of this map was derived by clipping the Idaho “PA and GA” areas of the Sage-grouse MZ IV map developed during the Version 1 mapping effort and joining them to Montana’s sage-grouse core areas. The subsequent revision of the Version 1 map is described in the Version 2 discussion later in this document.

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## Chapter 1 Tables and Figures:

Table 1. Summary statistics for area, lek attributes 2006-2010 and currently occupied habitat (COH) information associated with sage-grouse Priority Areas. Priority areas are sorted by total max male count.

<i>Priority Areas</i>		<i>Lek Attributes</i>							<i>GSG_COH Attributes</i>	
Name	Area [ac]	Total Leks	Total Max Males <sup>1</sup>	Percent Population	PA Cumulative Pop. Percent	MZ IV Cumulative Pop. Percent	Average Males/Lek	StdDev Males/Lek	COH (ac) <sup>2</sup>	COH percent of Priority Area
F	8352472	643	13465	44	44	42	20.94	22.33	5019096	60
L	2818028	222	5041	17	61	57	22.71	21.69	1302065	46
Q	971243	86	3337	11	72	67	38.80	38.32	666358	69
D	557820	50	1252	4	76	71	25.04	25.34	505371	91
J	751950	61	1148	4	80	75	18.82	15.00	549389	73
S	579563	28	675	2	82	77	24.11	22.90	297203	51
W	230640	11	462	2	84	78	42.00	38.48	99953	43
K	169149	11	440	1	85	80	40.00	30.77	89186	53
AA	453188	30	416	1	87	81	13.87	9.75	248238	55
U	262389	16	368	1	88	82	23.00	15.25	116674	44
C	350231	20	366	1	89	83	18.30	17.28	108716	31
N	453463	29	355	1	90	84	12.24	7.83	403624	89
H	242069	14	343	1	91	85	24.50	13.72	118158	49
CC	315480	19	341	1	92	86	17.95	12.45	213992	68
X	273520	12	335	1	94	87	27.92	19.21	200559	73
M	158799	11	237	1	94	88	21.55	14.54	87433	55
P	112608	5	232	1	95	89	46.40	17.74	86369	77
Y	211674	14	220	1	96	90	15.71	11.61	106792	50
R	237676	10	190	1	96	90	19.00	12.28	179839	76
O	373690	11	185	1	97	91	16.82	9.55	280991	75
B	260058	11	175	1	98	91	15.91	13.13	250606	96
DD	123281	8	132	<1	98	92	16.50	12.04	59350	48
T	97590	6	115	<1	98	92	19.17	15.97	69129	71
V	114393	3	109	<1	99	92	36.33	43.36	54598	48
A	155665	5	105	<1	99	93	21.00	9.19	113374	73
Z	83132	5	86	<1	99	93	17.20	4.60	37264	45
BB	74241	6	78	<1	100	93	13.00	6.45	28987	39
I	110003	4	54	<1	100	93	13.50	12.97	61389	56
E	32447	2	21	<1	100	93	10.50	2.12	2206	7
G	51471	2	13	<1	100	93	6.50	3.54	17450	34
<b>Total</b>	<b>18977933</b>	<b>1355</b>	<b>30296</b>	--	--	<b>93.5</b>	<b>22.36</b>	<b>23.03</b>	<b>11374362</b>	<b>=60% of MZ4 COH</b>

<sup>1</sup>Data represents total of max counts 2006-2010 for leks identified using the modified Doherty 2010 method.

<sup>2</sup>Modified Durtsche 2009 GSG Currently Occupied Habitat was resampled from 30m to 90m for computational purposes

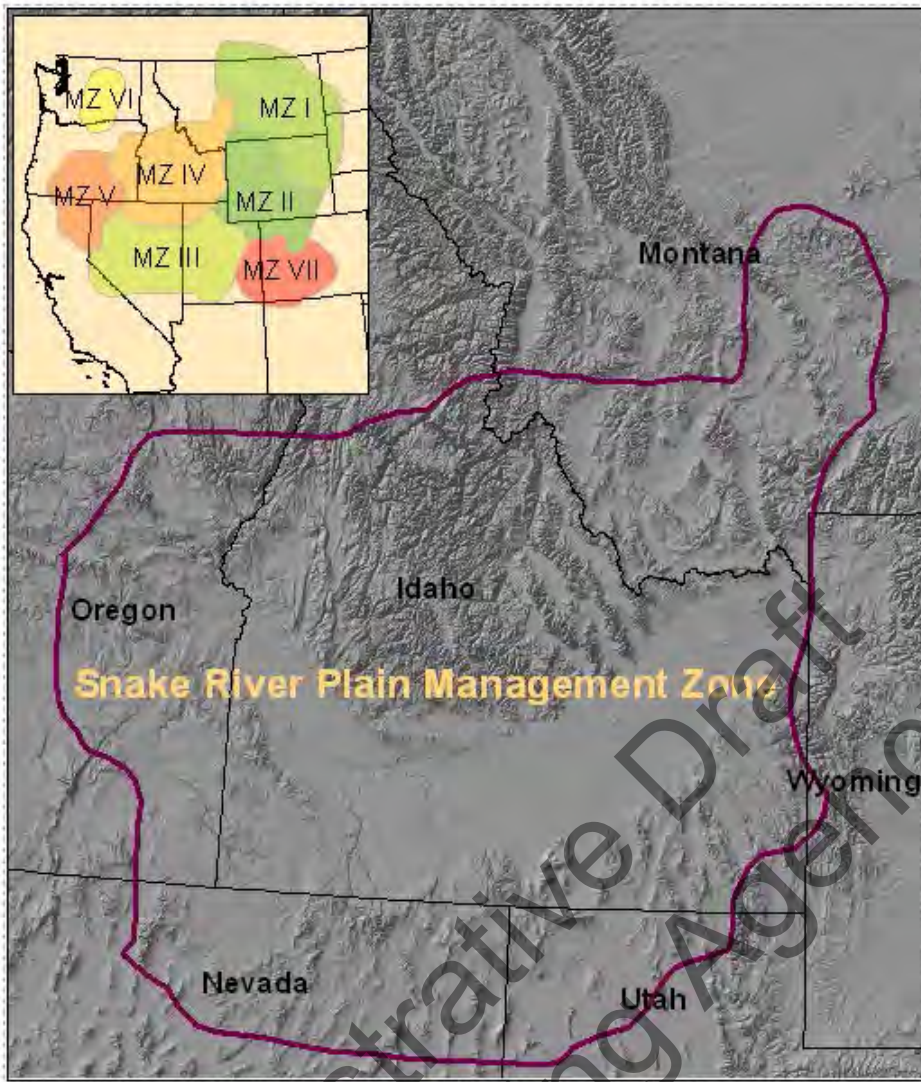


Figure 1. Sage-grouse management zones (Stiver et al. 2006) within the geographic distribution of the greater sage-grouse, based on sage-grouse populations and subpopulations occurring within seven floristic provinces, as described in Connelly et al. (2004). The Management Zone IV analysis area includes portions of southern Idaho, southwestern Montana, northwestern Utah, northern Nevada and southeastern Oregon

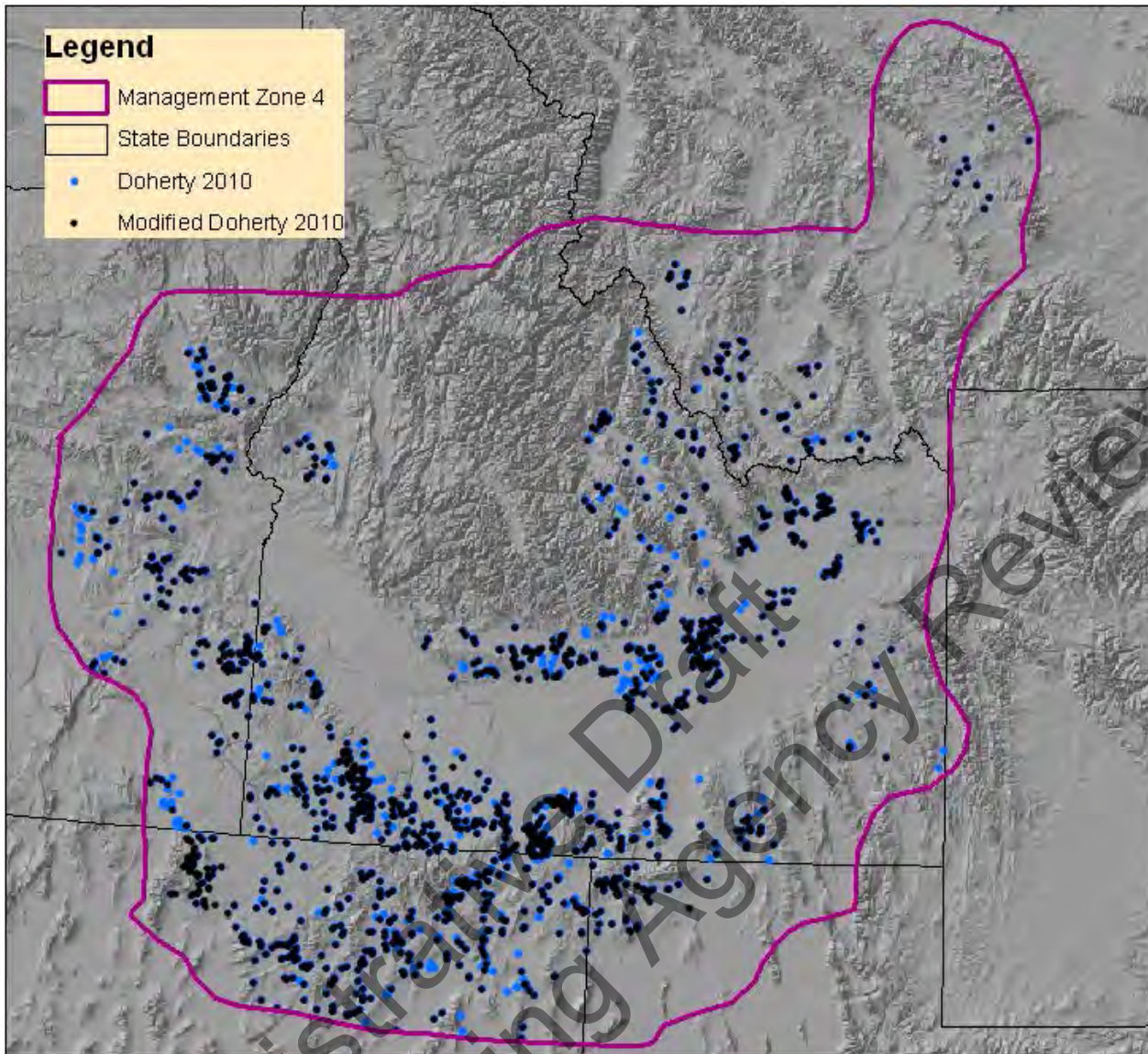


Figure 2. Management zone IV sage-grouse lek location data (2001 – 2010) used to evaluate high male abundance areas using the Doherty 2010 method (n = 1,655 leks; blue symbols) and the modified rule set version (2006-2010) (n = 1,481 leks; black symbols).

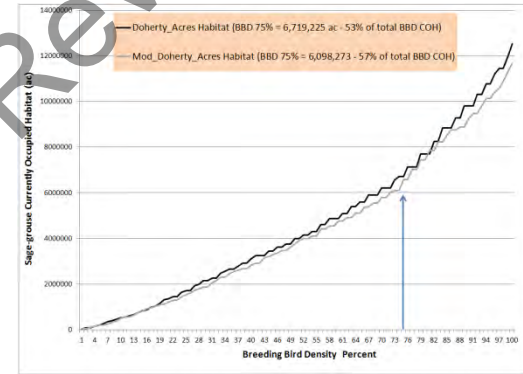
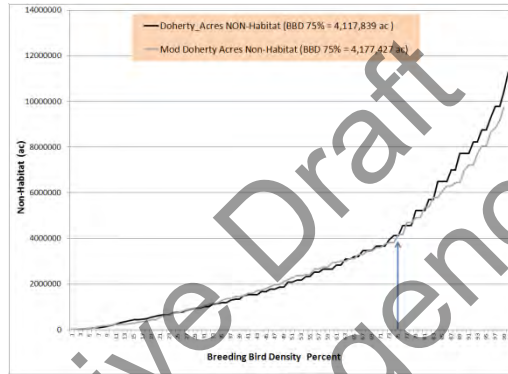
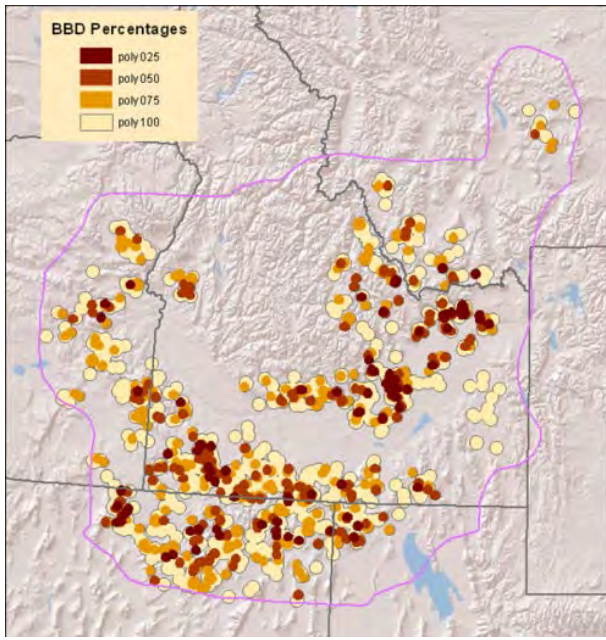


Figure 3. BBD percentiles (left) ranging from dark red to light brown. The dark areas essentially show the “best of the best” areas, based on maximum count data at leks 2006–2010. The darkest areas capture the top 25% of the leks and breeding habitat; darker brown to light brown areas capture 50, 75 and 100% of the data, respectively. The graphs on the right show the relationship between Breeding Bird Density (BBD)

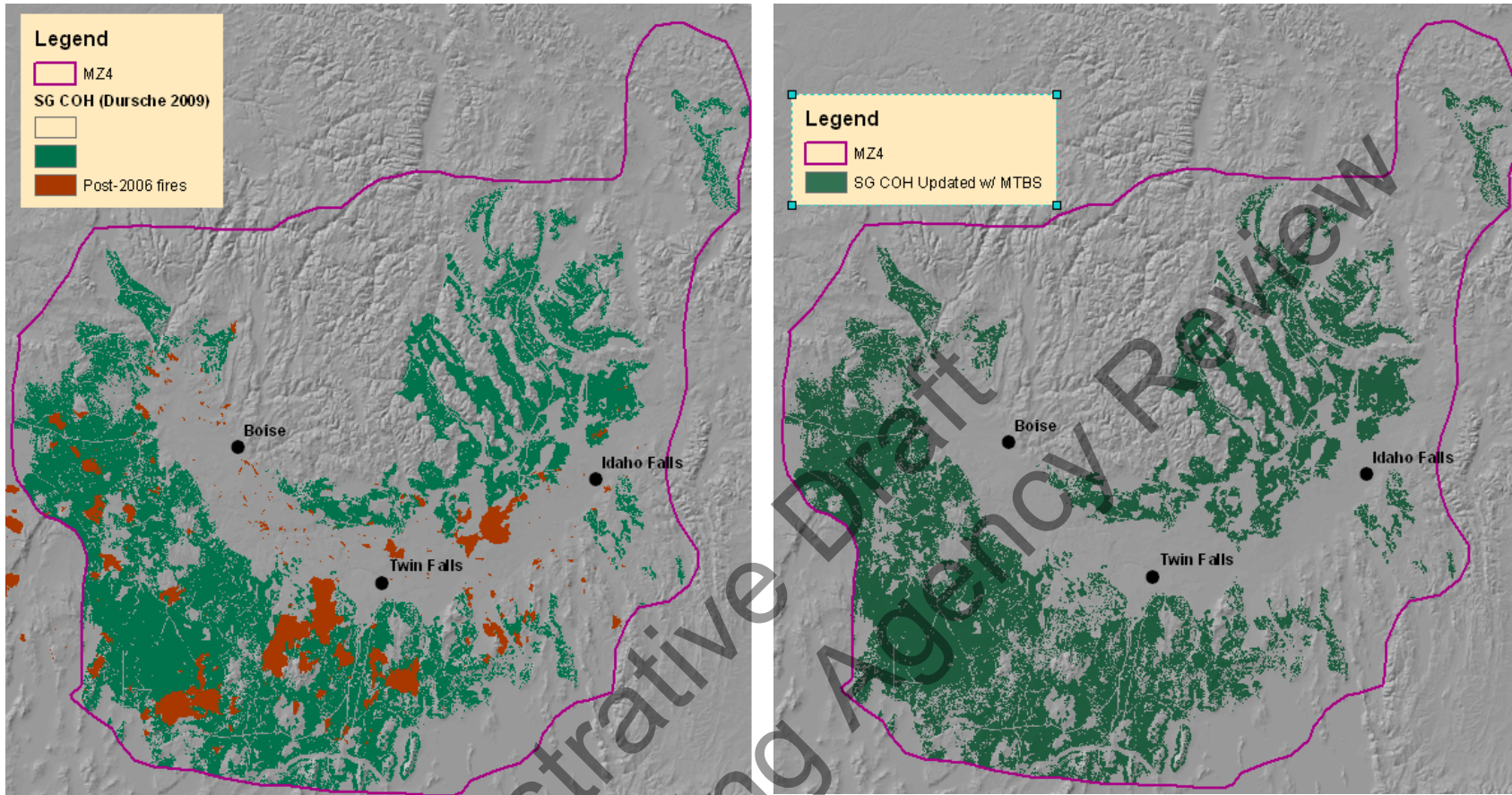
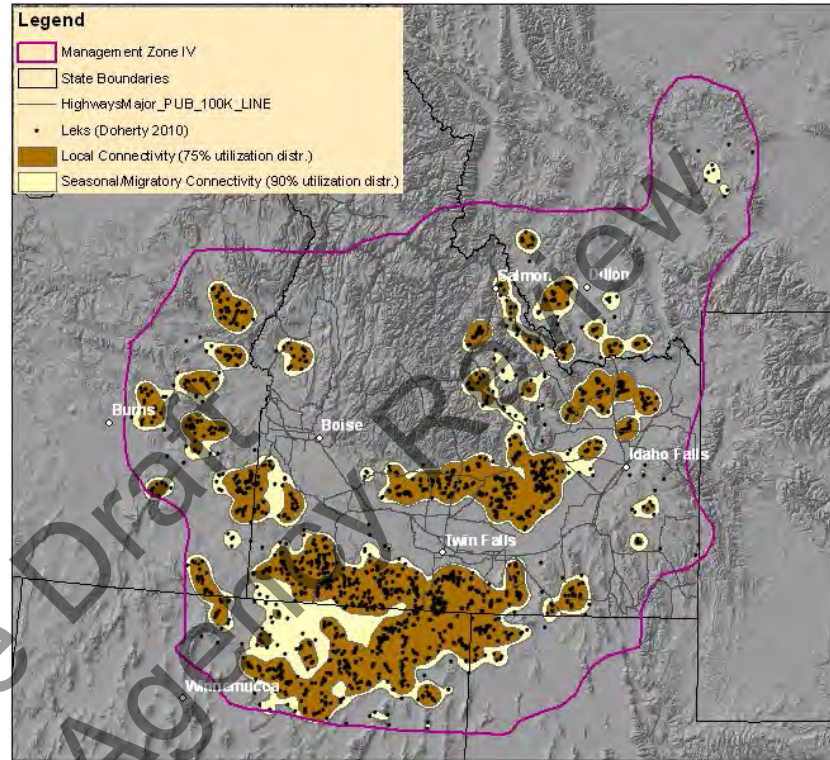
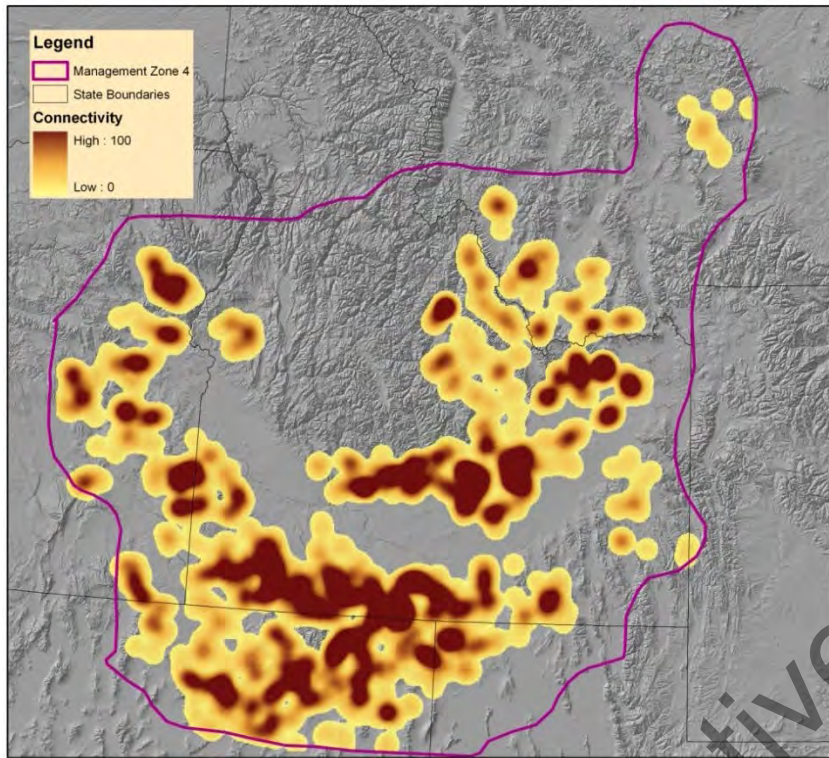


Figure 4. The Durtsche et al. (2009) Greater Sage-grouse Currently Occupied Habitat (COH) map did not include any areas of recent fire (since 2006) (red polygons). Therefore, we used Burn Severity data from USGS Monitoring Trends in Burn Severity ([www.mtbs.gov](http://www.mtbs.gov)) to update the map. Within fire polygons, areas (30m pixels) classified as 1=no burn, or 2=low severity were reclassified to the pre-fire land cover type and identified as either GSG COH or not. These areas were then added to the original Durtsche et al. 2009 map. Note that due to our limited ability to effectively characterize ‘burn severity’ in shrub ecosystems, it is likely that we are overestimating COH in the low severity category. But for this exercise, we assumed that areas of low burn severity retained largely the same habitat as before the burn (i.e. patchy burn).





A

B

Figure 5. Sage-grouse lek connectivity surface (A). Two utilization levels of connectivity are shown in image B: 75% Local Connectivity (brown) and the larger 90% Regional Connectivity (yellow) (following Hagen 2011).

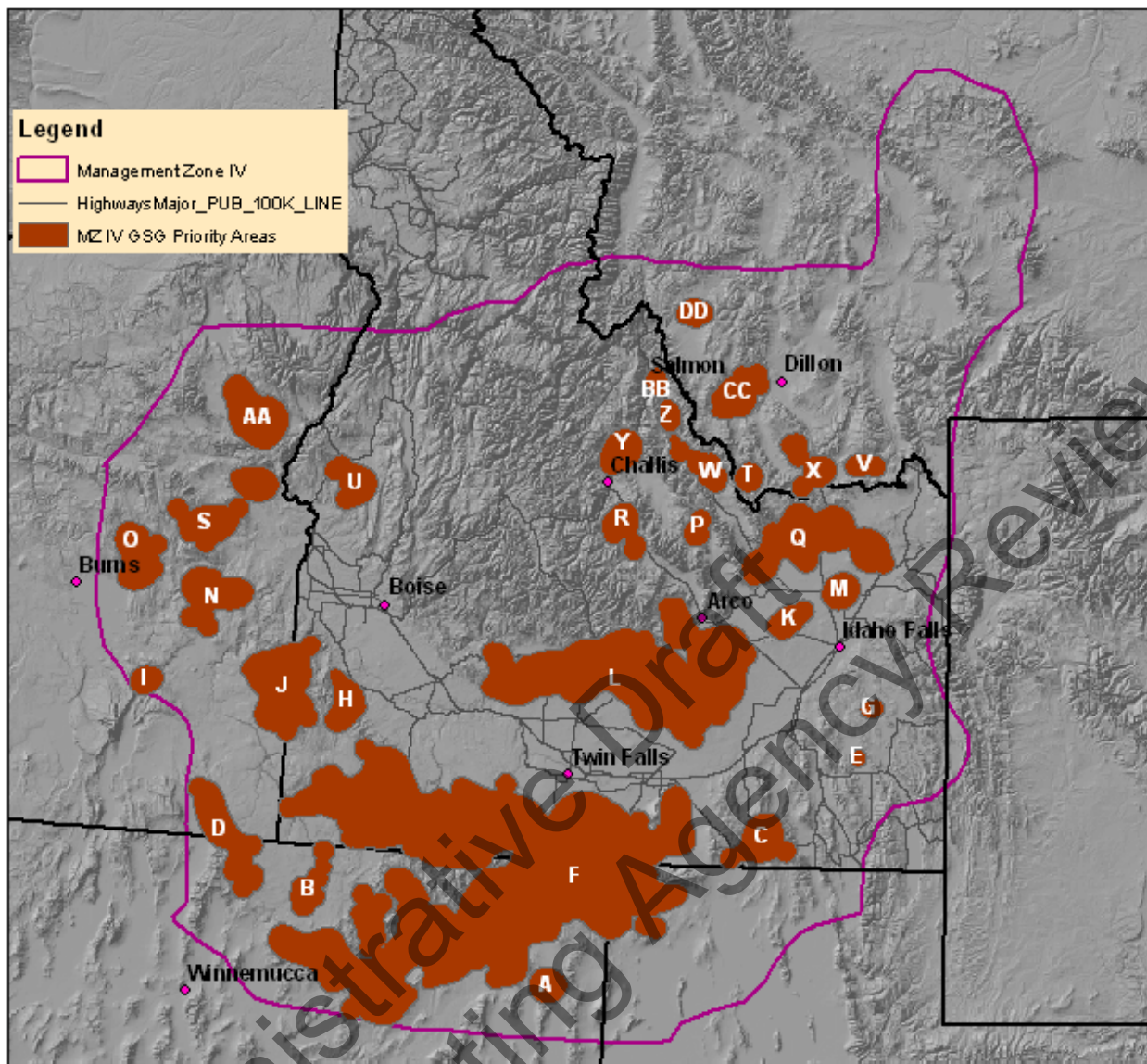


Figure 6. Sage-grouse priority areas delineated in Management Zone IV. Priority areas (red) were delineated by intersecting the 75% connectivity and 75% breeding bird density (BBD) polygons. The letter in each polygon denotes the polygon “name”.

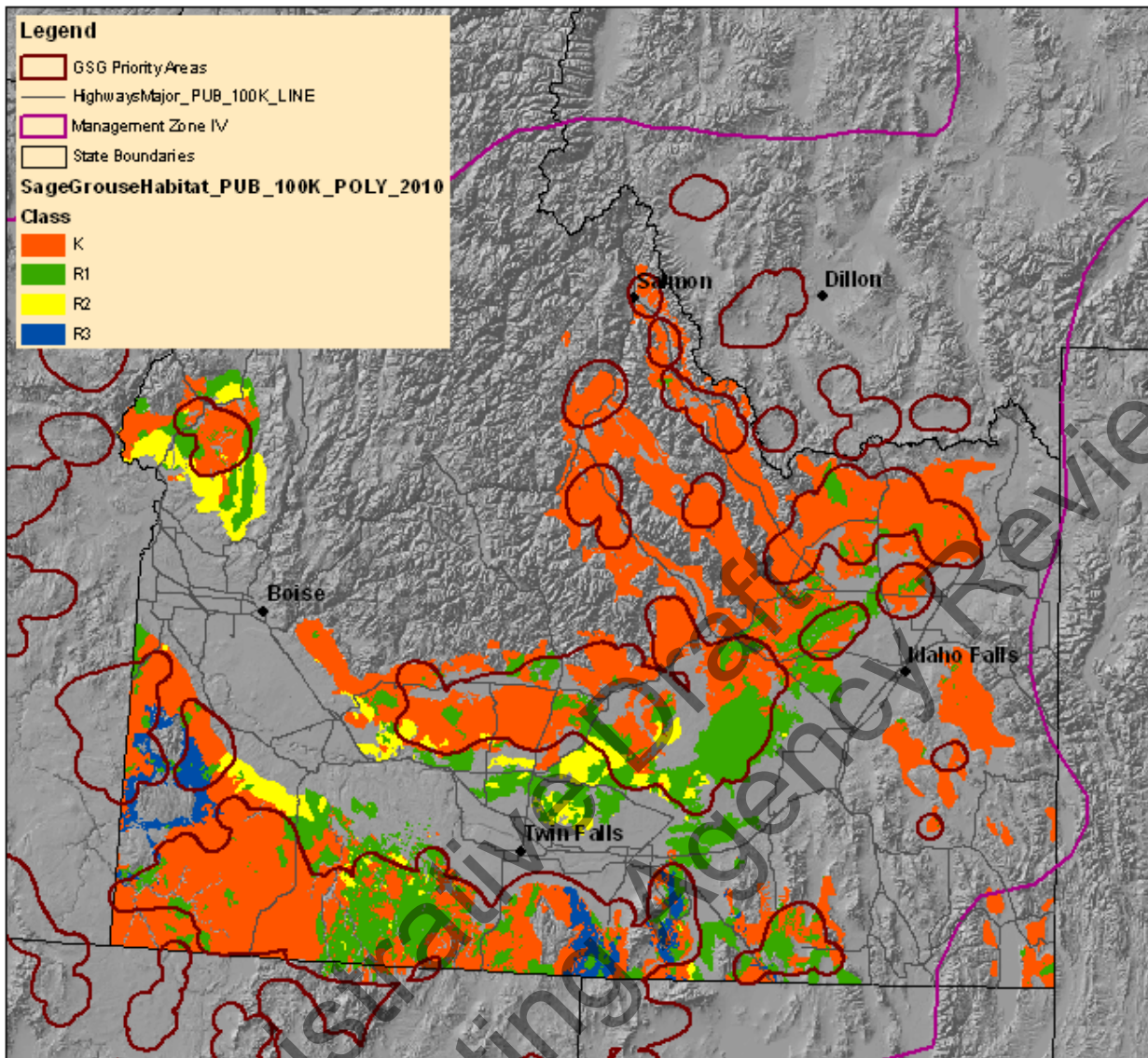
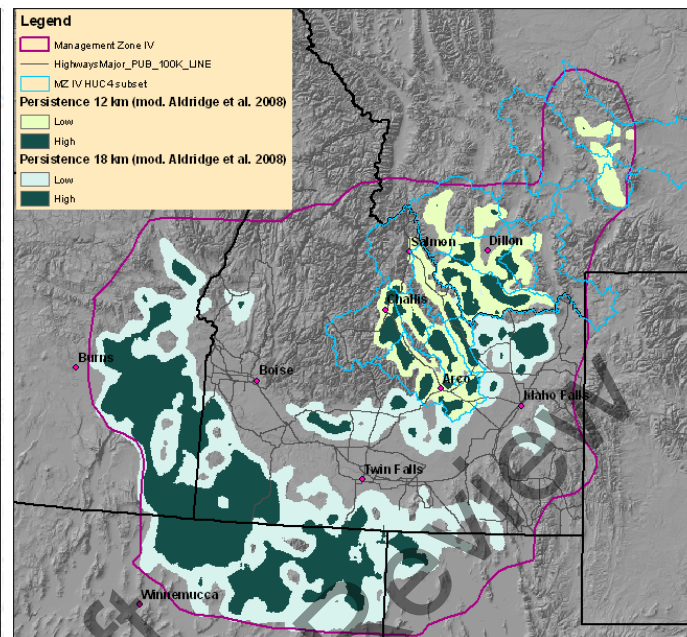
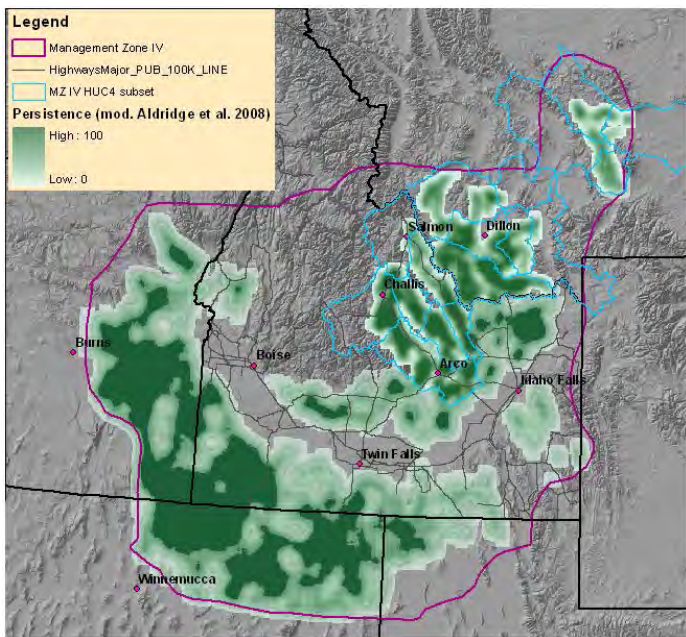
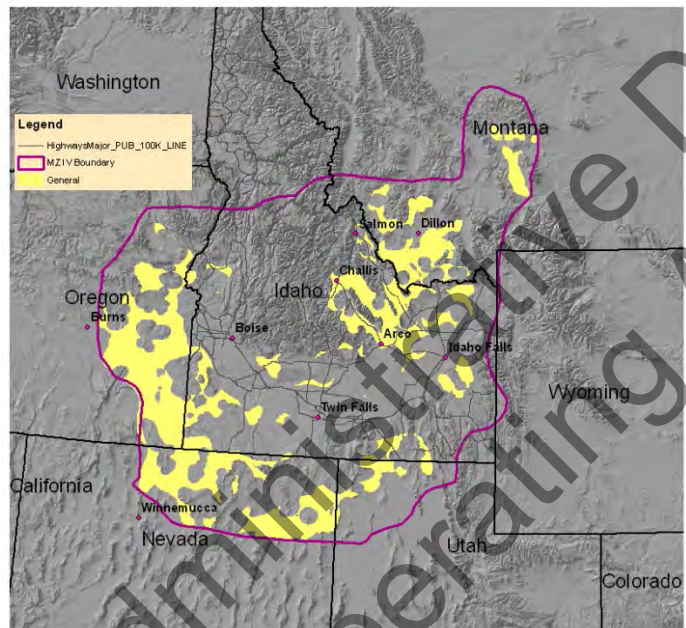


Figure 7. Management zone IV sage-grouse Priority Area (PA) polygons overlain on the 2010 Idaho Sage-grouse Habitat Planning Map. The red areas show key habitat (areas of generally in-tact sagebrush that provide habitat for sage-grouse at some point during the year. The green, yellow, and blue areas respectively show areas of perennial grassland, annual grassland and conifer encroachment restoration potential.



A

B



C

Figure 8. Habitat-based sage-grouse persistence probability surface (modified Aldridge et al. 2008) for management zone IV. (A) Persistence surface represents the relative amount of GSG currently occupied habitat (COH) within an 12 km neighborhood for the identified basin and range subset (combined blue polygons) and 18 km for the remaining portion of management zone IV. (B) Combined Persistence probability categorized as Low (25-65%, light green) and high (>65%, dark green). (C) General Area designations for sage-grouse in management zone IV (data represents persistence value  $\geq$  25%). Priority Areas have been clipped out of the image.

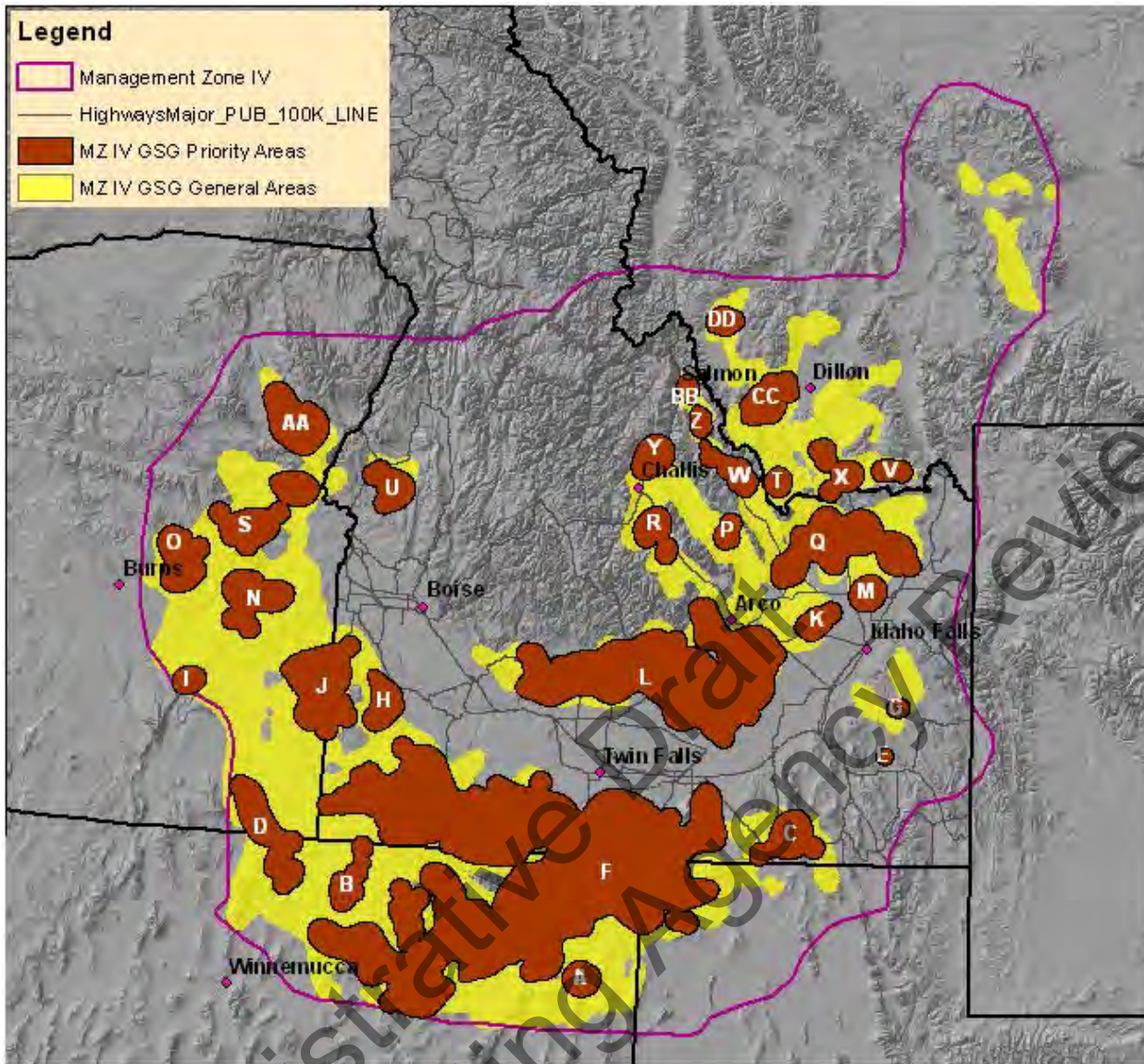


Figure 9. Identified Greater Sage-grouse Priority Areas (PA) and General Areas (GA) in management zone IV.

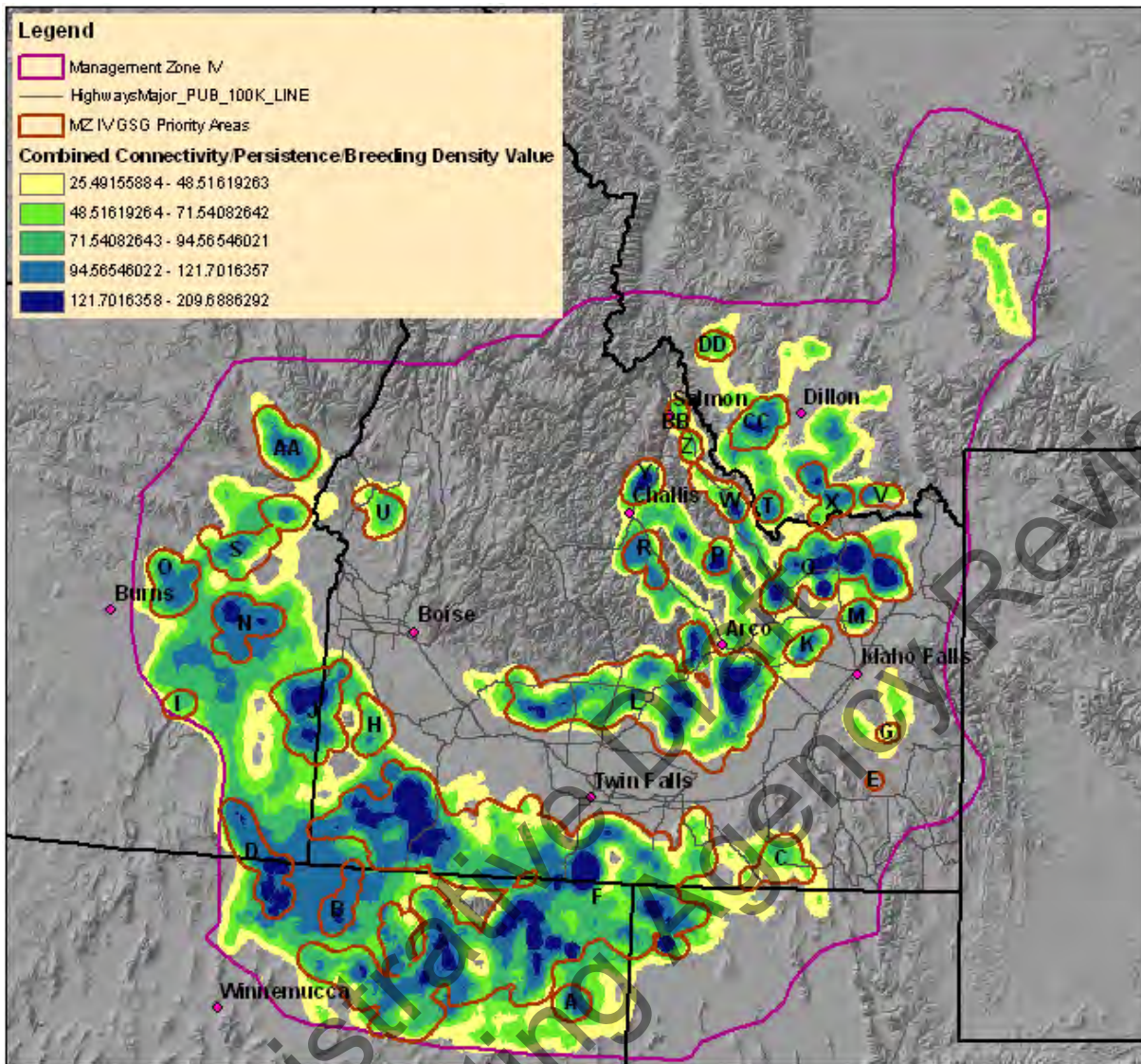


Figure 10. Combined lek connectivity, habitat-based persistence probability, and Breeding Bird Density (BBD) data for MZ IV. Map surface colors indicate Low (light yellow) to High (dark blue) combined value rating for these three factors, overlain by sage-grouse Priority Area (PA) boundaries. Blue to dark blue areas appear to be of high relative importance for conservation and may warrant particular attention during conservation planning efforts.

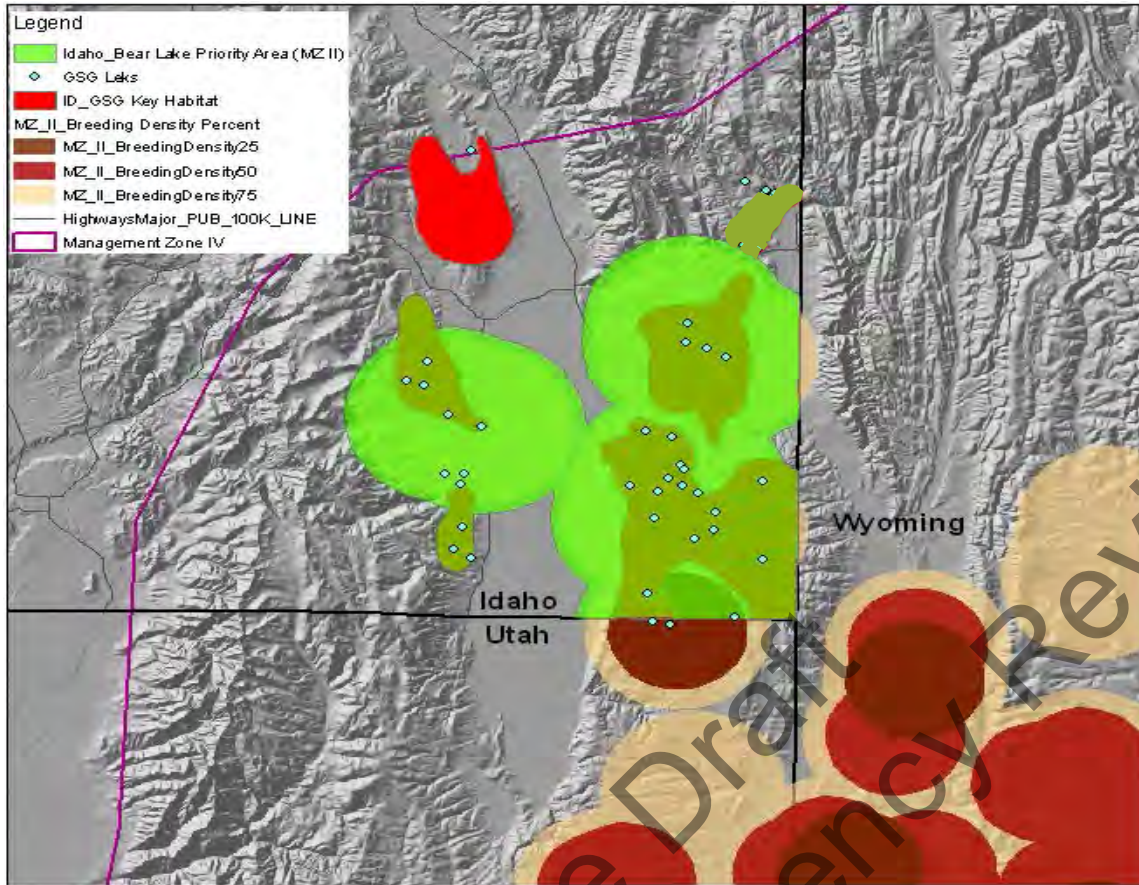


Figure 11. Bear Lake Plateau area (MZ II). Sage-grouse Priority Area (PA) for Idaho is represented by the bright green polygon. Note the 2010 Idaho Key Habitat polygons (shaded red) that are encompassed within the green PA polygon. The colored circles represent Breeding Bird Density results (Doherty et al. 2010) for Management Zone II: 25% BBD (dark red), 50% (red), and 75% (light brown).

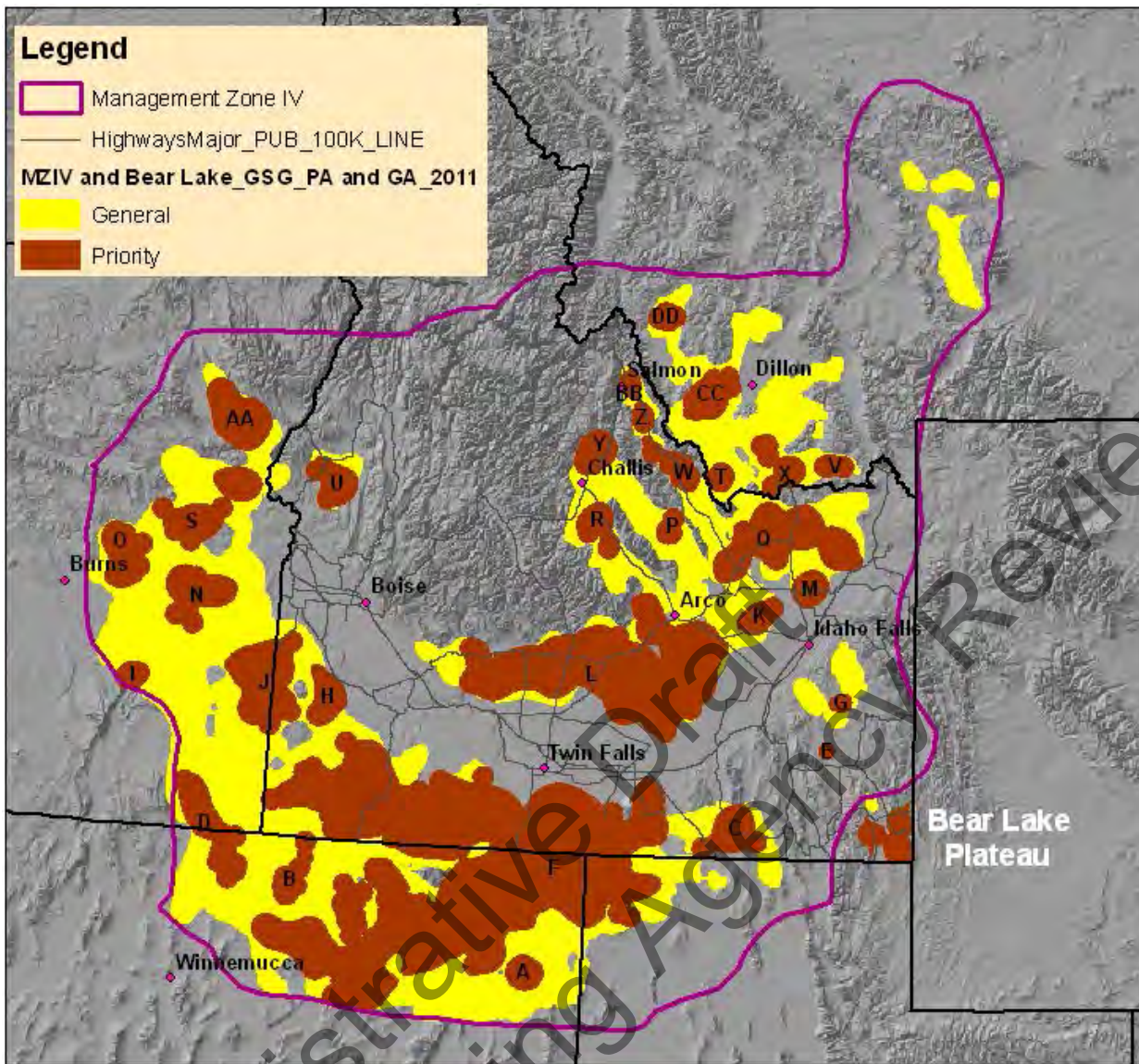


Figure 12. Draft Sage-grouse Priority Area and General Area Designations for Management Zone IV and Idaho – Bear Lake Plateau (MZ II).



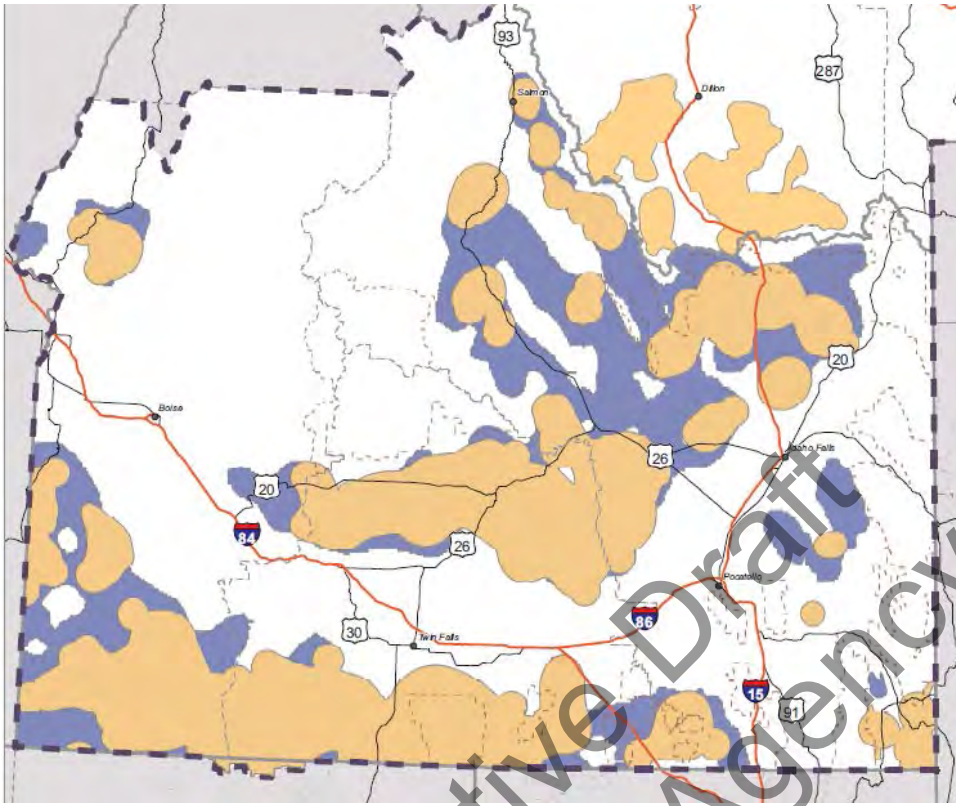


Figure 13. Sage-grouse Preliminary Priority Habitat and Preliminary General Habitat map Provided During Scoping for the BLM Sage-grouse Planning Strategy.

## Chapter 2: Version 2 -April 2012- Refinements to Sage-grouse Preliminary Priority Habitat (PPH) and Preliminary General Habitat ( PGH) in Idaho

**Introduction:** In response to additional input from local and regional sage-grouse and habitat experts, new spatial data, and public comments, we initiated a refinement of the Version 1 analysis. Specifically, our refinements focused on 1) further evaluation of the *population* components (leks and lek counts) in the original analysis and 2) incorporation of additional data to inform the sagebrush component of PPH, including: i) seasonal habitat information (e.g., fall, winter, late brood), ii) identified movement and migration corridors, iii) addition of local sage-grouse priority areas, iv) incorporation of additional areas of habitat connectivity, v) incorporation of recommendations arising from FS review, and vi) exclusion of modeled agricultural and timber lands.

In addition to revising PPH/PGH in Version 2 as described above, we also incorporated certain perennial grassland and conifer encroachment “potential restoration areas” as a subset of PPH. Many of these potential restoration habitat types have recently (or may in the foreseeable future) undergone various efforts to enhance or restore habitat extent or improve connectivity. Since these potential restoration habitats are typically intermixed with or in proximity to preliminary priority *sagebrush* areas, and since the potential restoration areas themselves may be used in varying degrees by grouse, managing these areas as a component of PPH may be important to the long-term sustainability of sage-grouse populations in the state. The importance of these potential restoration habitats is also underscored by the fact that Idaho appears to have lost approximately two-thirds of its sage-grouse habitat since pre-settlement times, thus emphasizing the need for ongoing restoration efforts (especially to recover sagebrush) and appropriate management of remaining habitats.

**Additional population information:** BLM and IDFG Field staff identified a subset (n=10) of “important” high male attendance leks that were not previously captured in the Version 1 PA designations (Figure 1). All of these leks occurred within the 75% BBD coverage, however were not captured in the initial analysis because they did not intersect w/ the 75% utilization lek connectivity surface. The revised 2011PA polygons were then used to provide the foundation for the following integration of additional available sage-grouse habitat and related information, described below.

**Additional habitat information:** A combination of Key Habitat (Sather-Blair et al., 2000; ISAC 2006; BLM 2012), recently mapped winter and/or breeding habitat (Burak and Moser 2009; NMV LWG 2011), local sage-grouse priority areas previously identified spatially by the Challis Local Working Group, known migration movement corridors, and the revised 2011PA polygons were used to further refine the Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) boundaries. The following criteria were used:

- a. Any Key Habitat (Sather-Blair et al., 2000; ISAC 2006; BLM 2012) inclusions or portions extending beyond the revised 2011 PA polygon boundaries were identified as PPH: 1) if the extension connected to an adjacent revised 2011 PA polygon and/or 2) extended out to the intersection of the Persistence boundary, to exclude areas of low (<25%) persistence (see Chapter 1 - MZ IV Sage-grouse *General Area Delineation* for Persistence discussion, and Figure 2, this chapter).
- b. Any identified sage-grouse winter or breeding (Spring) habitat areas within or extending beyond the revised 2011 PA boundary were identified as PPH (Figure 3).
- c. Priority Areas identified by the Challis Sage-grouse Local Working Group within or extending beyond the revised 2011 PA boundary were identified as PPH (Figure 4).
- d. Sage-grouse movement and migration areas were identified using a combination of expert opinion (primarily discussions with Dr. Jack Connelly) and telemetry location information. Telemetry data spanned a 15 - 20 year period representing targeted local sage-grouse studies and was used to

provide “general” support of sage-grouse movement patterns. Migration and movement areas were identified that connected revised 2011 PPH polygons as well as any identified Key habitat, crucial winter, breeding, or Local Working Group identified priority areas (Figure 5)

- e. Any Key Habitat (Sather-Blair et al., 2000; ISAC 2006; BLM 2012) not connected to the revised 2011 PPH (polygons) or extending beyond the Persistence model’s 25% boundary was identified as Preliminary General Habitat (PGH).
- f. Any PGH (from >25% Persistence model) occurring within the revised 2011 PA polygons was retained as PGH.

**Incorporation of Potential Restoration Areas into PPH:** In addition to refinement of the sagebrush component of PPH as described above, we also included certain “potential restoration” habitat types into PPH (Figure 6). These were restricted to identified perennial grasslands and areas of conifer encroachment and correspond to those areas shown in BLM 2012 (and as defined in Sather-Blair et al 2000 and ISAC 2006). The following criteria were used:

- a. Any Potential Restoration area Type R1 (perennial grassland) or R3 (conifer encroachment) occurring within the revised 2011 PA polygons was identified as PPH.
- b. Any R1 or R3 Habitat occurring outside the revised 2011 PA polygons was identified as Preliminary General Habitat (PGH).

**Incorporation of U.S. Forest Service edits:** National Forests within Idaho reviewed draft revised PPH/PGH data during April 2012. Suggested edits, based on local seasonal habitat information were provided to BLM in a geodatabase format by the FS Geospatial Technology Service Center. Polygons were attributed by the FS as either 1) breeding habitat, 2) breeding/summer/early fall habitat, 3) breeding/summer/early fall/ fall/winter habitat; 4) summer/early fall habitat or 5) summer/early fall/fall/winter habitat. We then applied the following rule set to allow for incorporation of FS edits without otherwise compromising other important components of the PPH/PGH analysis.

- a. An initial assumption was made that polygons containing the terms “breeding” and/or “winter” habitat in the “season” data field, were relatively more important than other seasonal habitats, and therefore constituted PPH. Polygons with no reference to breeding or winter habitats in the “season” field and polygons where seasonal descriptors were lacking (n=3; acre total ~500) constituted PGH. Following this initial characterization, we then applied the following rule set:
  - i. Polygons identified as “breeding” and/or “winter” habitat were attributed as PPH. Remaining seasonal habitats were attributed as PGH.
  - ii. Polygons identified as PGH that intersected existing PPH were attributed as PPH.
- b. If Forest Service polygons occurred within areas of migration/movement/connectivity concern, they were attributed as PPH.

**Incorporation of Agriculture and Conifer Filters to Refine PPH and PGH:** The final step in refining the PPH areas involved applying both an agricultural and conifer filter to exclude those areas from the final PPH product (Figure 7). Agricultural and conifer land cover types were mapped using the Landfire v1.01 land cover dataset. For computational purposes the 30m land cover data was resampled to 90m. Separate 1 km moving window analyses were used to sum agriculture and conifer occurrence, respectively across Idaho. A 25% threshold value (representing 25% occurrence in the 1 km<sup>2</sup> window) was used as the agricultural filter. Aldridge et al. (2008) reported that sage-grouse extirpations were more likely to occur in areas where cultivated

crops exceeded 25% of a 30 km landscape. A 50% threshold value (representing 50% occurrence in the 1 km<sup>2</sup> window) was used as the conifer filter. Doherty et al. (2008) reported that sage-grouse avoided coniferous habitats at a 0.65-km<sup>2</sup> scale.

Any areas of sagebrush, perennial grass, or conifer that were contained within the above agriculture or conifer filters were incorporated into PGH to provide additional context at more local scales and to acknowledge that these edge areas or inclusions, while influenced by conifer or agriculture, may still be utilized by sage-grouse to some degree.

**Summary:** The Version 2, April 2012 Preliminary Priority Habitat designation encompasses three subcategories of habitat including 1) sagebrush, 2) perennial grassland potential restoration areas, and 3) conifer encroachment potential restoration areas that are assumed to be relatively important for sage-grouse conservation planning efforts based on the above analysis and assumptions. Summary statistics for habitat acreages, land status, and leks are provided in Tables 1 and 2. Figure 8 displays PPH with the three subcategories merged, for simplicity, along with PGH. Figure 9 displays the three subcategories of PPH separately, in addition to PGH.

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Administrative Draft  
Cooperating Agency Review

**Chapter 2 - Tables and Figures:**

Table 1. Version 2 (April 2012) Preliminary Priority Habitat and General Habitat Acreage and Lek Summary Information.

<b>Category</b>	<b>Idaho Total</b>	<b>Preliminary Priority Habitat</b>	<b>Preliminary Priority Habitat (BLM Admin)</b>	<b>Preliminary General Habitat</b>	<b>Preliminary General Habitat (BLM Admin)</b>
<b>Sagebrush</b>	9,311,962 ac	8,159,000 (~88%)	5,037,000 ac (~62%)	1,222,000 ac (~13%)	225,000 ac (~18%)
<b>Combined Sagebrush Perennial grassland Conifer encroachment</b>	13,460,181 ac	10,522,384 ac (~78%)	6,790,000 ac (~65%)	4,553,000 ac (~34%) Includes acres from Persistence>25%	1,758,000 ac (~39%)
<b>Number of Leks (Idaho)</b>	848 leks	776 leks (~92%)	506 leks (~65%)	52 leks (~6%)	12 leks (~23%)
<b>Male MaxCount (Idaho)</b>	20,204 males	18,479 males (~91%)	11,724 males (~63%)	1,323 males (~7%)	339 males (~26%)

Table 2. Version 2 (April 2012) Preliminary Priority Habitat and General Habitat Land Ownership Summary. These data are for illustrative purposes only. Inclusion in PPH or PGH is partly a function of the relatively broad scale nature of the analysis, and is not intended to imply endorsement by specific land owners or agencies.

Preliminary Priority Habitat (PPH)			Preliminary General Habitat (PGH)		
OWNERSHIP	ACRES PPH	% of PPH	OWNERSHIP	ACRES PGH	% of PGH
BLM	6,789,794	65	BLM	1,758,132	39
BOR	1,326	<1	BOR	21,972	<1
			CORPS. ENGINEERS	2,939	<1
DOE	377,828	4	DOE	182,455	4
HSTRCWTR	1,340	<1	HSTRCWTR	2,422	<1
INDIAN RES.	143,949	1.4	INDIAN RES.	10,672	<1
DOI Bankhead- Jones	56,507	<1	DOI Bankhead-Jones	6,916	<1
USDA Bankhead- Jones	38,025	<1	USDA Bankhead-Jones	7,862	<1
MILITARY	11,142	<1	MILITARY	37,714	<1
NPS	27,313	<1	NPS	222,669	5
NATIONAL WILDLIFE REFUGE	204	<1	NATIONAL WILDLIFE REFUGE	3,149	<1
OTHER	60,637	<1	OTHER	29,449	<1
PRIVATE	1,655,919	16	PRIVATE	1,243,058	27
STATE	616,088	6	STATE	338,264	7
STATE IDFG	23,954	<1	STATE IDFG	24,765	<1
STATE PARKS	2,178	<1	STATE PARKS	5,149	<1
USFS	715,276	7	USFS	655,635	14
MISC	904	<1			
<b>GRAND TOTAL</b>	<b>10,522,384</b>	<b>100</b>	<b>GRAND TOTAL</b>	<b>4,553,224</b>	<b>100</b>

Table 1. Version 2 (April 2012) Preliminary Priority Habitat and General Habitat Summary Information.

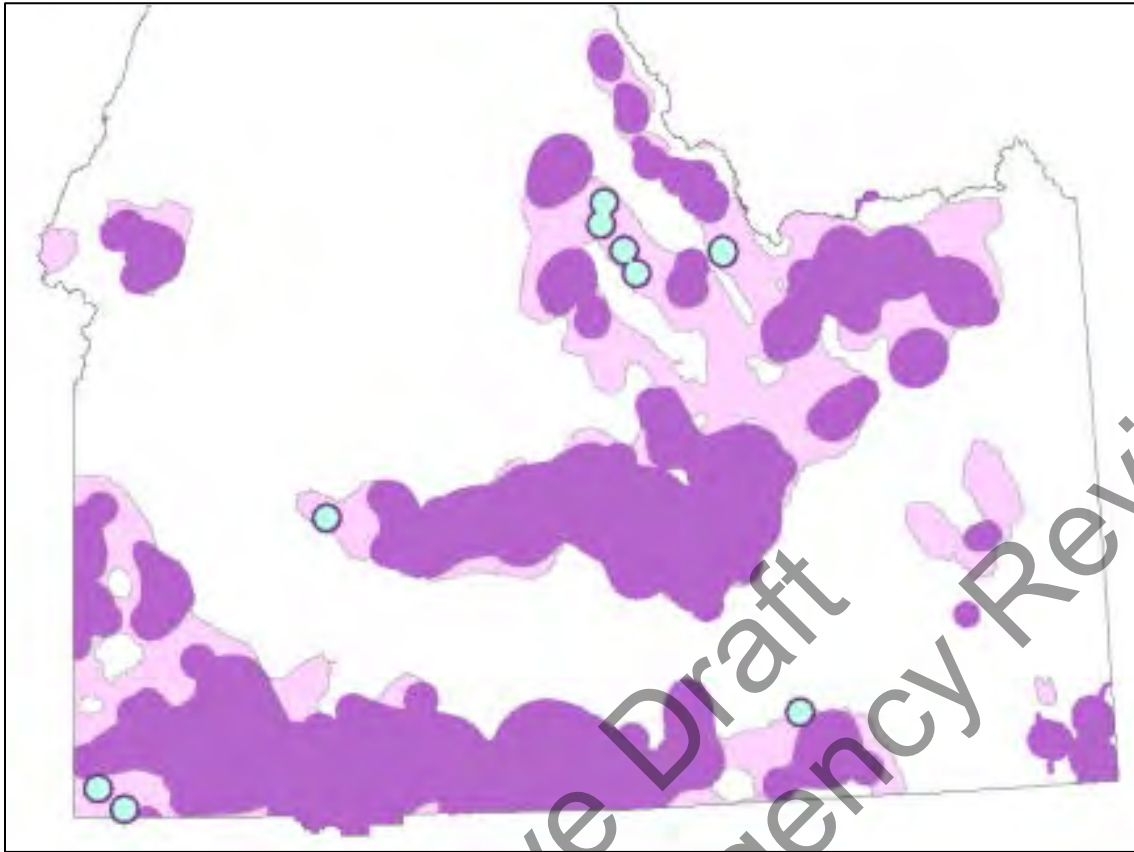


Figure 1. Important areas of high male lek attendance (blue circles) that were added as PPH polygons in Version 2 (April 2012). The purple/pink areas show the original (Version 1, 2011) PA/GA.

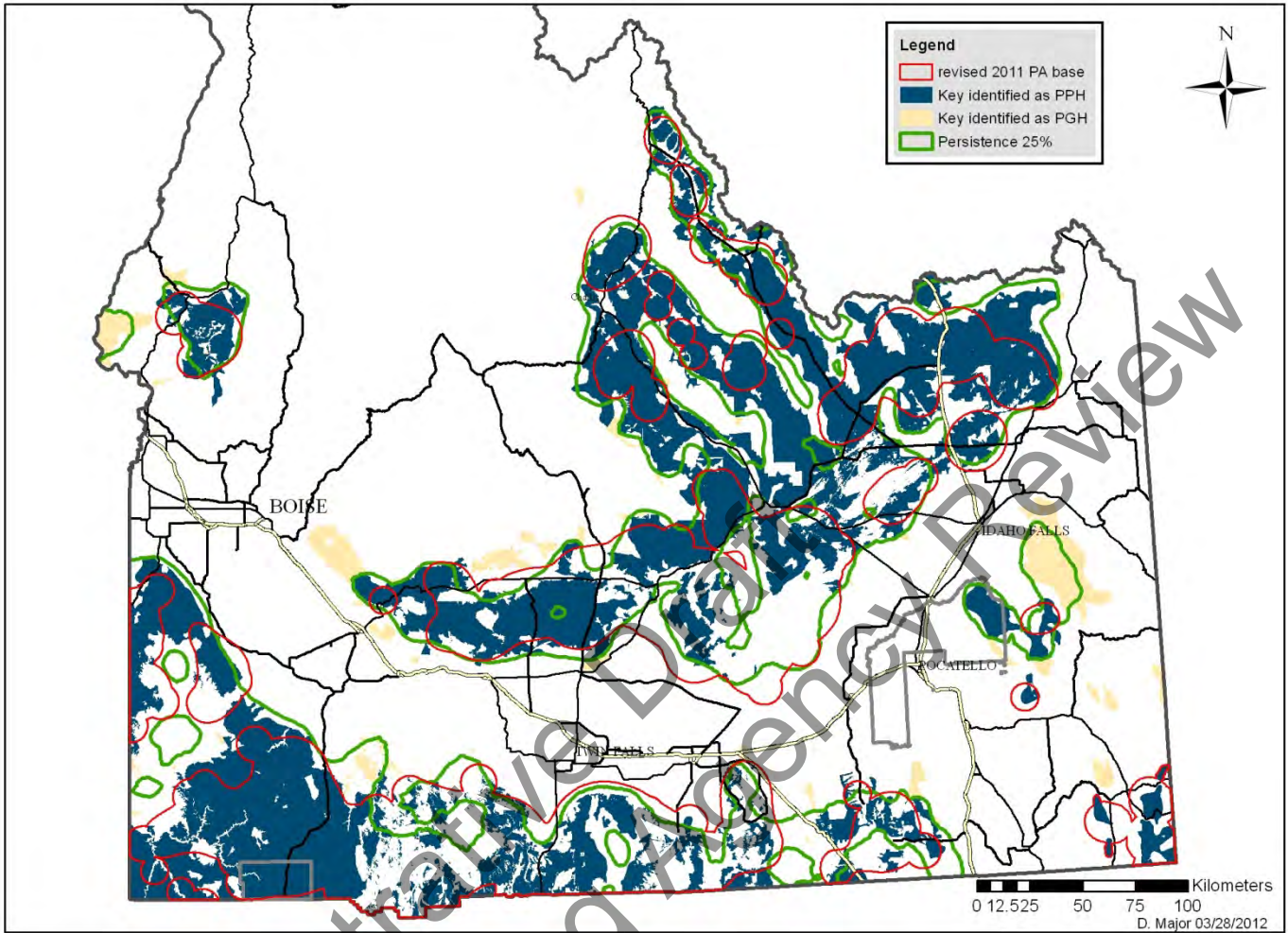
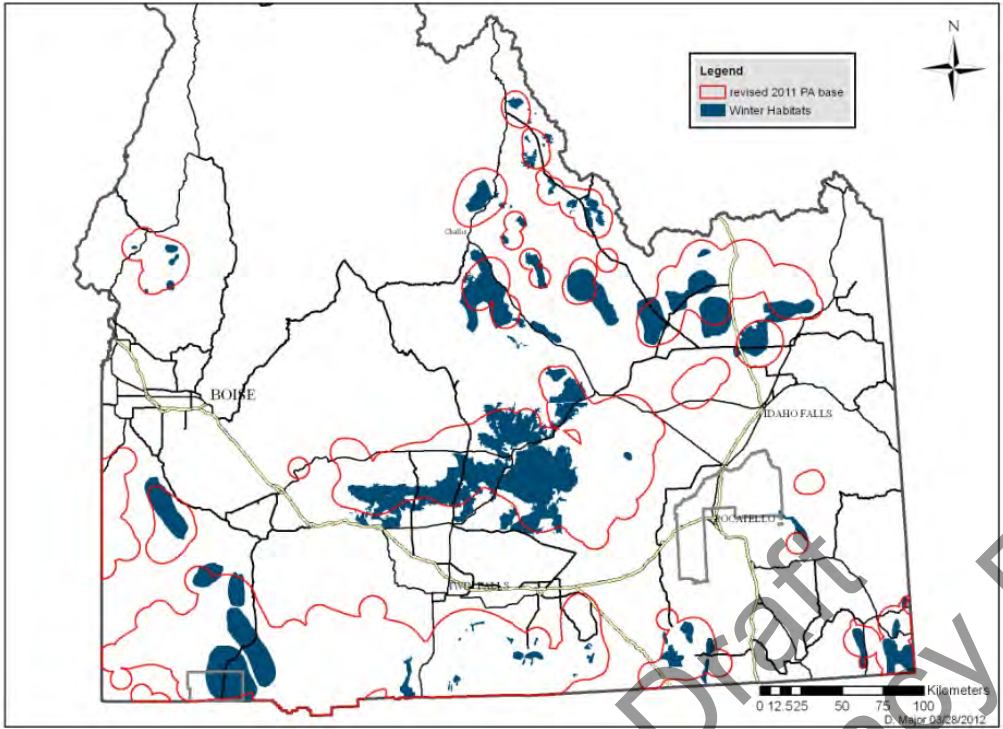


Figure 2. Identified Key Habitat that occurs within the revised 2011 PA polygons (red) or connects among polygons was delineated as PPH. Key habitat areas extending beyond the revised 2011 PA polygon and contained within the Persistence 25% surface (green) were also included as PPH. Other identified seasonal and/or high importance areas within or outside Key habitat were also included as PPH.



A-Winter



B – Breeding

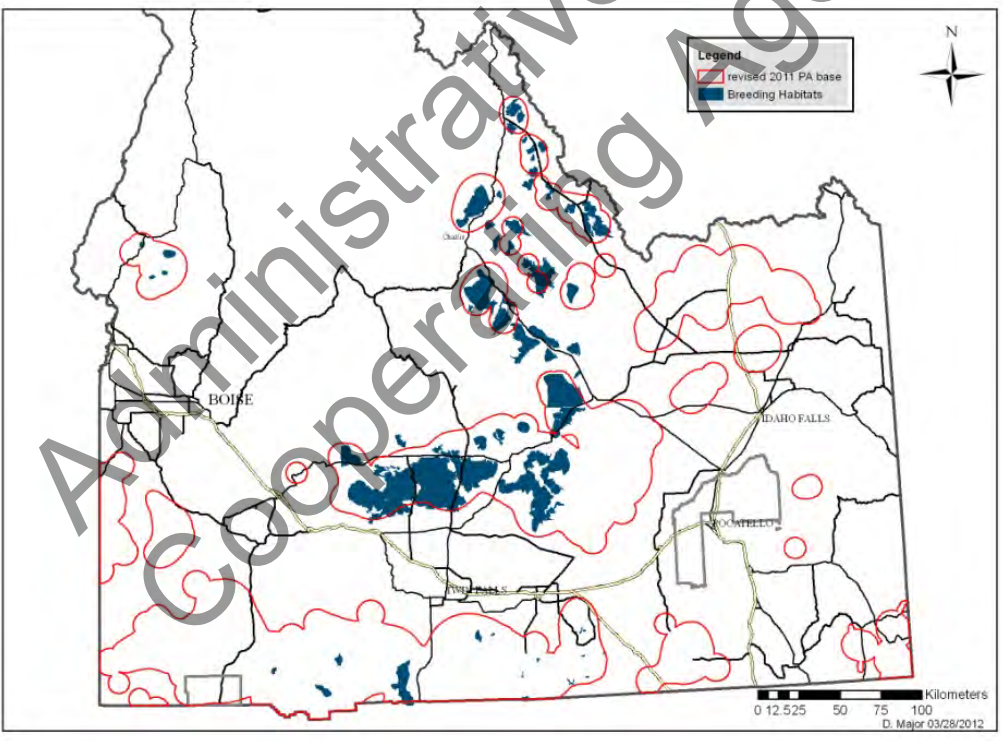


Figure 3. Identified sage-grouse winter (A) and breeding (B) areas.

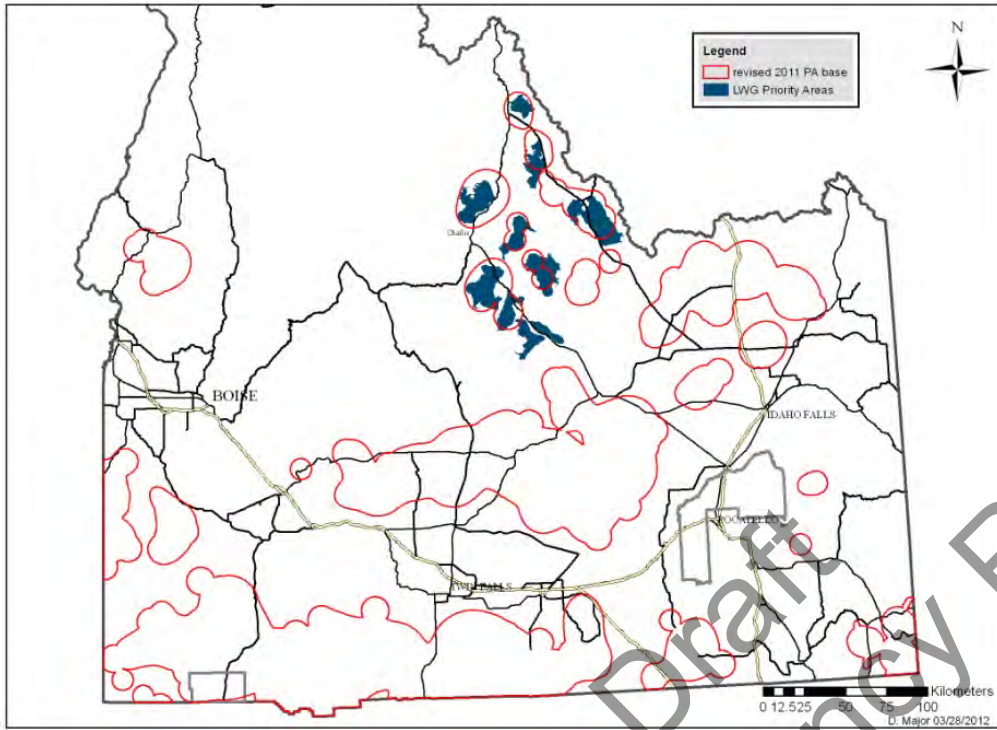
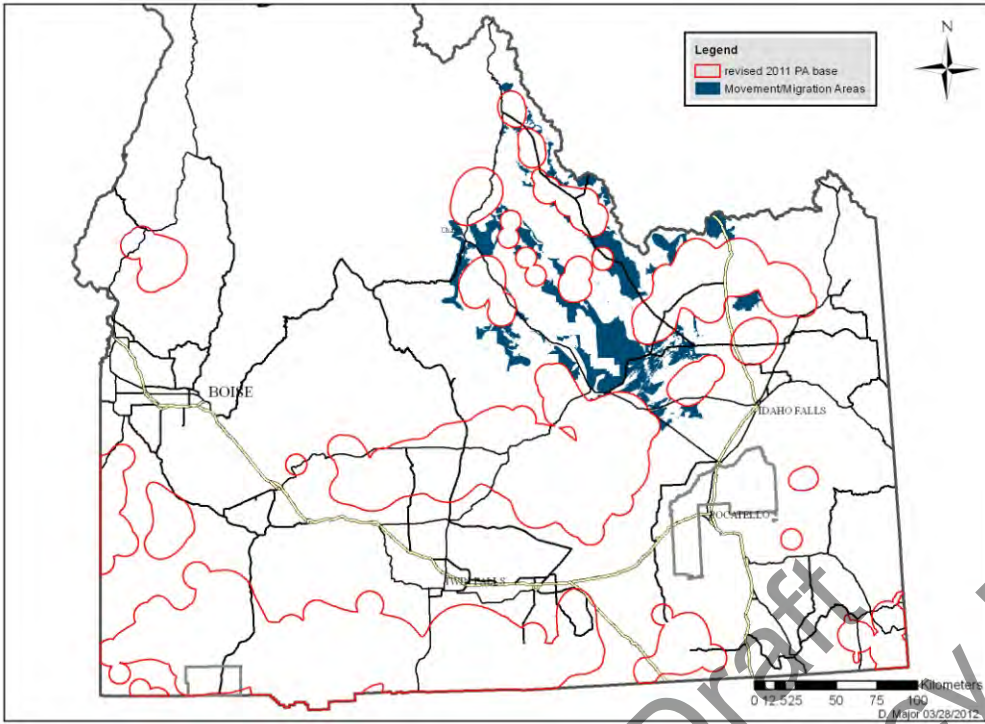


Figure 4. Identified Sage-grouse Local Working Group Priority areas.

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A



B

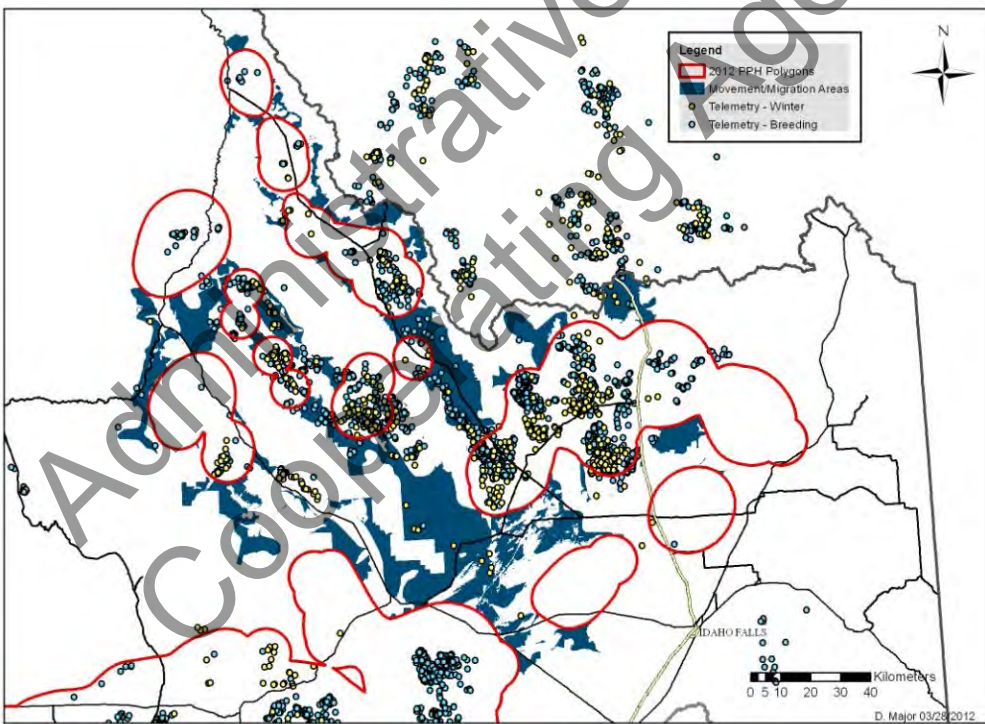


Figure 5. A - Important sage-grouse movement and migration areas identified from expert opinion and telemetry location information. B – Winter (yellow) and Breeding (blue) season telemetry location used to visually examine movement and migration areas.

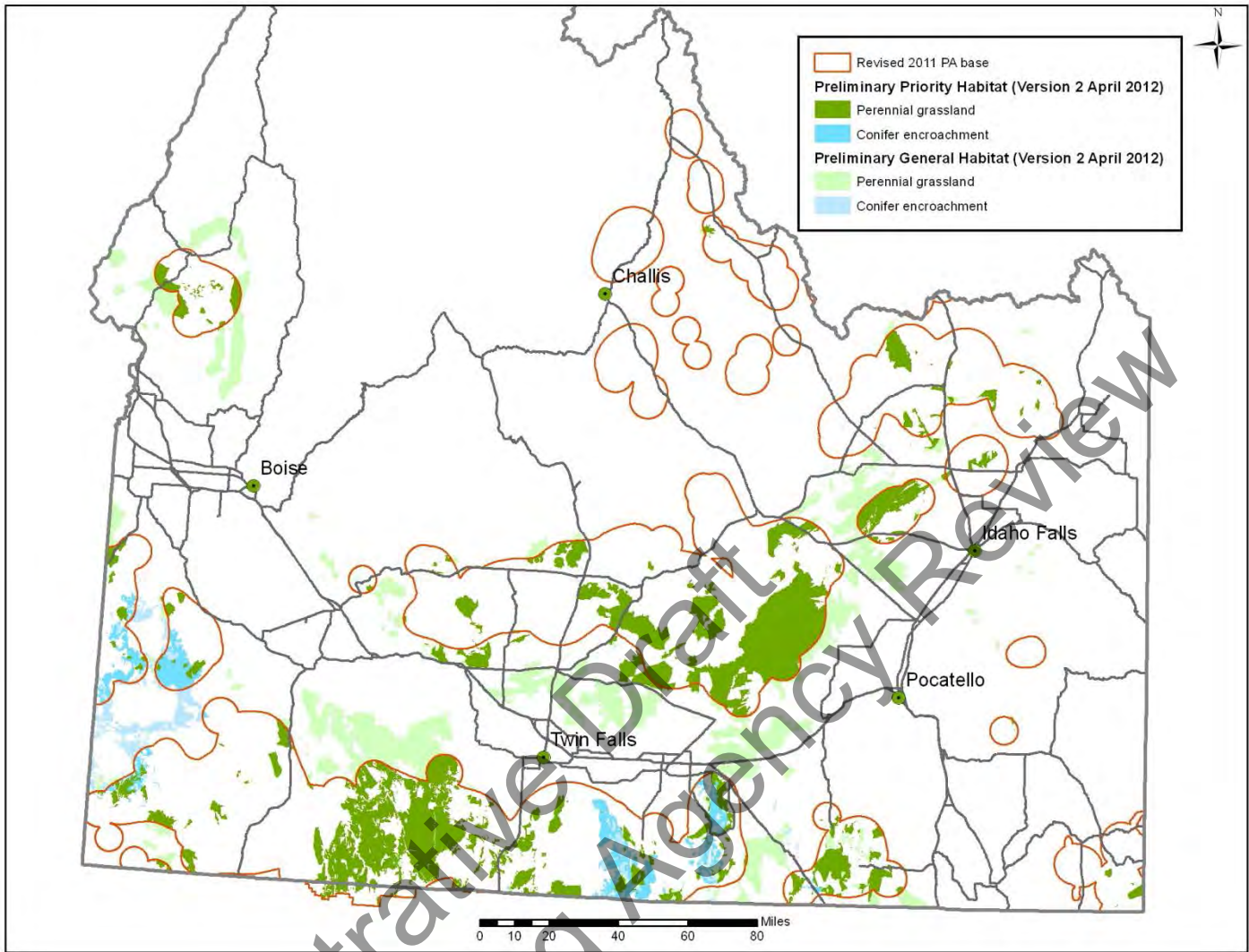
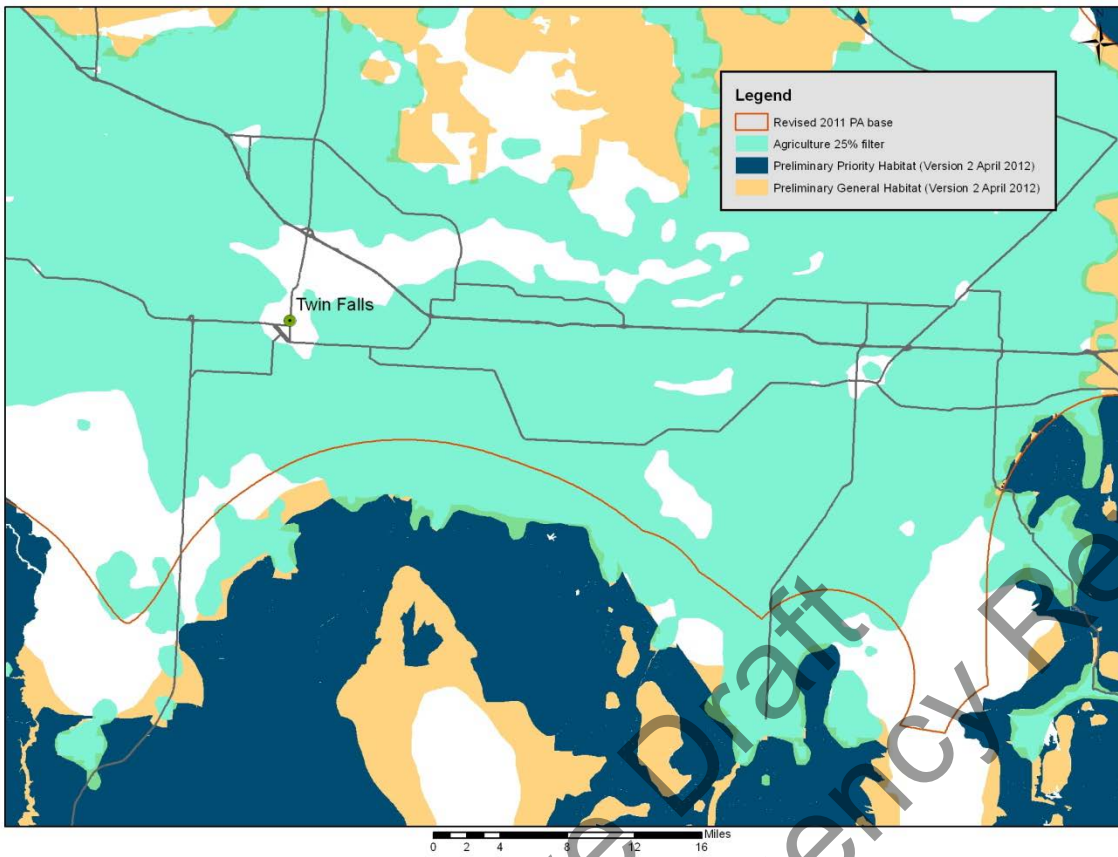


Figure 6. Perennial grasslands and conifer encroachment areas occurring within the revised 2011 PA polygons (red) were delineated as Preliminary Priority Habitat areas for the 2012 revision. Areas outside the polygons were delineated as Preliminary General Habitat. Data represents perennial grassland, conifer encroachment, and some Persistence >25%.

A



B

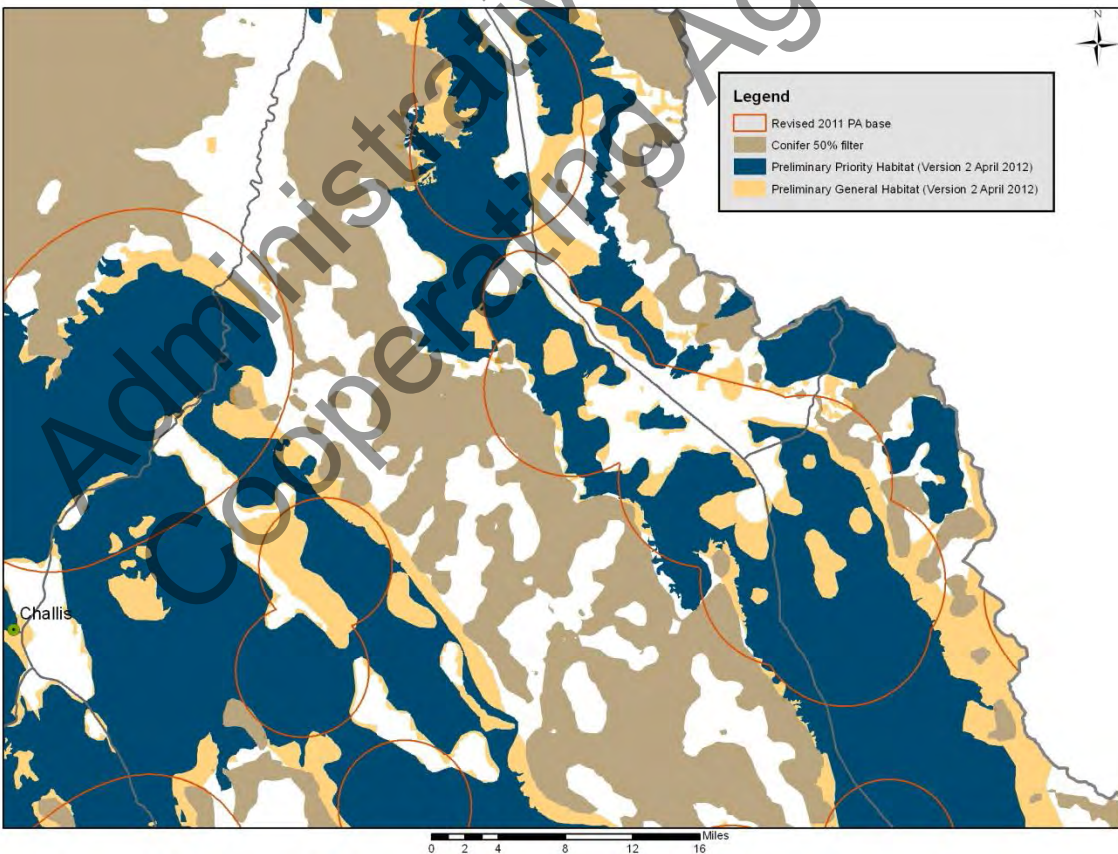


Figure 7. A – Agricultural filter: B – Conifer filter. Vegetation data was obtained from Landfire v1.01.

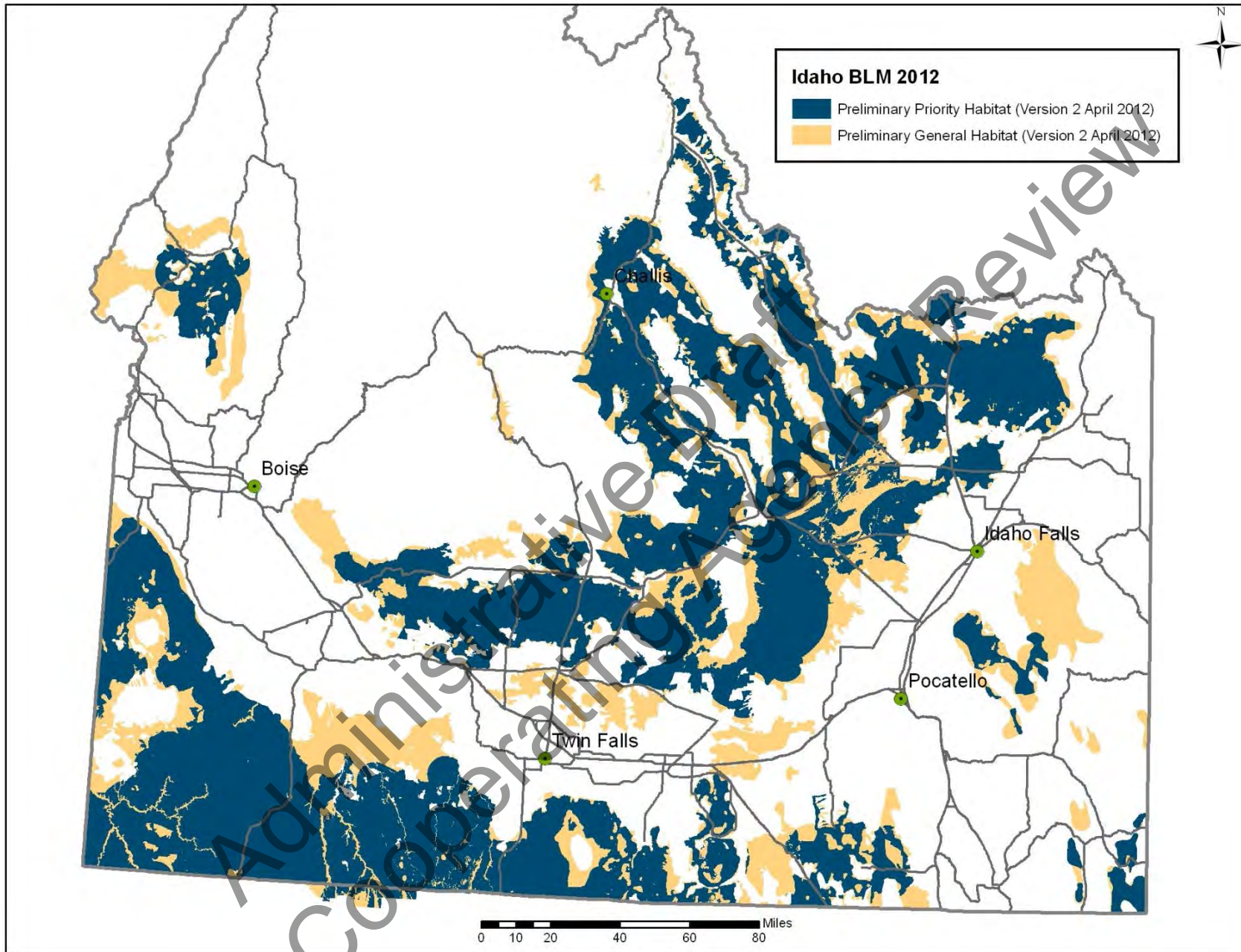


Figure 8. 2012 Sage-grouse Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) in Idaho. 2012 Preliminary General Habitat represents the remaining sagebrush, perennial grassland, conifer encroachment, and some Persistence >25% not accounted for in the 2012 Preliminary Priority Habitat.(Version 2 April 2012).

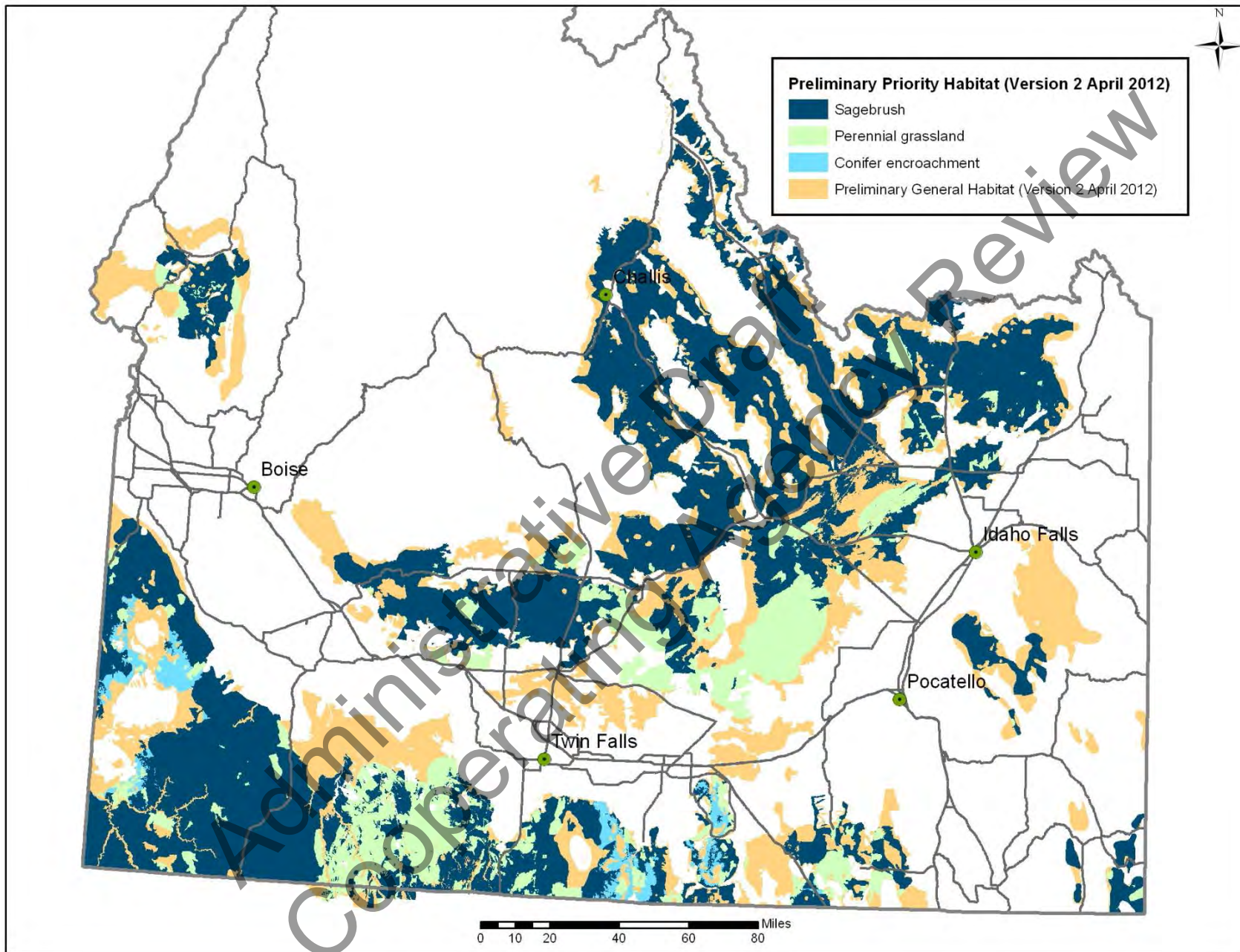


Figure 9. 2012 Preliminary Priority Habitat and Preliminary General Habitat (PGH) areas in Idaho. PPH includes important sagebrush areas as well as perennial grassland and conifer encroachment areas that are priority restoration areas. (Version 2 April 2012).

## Chapter 3: Management Approaches for Consideration

The information presented in this paper should not be construed as policy. It is primarily intended to complement and provide spatial context for interim national BLM sage-grouse policy and a framework for further conservation planning efforts. Specifically, this information can provide helpful context for analyses and decisions associated with future project-level work, authorizations, activity planning or land-use planning that may affect sage-grouse or sage-grouse habitat on BLM lands in Idaho. To inform future discussions of possible management actions for the various PPH or PGH (or portions thereof), we suggest considering two general approaches, as a starting point.

*Habitat Maintenance Focus:* In some areas, the focus of sage-grouse habitat conservation may best be achieved by an effort to maintain or protect the current extent and health of sagebrush landscapes and sage-grouse population connectivity. These areas might include PPH or portions of PPH that currently provide relatively important, intact sage-grouse habitat and are therefore important for sustaining sage-grouse populations into the future. Examples of management actions could include: 1) the establishment of exclusion zones for certain types of actions (e.g., energy development), or sage-grouse “conservation areas”, Areas of Critical Environmental Concern, or other protective designations to minimize or reduce anthropogenic impacts; 2) application of more stringent project stipulations or protective buffers; and 3) provide aggressive and proactive approaches to wildfire suppression, establishment of strategic fuel breaks, implementation of juniper/conifer control activities, or other protective or maintenance measures appropriate for the landscape.

*Habitat Improvement Focus:* In some areas, the focus of sage-grouse habitat conservation may best be achieved by an effort to restore the extent and ecological health of sagebrush landscapes to improve sage-grouse habitat quality, quantity and population connectivity. These would be comprised of PPH and/or PGH that currently are constrained due to concerns with habitat quality, fragmentation or other factors that could be ameliorated with restoration activities or other approaches. Management actions could focus on efforts to restore sagebrush and/or the herbaceous components of the habitat, reduce conifer expansion, and protection of restoration investments (i.e., aggressive wildfire suppression).

**Future Modeling Opportunities:** Given the repeatable and transparent analytical framework described in earlier chapters, we can readily incorporate other geospatial landscape metrics, threat information, or other data as they become available. For example, we could incorporate information on the Human Footprint (Leu et al. 2008), or Core Patch Size Distribution using Patch Analyst for ArcGIS. Other class or landscape metrics (e.g., habitat connectivity, fragmentation or aggregation indices, edge density, etc.) could also be explored to further characterize the nature and context of our connectivity polygons.

In the near future, we will have the opportunity to incorporate sage-grouse seasonal habitat models currently under development for Idaho and MZ IV by IDFG (Knetter and Svancara, in progress) using a Maximum Entropy (MAXENT) climate envelope characterization of sage-grouse habitat. We anticipate these will be helpful in further informing sage-grouse conservation at multiple scales.

**Acknowledgements:** Many individuals provided helpful comments the various phases of this project. We would like to especially thank the following for their input: Cameron Aldridge (US Geological Survey), Jack Connelly (Idaho Dept. Fish & Game), Shawn Espinosa (Nevada Dept. Wildlife), Christian Hagen (Oregon Dept. Fish & Wildlife), Steve Hanser (US Geological Survey), Nick Hardy (US Fish & Wildlife Service), Don Kemner (Idaho Dept. Fish & Game), Sonya Knetter (Idaho Dept. Fish & Game), Steve Madsen (Utah BLM), Rick Northrup (Montana Dept. Fish, Wildlife, & Parks), Tom Rinkes (Idaho BLM), Frank Quamen (BLM National Operation Center), Robin Sell (Colorado BLM), and Kendra Womack (US Fish & Wildlife Service).



## Literature Cited:

- Aldridge, C. L., S. E. Nielsen, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, and M. A. Schroeder. 2008. Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions* 14:983-994.
- Burak, G., and A. Moser. 2009. Sage-grouse Seasonal Habitat Mapping-Progress Report. Unpublished IDFG report. Boise, ID.
- Bureau of Land Management. 2000. Instruction Memorandum 2000-059. Guidance implementing the draft sage-grouse habitat assessment framework for lands administered by the Bureau of Land Management (BLM) in Idaho.
- Bureau of Land Management. 2010. Instruction Memorandum 2010-071. Gunnison and greater sage-grouse management considerations for energy development (Supplement to National Sage-grouse Habitat Conservation Strategy).
- Bureau of Land Management. 2010b. Idaho Sage-grouse Habitat Planning Map 2010 Version. Shapefile available at <http://cloud.insideidaho.org>
- Bureau of Land Management. 2012. Idaho Sage-grouse Habitat Planning Map 2011 Version. Shapefile available at <http://cloud.insideidaho.org>
- Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, WY.
- Doherty, K.E., D.E. Naugle, H. Copeland, A. Pocerwicz, and J. M. Kiesecker. 2011. Energy development and conservation tradeoffs: Systematic planning for sage-grouse in their eastern range. Pages 505-516 in S.T. Knick and J. W. Connelly, editors, *Greater Sage-Grouse-Ecology and Conservation of a Landscape Species and Its Habitats*. Studies in Avian Biology No. 38. Cooper Ornithological Society. University of California Press. Berkeley and Los Angeles, CA.
- Doherty, K.E., J.D. Tack, J.S. Evans, and D.E. Naugle. 2010. Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. BLM Completion Report. Interagency Agreement #L10PG00911.
- Doherty, K.E., D.E. Naugle, B. Walker, J.M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *J. Wildlife Manage.* 72(1):187-195.
- Durtsche, B.M., C.J. Benson, and S.V. Stegman. 2009. A GIS-based habitat model for the greater sage-grouse in the western United States. U.S. Bureau of Land Management Unpublished Report. National Operations Center, Denver, CO.
- Hagen, C. 2011. Greater sage-grouse conservation assessment and strategy for Oregon: A plan to maintain and enhance populations and habitat. Oregon Department of Fish and Wildlife, Bend, Oregon. Available at [http://www.dfw.state.or.us/wildlife/sagegrouse/docs/20110422\\_GRSG\\_April\\_Final%2052511.pdf](http://www.dfw.state.or.us/wildlife/sagegrouse/docs/20110422_GRSG_April_Final%2052511.pdf) Accessed 07/05/2011.
- Holloran, M.J., and S.H. Anderson. 2005. Spatial distribution of greater sage-grouse nests in relatively contiguous habitats. *Condor* 107:742-752.

North Magic Valley Sage-grouse Local Working Group. 2011. Draft Sage-grouse Conservation Plan.

Idaho Sage-grouse Advisory Committee (ISAC). 2006. Conservation Plan for the Greater Sage-grouse in Idaho. Idaho Department of Fish and Game Unpublished Report.  
[http://fishandgame.idaho.gov/cms/hunt/grouse/conserve\\_plan/](http://fishandgame.idaho.gov/cms/hunt/grouse/conserve_plan/)

Knetter, S., L. Svancara and W. Bosworth. *In Progress*. Mapping seasonal sage-grouse habitats using inductive models. Bureau of Land Management and Idaho Department of Fish and Game Challenge Cost Share project.

Knick, S.T. and S. E. Hanser. 2011. Connecting pattern and process in greater sage-grouse populations and sagebrush landscapes. Pages 383-405 in S.T. Knick and J. W. Connelly, editors, Greater Sage-Grouse- Ecology and Conservation of a Landscape Species and Its Habitats. Studies in Avian Biology No. 38. Cooper Ornithological Society. University of California Press. Berkeley and Los Angeles, CA.

Leu, M., S. E. Hanser, and S. T. Knick. 2008. The human footprint in the West: a large-scale analysis of anthropogenic impacts. *Ecological Applications* 18: 1119-1139.

Sather-Blair, S., P. Makela, T. Carrigan and L. Anderson. 2000. A framework to assist in making sensitive species habitat assessments for BLM-Administered public lands in Idaho- Sage-grouse. U.S. Bureau of Land Management unpublished report. Idaho State Office, Boise, ID.

Stiver, S. J., A.D. Apa, J.R. Bohne, S.D. Bunnell, P.A. Deibert, S.C. Gardner, M.A. Hilliard, C.W. McCarthy, and M.A. Schroeder. 2006. Greater sage-grouse Comprehensive Conservation Strategy. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

# Greater Sage-Grouse Core Areas Designation for Montana Version 1.0

## Appendix 1 to Greater Sage-Grouse Habitat Conservation Strategy

Definition, Methods, and Numerical Results  
Montana Fish, Wildlife and Parks

Jan 13, 2009

**Objective:** Designate sage-grouse core areas in Montana that support the greatest sage-grouse abundance or are important for maintaining sage-grouse distribution.

**Definition:** Sage-grouse core areas are habitats associated with 1) Montana's highest densities of sage-grouse (25% quartile), based on male counts and/or 2) sage-grouse lek complexes and associated habitat important to sage-grouse distribution.

### Methods and Criteria for #1 in the Definition

1. **Identifying Highest Density:** Two different point density estimation methods (noted below) were used to identify the highest densities of displaying male sage-grouse based upon lek locations. Both techniques identified the same lek complexes as having the highest densities at the 25% quartile.
  - a. Audubon (K. Doherty) used a 6440-m circular neighborhood analysis (Spatial Analyst Tools ArcGIS 9.2) at 1-km grid cell size. The maximum male count available between 2005 and 2007 was used to evaluate male density. The resulting surface was randomly sampled using 50,000 points to determine the quartile breakpoints.
  - b. Montana Fish, Wildlife and Parks (FWP) used a Fixed Kernel Density Estimator (Hawths Tools, ArcGIS 9.2) with a bivariate normal kernel and a smoothing factor of 10,000 at a 500-m cell size. The kernel was weighted based upon the average of the highest male count for each year from 1998 through 2008. The quartile boundaries are provided by the program.
2. **Focus Area:** Lek complexes and associated habitats, typically within a 10-km search radius of leks in the complex, defined the outside boundaries of this analysis. In some instances, habitat associated with a core lek complex may have extended beyond 10 km.

*Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS*  
June 2015



Overlaying documented seasonal habitats connected to and extending beyond these areas and manual editing were necessary to incorporate these exceptions.

3. **Habitat Suitability Analysis:** For the purposes of this analysis, unsuitable habitats and suitable habitats within or adjacent to core areas were generally defined as follows:

a. **Unsuitable Habitat**

- Cultivated row-crop parcels >600 acres
- Areas where 75% or more of the surrounding 1,000 acres are cultivated land\*
- Areas where 20% or more of the surrounding 1,000 acres are forested habitat\*
- Areas where 75% or more of the surrounding 1,000 acres exceeded a terrain ruggedness threshold of 13.\*\*

Note: This criteria was not included for intermountain valleys of southwestern Montana because of the unique topographic features and demonstrated habitat use by sage-grouse.

\* Land cover values were obtained from the National Land Cover Dataset (NLCD). Analyses were based upon a 30-m grid cell. Percentages are based on a 2-km x 2-km search window (1,000 acres).

\*\* Terrain ruggedness is the standard deviation of elevation surrounding an area based upon a 30-m grid cell. The threshold was chosen based on 95% of leks having a value of 13 or lower.

b. **Suitable Habitat**

- Areas where 75% or more of the surrounding 1,000 acres had a 10% or greater probability of supporting a sage-grouse lek.
  1. The majority of core area boundaries were based upon this delineation.
  2. The probability used is based upon a habitat suitability model that used lek locations to identify suitable habitat. This model was produced by the Montana Natural Heritage Program. See "Surveys for Grassland Birds of the Malta Field Office-BLM, including a Seven-year Study in North Valley County, April 2008" at the Montana Natural Heritage Program, Publications, [Birds](#) webpage.

## Methods and Criteria for #2 in the Definition

1. Key areas for maintaining sage-grouse distribution in Montana are among the highest 50% density (50% quartile, using methods described above) occurring in the outer boundaries of the sage-grouse's range in Montana.
2. Key habitat corridors important for conductivity and sage-grouse distribution beyond Montana are also included under this definition (e.g., portions of northern Valley County).
3. Non-habitats and habitat boundaries within or adjacent to core areas follow the same criteria as under #3 above.

### Refinement Process:

1. Field biologists from FWP and Bureau of Land Management (BLM) reviewed printed maps showing the habitat parameters described above to identify outer boundaries of core areas and determined general accuracy of designated non-habitats. Printed maps were at a scale of 1:200,000.
2. Based upon those biologists expert opinion, refinements were made to the core area boundaries. This allowed for inclusion of nesting and brood rearing areas not captured by the lek driven model.
3. Telemetry data was utilized to refine core area boundaries in southwestern Powder River and southeastern Bighorn counties and Beaverhead and Madison counties to help refine mapping of core habitats in these areas. Data from Powder River and Bighorn counties was obtained from research done by Dr. Dave Naugle, University of Montana. Data from Beaverhead and Madison counties was obtained from research done by the BLM.
4. The mapped habitat, refinements based upon biological expert opinion and integration of existing research data were incorporated to develop Version 1.0.
5. As additional information becomes available, Core Area designations will be refined.

### Numerical Results:

Core Areas mapped as Version 1.0 include 56% of the state's sage-grouse leks (953 of 1,693 leks) and 71% of displaying males based on average male counts over the last 10 years (13,439 of 18,910 sum of average males).



# Appendix W

## Forest Service Alternative D Language



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Version 1 - Revised as of 8/15/13

**Draft Standards and Guidelines for GRSG Amendment for the Land and  
Resource Management Plans in Idaho and Southwest Montana for the  
Preferred Alternative - Alternative D**

**Boise National Forest**

**Beaverhead-Deerlodge National Forest**

**Caribou-Targhee National Forest**

**Curlew National Grassland**

**Salmon-Challis National Forest Service**

**Sawtooth National Forest**

Note – all of the following standards and guideline apply to all GRSG habitat unless a specific Management Area is identified.

**D-SSS-1: Greater Sage-grouse Management Area Designation**

Designate Preliminary Priority Management Areas (PPMA), Preliminary Medial Management Areas (PMMA), and Preliminary General Management Areas (PGMA) (see Table 2-18).

PPMA includes areas that have the highest conservation value to GRSG. Key characteristics include areas of higher lek attendance and lek connectivity, lower habitat fragmentation, important movement corridors and winter habitat. PMMA includes areas of moderate to high conservation value to GRSG that are generally adjacent to PPMA but reflect reduced GRSG population and/or habitat characteristics. PGMA is occupied (seasonal or year-round) habitat outside of PPMA and PMMA.

**D-WFM-1: Wildfire Suppression Standard**

Having provided for firefighter and public safety, property protection, and threatened and endangered species habitat protection, PPMA is the highest priority for conservation during fire suppression decision making, followed by PMMA and then PGMA. Suppress wildland fires in intact GRSG habitats and utilize appropriate management response where needed to restore, enhance, maintain and improve GRSG habitat.

**D-LG/RM-16: Livestock Grazing Standard**

Manage grazing permits to maintain vegetation composition (including riparian and lentic areas) and structure consistent with appropriate GRSG seasonal habitat objectives relative to site potential.



**D-LG/RM-35: Fence Construction Guideline**

Avoid building new permanent fences within 2 km of occupied leks, high density fence areas or winter concentration areas. If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates. Utilize temporary fencing (e.g., ESR, drop down fencing) where applicable and appropriate to meet management objectives.

**D-LG/RM-43: New Livestock Water Developments Standard**

New water developments must benefit, maintain, or have a neutral effect on PPMA and PMMA (such as by shifting livestock use away from critical areas). New developments that divert surface water in PPMA, PMMA and PGMA must be designed to maintain integrity and functionality of riparian or wetland vegetation and hydrology.

**D-RC-3: Recreation Special Use Permit Seasonal Restrictions Standard**

Incorporate seasonal restrictions for authorized activities to minimize impacts to GRSG and/or their habitat.

**D-RC-4: Recreation Sites and Activities Standard**

Design and manage recreation activities and developed recreation sites and facilities within lands not designated as a recreation management area to minimize adverse effects to GRSG by directing use away from sensitive areas.

**D-TM-10: Winter Travel Restriction Standard**

Limit snow machine travel to existing routes in GRSG wintering areas from November 1 through March 31.

**D-LR-1: Solar and Wind Energy Development Restriction Standard**

In PPMA - Do not authorize solar and wind energy development in PPMA. In PMMA - Do not allow solar and wind energy development where adverse effects cannot be mitigated. Ancillary facilities such as roads, electric lines, etc. may be authorized provided there is no net loss of GRSG habitat through mitigation. In PGMA - Avoid authorizing solar and wind energy development.

**D-LR-3: New ROW, Easement, and Land Special Use Permit Restriction Standard**

In PPMA, do not authorize new transmission facilities greater than 50kV, wind energy testing and development, commercial solar development, commercial geothermal development, nuclear development, oil and gas development, mineral development, airports, ancillary facilities associated with any of the aforementioned development, paved roads and graded gravel roads, landfills or hydroelectric projects.

In PPMA, PMMA and PGMA, unless otherwise restricted, avoid authorizing new permanent ROW, easement and land special uses. Land authorizations that are temporary in nature (e.g., film permits,

apiaries), that do not result in loss of GRSG habitat are exempt from mitigation requirements regarding habitat loss (except for timing restrictions). Site new authorizations or facilities, not otherwise excluded, outside the 3 km (1.86 miles) occupied lek avoidance buffer areas unless a greater or lesser distance is required, based on topographic features or other mitigating factors. If new distribution lines cannot be sited outside the 3 km buffer, they should be buried or designed to minimize use by avian predators.

In PPMA and PMMA, new ROW, easement, and land use authorizations may not result in a net loss of GRSG habitat.

#### **D-LR-17: Land Ownership Adjustment Guideline**

Retain public ownership of GRSG habitat. Allow consideration of Federal land sale or exchange where there is mixed ownership and land exchanges would allow for additional or more contiguous federal ownership patterns within GRSG habitat.

Allow consideration of land exchanges containing historically low-quality GRSG habitat in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of GRSG habitat. Higher priority will be given to exchanges for those intact areas of sagebrush that will contribute to the expansion of PPMA sagebrush areas currently in public ownership. Lower priority will be given to those lands that will promote enhancement in PPMA and PGMA areas.

#### **D-MLS-12: Fluid Minerals Lease Restrictions Standard**

In PPMA and PMMA, do not allow new leases in areas of no and low potential for the discovery of fluid minerals (see Table 2-18). In areas of moderate and high potential for the discovery of fluid minerals, allow leasing and require CSU, timing restrictions in breeding and winter habitat, disturbance density not to exceed 1/640 acres, maximum 3% disturbance/section, and NSO within 0.6 mile of occupied or undetermined status leks.

In PGMA, allow leasing and require:

- Timing limitations in breeding and winter habitat,
- 0.6 mile NSO near occupied and undetermined status leks, and
- Implementation of appropriate BMPs.

#### **D-MLS-13: Fluid Minerals Geophysical Exploration Timing Restriction Standard**

Apply seasonal timing restrictions to exploration activities.

#### **D-MLM-3: Locatable Minerals Mitigation Standard**

In PMMA, require off-site mitigation if effects to GRSG PPMA habitat are unavoidable.

**D-MSM-1: Common Variety Mineral Materials Standard**

Do not authorize new common variety mineral pits within 3 km of an occupied lek (see Table 2-18). Require seasonal timing restrictions on both new and existing community pits.

**D-MNL-1: Non-Energy Minerals New Lease Restrictions Standard**

In PPMA and PMMA – Do not allow prospecting or new leases (see Table 2-18) except for lease modifications and fringe leases where valid existing rights may be affected. In PPMA, PMMA and PGMA where leasing is allowed, require CSU, timing restrictions and CSU.

**D-MNL-2: Non-Energy Minerals New Lease Restrictions Standard**

For existing (undeveloped) and new non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or initial mine development is proposed, as appropriate. Also require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

**D-MSE-2: Surface Disturbance Standard for Non-federal Subsurface Minerals**

In PPMA, where the federal government owns the surface, and the mineral estate is in non-federal ownership, require the mineral estate owner to apply a timing restriction stipulation, COAs, and restrict activities within 3 km (1.86 miles) of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance.

# Appendix X

## Vegetation Dynamics Development Tool



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## **X. Great Basin Vegetation Modeling using Vegetation Dynamics Development Tool**

### **X.1 Introduction**

Numerous factors influence sagebrush dynamics in the Great Basin. Each year acres of sagebrush increase in density, or are burned, grazed, converted to invasive annual grass, damaged by insects and disease, encroached by conifers, or altered by various management treatments. Due to the importance of sagebrush cover for greater sage-grouse, a process to account for all of these changes in sagebrush communities is important in evaluating trends of greater sage-grouse habitat. The greater sage-grouse land use plan amendments being developed and analyzed in each sub-regional EIS in the Great Basin each have different alternative approaches to management of greater sage-grouse habitat. Alternatives propose actions that will influence the extent and distribution of sagebrush. In order to evaluate and compare the estimated effects of each alternative, a team of vegetation ecologists representing each sub-regional EIS in the Great Basin was assembled. The team used the Vegetation Dynamics Development Tool (VDDT, copyright 1995-2003, ESSA Technologies, Vancouver, BC) to accomplish this task. This modeling effort does not include changes in habitat conditions associated with permitted activities such as infrastructure development, travel management, or mineral development.

### **X.2 Methods**

The Great Basin Region planning area was divided into Analysis Areas based upon the Population/subpopulation areas from the *Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats* (Connelly et al. 2004). These polygons were overlaid on the PPH/PGH layers identified by each state to ensure all habitat was included. The acreage calculations were based on the underlying PPH/PGH. Attachment A shows this base map.

Existing vegetation was determined using a combination of LANDFIRE, local knowledge, GAP analysis, SENS Map in Nevada, and ILAP in Oregon (each state process is described in Attachment B). These acres were estimated for each vegetation class in each vegetation model in each analysis area. Five models were developed to characterize the vegetation:

- Low Sagebrush (shallow, dry)
- Wyoming Big Sagebrush (warm, dry)
- Mixed Sagebrush
- Mountain Big Sagebrush with conifer(cool, moist)
- Mountain Big Sagebrush without conifer (cool, moist)

Each model has different states or conditions of the vegetation, which are called classes. The classes were designed to best represent both the available vegetation data for the planning area, as well as the sage-grouse habitat requirements. The following are the classes for each Model:

Low Sagebrush

1. Early Seral: <10% sagebrush cover
2. Late Seral: >10% sagebrush cover
3. Late Seral with conifer: >10% sagebrush with >10% conifer
4. Annual Grass

Wyoming Big Sagebrush

1. Early Seral: <10% sagebrush cover
2. Mid Seral: 10-30% sagebrush cover
3. Late Seral: >30% sagebrush cover
4. Late Seral with conifer: >30% sagebrush cover with >10% conifer cover
5. Annual Grass
6. Exotic Perennial Grass

Mixed Sagebrush

1. Early Seral: <10% sagebrush cover
2. Mid Seral: 10-30% sagebrush cover
3. Late Seral: >30% sagebrush cover
4. Late Seral with conifer: >30% sagebrush cover with >10% conifer cover

Mountain Big Sagebrush with conifer

1. Early Seral: <10% sagebrush cover
2. Mid Seral: 10-30% sagebrush cover
3. Late seral: >30% sagebrush cover
4. Late Seral with conifer: >30% sagebrush cover with >10% conifer cover
5. Annual Grass

Mountain Big Sagebrush without conifer

1. Early Seral: <10% sagebrush cover
2. Mid Seral: 10-30% sagebrush cover
3. Late seral: >30% sagebrush cover
4. Annual Grass

The following natural and background disturbances were applied to the models: stand replacement wildfire, mosaic wildfire, overgrazing, insects and disease, and conifer encroachment. The rates of occurrence of these disturbances varied by model in order to reflect the variable rates for each of the vegetation types represented by these models. Several web meeting/conference calls were conducted to gain consensus among the team members on which models to develop, what disturbances/succession processes to include and determine what amount should be included in each model. The initial foundation was the Biophysical Settings for applicable sagebrush sites from LANDFIRE. Each team member had the opportunity to bring their local knowledge and experience to the discussion and changes were made to reflect that experience.

After agreement was reached on these rates, a review of the models and disturbance rates was conducted by the Science Review Team. This team made several suggestions that were incorporated into the models.

Wildfire history data (1980-2012) was used from the National Interagency Fire Center to determine the average annual acreage burned in each area, magnitude of extreme fire years, and frequency of extreme years. The size and extent of fires vary significantly from year to year, with most acres burned occurring on few years that represent extreme conditions; therefore using an average fire size would not accurately represent the influence of fire on the landscape. Due to the short time period in the fire history data (32 years) the data was reviewed and the most extreme year (most acres burned) and the smallest fire year (fewest acres burned) were dropped. The presence of only 1 extreme year in the data set does not indicate the interval between extreme events unless 2 data points are found within the fire history range. Therefore it is not accurate to make assumptions about an extreme event occurring every 32 years. Annual wildfire probability for each class in each model was estimated based on mean fire return interval (MFRI) information gained from LANDFIRE and adjusted based on team members' experience. The variability in year-to-year fire totals did not alter the long term fire probabilities derived from MFRI.

### X.3 Model Outputs

**Alternative A** in each Sub-Regional EIS is the No-Action or Current Management Alternative. This alternative represents the existing rates of conifer treatment, sagebrush mechanical treatment, prescribed fire, herbicide treatment, grass seeding, sagebrush seeding, and firebreak utilization. In order to display current vegetation conditions, acres of each type of treatment were collected from the field and input into VDDT. Field monitoring data was used to determine the success rates for grass seeding, herbicide application, and sagebrush seeding. These treatments are all considered as one package of restoration treatments in the models to avoid double counting acres and thereby overestimating their positive benefit to vegetation. Firebreak utilization was not directly input to the model, but was assumed to be correlated to the existing rates of wildfire in areas where the firebreaks are used.

Upon completion of the Current Management Alternative, the model output reports were reviewed by the team as well as field staff from BLM and FS to ensure the results reflected existing levels of treatment, current vegetation and results of treatment. This review resulted



in re-running the models four times in order to capture changes suggested by the reviewers. Changes made included: modification of treatment success rates to reflect field monitoring, removal of double counted acres of treatment when multiple treatment occurred, and errors found within models estimating rates of vegetation change.

An interdisciplinary team conference call/meeting was held with vegetation and wildlife staff to determine the Desired Conditions that would be applied to each analysis area. We determined that 70% of an area should be in 10-30% sagebrush canopy cover. This determination was made after a discussion of the *Guidelines to Manage Sage-Grouse Populations and Their Habitats* (Connelly et al. 2000) and the National Technical Team Report (NTT 2011). Connelly et al. suggested 80% of an area should have 10-30% sagebrush cover and the National Technical Team Report suggested 50-70% of an area should have 10-30% sagebrush cover.

The modeling team then reviewed the amount of each analysis area that currently has 10-30% sagebrush cover. Vegetation treatment projects were then modeled to determine the amount of a particular treatment necessary to move the vegetation conditions to the Desired Conditions. The amount of treatment varied by the amount of departure of the area from Desired Conditions and the vegetation dynamics of the area. The team reviewed amounts of acres available for treatment when developing these treatments to avoid the error of proposing treating acres that did not exist. When analysis areas had Current Conditions at or above 70% no additional treatment projects were proposed. The model outputs for this phase of the analysis are called Proposed Action. These treatment acres may be used to develop objectives in the Sub-regional Alternative D such as:

- “In the North Snake Population area, treat 10,000 acres annually of annual grass.”
- “In the North Snake Population area, treat 1000 acres annually of phase 1 conifer encroachment.”

Alternatives will be compared by the amount of each Population Area in suitable habitat condition (10-30% sagebrush cover) projected to occur in 50 years.

#### X.4 Model Assumptions:

**Alternative A: No Action:** Natural and background disturbances equal to historical averages, vegetation treatments equal to current management rates.

**Alternative B – NTT:** The modeling team reviewed any actions proposed by this alternative and attempted to quantify the effect of implementation of these actions in order to model the effects of these actions on vegetation. The following are actions found within the NTT that were included in the modeling for Alternative B:

- Natural and background disturbances same as Alt A except 50% less wildfire in Wyoming sage model to estimate the effect of fuels projects.



- No Prescribed Fire in <12” precipitation areas Wyoming sagebrush.
- Desired Condition to maintain 70% of area in 10-30% shrub cover
- Conifer encroachment treatment included
- Annual grass restoration included: Herbicide treatment, grass and sagebrush seeding

**Alternative C:** The modeling team reviewed actions proposed and modeled the following:

- Natural and background disturbances
- No Prescribed Fire in <12” precipitation areas
- Restore all crested wheatgrass seedings to native vegetation
- Maintain 80% of area in 10-30% shrub cover
- No livestock grazing
- Wildfire increased 25% due to lack of maintenance of existing fuel breaks, and no additional constructed
- Invasive annual grass would increase due to minimal use of herbicide for treatments resulting in a 50% decline in restoration treatment success

**Alternative D:** The modeling team reviewed actions proposed and modeled the following:

- Maintain 70% of area in 10-30% sagebrush cover
- Natural and background disturbances same as Alt A except 50% less wildfire in Wyoming sage model to estimate the effect of fuels projects.
- Desired Condition to maintain 70% of area in 10-30% shrub cover
- Conifer encroachment treatment included
- Annual grass restoration included: Herbicide treatment, grass and sagebrush seeding

**Alternative E:** The modeling team reviewed actions proposed and modeled the following:

- Each Sub-regional EIS has a different Alt E. Modeling was changed by Sub-region to reflect those differences.
- In general, this alternative was modeled similar to Alternative D

**Alternative F:**

- Natural and background disturbances same as Alt A except 50% less wildfire in Wyoming sage model to estimate the effect of fuels projects.

- No Prescribed Fire in <12” precipitation areas Wyoming sagebrush.
- Livestock grazing reduced by 50%.
- Desired Condition to maintain 70% of area in 10-30% shrub cover
- Conifer encroachment treatment included
- Annual grass restoration included: Herbicide treatment, grass and sagebrush seeding

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**Literature Cited:**

*A Report on National Greater Sage-grouse Conservation Measures.* Sage-grouse National Technical Team. December 2011.(aka NTT Report)

*Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats* (Connelly et al. 2004)

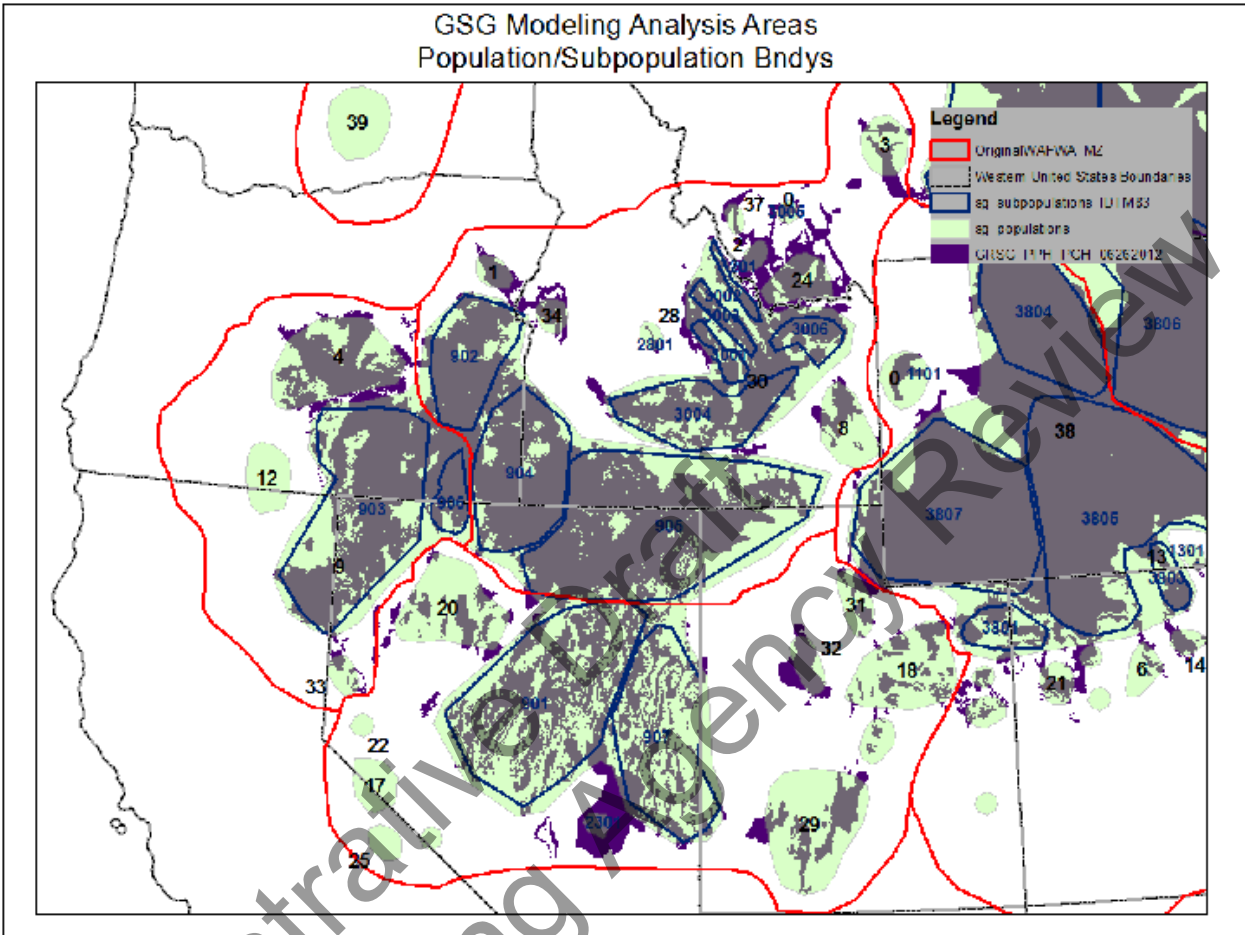
*Guidelines to Manage Sage-grouse Populations and Their Habitats.* Connelly et. al. 2000.

LANDFIRE : Existing Vegetation and Biophysical Settings.

*Manier, D.J., Wood, D.J.A., Bowen, Z.H., Donovan, R.M., Holloran, M.J., Juliusson, L.M., Mayne, K.S., Oyster-McCance, S.J., Quamen, F.R., Saber, D.J., and Titolo, A.J., 2013, Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater Sage-Grouse (Centrocercus urophasianus): U.S. Geological Survey Open-File Report 2013-1098, 170 p., <http://pubs.usgs.gov/of/2013/1098/>.(aka BER)*

U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report. U.S. Fish and Wildlife Service, Denver, CO. February 2013.

Attachment A Population Area Map



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## Attachment B-Idaho/Southwest Montana

### Greater Sage-grouse Habitat Characterization for Use in Non-Spatial Vegetation Modeling in the Idaho/Southwestern Montana Analysis Area

#### Vegetation Data

We evaluated available vegetation information to identifying the sagebrush habitat types and associated vegetation cover classes required by the modeling effort. These included Landfire (v115), ReGAP, and a site potential based evaluation of Idaho's Priority and General Sage-grouse Habitat (D. Major pers com). Upon evaluation and acknowledgment of the numerous limitations of available data, we determined the most effective approach would incorporate the following criteria: 1) dataset covers the entire sub-regional project area, 2) the vegetation data has an associated accuracy assessment, and 3) data provides appropriate resolution of sagebrush habitat types and associated cover classes for the VDDT models. The Landfire raster data sets (Existing Vegetation Type, Biophysical Site Type, and Existing Vegetation Cover) best met our criteria and the general objective of the modeling effort. The above Landfire datasets were clipped to the combined Priority and General Habitat data for Idaho and Montana to serve as our vegetation basemaps for subsequent analysis.

#### GSG Habitat Characterization

To facilitate characterization of sage-grouse habitat classes we developed a crosswalk from Landfire Existing Vegetation Type (EVT) to a NVCS Macro-group characterization of Tall Sagebrush and Dwarf Sagebrush (See Table 1). For the purposes of this effort, the Semi-Desert Macro-group was included and merged into the Tall Sage Group. In addition we also identified the need for a Shallow/Dry Low Sagebrush Group. We used NRCS Soils Data (SSURGO) to identify a select group of ecological site types and associated soil conditions (shallow soils, precipitation zone  $\leq 12$  inches, small statured native grass spp)(Table 2). The process involved reclassifying any Tall Sage/Dwarf Sage pixels contained within the Shallow/Dry Low sage polygons to Shallow/Dry Low Sage. The resulting Macrogroup raster was combined (raster calculator) with the Landfire Existing Vegetation Cover data to categorize the following cover classes within the Tall Sage, Dwarf Sage, and Shallow/Dry Low sage groups (Class A = herbaceous cover 0-100%; Class B = shrub cover 10 – 30%; Class C = shrub cover  $>30\%$ ).

Conifer encroachment (Class D = tree cover  $>10\%$ ) was determined using 2 analyses: 1) identification of any Tall Sage, Dwarf Sage, or Shallow/Dry Low Sage occurring within the GSG Priority Habitat – Conifer Encroachment Category. The process involved reclassifying any Tall Sage/Dwarf Sage pixels contained within the Conifer Encroachment Category polygon to Class D; and 2) identification of pixels classified as Juniper and/or conifer in the Landfire EVT raster (see Table 2 for select types) that were also classified as a sagebrush habitat type in the Landfire Biophysical Site Potential (BPS)raster(See Table 3 for select types). The resulting rasters were combined, reclassified and added back to the base Macrogroup raster.

Soil temperature regime was selected as the primary filter to separate the lower productivity warm/dry sagebrush characterized by soil temperature regime-mesic (WYO Model) from the higher productivity cool moist sagebrush soil temperature regime – frigid (MTN Model). Specifically, we characterized NRCS SSURGO soil mapunits into 2 soil temperature groups, mesic and frigid/cryic

and converted the resulting polygon into a raster dataset. The resulting soil temperature raster was then combined (raster calculator) with the base Macrogroup raster to provide the habitat base for our WYO and MTN and MIX VDDT models. No soil temperature regime was evaluated for the Shallow/Dry Low sagebrush (LOW) model. Soil temp regime was used as it represents a finer-scale soils-based attribute important to ecological site characterization and is less variable than available precipitation information (PRISM). Soil temp regime information was not available on most USFS lands and a few smaller areas. In these locations, we used general elevation and precipitation information to describe general proportions of the soil temperature regimes.

Annual Grass – Landfire has a designated Invasive Annual Grass vegetation type (999), however subsequent updates (“refreshes”) had resulted in incorrect classification of numerous large fires as Invasive Annual Grass (999) within our vegetation analysis extent. Therefore, we reclassified any Landfire Invasive Annual Grass as Class A <10% cover and used the Landfire BPS to determine Tall or Dwarf sagebrush group assignment. To more accurately reflect Annual Grass (Class E) for our models we opted to use the Annual Grass (R2 Category) information available in the 2011 Idaho Sage-grouse Key Habitat data. R2 Areas represented in the Key Habitat data typically represent past fires in sagebrush habitat and associated multi-year monitoring of annual grass establishment in these areas. Annual Grass polygons were identified within our Sage-grouse Population boundaries and/or adjacent (out to 2 kilometers) to the GSG Priority/General habitat polygons. The resulting polygons were used as a mask to extract areas classified as a sagebrush habitat type in the Landfire Biophysical Site Potential (BPS) raster (See Table 3 for select types). The resulting raster was reclassified to appropriate VDDT Model and exported to excel for calculation of acreages for model Class E = Annual Grass. Environmental conditions across most of the Montana portion of the sub region afford limited suitability for annual grass establishment, and were not examined.

**Table 1**  
**Landfire Existing Vegetation Types (and associated NVCS Group) identified for Greater Sage-grouse habitat characterization**

Macro-Group	EVT Value	Landfire Existing Vegetation Type
Tall Sagebrush Group(169)	2079	Great Basin Xeric Mixed Sagebrush Steppe
	2080	Inter-Mountain Basins Big Sagebrush Shrubland
	2123	Columbia Plateau Scabland Shrubland
	2125	Inter-Mountain Basins Big Sagebrush Steppe
	2126	Inter-Mountain Basins Montane Sagebrush Steppe
	2220	Artemesia tridentate spp. Vaseyena Shrubland Alliance
Dwarf Sagebrush Group(170)	2124	Columbia Plateau Low Sagebrush Steppe
	2065	Colorado Plateau Mixed Low Sagebrush Shrubland
	2065	Columbia Plateau Scabland Shrubland
	2072	Wyoming Basin Dwarf Sage Shrubland and Steppe

**Table 1**  
**Landfire Existing Vegetation Types (and associated NVCS Group) identified for Greater Sage-grouse habitat characterization**

Macro-Group	EVT Value	Landfire Existing Vegetation Type
Semi-desert (171)	2135	Semi-Desert Grassland
	2127	Semi-Desert Shrub Steppe

**Table 2**  
**Ecological Site Types associated with the Shallow/Dry Low Sagebrush Vegetation Model**

SSURGO Ecological Site Type
Cold Gravelly 8-12 ARNO4/HECOC8
Shallow Calcareous Loam 10-16 ARARN/PSSPS
Shallow Stony 8-10 ARNO4/ACTH7-SPCR
Very Shallow 12-20 ARRI2/POSE
Very Shallow Stony 8-12 ARNO4/ACTH7
Very Shallow Stony Loam 10-14 ARAR8/POSE-PSSPS
Windswept Ridge 8-11 ARFR4/POSE
Windswept Ridge 12-20 ARNO/PSSPS
Windswept Ridge 12-22 ARFR4-ARAR8/POA

**Table 3**  
**Landfire Biophysical Site Types/Groups identified for Greater Sage-grouse Invasive Annual Grass evaluation**

BPS_C ODE	BPS_NAME	GROU PID	GROUPNAME
10010	Inter-Mountain Basins Sparsely Vegetated Systems	100	Sparsely Vegetated
10620	Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland/Shrubland	164	Cur-leaf Mountain Mahogany-Mountain Big Sagebrush
10640	Colorado Plateau Mixed Low Sagebrush Shrubland	166	Bigelow Sage-Low Sage4
10650	Columbia Plateau Scabland Shrubland	167	Low Sage-Scabland Sage5
10790	Great Basin Xeric Mixed Sagebrush Shrubland	177	Black Sage-Low Sage3
10800	Inter-Mountain Basins Big Sagebrush Shrubland	178	Wyoming Big Sage-Spiny Hopsage1
10801	Inter-Mountain Basins Big Sagebrush Shrubland-Basin Big Sagebrush	179	Basin Big Sage-Greasewood4
10802	Inter-Mountain Basins Big Sagebrush Shrubland-Wyoming Big Sagebrush	179	Wyoming Big Sage-Indian Ricegrass4



**Table 3**  
**Landfire Biophysical Site Types/Groups identified for Greater Sage-grouse Invasive Annual Grass evaluation**

<b>BPS_C ODE</b>	<b>BPS_NAME</b>	<b>GROU PID</b>	<b>GROUPNAME</b>
10800	Inter-Mountain Basins Big Sagebrush Shrubland	180	Wyoming Big Sage- Rubber Rabbitbrush4
11230	Columbia Plateau Steppe and Grassland	218	Indian Ricegrass- Squirreltail4
11240	Columbia Plateau Low Sagebrush Steppe	219	Low Sage-Idaho Fescue3
11250	Inter-Mountain Basins Big Sagebrush Steppe	220	Wyoming Big Sage- Wheatgrass3
11250	Inter-Mountain Basins Big Sagebrush Steppe	221	Wyoming Big Sage- Wheatgrass4
11260	Inter-Mountain Basins Montane Sagebrush Steppe	222	Mountain Sagebrush- Blubunch Wheatgrass- Idaho Fescue4

**Table 4**  
**Landfire Existing Vegetation Types/Groups identified for Greater Sage-grouse Conifer Encroachment evaluation**

<b>Value</b>	<b>Existing Vegetation Type</b>	<b>System Group</b>
2016	Colorado Plateau Pinyon-Juniper Woodland	Pinyon-Juniper Woodland
2017	Columbia Plateau Western Juniper Woodland/Savanna	Juniper Woodland/Savanna
2019	Great Basin Pinyon-Juniper Woodland	Pinyon Juniper Woodland
2045	Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	Douglas-fir-Ponderosa Pine- Lodgepole Pine Forest and Woodland
2053	Northern Rocky Mountain Ponderosa Pine Woodland	Ponderosa Pine Forest, Woodland, Savanna
2054	Southern Rocky Mountain Ponderosa Pine Woodland	Ponderosa Pine Forest, Woodland, Savanna
2115	Inter-Mountain Basins Juniper Savanna	Juniper Woodland/Savanna
2165	Northern Rocky Mountain Foothill Conifer Woodland Steppe	Douglas-fir Forest/Woodland
2166	Middle Rocky Mountain Montane Douglas-fir Forest and Woodland	Douglas-fir Forest/Woodland
2203	Juniperous occidentalis Woodland Alliance	Juniper Woodland/Savanna
2227	Pseudotsuga menziesii Forest Alliance	Douglas-fir Forest/Woodland

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## Attachment B-Utah

### Development of Data for VDDT Sage Grouse Habitat Models

LANDFIRE data were used to define the vegetation cover types that occupy sage grouse population areas in Utah. In order to do this the LANDFIRE Existing Vegetation Type (EVT), Biophysical Setting (BPS), and/or BPS Groups were used as the basis to determine which cover types would be included in which models. Especially because Wyoming and mountain big sagebrush species are mapped at all elevations in LANDFIRE, it was felt that steps needed to be taken to separate these species on an ecological basis. Goodrich and others (1999) found that annual precipitation for **Wyoming big sagebrush** populations was **between 6.8 and 12.6 inches**. The authors found that **mountain big sagebrush** occurred in zones where annual precipitation was between **11.8 and 27.7 inches**. According to these authors, **plants intermediate to Wyoming and mountain big sagebrush** occur in areas with precipitation that ranges from **8.1 to 14.6 inches**. Their data suggested that the pinyon-juniper belt in Utah was between 9 and 15 inches of annual precipitation. Payne (1980) suggested that the Intermountain pinyon-juniper zone fell between 10 and 14 inches annual precipitation. The Utah BLM State Office has a precipitation GIS layer<sup>1</sup> that breaks the landscape into 0-2, 2-4, 4-6, etc. inch breaks, which didn't allow us to use the 9 or 15 inch levels in our analysis. For this reason, the following rules were established.

- ✓ Below 10 inches annual precipitation, all sagebrush was considered to be Wyoming big sagebrush;
- ✓ Anything between 10 inches (about 2 inches less than the minimum amount listed for mountain big sagebrush) and 14 inches (about 2 inches more than the maximum precipitation for Wyoming big sagebrush), was considered to be a transition zone where either species could possibly occur;
- ✓ Within that 10-14 inch zone, the LANDFIRE EVT (Existing Vegetation Type), BPS (Biophysical Setting), and/or Group types were used to make the determination regarding species that occur;
- ✓ Any sagebrush that occurred in the zones above 14 inches was considered to be mountain big sagebrush; and finally
- ✓ Low sagebrush was low sagebrush, regardless of the precipitation zone if occurred in.

Following these rules, the following sagebrush zones were established:

- ✓ Zone 1 – Precipitation  $\leq$  10 inches. Non-Seral Zone in which there is insufficient precipitation for juniper to grow. Wyoming big sagebrush is the only *big* sagebrush that can occur with this low amount of precipitation

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<sup>1</sup> blm\dfs\ut\loc\GisData\ut\so\data\AirClimate\precip\_ut250

- ✓ Zone 2 – Precipitation 10-14 inches. Seral Zone in which there is sufficient precipitation for juniper to grow. In this transition zone, both Wyoming and mountain big sagebrush species can occur.
- ✓ Zone 3 – Precipitation 14-28 inches. Non-Seral Zone in which there is too much precipitation for juniper to be considered as a universal late seral species that replaces sagebrush. Only where juniper is the existing vegetation (EVT), what is considered a seral community. This zone is above where Wyoming big sagebrush is likely to occur, so all big sagebrush communities are considered to be mountain big sagebrush.
- ✓ Zone 4 – Precipitation  $\geq$  28 inches. Non-Seral Zone in which there is too much precipitation for juniper to be a late seral species. Only where juniper is the existing vegetation (EVT), what is considered a seral community. This is considered to be the cool, moist mountain big sagebrush zone.

Members of our GIS staff were able to combine (union) our EVT, BPS, and SClass (Cover Class) layers so that each polygon had the attributes needed to make the determinations needed for sage grouse habitat modeling. Then, the occupied habitat was selected from the layers that came out of this process, and were again unioned with a precipitation layer that broke the State into the zones listed above ( $\leq$ 10, 10-14, 14-28,  $\geq$ 28 inches). It was the combination of all this information that was used to determine which models to develop and apply for the VDDT habitat modeling process used in the sage grouse EIS.

#### Key to Models Used with LANDFIRE Data

1	Precipitation $\leq$ 10 inches	2
1	Precipitation > 10 inches	8
2	EVT is Juniper dominated	3
2	EVT is not Juniper dominated	5
3	BPS and/or Group Juniper dominated	Not Modeled
3	BPS low or big sagebrush dominated (non-seral communities)	4
4	BPS and/or Group dominated by any big sagebrush	Wyo-Seral
4	BPS and/or Group dominated by any low sagebrush	Low-Seral
5	EVT is one of the non-native types	6
5	EVT is not one of the non-native types	7
6	BPS and/or dominated by any big sagebrush	Wyo-Non Seral
6	BPS and/or dominated by any low sagebrush	Low-Non Seral
7	EVT dominated by any big sagebrush	Wyo-Non Seral
7	EVT dominated by any low sagebrush	Low-Non Seral
8	Precipitation 10-14 inches (seral communities)	9
8	Precipitation $\geq$ 14 inches	17

**Key to Models Used with LANDFIRE Data**

9	EVT is Juniper dominated	10
9	EVT is not Juniper dominated	12
10	BPS and/or Group Juniper dominated	Not Modeled
10	BPS low or big sagebrush dominated (seral communities)	11
11	BPS and/or Group dominated by any big sagebrush	12
11	BPS and/or Group dominated by any low sagebrush	Low-Seral
12	BPS and/or Group dominated by Wyoming big sagebrush	Wyo-Seral
12	BPS and/or Group dominated by Mountain big sagebrush	Mtn-Seral
13	EVT is one of the non-native types	14
13	EVT is not one of the non-native types	17
14	BPS and/or Group dominated by any big sagebrush	15
14	BPS and/or Group dominated by any low sagebrush	Low-Seral
15	BPS and/or Group dominated by Wyoming big sagebrush	Wyo-Seral
15	BPS and/or Group dominated by Mountain big sagebrush	Mtn-Seral
16	EVT dominated by any big sagebrush	17
16	EVT dominated by any low sagebrush	Low-Seral
17	BPS and/or Group dominated by Wyoming big sagebrush	Wyo-Seral
17	BPS and/or Group dominated by Mountain big sagebrush	Mtn-Seral
18	Precipitation 14-28 inches	19
18	Precipitation $\geq$ 28 inches	25
19	EVT is Juniper dominated (seral communities)	19
19	EVT is not Juniper dominated (non-seral communities)	22
20	BPS and/or Group Juniper dominated	Not Modeled
20	BPS low or big sagebrush dominated (non-seral communities)	21
21	BPS and/or Group dominated by any big sagebrush	Mtn-Seral
21	BPS and/or Group dominated by any low sagebrush	Low-Seral
22	EVT is one of the non-native types	23
22	EVT is not one of the non-native types	24



**Key to Models Used with LANDFIRE Data**

23	BPS and/or dominated by any big sagebrush	Mtn-Non Seral
23	BPS and/or dominated by any low sagebrush	Low-Non Seral
24	EVT dominated by any big sagebrush	Mtn-Non Seral
24	EVT dominated by any low sagebrush	Low-Non Seral
25	EVT is Juniper dominated	26
25	EVT is not Juniper dominated	28
26	BPS and/or Group Juniper dominated	Not Modeled
26	BPS low or big sagebrush dominated (non-seral communities)	27
27	BPS and/or Group dominated by any big sagebrush	Cool Mtn-Seral
27	BPS and/or Group dominated by any low sagebrush	Cool Low-Seral
28	EVT is one of the non-native types	29
28	EVT is not one of the non-native types	30
29	BPS and/or dominated by any big sagebrush	Cool Mtn-Non Seral
29	BPS and/or dominated by any low sagebrush	Cool Low-Non Seral
30	EVT dominated by any big sagebrush	Cool Mtn-Non Seral
30	EVT dominated by any low sagebrush	Cool Low-Non Seral

**Literature Cited**

Goodrich, S.; D. McArthur; A.H. Winward. 1999. *Sagebrush Ecotones and Average Annual Precipitation*. pp. 88-94. In: McArthur, E. Durant; Ostler, W. Kent; Wambolt, Carl L., comps. 1999. **Proceedings: shrubland ecotones**; 1998 August 12-14; Ephraim, UT. Proc. RMRS-P-11. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 299 p.

## Attachment B-Nevada-California

### VDDT Modeling Procedures for Nevada

#### Vegetation Data

The Nevada team considered available vegetation layers to determine which would be most effective in identifying the sagebrush habitat types pertinent to the modeling effort. These included xxxxx The Nevada Heritage synthesis vegetation map (raster data) was selected as it provided the best resolution of sagebrush habitat types pertinent to the required model inputs. The plant cover report for the Humboldt Toiyabe National Forest Land Use Plan Revision (2005) served as a relevant proxy for distributing crown cover classes among the sagebrush types. Subpopulation areas were derived from the Western Association of Fish and Wildlife Agencies (Connelly et al 2004). Other BLM data included polygon data showing areas above 6,500 feet elevation, and fire history data which also included other sources.

The vegetation map was clipped using the sub population areas and the raster data converted to polygons. Vegetation types that didn't include Low Sage, Mountain Sage, Wyoming Sage, Pinyon pine, or juniper were deleted. All vegetation types that contained Mountain sage were merged into the Mountain sage classification. All vegetation types containing Wyoming sagebrush (minus any that had mountain sage) were merged into the Wyoming sagebrush classification. Low sage was handled the same (minus Wyoming and mountain sagebrush). All Pinyon and Juniper types were merged together..

All the fires since 2000 were combined. All the fires above 6,500 feet elevation were "erased" using the 6,500 foot elevation database under the assumption that habitat at these elevations would recover following fire. The remaining fires were used to "erase" any vegetation type under the fire perimeters. To define possible sage grouse habitat that had been burned, a lower elevation (1500 meters, or approx. 4,900 feet) was selected and all fire perimeters below this elevation were erased under the assumption that habitat conversion was occurring at these lower elevations. The fire perimeters were then inserted into the vegetation types as annual grasses. Total acres of all vegetation type was calculated using GIS. A dbase file type was exported for the next step.

Using the USFS crown cover report, percentages of crown cover by vegetation type were developed for each of the ranger districts. The adjacent or otherwise appropriate ranger district values were used for the subpopulation areas. In the absence of adjacent USFS crown cover information, fire histories, elevation, precipitation, and landform were considered to match similar USFS areas for the Montana Mountain and the CA/NV/OR subpopulation areas.

Low crown cover (<10%) for pinyon-juniper woodlands was considered as invasive conifer.

Total acres of low, mountain, and Wyoming sagebrush vegetation types were multiplied by the percentage of the low, medium, or high crown cover from the USFS crown cover report to develop crown class acreage starting points for the model, yielding total acres for each vegetation and crown cover classification.

Additionally, total acres of conifer invasion and annual grass conversion for each sagebrush vegetation type were calculated, based on the percent of each sagebrush type in each subpopulation area.

**Point Fire data**

Fire data was obtained from BLM Western Great Basin weather prediction meteorologist. Lat/long data were converted to decimal degree lat/long. Fires without spatial information were deleted. Fires with locational information outside of Nevada were removed. Locational data were spatially joined to sub population areas. The total sub population acres field was added and wildfire acres calculated for each subpopulation. The dbase file was imported into excel.

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## Attachment B-Oregon

### Determining Acres of Each Sagebrush Group by Subpopulation

Vegetation data used came from the Integrated Landscape Assessment Project (ILAP), an American R and Recovery Act (ARRA)-funded project that, among other deliverables, provided a vegetation map of the semi-arid lands in Oregon and Washington. Louisa Evers and GIS staff Jeanne Keyes and Maria Fiorella in the Oregon State Office compared ILAP, LANDFIRE, and ReGAP vegetation layers to NAIP imagery to determine which layer best captured juniper and annual grasses. While all vegetation layers had relatively significant problems in identifying these two key vegetation types and the four layers compared at relatively low agreement between them, we determined that ILAP best captured the general extent of juniper encroachment and annual grasses.

Ideally, each sagebrush modeling group could be identified on the basis of soil moisture and temperature regime and ecological site description. However, lack of a complete soils layer and ecological site descriptions for eastern Oregon and the nature of the ILAP data table necessitated a non-spatial approach to determining which ILAP polygons belonged to which sagebrush modeling group and which successional class/community phase. The ILAP data table listed the four most common species and approximate canopy cover, although how these data were determined is not known. Certain species were used as indicators for which sagebrush group a given polygon belonged in and canopy cover was used to determine successional stage. Occasionally the indicators were ambiguous, requiring the use of professional judgment based on all four species. In a few cases, either the species or the canopy cover for that species was erroneous; either 1) it was not possible to determine which was in error or 2) it was clear that both were in error. For example, stiff sagebrush cannot reach >20% canopy cover given the type of sites it is associated with, so either the sagebrush species was misidentified or the canopy cover was.

### Sagebrush Groups

Cool-Moist sagebrush group indicators – mountain big sagebrush, antelope bitterbrush, Idaho fescue, Idaho fescue-bluebunch wheatgrass, cool and moist site indicator forbs

Warm-Dry sagebrush group indicators – Wyoming big sagebrush, basin big sagebrush, Thurber's needlegrass, needle-and-thread, bluebunch wheatgrass, bluebunch wheatgrass-Idaho fescue, crested wheatgrass

Shallow-Dry sagebrush group indicators – low sagebrush, stiff sagebrush, black sagebrush, bluegrass species

Because the sagebrush groups in Oregon are tied to site productivity, the sagebrush species was used in combination with the herbaceous species to determine group membership. For example, a polygon with either low sagebrush or Wyoming big sagebrush and Idaho fescue as the first and second species were assigned to the Cool-Moist group. Mountain big sagebrush and Thurber's needlegrass as the first and second species were assigned to the Warm-Dry group. Wyoming big sagebrush and Sandberg's bluegrass as the first and second species was assigned to the Shallow-Dry group.

Polygons with western juniper as the first or second species could be assigned to any sagebrush group, but the bias was to assign it to the Cool-Moist group. Juniper would be assigned to either of the other two groups based on the herbaceous layer (lack of high productivity indicators).

Polygons with annual grass as the first or second species could be assigned to any sagebrush group, but the bias was to assign it to the Warm-Dry group unless higher or lower productivity indicators were the first, second, or third species listed.

Polygons with salt-tolerant or halophytic species, willow, cottonwood, other conifer species, and wet meadow species were excluded.

### **Successional Classes**

Early Seral Class Indicators: sagebrush cover is <10% or sagebrush is not listed. Rabbitbrush may be the first or second species listed. Juniper and annual grasses either not listed or present only in trace amounts.

Mid-seral Class Indicators: sagebrush cover is 10-30%, juniper not listed or present only in trace amounts. Annual grasses the third or fourth species listed. This class includes at-risk community phases for annual grasses.

Late Seral Class Indicators: sagebrush cover >30% in the Cool-Moist and Warm Dry Sagebrush groups, >10% in the Shallow-Dry group. Juniper and annual grasses either not listed or the third or fourth species listed. This class includes Phase I juniper and at-risk community phases for annual grasses.

Late Seral with Conifer Class Indicators: Juniper the first or second species listed; sagebrush may or may not be present and cover is variable. Annual grasses may or may not be present. This class includes Phase II and Phase III juniper encroachment and old growth juniper.

Annual Grass Class Indicators: Annual grasses the first or second species listed.

Exotic Perennial Grass Class Indicators: Crested wheatgrass the first or second species listed. This class not used in the final models.

## Greater Sage-grouse Habitat Characterization for Use in Non-Spatial Vegetation Modeling across the Great Basin

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### Vegetation Data

We evaluated available vegetation information developed for the Greater Sage-grouse Regional and Sub-regional efforts to identify the sagebrush habitat types and associated vegetation cover classes required in our modeling effort. We determined the most effective approach would incorporate the following criteria: 1) dataset covers the entire western region, 2) the vegetation data has an associated accuracy assessment, and 3) data provides appropriate resolution of sagebrush habitat types and associated cover classes for the VDDT models. The baseline vegetation data sets developed for the region-wide Disturbance Monitoring and Vegetation Basemap Team (\*\*\*) met these criteria. The datasets were developed using Landfire v12 (updated through 2010) data products and consisted of 1) existing sagebrush base, 2) conifer base, 3) potential sagebrush base (for details on methodology see Appendix – Vegetation Basemap in Disturbance Monitoring Report). In addition, we used Landfire v12 Existing Vegetation Type to identify Invasive Annual grass and Introduced Crested Seedings. Existing Vegetation Cover was used to identify sage-grouse cover class characteristics required for the modeling effort. The above datasets were combined and clipped to BLM and USFS ownership within each Sub-regional Area (Oregon, Idaho/Montana, Utah, Nevada/California) to serve as our sagebrush modeling basemaps for subsequent analysis.

### GSG Habitat Characterization for Vegetation Models

We modified the sagebrush modeling basemap to facilitate characterization of sage-grouse habitat and associated development classes identified in our models. We modified the Soil Moisture and Temperature Regime data (Chambers et al 2014, Fire and Invasives Team Report, 2014) to identify 4 Vegetation Model Types – Warm/Dry sagebrush, Mixed sagebrush, Mountain sagebrush w/conifer, and Mountain sagebrush no conifer (Table 1). In addition we identified the need for a Low Sagebrush Group. We used the Landfire v12 Biophysical Settings dataset and selected low sagebrush vegetation groups (Table 2). The resulting Model Group raster was combined (raster calculator) with the Landfire Existing Vegetation Cover data to categorize the following cover classes within the Low sage [LOW], Warm/Dry Sage[WARM/DRY], Mixed Sage[MIX], Mountain Sage w/ conifer[MTN7], and Mountain sage no conifer[MTN8] (Class A = herbaceous cover 0-100%; Class B = shrub cover 10 – 30%; Class C = shrub cover >30%). To identify Annual Grass and Crested Seeding, we assigned any Landfire Introduced Upland Vegetation -Annual Grassland (evt code 3181) or – Perennial Grassland Forbland (evt code 3182) that had a sagebrush site potential to Class Invasive Annual and Class CWG Seeding, respectively. Conifer encroachment (Class D = tree cover >10%) was determined using the Conifer base dataset subset to areas with



sagebrush site potential. The resulting rasters were combined, reclassified and added back to the base Model Group raster.

Soil Moisture Temperature information was limited in some higher elevation areas or shrubland-forest transitional areas. Therefore we incorporated 30 year average annual precipitation data (PRISM ppt 30yr normal 800mm annual) to inform any unclassified sagebrush pixels in our Model Group dataset. Specifically, we set the following criteria: Average annual precipitation 14 – 28 inches = MTN7; Average annual precipitation  $\geq$  28 inches = MTN8. Results were reclassified and added back to the base Model Group raster.

### **Additional Filters**

To provide a biologically meaningful geographic extent, we filtered the final sagebrush modeling basemap to Greater sage-grouse population Areas and associated Priority Areas for Conservation (PACs) from the Conservation Objectives Team Report (USFWS, 2014). The above datasets were combined and clipped to BLM and USFS ownership within each Sub-regional Area (Oregon, Idaho/Montana, Utah, Nevada/California) to serve as our sagebrush modeling basemaps for subsequent acreage reporting and analysis.

### **Literature Cited**

Chambers, Jeanne C.; Pyke, David A.; Maestas, Jeremy D.; Pellant, Mike; Boyd, Chad S.; Campbell, Steven B.; Espinosa, Shawn; Havlina, Douglas W.; Mayer, Kenneth E.; Wuenschel, Amarina. 2014. Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach. Gen. Tech. Rep. RMRS-GTR-000. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Greater Sage-grouse Disturbance Monitoring and Vegetation Basemap Assessment Team Report. 2014

Greater Sage-grouse Wildfire, Invasive Annual Grasses and Conifer Expansion Assessment FIAT Report. 2014.

Miller R. F.; Chambers, J. C.; Pellant, M. 2014a. A field guide to selecting the most appropriate treatments in sagebrush and pinyon-juniper ecosystems in the Great Basin: Evaluating resilience to disturbance and resistance to invasive annual grasses and predicting vegetation response. Gen. Tech. Rep. RMRS-GTR-322. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Miller R. F.; Chambers, J. C.; Pellant, M. [In press]. A field guide for rapid assessment of post-wildfire recovery potential in sagebrush and pinon-juniper ecosystems in the Great Basin: Evaluating resilience to disturbance and resistance to invasive annual grasses and predicting vegetation response. Gen. Tech. Rep. RMRS-GTR-###. . Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

U.S. Fish and Wildlife Service [USFWS]. 2013. Greater sage-grouse (*Centrocercus urophasianus*) conservation objectives: Final Report. Denver, CO: U.S. Fish and Wildlife Service. 91 p.

U.S. Geological Survey (USGS). 2013: LANDFIRE 1.2.0 Existing Vegetation Type layer. Updated 3/13/2013. Washington, DC: U.S. Department of the Interior, Geological Survey. Online: <http://landfire.cr.usgs.gov/viewer/>. [Accessed 10 July 2014].

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Table 1 – VDDT Model Groups associated with predominant sagebrush ecological types in Sage-Grouse Management Zones III, IV, V, and VI based on soil temperature and soil moisture regimes, typical characteristics, and resilience to disturbance and resistance to invasive annual grasses (modified from Chambers et al. 2014, Miller et al. 2014 a,b).

Ecological type	Characteristics	VDDT Model
Cold and Moist (Cryic/Xeric)	Ppt: 14 inches + Typical shrubs: <i>Mountain big sagebrush, snowfield sagebrush, snowberry, serviceberry, silver sagebrush, and/ or low sagebrushes</i>	MTN8, LOW
Cool and Moist (Frigid/Xeric)	Ppt: 12-22 inches Typical shrubs: <i>Mountain big sagebrush, antelope bitterbrush, snowberry, and/ or low sagebrushes</i> Piñon pine and juniper potential in some areas	MTN7, LOW
Warm and Moist (Mesic/Xeric)	Ppt: 12-16 inches Typical shrubs: <i>Wyoming big sagebrush, mountain big sagebrush, Bonneville big sagebrush, and/ or low sagebrushes</i> Piñon pine and juniper potential in some areas	MIX, LOW
Cool and Dry (Frigid/Aridic)	Ppt: 6-12 inches Typical shrubs: <i>Wyoming big sagebrush, black sagebrush, and/ or low sagebrushes</i>	WARM/DRY, LOW
Warm and Dry (Mesic/Aridic, bordering on Xeric)	Precipitation: 8-12 inches Typical shrubs: <i>Wyoming big sagebrush, black sagebrush and/ or low sagebrushes</i>	WARM/DRY, LOW

Table 2 – Landfire 120 Potential Vegetation Types identified for the Greater Sage-grouse LOW Sagebrush model.

BPS Value	Landfire Potential Vegetation Type
10640	Colorado Plateau Mixed Low Sagebrush Shrubland
10650	Columbia Plateau Scabland Shrubland
10790	Great Basin Xeric Mixed Sagebrush Steppe
11240	Columbia Plateau Low Sagebrush Steppe
11262	Inter-Mountain Basins Montane Sagebrush Steppe - Low

### Datasets Used in the Vegetation Analysis

*From Disturbance Monitoring and Baseline Vegetation Teams (Spring 2014)*

*Landfire 18 Class EVT* (Current) related to sagebrush systems [dataset:  
lf\_evt\_v12\_sagebrush\_recode]

*Landfire BPS* (Potential) Associated with the 18 Class EVT above [dataset:  
lf\_bps\_v12\_sagebrush\_recode]

Binary Landfire 18 Class informed w Dev/Ag/Fires/Conif-sage [dataset:  
2010\_existing\_sagebrush\_base]

Binary Conifer in Sage (near neighbor analysis w/ State bio acceptance) [dataset:  
lf\_evt\_v12\_conifers\_binary]

### **Data from Fire/Invasives (FIAT) Team**

SSURGO Soil Temperature/Moisture Regimes (Chambers et al 2014)

[dataset: SGMZ\_SSURGO\_temp\_moist\_regimes\_v2.gdb]

### **Additional spatial data**

Landfire Annual Grass Only [dataset: ]

Landfire EVC (Cover) associated w/ the above Landfire Binary Sagebrush Basemap [dataset:  
US\_120\_EVC]

PRISM [dataset: PRISM\_ppt\_30yr\_normal\_800mM2\_annual\_bil]

### **Management Scale Information filters**

GSG PAC Boundaries [dataset:  
GSGCOT\_ALL\_PAC\_Atts\_Albers\_Dis\_2014]

GSG Population boundaries [dataset:  
COT\_SG\_Populations\_2014\_WAFWA\_UT]

Subregional EIS Boundaries [dataset: EISSubmittedBoundaries\_mrg\_dis]

State Boundaries [dataset: States5\_ESRI\_2008\_Albers]

Surface Mgmt Boundaries (including FS Forests/Districts; BLM District/Field Offices)

[dataset: SMA\_Dec2013\_Monitoring\_AOI\_cli]

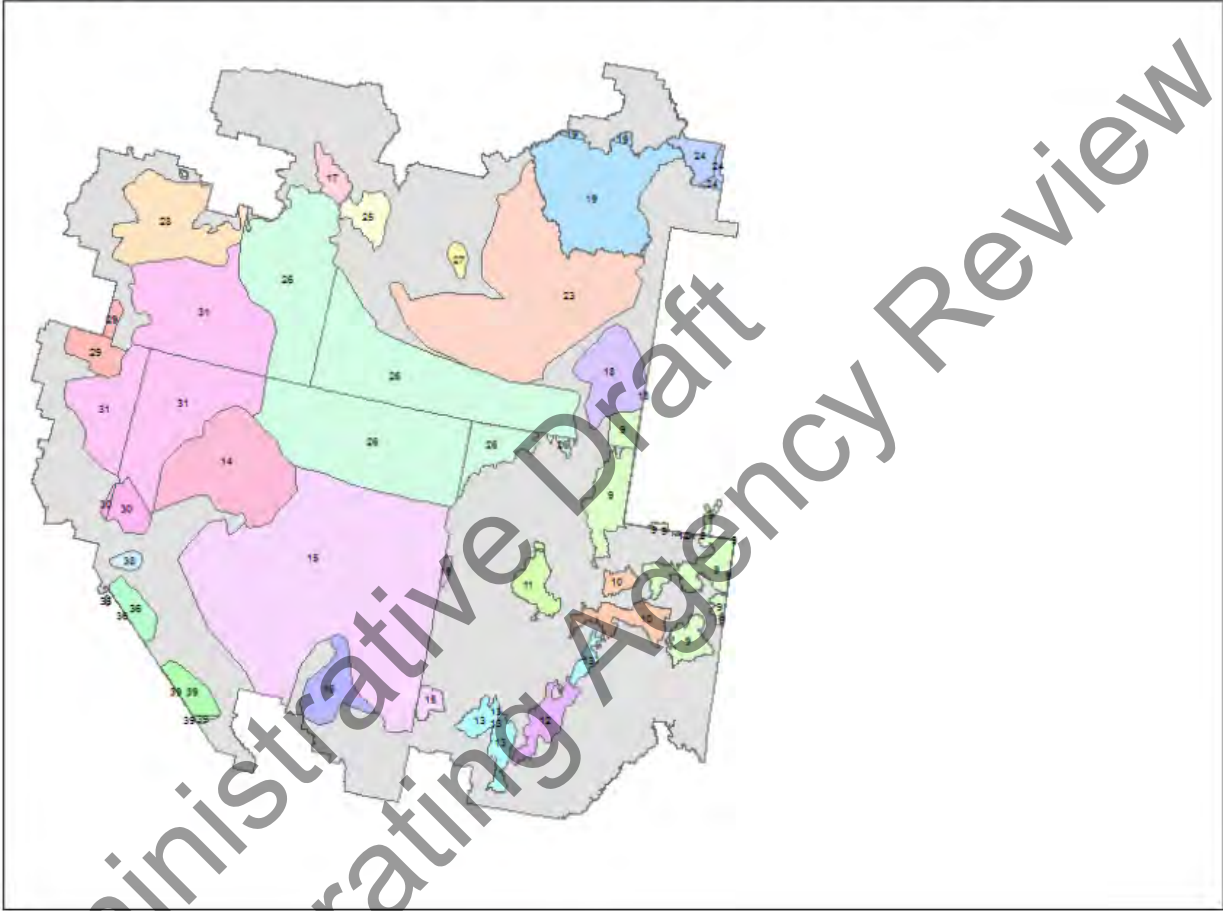
BLM – Subset: Agency: BLM, DOE, DOI, OTHFE

USFS – Subset: Agency: FS, USDA

USFS – For USFS Forest Name [dataset: USFS\_GRSF\_FS\_Boundaries\_Aug262013\_Dissolved]

Utah specific to inform COT PAC and COT POP [dataset: UT\_AltF\_VDDT]

COT Population Unit Number - (ver. 07232014) for GSG VDDT Analysis





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# Appendix Y

## Biological Assessment



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Awaiting Biological Assessment to be provided by the Forest Service

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# Appendix Z

## Detailed Employment and Earnings Data



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**Appendix Z. Detailed Employment and Earnings Data**

**Table 1. Employment Levels by Industry Sector and County in 2010<sup>1,2</sup>**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville , ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Farm	255	496	2,217	290	1,212	269	137	548	1,773	140	297
Forestry, fishing, & related activities <sup>3</sup>	139	(D)	(D)	122	(D)	(D)	(D)	(D)	442	(D)	(D)
Mining (including oil and gas)	35	(D)	(D)	88	(D)	38	(L)	336	109	38	(D)
Utilities	(D)	(D)	69	31	50	(L)	0	38	51	(L)	35
Construction	184	142	1,494	1,979	4,335	51	(D)	(D)	618	(D)	195
Manufacturing	70	77	2,416	521	2,450	56	(D)	(D)	1,288	(D)	48
Wholesale trade	28	80	1,391	256	3,616	(D)	(D)	104	477	(D)	37
Retail trade	313	442	1,973	1,839	8,484	157	(D)	405	1,779	(D)	272
Transportation and warehousing	(D)	(D)	609	244	1,814	(D)	11	104	875	(D)	42
Information	22	37	96	452	1,388	(D)	16	39	102	(D)	47
Finance and insurance	73	93	737	897	2,839	69	(D)	127	449	75	87
Real estate and rental and leasing	132	97	591	2,098	2,812	43	34	180	436	64	102
Professional and technical services	93	(D)	(D)	1,591	3,697	8,064	23	162	370	(D)	95
Management of companies and enterprises	0	0	(D)	(D)	131	(D)	(D)	(D)	(D)	0	(D)
Administrative and waste services	79	(D)	603	(D)	3,183	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	190	323	553	(D)	(D)	(D)	(D)	(D)	15
Health care and social assistance	(D)	(D)	1,877	1,025	8,579	(D)	(D)	(D)	(D)	(D)	95
Arts, entertainment, and recreation	138	58	191	863	956	29	(D)	49	159	10	91
Accommodation and food services	89	199	775	2,772	4,256	88	(D)	175	478	(D)	301
Other services, except public administration	111	149	1,200	1,369	3,394	(D)	(D)	200	659	24	111
Federal government	119	89	428	203	1,225	140	27	84	272	42	183
State government	(D)	25	361	41	710	13	(D)	20	168	(D)	44
Local government	(D)	577	3,332	1,337	4,334	155	(D)	613	1,343	(D)	263
Categories for which data were not disclosed	402	538	1,230	1,193	558	450	568	1,460	1,867	541	602
<b>Total Employment</b>	<b>2,282</b>	<b>3,099</b>	<b>21,780</b>	<b>19,534</b>	<b>60,576</b>	<b>9,622</b>	<b>816</b>	<b>4,644</b>	<b>13,715</b>	<b>934</b>	<b>2,962</b>

Source: U.S. Department of Commerce, 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>

	Elmore, ID	Fremont, ID <sup>3</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Farm	866	698	886	2,118	1,335	1,888	402	524	663	1,403	476
Forestry, fishing, & related activities <sup>4</sup>	(D)	(D)	(D)	(D)	546	348	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	38	38	(D)	(L)	(D)	(D)	(D)
Utilities	32	(D)	(L)	42	25	(D)	(D)	(D)	(D)	58	(L)
Construction	499	493	508	340	1,015	595	392	(D)	919	556	69
Manufacturing	459	100	253	814	877	1,460	142	(D)	808	962	30
Wholesale trade	110	(D)	145	218	346	(D)	64	(D)	1,364	580	34
Retail trade	1,197	465	620	588	962	1,169	442	147	1,867	732	219
Transportation and warehousing	301	180	211	351	411	1,459	(D)	60	(D)	370	110
Information	125	(D)	37	43	58	101	50	(D)	125	128	23
Finance and insurance	289	175	211	162	371	241	141	(D)	667	205	(D)
Real estate and rental and leasing	448	299	290	222	333	363	206	(D)	611	268	(D)
Professional and technical services	245	151	206	284	(D)	230	227	(D)	1,296	232	(D)
Management of companies and enterprises	(L)	0	(D)	12	(D)	(L)	16	0	(D)	(L)	0
Administrative and waste services	412	117	(D)	132	301	314	158	(D)	(D)	125	(D)
Educational services	172	(D)	(D)	15	(D)	95	20	(D)	(D)	(D)	(L)
Health care and social assistance	581	(D)	(D)	(D)	(D)	608	336	(D)	(D)	(D)	90
Arts, entertainment, and recreation	92	62	71	116	268	167	108	(D)	291	79	(D)
Accommodation and food services	814	308	253	298	305	401	307	(D)	1,014	538	(D)
Other services, except public administration	577	337	415	456	612	577	377	(D)	728	567	109
Federal government	4,832	147	153	139	164	146	268	117	209	147	41
State government	68	324	25	111	139	75	96	93	45	49	10
Local government	1,324	697	749	923	1,173	906	496	314	1,886	1,348	421
Categories for which data were not disclosed	161	742	1,288	891	937	511	211	1,071	5,183	912	472
<b>Total Employment</b>	<b>13,604</b>	<b>5,295</b>	<b>6,321</b>	<b>8,275</b>	<b>10,216</b>	<b>11,392</b>	<b>4,459</b>	<b>2,326</b>	<b>17,676</b>	<b>9,259</b>	<b>2,104</b>

Source: U.S. Department of Commerce, 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Fremont County includes Yellowstone Park.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.



Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Farm	1,079	957	748	2,118	696	534	614
Forestry, fishing, & related activities <sup>3</sup>	(D)	(D)	165	828	196	(D)	146
Mining (including oil and gas)	(D)	(D)	38	73	38	(D)	95
Utilities	(D)	96	(D)	222	(D)	(D)	13
Construction	234	605	104	2,404	208	370	628
Manufacturing	233	1,171	1,080	3,285	488	118	148
Wholesale trade	122	297	(D)	1,443	177	179	42
Retail trade	345	744	273	5,848	387	588	407
Transportation and warehousing	(D)	333	304	1,732	(D)	(D)	141
Information	39	(D)	(D)	659	108	46	16
Finance and insurance	(D)	405	88	1,728	105	193	161
Real estate and rental and leasing	(D)	369	62	2,023	156	407	311
Professional and technical services	(D)	(D)	65	2,029	123	193	(D)
Management of companies and enterprises	(D)	(D)	(D)	202	(D)	0	(D)
Administrative and waste services	126	462	(D)	3,022	(D)	135	182
Educational services	(D)	(D)	(D)	380	(D)	(D)	26
Health care and social assistance	(D)	(D)	78	5,761	(D)	(D)	210
Arts, entertainment, and recreation	61	95	(D)	556	59	170	499
Accommodation and food services	192	320	(D)	2,811	182	538	1,010
Other services, except public administration	210	720	192	2,512	214	317	300
Federal government	103	129	61	736	98	260	108
State government	28	75	48	430	24	396	13
Local government	632	980	599	3,886	647	374	450
Categories for which data were not disclosed	868	1,700	443	0	634	1,013	205
<b>Total Employment</b>	<b>4,272</b>	<b>9,458</b>	<b>4,348</b>	<b>44,688</b>	<b>4,540</b>	<b>5,831</b>	<b>5,725</b>

Source: U.S. Department of Commerce, 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 1. Employment Levels by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Ada, ID <sup>3</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Farm	1,762	959	116	3,242	1,120	150
Forestry, fishing, & related activities <sup>4</sup>	529	(D)	(D)	1,135	557	(D)
Mining (including oil and gas)	326	(D)	(D)	77	393	444
Utilities	921	127	(D)	158	111	(D)
Construction	14,651	2,727	183	5,492	5,647	936
Manufacturing	15,646	2,190	39	8,044	2,727	638
Wholesale trade	9,550	1,147	(D)	2,481	1,686	446
Retail trade	29,193	5,382	166	9,378	8,221	2,631
Transportation and warehousing	5,902	1,347	116	2,998	1,234	(D)
Information	4,751	542	(D)	854	824	348
Finance and insurance	15,166	2,202	(D)	3,021	2,361	580
Real estate and rental and leasing	15,093	1,614	(D)	3,258	4,317	815
Professional and technical services	18,078	1,769	(D)	2,911	5,605	1,101
Management of companies and enterprises	4,232	287	(D)	370	190	(D)
Administrative and waste services	23,463	2,529	112	3,708	2,286	(D)
Educational services	4,757	505	25	2,178	1,114	248
Health care and social assistance	31,615	5,868	83	8,518	5,039	3,278
Arts, entertainment, and recreation	5,459	857	430	880	2,481	655
Accommodation and food services	16,728	3,330	174	3,574	5,887	1,924
Other services, except public administration	12,539	2,374	112	4,270	3,525	1,266
Federal government	7,030	895	206	1,169	1,121	474
State government	11,944	4,139	20	963	5,956	1,150
Local government	14,365	3,190	340	7,545	2,881	1,167
Categories for which data were not disclosed	0	135	402	0	0	1,949
<b>Total Employment</b>	<b>263,700</b>	<b>44,115</b>	<b>2,524</b>	<b>76,224</b>	<b>65,283</b>	<b>20,200</b>

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Gallatin and Silver Bow Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

Table 2. Employment Percentages by Industry Sector and County in 2010<sup>1,2</sup>

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Farm	11.2%	16.0%	10.2%	1.5%	2.0%	2.8%	16.8%	11.8%	12.9%	15.0%	10.0%
Forestry, fishing, & related activities <sup>3</sup>	6.1%	(D)	(D)	0.6%	(D)	(D)	(D)	(D)	3.2%	(D)	(D)
Mining (including oil and gas)	1.5%	(D)	(D)	0.5%	(D)	0.4%	(L)	7.2%	0.8%	4.1%	(D)
Utilities	(D)	(D)	0.3%	0.2%	0.1%	(L)	0.0%	0.8%	0.4%	(L)	1.2%
Construction	8.1%	4.6%	6.9%	10.1%	7.2%	0.5%	(D)	(D)	4.5%	(D)	6.6%
Manufacturing	3.1%	2.5%	11.1%	2.7%	4.0%	0.6%	(D)	(D)	9.4%	(D)	1.6%
Wholesale trade	1.2%	2.6%	6.4%	1.3%	6.0%	(D)	(D)	2.2%	3.5%	(D)	1.2%
Retail trade	13.7%	14.3%	9.1%	9.4%	14.0%	1.6%	(D)	8.7%	13.0%	(D)	9.2%
Transportation and warehousing	(D)	(D)	2.8%	1.2%	3.0%	(D)	1.3%	2.2%	6.4%	(D)	1.4%
Information	1.0%	1.2%	0.4%	2.3%	2.3%	(D)	2.0%	0.8%	0.7%	(D)	1.6%
Finance and insurance	3.2%	3.0%	3.4%	4.6%	4.7%	0.7%	(D)	2.7%	3.3%	8.0%	2.9%
Real estate and rental and leasing	5.8%	3.1%	2.7%	10.7%	4.6%	0.4%	4.2%	3.9%	3.2%	6.9%	3.4%
Professional and technical services	4.1%	(D)	(D)	8.1%	6.1%	83.8%	2.8%	3.5%	2.7%	(D)	3.2%
Management of companies and enterprises	0.0%	0.0%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	0.0%	(D)
Administrative and waste services	3.5%	(D)	2.8%	(D)	5.3%	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	0.9%	1.7%	0.9%	(D)	(D)	(D)	(D)	(D)	0.5%
Health care and social assistance	(D)	(D)	8.6%	5.2%	14.2%	(D)	(D)	(D)	(D)	(D)	3.2%
Arts, entertainment, and recreation	6.0%	1.9%	0.9%	4.4%	1.6%	0.3%	(D)	1.1%	1.2%	1.1%	3.1%
Accommodation and food services	3.9%	6.4%	3.6%	14.2%	7.0%	0.9%	(D)	3.8%	3.5%	(D)	10.2%
Other services, except public administration	4.9%	4.8%	5.5%	7.0%	5.6%	(D)	(D)	4.3%	4.8%	2.6%	3.7%
Federal government	5.2%	2.9%	2.0%	1.0%	2.0%	1.5%	3.3%	1.8%	2.0%	4.5%	6.2%
State government	(D)	0.8%	1.7%	0.2%	1.2%	0.1%	(D)	0.4%	1.2%	(D)	1.5%
Local government	(D)	18.6%	15.3%	6.8%	7.2%	1.6%	(D)	13.2%	9.8%	(D)	8.9%
Categories for which data were not disclosed	17.6%	17.4%	5.6%	6.1%	0.9%	4.7%	69.6%	31.4%	13.6%	57.9%	20.3%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>

	Elmore, ID	Fremont, ID <sup>3</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Farm	6.4%	13.2%	14.0%	25.6%	13.1%	16.6%	9.0%	22.5%	3.8%	15.2%	22.6%
Forestry, fishing, & related activities <sup>4</sup>	(D)	(D)	(D)	(D)	5.3%	3.1%	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	0.4%	0.3%	(D)	(L)	(D)	(D)	(D)
Utilities	0.2%	(D)	(L)	0.5%	0.2%	(D)	(D)	(D)	(D)	0.6%	(L)
Construction	3.7%	9.3%	8.0%	4.1%	9.9%	5.2%	8.8%	(D)	5.2%	6.0%	3.3%
Manufacturing	3.4%	1.9%	4.0%	9.8%	8.6%	12.8%	3.2%	(D)	4.6%	10.4%	1.4%
Wholesale trade	0.8%	(D)	2.3%	2.6%	3.4%	(D)	1.4%	(D)	7.7%	6.3%	1.6%
Retail trade	8.8%	8.8%	9.8%	7.1%	9.4%	10.3%	9.9%	6.3%	10.6%	7.9%	10.4%
Transportation and warehousing	2.2%	3.4%	3.3%	4.2%	4.0%	10.2%	(D)	2.6%	(D)	4.0%	5.2%
Information	0.9%	(D)	0.6%	0.5%	0.6%	0.9%	1.1%	(D)	0.7%	1.4%	1.1%
Finance and insurance	2.1%	3.3%	3.3%	2.0%	3.6%	2.1%	3.2%	(D)	3.8%	2.2%	(D)
Real estate and rental and leasing	3.3%	5.6%	4.6%	2.7%	3.3%	3.2%	4.6%	(D)	3.5%	2.9%	(D)
Professional and technical services	1.8%	2.9%	3.3%	3.4%	(D)	2.0%	5.1%	(D)	7.3%	2.5%	(D)
Management of companies and enterprises	(L)	0.0%	(D)	0.1%	(D)	(L)	0.4%	0.0%	(D)	(L)	0.0%
Administrative and waste services	3.0%	2.2%	(D)	1.6%	2.9%	2.8%	3.5%	(D)	(D)	1.4%	(D)
Educational services	1.3%	(D)	(D)	0.2%	(D)	0.8%	0.4%	(D)	(D)	(D)	(L)
Health care and social assistance	4.3%	(D)	(D)	(D)	(D)	5.3%	7.5%	(D)	(D)	(D)	4.3%
Arts, entertainment, and recreation	0.7%	1.2%	1.1%	1.4%	2.6%	1.5%	2.4%	(D)	1.6%	0.9%	(D)
Accommodation and food services	6.0%	5.8%	4.0%	3.6%	3.0%	3.5%	6.9%	(D)	5.7%	5.8%	(D)
Other services, except public administration	4.2%	6.4%	6.6%	5.5%	6.0%	5.1%	8.5%	(D)	4.1%	6.1%	5.2%
Federal government	35.5%	2.8%	2.4%	1.7%	1.6%	1.3%	6.0%	5.0%	1.2%	1.6%	1.9%
State government	0.5%	6.1%	0.4%	1.3%	1.4%	0.7%	2.2%	4.0%	0.3%	0.5%	0.5%
Local government	9.7%	13.2%	11.8%	11.2%	11.5%	8.0%	11.1%	13.5%	10.7%	14.6%	20.0%
Categories for which data were not disclosed	1.2%	14.0%	20.4%	10.8%	9.2%	4.5%	4.7%	46.0%	29.3%	9.8%	22.4%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Fremont County includes Yellowstone Park.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Farm	25.3%	10.1%	17.2%	4.7%	15.3%	9.2%	10.7%
Forestry, fishing, & related activities <sup>3</sup>	(D)	(D)	3.8%	1.9%	4.3%	(D)	2.6%
Mining (including oil and gas)	(D)	(D)	0.9%	0.2%	0.8%	(D)	1.7%
Utilities	(D)	1.0%	(D)	0.5%	(D)	(D)	0.2%
Construction	5.5%	6.4%	2.4%	5.4%	4.6%	6.3%	11.0%
Manufacturing	5.5%	12.4%	24.8%	7.4%	10.7%	2.0%	2.6%
Wholesale trade	2.9%	3.1%	(D)	3.2%	3.9%	3.1%	0.7%
Retail trade	8.1%	7.9%	6.3%	13.1%	8.5%	10.1%	7.1%
Transportation and warehousing	(D)	3.5%	7.0%	3.9%	(D)	(D)	2.5%
Information	0.9%	(D)	(D)	1.5%	2.4%	0.8%	0.3%
Finance and insurance	(D)	4.3%	2.0%	3.9%	2.3%	3.3%	2.8%
Real estate and rental and leasing	(D)	3.9%	1.4%	4.5%	3.4%	7.0%	5.4%
Professional and technical services	(D)	(D)	1.5%	4.5%	2.7%	3.3%	(D)
Management of companies and enterprises	(D)	(D)	(D)	0.5%	(D)	0.0%	(D)
Administrative and waste services	2.9%	4.9%	(D)	6.8%	(D)	2.3%	3.2%
Educational services	(D)	(D)	(D)	0.9%	(D)	(D)	0.5%
Health care and social assistance	(D)	(D)	1.8%	12.9%	(D)	(D)	3.7%
Arts, entertainment, and recreation	1.4%	1.0%	(D)	1.2%	1.3%	2.9%	8.7%
Accommodation and food services	4.5%	3.4%	(D)	6.3%	4.0%	9.2%	17.6%
Other services, except public administration	4.9%	7.6%	4.4%	5.6%	4.7%	5.4%	5.2%
Federal government	2.4%	1.4%	1.4%	1.6%	2.2%	4.5%	1.9%
State government	0.7%	0.8%	1.1%	1.0%	0.5%	6.8%	0.2%
Local government	14.8%	10.4%	13.8%	8.7%	14.3%	6.4%	7.9%
Categories for which data were not disclosed	20.3%	18.0%	10.2%	0.0%	14.0%	17.4%	3.6%

Source: U.S. Department of Commerce, 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 2. Employment Percentages by Industry Sector and County in 2010 (continued)<sup>1,2</sup>**

	Ada, ID <sup>3</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Farm	0.7%	2.2%	4.6%	4.3%	1.7%	0.7%
Forestry, fishing, & related activities <sup>4</sup>	0.2%	(D)	(D)	1.5%	0.9%	(D)
Mining (including oil and gas)	0.1%	(D)	(D)	0.1%	0.6%	2.2%
Utilities	0.3%	0.3%	(D)	0.2%	0.2%	(D)
Construction	5.6%	6.2%	7.3%	7.2%	8.7%	4.6%
Manufacturing	5.9%	5.0%	1.5%	10.6%	4.2%	3.2%
Wholesale trade	3.6%	2.6%	(D)	3.3%	2.6%	2.2%
Retail trade	11.1%	12.2%	6.6%	12.3%	12.6%	13.0%
Transportation and warehousing	2.2%	3.1%	4.6%	3.9%	1.9%	(D)
Information	1.8%	1.2%	(D)	1.1%	1.3%	1.7%
Finance and insurance	5.8%	5.0%	(D)	4.0%	3.6%	2.9%
Real estate and rental and leasing	5.7%	3.7%	(D)	4.3%	6.6%	4.0%
Professional and technical services	6.9%	4.0%	(D)	3.8%	8.6%	5.5%
Management of companies and enterprises	1.6%	0.7%	(D)	0.5%	0.3%	(D)
Administrative and waste services	8.9%	5.7%	4.4%	4.9%	3.5%	(D)
Educational services	1.8%	1.1%	1.0%	2.9%	1.7%	1.2%
Health care and social assistance	12.0%	13.3%	3.3%	11.2%	7.7%	16.2%
Arts, entertainment, and recreation	2.1%	1.9%	17.0%	1.2%	3.8%	3.2%
Accommodation and food services	6.3%	7.5%	6.9%	4.7%	9.0%	9.5%
Other services, except public administration	4.8%	5.4%	4.4%	5.6%	5.4%	6.3%
Federal government	2.7%	2.0%	8.2%	1.5%	1.7%	2.3%
State government	4.5%	9.4%	0.8%	1.3%	9.1%	5.7%
Local government	5.4%	7.2%	13.5%	9.9%	4.4%	5.8%
Categories for which data were not disclosed	0.0%	0.3%	15.9%	0.0%	0.0%	9.6%

Source: U.S. Department of Commerce, 2012, Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

<sup>3</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Gallatin and Silver Bow Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>4</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions)**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Population	3,954	5,975	45,742	21,334	104,622	2,899	1,108	6,982	23,091	980	4,370
Non-labor income <sup>1</sup>	\$61.8	\$70.4	\$459.3	\$760.7	\$1,246.9	\$34.1	\$12.5	\$81.9	\$266.9	\$8.3	\$64.3
Dividends, interest, and rent	\$31.8	\$26.6	\$189.5	\$655.7	\$606.9	\$13.1	\$6.8	\$37.7	\$117.1	\$3.6	\$35.2
Personal current transfer receipts <sup>2</sup>	\$30.0	\$43.9	\$269.8	\$105.0	\$640.0	\$21.0	\$5.7	\$44.2	\$149.9	\$4.8	\$29.1
Adjustment for residence <sup>3</sup>	\$4.7	\$31.4	\$88.9	-\$13.8	\$292.3	-\$654.6	\$6.2	-\$47.5	-\$38.5	-\$1.7	-\$10.6
Contributions for government social insurance <sup>4</sup>	\$7.1	\$11.0	\$94.7	\$86.7	\$294.1	\$104.9	\$2.3	\$25.2	\$58.2	\$3.6	\$11.6
Total personal income by place of residence	\$109.9	\$172.9	\$1,203.0	\$1,362.9	\$3,626.9	\$93.3	\$38.5	\$215.3	\$725.2	\$38.9	\$142.1
Earnings by place of work <sup>5</sup>	\$50.5	\$82.0	\$749.5	\$702.7	\$2,384.9	\$818.8	\$21.9	\$206.2	\$555.0	\$35.9	\$100.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>											
Farm	-\$1.0	\$6.4	\$39.7	\$10.2	\$40.3	\$10.6	\$6.5	\$11.5	\$156.3	\$11.4	\$9.5
Forestry, fishing, & related activities <sup>8</sup>	\$3.2	(D)	(D)	\$1.6	(D)	(D)	(D)	(D)	\$12.6	(D)	(D)
Mining (including oil and gas)	(L)	(D)	(D)	\$2.0	(D)	(L)	(L)	\$26.2	\$4.0	(L)	(D)
Utilities	(D)	(D)	\$6.7	\$2.9	\$3.3	\$0.1	\$0.0	\$3.1	\$4.2	(L)	\$2.6
Construction	\$2.6	\$2.4	\$50.9	\$93.3	\$209.9	\$1.3	(D)	(D)	\$20.4	(D)	\$3.5
Manufacturing	\$2.1	\$2.6	\$126.9	\$30.4	\$101.9	\$1.5	(D)	(D)	\$60.3	(D)	\$0.3
Wholesale trade	\$0.9	\$3.2	\$84.1	\$11.7	\$265.9	(D)	(D)	\$4.4	\$21.7	(D)	\$1.0
Retail trade	\$8.2	\$7.0	\$36.5	\$58.7	\$244.2	\$2.1	(D)	\$6.9	\$43.1	(D)	\$4.5
Transportation and warehousing	(D)	(D)	\$20.3	\$9.6	\$92.8	(D)	(L)	\$3.3	\$37.2	(D)	\$0.9
Information	\$0.3	\$0.4	\$1.8	\$22.6	\$53.4	(D)	(L)	\$0.6	\$5.9	(D)	\$1.9
Finance and insurance	\$1.4	\$1.7	\$17.5	\$32.6	\$81.2	\$1.1	(D)	\$2.0	\$10.2	\$1.7	\$0.9
Real estate and rental and leasing	\$0.6	\$0.5	\$5.6	\$26.6	\$45.3	\$0.1	\$0.1	\$2.6	\$2.2	(L)	\$0.6
Professional and technical services	\$3.4	(D)	(D)	\$96.9	\$215.7	\$765.5	\$0.7	\$5.8	\$14.4	(D)	\$2.5
Management of companies and enterprises	\$0.0	\$0.0	(D)	(D)	\$4.8	(D)	(D)	(D)	(D)	\$0.0	(D)

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Administrative and waste services	\$1.0	(D)	\$14.6	(D)	\$90.0	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	\$2.0	\$6.3	\$7.0	(D)	(D)	(D)	(D)	(D)	(L)
Health care and social assistance	(D)	(D)	\$72.5	\$50.4	\$396.3	(D)	(D)	(D)	(D)	(D)	\$2.0
Arts, entertainment, and recreation	\$3.2	\$0.6	\$1.9	\$21.0	\$11.5	(L)	(D)	\$0.3	\$2.4	(L)	\$3.5
Accommodation and food services	\$1.3	\$3.0	\$9.4	\$76.3	\$72.5	\$1.2	(D)	\$2.5	\$6.1	(D)	\$4.8
Other services, except public administration	\$2.4	\$3.9	\$33.6	\$33.2	\$107.5	(D)	(D)	\$4.4	\$17.1	\$0.3	\$1.8
Federal government	\$9.1	\$5.5	\$27.7	\$13.1	\$104.7	\$16.4	\$2.2	\$5.2	\$18.5	\$3.6	\$13.2
State government	(D)	\$1.2	\$19.4	\$22	\$36.1	\$0.7	(D)	\$1.3	\$9.9	(D)	\$2.5
Local government	(D)	\$24.1	\$130.6	\$71.0	\$188.4	\$5.2	(D)	\$24.4	\$48.9	(D)	\$8.9
Categories for which data were not disclosed	\$12.0	\$19.6	\$47.8	\$30.2	\$9.2	\$13.0	\$12.5	\$101.6	\$59.4	\$18.9	\$35.2

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions)  
(continued)**

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Population	27,080	13,248	16,669	15,500	26,215	22,461	7,957	5,214	37,602	20,082	4,294
Non-labor income <sup>2</sup>	\$262.7	\$142.0	\$216.2	\$176.3	\$207.1	\$207.1	\$138.0	\$47.8	\$273.8	\$213.2	\$46.5
Dividends, interest, and rent	\$109.8	\$63.0	\$81.2	\$77.7	\$79.5	\$82.5	\$64.6	\$16.6	\$106.2	\$86.9	\$17.6
Personal current transfer receipts <sup>3</sup>	\$152.9	\$79.0	\$135.0	\$98.6	\$127.6	\$124.6	\$73.4	\$31.3	\$167.5	\$126.4	\$28.9
Adjustment for residence <sup>4</sup>	\$16.4	\$60.2	\$119.3	\$26.9	\$191.0	\$5.1	\$1.1	\$3.3	-\$46.1	\$46.4	\$20.8
Contributions for government social insurance <sup>5</sup>	\$67.5	\$18.3	\$21.9	\$34.2	\$34.7	\$52.4	\$15.9	\$8.7	\$69.3	\$40.1	\$5.7
Total personal income by place of residence	\$909.7	\$315.3	\$462.5	\$574.3	\$687.9	\$656.2	\$244.0	\$144.4	\$701.3	\$569.8	\$114.7
Earnings by place of work <sup>6</sup>	\$698.1	\$131.4	\$148.9	\$405.4	\$324.4	\$496.4	\$120.9	\$102.0	\$543.0	\$350.3	\$53.1
<b>Total earnings by place of work by sector<sup>7,8</sup></b>											
Farm	\$46.3	-\$1.4	\$9.3	\$191.8	\$64.5	\$138.8	\$3.1	\$46.9	-\$6.1	\$84.3	\$14.7
Forestry, fishing, & related activities <sup>9</sup>	(D)	(D)	(D)	(D)	\$13.7	\$23.0	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	(L)	(L)	(D)	(L)	(D)	(D)	(D)
Utilities	\$4.5	(D)	(L)	\$3.8	\$2.3	(D)	(D)	(D)	(D)	\$5.5	(L)
Construction	\$16.2	\$14.6	\$11.6	\$9.2	\$30.6	\$23.7	\$12.1	(D)	\$26.7	\$15.9	\$1.0
Manufacturing	\$14.5	\$2.7	\$8.8	\$42.3	\$45.4	\$61.6	\$3.7	(D)	\$44.6	\$61.7	\$0.5
Wholesale trade	\$4.2	(D)	\$7.1	\$10.9	\$13.7	(D)	\$2.0	(D)	\$42.2	\$28.5	\$1.2
Retail trade	\$29.3	\$8.4	\$10.0	\$10.4	\$17.0	\$32.8	\$10.1	\$2.2	\$43.3	\$14.4	\$2.4
Transportation and warehousing	\$11.8	\$7.0	\$7.8	\$29.0	\$16.4	\$62.0	(D)	\$1.5	(D)	\$13.1	\$3.3
Information	\$3.9	(D)	\$0.3	\$0.3	\$2.2	\$4.1	\$0.7	(D)	\$2.1	\$4.6	\$0.2
Finance and insurance	\$8.5	\$2.5	\$3.5	\$3.8	\$5.7	\$4.5	\$1.9	(D)	\$13.3	\$4.4	(D)
Real estate and rental and leasing	\$2.3	\$2.7	\$1.6	\$1.9	\$6.4	\$4.7	\$1.3	(D)	\$7.6	\$2.1	(D)

<sup>1</sup> Fremont County includes Yellowstone Park.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Professional and technical services	\$8.5	\$2.8	\$4.8	\$9.9	(D)	\$10.5	\$6.6	(D)	\$38.8	\$6.5	(D)
Management of companies and enterprises	(L)	\$0.0	(D)	\$1.6	(D)	\$1.2	\$1.5	\$0.0	(D)	(L)	\$0.0
Administrative and waste services	\$10.1	\$2.2	(D)	\$0.4	\$3.5	\$5.4	\$2.4	(D)	(D)	\$0.7	(D)
Educational services	\$4.2	(D)	(D)	\$0.1	(D)	\$1.9	\$0.2	(D)	(D)	(D)	(L)
Health care and social assistance	\$18.6	(D)	(D)	(D)	(D)	\$20.8	\$8.8	(D)	(D)	(D)	\$1.5
Arts, entertainment, and recreation	\$1.0	\$0.8	\$0.7	\$1.8	\$2.7	\$4.8	\$2.1	(D)	\$3.8	\$1.8	(D)
Accommodation and food services	\$13.3	\$5.0	\$3.5	\$3.6	\$3.3	\$5.8	\$4.5	(D)	\$15.2	\$7.8	(D)
Other services, except public administration	\$15.2	\$8.1	\$8.1	\$12.6	\$14.2	\$16.1	\$9.0	(D)	\$17.8	\$12.9	\$1.8
Federal government	\$424.4	\$9.8	\$10.3	\$8.8	\$8.4	\$8.1	\$20.7	\$8.8	\$11.6	\$8.8	\$2.4
State government	\$3.3	\$19.0	\$1.4	\$5.1	\$7.2	\$3.8	\$5.3	\$5.5	\$2.6	\$2.6	\$0.6
Local government	\$54.9	\$25.1	\$28.8	\$33.8	\$39.4	\$34.8	\$21.2	\$10.6	\$77.7	\$50.6	\$13.9
Categories for which data were not disclosed	\$3.0	\$22.1	\$31.3	\$24.5	\$28.1	\$28.0	\$3.6	\$26.6	\$201.7	\$24.2	\$9.4

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions)**  
(continued)

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Population	11,491	22,635	7,867	77,490	10,217	9,256	7,698
Non-labor income <sup>1</sup>	\$115.4	\$258.8	\$79.8	\$963.4	\$136.4	\$156.7	\$133.0
Dividends, interest, and rent	\$48.6	\$100.4	\$33.4	\$417.3	\$53.0	\$84.0	\$79.1
Personal current transfer receipts <sup>2</sup>	\$66.8	\$158.4	\$46.4	\$546.1	\$83.4	\$72.7	\$54.0
Adjustment for residence <sup>3</sup>	\$55.4	\$95.6	-\$10.6	\$1.2	\$34.7	-\$0.3	-\$1.1
Contributions for government social insurance <sup>4</sup>	\$15.1	\$40.9	\$20.4	\$200.8	\$17.5	\$22.7	\$23.4
Total personal income by place of residence	\$331.7	\$607.1	\$193.1	\$2,407.5	\$273.8	\$307.6	\$271.5
Earnings by place of work <sup>5</sup>	\$176.0	\$293.6	\$144.3	\$1,643.7	\$120.2	\$173.9	\$163.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>							
Farm	\$82.6	\$24.5	\$14.0	\$179.5	\$8.7	\$9.2	\$3.1
Forestry, fishing, & related activities <sup>8</sup>	(D)	(D)	\$3.8	\$32.1	\$4.5	(D)	\$2.0
Mining (including oil and gas)	(D)	(D)	(L)	\$1.0	(L)	(D)	\$4.3
Utilities	(D)	\$9.7	(D)	\$20.6	(D)	(D)	\$1.1
Construction	\$9.4	\$22.8	\$2.6	\$77.3	\$5.0	\$10.7	\$19.7
Manufacturing	\$10.5	\$48.3	\$47.5	\$169.2	\$16.4	\$0.6	\$1.1
Wholesale trade	\$5.7	\$10.6	(D)	\$70.3	\$6.1	\$5.5	\$1.4
Retail trade	\$6.3	\$13.1	\$4.2	\$161.8	\$8.5	\$12.5	\$8.0
Transportation and warehousing	(D)	\$13.2	\$13.0	\$74.7	(D)	(D)	\$5.2
Information	\$1.0	(D)	(D)	\$27.0	\$4.7	\$1.6	\$0.3
Finance and insurance	(D)	\$8.3	\$1.9	\$63.6	\$2.4	\$9.5	\$5.6
Real estate and rental and leasing	(D)	\$3.5	\$0.6	\$17.6	\$0.9	\$11.3	\$9.8
Professional and technical services	(D)	(D)	\$1.8	\$88.6	\$4.6	\$4.6	(D)
Management of companies and enterprises	(D)	(D)	(D)	\$8.2	(D)	\$0.0	(D)

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Administrative and waste services	\$3.9	\$8.2	(D)	\$53.0	(D)	\$2.0	\$4.4
Educational services	(D)	(D)	(D)	\$6.2	(D)	(D)	\$0.6
Health care and social assistance	(D)	(D)	\$2.1	\$246.4	(D)	(D)	\$7.7
Arts, entertainment, and recreation	\$0.3	\$0.8	(D)	\$6.7	\$0.9	\$1.7	\$23.7
Accommodation and food services	\$2.3	\$3.8	(D)	\$47.9	\$2.2	\$7.6	\$27.0
Other services, except public administration	\$4.6	\$16.8	\$4.8	\$64.3	\$4.3	\$6.9	\$6.2
Federal government	\$6.3	\$6.8	\$3.3	\$51.9	\$5.9	\$19.4	\$6.4
State government	\$1.4	\$4.2	\$2.4	\$23.3	\$1.1	\$16.8	\$0.7
Local government	\$22.7	\$36.6	\$23.2	\$152.5	\$26.2	\$15.6	\$18.6
Categories for which data were not disclosed	\$18.9	\$62.4	\$19.2	\$0.0	\$17.8	\$38.6	\$5.9

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 3. Labor Income Levels by Industry Sector and County and Non-Labor Income Levels by County in 2010, presented in 2010 dollars (millions)  
(continued)**

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Population	393,466	83,020	7,017	189,410	89,616	34,233
Non-labor income <sup>2</sup>	\$4,788.3	\$902.9	\$88.3	\$1,828.7	\$1,180.3	\$514.7
Dividends, interest, and rent	\$2,581.4	\$332.0	\$41.5	\$612.8	\$781.4	\$225.6
Personal current transfer receipts <sup>3</sup>	\$2,206.9	\$570.9	\$46.8	\$1,215.9	\$398.9	\$289.1
Adjustment for residence <sup>4</sup>	-\$616.9	\$96.9	\$111.0	\$379.8	-\$15.0	-\$13.0
Contributions for government social insurance <sup>5</sup>	\$1,529.0	\$213.1	\$8.8	\$334.0	\$299.7	\$114.3
Total personal income by place of residence	\$15,234.3	\$2,373.5	\$252.9	\$4,304.0	\$3,222.0	\$1,256.6
Earnings by place of work <sup>6</sup>	\$12,591.9	\$1,586.7	\$62.3	\$2,429.5	\$2,356.3	\$869.2
<b>Total earnings by place of work by sector<sup>7,8</sup></b>						
Farm	\$46.6	\$9.8	\$0.4	\$135.4	\$26.8	-\$0.1
Forestry, fishing, & related activities <sup>9</sup>	\$11.6	(D)	(D)	\$31.1	\$10.1	(D)
Mining (including oil and gas)	\$14.2	(D)	(D)	\$1.2	\$15.5	\$74.4
Utilities	\$120.9	\$11.6	(D)	\$14.4	\$11.4	(D)
Construction	\$910.3	\$110.4	\$3.1	\$175.1	\$256.6	\$35.7
Manufacturing	\$1,443.6	\$133.5	\$0.6	\$327.4	\$131.9	\$40.4
Wholesale trade	\$651.8	\$56.6	(D)	\$131.8	\$98.4	\$23.9
Retail trade	\$889.8	\$126.1	\$2.5	\$231.9	\$247.4	\$93.8
Transportation and warehousing	\$262.1	\$87.7	\$2.5	\$129.7	\$45.6	(D)
Information	\$235.9	\$21.2	(D)	\$29.6	\$31.9	\$20.4
Finance and insurance	\$714.8	\$79.7	(D)	\$64.8	\$105.2	\$21.9
Real estate and rental and leasing	\$189.5	\$16.3	(D)	\$25.4	\$56.8	\$7.8
Professional and technical services	\$1,257.3	\$73.4	(D)	\$95.8	\$269.9	\$54.1
Management of companies and enterprises	\$436.5	\$12.6	(D)	\$18.1	\$9.1	(D)

<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Gallatin and Silver Bow Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Administrative and waste services	\$757.3	\$64.0	\$2.6	\$77.4	\$51.5	(D)
Educational services	\$104.6	\$7.5	\$0.2	\$48.1	\$15.8	\$3.8
Health care and social assistance	\$1,694.2	\$246.1	\$1.9	\$284.5	\$226.9	\$134.8
Arts, entertainment, and recreation	\$125.1	\$7.9	\$8.0	\$7.0	\$45.4	\$10.9
Accommodation and food services	\$331.3	\$53.5	\$2.6	\$55.1	\$119.7	\$35.3
Other services, except public administration	\$409.2	\$64.3	\$2.5	\$105.3	\$94.2	\$32.2
Federal government	\$637.7	\$69.2	\$15.9	\$68.1	\$83.1	\$35.3
State government	\$635.3	\$193.5	\$0.9	\$47.5	\$259.8	\$63.1
Local government	\$712.4	\$140.1	\$11.4	\$324.8	\$143.4	\$62.7
Categories for which data were not disclosed	\$0.0	\$1.6	\$7.2	\$0.0	\$0.0	\$118.7

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010**

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Population	3,954	5,975	45,742	21,334	104,622	2,899	1,108	6,982	23,091	980	4,370
Non-labor income as a proportion of total personal income <sup>1</sup>	56.2%	40.7%	38.2%	55.8%	34.4%	36.5%	32.6%	38.0%	36.8%	21.4%	45.2%
Dividends, interest, and rent as a proportion of total personal income	28.9%	15.4%	15.8%	48.1%	16.7%	14.0%	17.7%	17.5%	16.1%	9.1%	24.8%
Personal current transfer receipts as a proportion of total personal income <sup>2</sup>	27.3%	25.4%	22.4%	7.7%	17.6%	22.5%	14.9%	20.5%	20.7%	12.3%	20.5%
Adjustment for residence as a proportion of total personal income <sup>3</sup>	4.3%	18.2%	7.4%	-1.0%	8.1%	-701.3%	16.2%	-22.1%	-5.3%	-4.4%	-7.5%
Contributions for government social insurance as a proportion of total personal income <sup>4</sup>	6.4%	6.4%	7.9%	6.4%	8.1%	112.3%	5.9%	11.7%	8.0%	9.3%	8.1%
Total personal income by place of residence (\$ millions)	\$109.9	\$172.9	\$1,203.0	\$1,362.9	\$3,626.9	\$93.3	\$38.5	\$215.3	\$725.2	\$38.9	\$142.1
Earnings by place of work (\$ millions) <sup>5</sup>	\$50.5	\$82.0	\$749.5	\$702.7	\$2,381.9	\$818.8	\$21.9	\$206.2	\$555.0	\$35.9	\$100.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>											
Farm	-2.1%	7.8%	5.3%	1.4%	1.7%	1.3%	29.5%	5.6%	28.2%	31.6%	9.5%
Forestry, fishing, & related activities <sup>8</sup>	6.4%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	2.3%	(D)	(D)
Mining (including oil and gas)	(L)	(D)	(D)	0.3%	(D)	(L)	(L)	12.7%	0.7%	(L)	(D)
Utilities	(D)	(D)	0.9%	0.4%	0.1%	0.0%	0.0%	1.5%	0.7%	(L)	2.6%
Construction	5.1%	2.9%	6.8%	13.3%	8.8%	0.2%	(D)	(D)	3.7%	(D)	3.5%
Manufacturing	4.1%	3.2%	16.9%	4.3%	4.3%	0.2%	(D)	(D)	10.9%	(D)	0.3%
Wholesale trade	1.7%	3.9%	11.2%	1.7%	11.2%	(D)	(D)	2.1%	3.9%	(D)	1.0%
Retail trade	16.2%	8.5%	4.9%	8.4%	10.3%	0.3%	(D)	3.4%	7.8%	(D)	4.5%
Transportation and warehousing	(D)	(D)	2.7%	1.4%	3.9%	(D)	(L)	1.6%	6.7%	(D)	0.9%

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Adams, ID	Bear Lake, ID	Bingham, ID	Blaine, ID	Bonneville, ID	Butte, ID	Camas, ID	Caribou, ID	Cassia, ID	Clark, ID	Custer, ID
Information	0.6%	0.5%	0.2%	3.2%	2.2%	(D)	(L)	0.3%	1.1%	(D)	1.9%
Finance and insurance	2.7%	2.0%	2.3%	4.6%	3.4%	0.1%	(D)	1.0%	1.8%	4.8%	0.9%
Real estate and rental and leasing	1.2%	0.6%	0.8%	3.8%	1.9%	0.0%	0.5%	1.3%	0.4%	(L)	0.6%
Professional and technical services	6.6%	(D)	(D)	13.8%	9.1%	93.5%	3.1%	2.8%	2.6%	(D)	2.5%
Management of companies and enterprises	0.0%	0.0%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)	0.0%	(D)
Administrative and waste services	1.9%	(D)	1.9%	(D)	3.8%	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	(D)	(D)	0.3%	0.9%	0.3%	(D)	(D)	(D)	(D)	(D)	(L)
Health care and social assistance	(D)	(D)	9.7%	7.2%	16.6%	(D)	(D)	(D)	(D)	(D)	2.0%
Arts, entertainment, and recreation	6.3%	0.7%	0.3%	3.0%	0.5%	(L)	(D)	0.2%	0.4%	(L)	3.5%
Accommodation and food services	2.5%	3.7%	1.3%	10.9%	3.0%	0.1%	(D)	1.2%	1.1%	(D)	4.8%
Other services, except public administration	4.8%	4.7%	4.5%	4.7%	4.5%	(D)	(D)	2.1%	3.1%	0.8%	1.8%
Federal government	17.9%	6.7%	3.7%	1.9%	4.4%	2.0%	10.1%	2.5%	3.3%	10.0%	13.2%
State government	(D)	1.4%	2.6%	0.3%	1.5%	0.1%	(D)	0.6%	1.8%	(D)	2.5%
Local government	(D)	29.4%	17.4%	10.1%	7.9%	0.6%	(D)	11.8%	8.8%	(D)	8.9%
Categories for which data were not disclosed	23.8%	23.8%	6.4%	4.3%	0.4%	1.6%	56.9%	49.3%	10.7%	52.7%	35.2%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincoln, ID	Madison, ID	Minidoka, ID	Oneida, ID
Population	27,080	13,248	16,669	15,500	26,215	22,461	7,957	5,214	37,602	20,082	4,294
Non-labor income as a proportion of total personal income <sup>2</sup>	28.9%	45.0%	46.7%	30.7%	30.1%	31.6%	56.5%	33.1%	39.0%	37.4%	40.6%
Dividends, interest, and rent as a proportion of total personal income	12.1%	20.0%	17.6%	13.5%	11.6%	12.6%	26.5%	11.5%	15.1%	15.2%	15.3%
Personal current transfer receipts as a proportion of total personal income <sup>3</sup>	16.8%	25.1%	29.2%	17.2%	18.6%	19.0%	30.1%	21.6%	23.9%	22.2%	25.2%
Adjustment for residence as a proportion of total personal income <sup>4</sup>	1.8%	19.1%	25.8%	4.7%	27.8%	0.8%	0.4%	2.3%	-6.6%	8.1%	18.1%
Contributions for government social insurance as a proportion of total personal income <sup>5</sup>	7.4%	5.8%	4.7%	6.0%	5.0%	8.0%	6.5%	6.1%	9.9%	7.0%	5.0%
Total personal income by place of residence (\$ millions)	\$909.7	\$315.3	\$462.5	\$574.3	\$687.9	\$656.2	\$244.0	\$144.4	\$701.3	\$569.8	\$114.7
Earnings by place of work (\$ millions) <sup>6</sup>	\$698.1	\$131.4	\$148.9	\$405.4	\$324.4	\$496.4	\$120.9	\$102.0	\$543.0	\$350.3	\$53.1
<b>Total earnings by place of work by sector<sup>7,8</sup></b>											
Farm	6.6%	-1.1%	6.3%	47.3%	19.9%	28.0%	2.6%	46.0%	-1.1%	24.1%	27.8%
Forestry, fishing, & related activities <sup>9</sup>	(D)	(D)	(D)	(D)	4.2%	4.6%	(D)	(D)	(D)	(D)	(D)
Mining (including oil and gas)	(D)	(D)	(D)	(D)	(L)	(L)	(D)	(L)	(D)	(D)	(D)
Utilities	0.7%	(D)	(L)	0.9%	0.7%	(D)	(D)	(D)	(D)	1.6%	(L)
Construction	2.3%	11.1%	7.8%	2.3%	9.4%	4.8%	10.0%	(D)	4.9%	4.5%	2.0%
Manufacturing	2.1%	2.1%	5.9%	10.4%	14.0%	12.4%	3.1%	(D)	8.2%	17.6%	1.0%
Wholesale trade	0.6%	(D)	4.7%	2.7%	4.2%	(D)	1.7%	(D)	7.8%	8.1%	2.2%

<sup>1</sup> Fremont County includes Yellowstone Park.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Elmore, ID	Fremont, ID <sup>1</sup>	Gem, ID	Gooding, ID	Jefferson, ID	Jerome, ID	Lemhi, ID	Lincol n, ID	Madiso n, ID	Minidoka, ID	Oneida, ID
Retail trade	4.2%	6.4%	6.7%	2.6%	5.2%	6.6%	8.3%	2.1%	8.0%	4.1%	4.6%
Transportation and warehousing	1.7%	5.4%	5.3%	7.2%	5.1%	12.5%	(D)	1.5%	(D)	3.7%	6.3%
Information	0.6%	(D)	0.2%	0.1%	0.7%	0.8%	0.6%	(D)	0.4%	1.3%	0.4%
Finance and insurance	1.2%	1.9%	2.3%	0.9%	1.8%	0.9%	1.6%	(D)	2.5%	1.3%	(D)
Real estate and rental and leasing	0.3%	2.1%	1.0%	0.5%	2.0%	0.9%	1.1%	(D)	1.4%	0.6%	(D)
Professional and technical services	1.2%	2.1%	3.2%	2.4%	(D)	2.1%	5.5%	(D)	7.1%	1.9%	(D)
Management of companies and enterprises	(L)	0.0%	(D)	0.4%	(D)	0.2%	1.2%	0.0%	(D)	(L)	0.0%
Administrative and waste services	1.5%	1.6%	(D)	0.1%	1.1%	1.1%	2.0%	(D)	(D)	0.2%	(D)
Educational services	0.6%	(D)	(D)	0.0%	(D)	0.4%	0.1%	(D)	(D)	(D)	(L)
Health care and social assistance	2.7%	(D)	(D)	(D)	(D)	4.2%	7.3%	(D)	(D)	(D)	2.8%
Arts, entertainment, and recreation	0.1%	0.6%	0.4%	0.4%	0.8%	1.0%	1.7%	(D)	0.7%	0.5%	(D)
Accommodation and food services	1.9%	3.8%	2.4%	0.9%	1.0%	1.2%	3.7%	(D)	2.8%	2.2%	(D)
Other services, except public administration	2.2%	6.2%	5.4%	3.1%	4.4%	3.3%	7.4%	(D)	3.3%	3.7%	3.4%
Federal government	60.8%	7.4%	6.9%	2.2%	2.6%	1.6%	17.1%	8.6%	2.1%	2.5%	4.5%
State government	0.5%	14.5%	0.9%	1.3%	2.2%	0.8%	4.4%	5.4%	0.5%	0.7%	1.1%
Local government	7.9%	19.1%	19.4%	8.3%	12.1%	7.0%	17.5%	10.4%	14.3%	14.5%	26.2%
Categories for which data were not disclosed	0.4%	16.8%	21.0%	6.0%	8.7%	5.6%	3.0%	26.1%	37.1%	6.9%	17.8%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Population	11,491	22,635	7,867	77,490	10,217	9,256	7,698
Non-labor income as a proportion of total personal income <sup>1</sup>	34.8%	42.6%	41.3%	40.0%	49.8%	50.9%	49.0%
Dividends, interest, and rent as a proportion of total personal income	14.7%	16.5%	17.3%	17.3%	19.4%	27.3%	29.1%
Personal current transfer receipts as a proportion of total personal income <sup>2</sup>	20.1%	26.1%	24.0%	22.7%	30.5%	23.6%	19.9%
Adjustment for residence as a proportion of total personal income <sup>3</sup>	16.7%	15.8%	-5.5%	0.1%	12.7%	-0.1%	-0.4%
Contributions for government social insurance as a proportion of total personal income <sup>4</sup>	4.6%	6.7%	10.6%	8.3%	6.4%	7.4%	8.6%
Total personal income by place of residence (\$ millions)	\$331.7	\$607.1	\$193.1	\$2,407.5	\$273.8	\$307.6	\$271.5
Earnings by place of work (\$ millions) <sup>5</sup>	\$176.0	\$293.6	\$144.3	\$1,643.7	\$120.2	\$173.9	\$163.0
<b>Total earnings by place of work by sector<sup>6,7</sup></b>							
Farm	46.9%	8.4%	9.7%	10.9%	7.2%	5.3%	1.9%
Forestry, fishing, & related activities <sup>8</sup>	(D)	(D)	2.6%	2.0%	3.8%	(D)	1.2%
Mining (including oil and gas)	(D)	(D)	(L)	0.1%	(L)	(D)	2.7%
Utilities	(D)	3.3%	(D)	1.3%	(D)	(D)	0.7%
Construction	5.4%	7.8%	1.8%	4.7%	4.1%	6.1%	12.1%
Manufacturing	6.0%	16.4%	32.9%	10.3%	13.6%	0.4%	0.6%
Wholesale trade	3.2%	3.6%	(D)	4.3%	5.1%	3.2%	0.9%
Retail trade	3.6%	4.5%	2.9%	9.8%	7.1%	7.2%	4.9%
Transportation and warehousing	(D)	4.5%	9.0%	4.5%	(D)	(D)	3.2%
Information	0.6%	(D)	(D)	1.6%	3.9%	0.9%	0.2%
Finance and insurance	(D)	2.8%	1.3%	3.9%	2.0%	5.5%	3.4%

<sup>1</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>2</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>3</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>4</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>5</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>6</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>7</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>8</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Owyhee, ID	Payette, ID	Power, ID	Twin Falls, ID	Washington, ID	Beaverhead, MT	Madison, MT
Real estate and rental and leasing	(D)	1.2%	0.4%	1.1%	0.7%	6.5%	6.0%
Professional and technical services	(D)	(D)	1.3%	5.4%	3.8%	2.6%	(D)
Management of companies and enterprises	(D)	(D)	(D)	0.5%	(D)	0.0%	(D)
Administrative and waste services	2.2%	2.8%	(D)	3.2%	(D)	1.1%	2.7%
Educational services	(D)	(D)	(D)	0.4%	(D)	(D)	0.4%
Health care and social assistance	(D)	(D)	1.5%	15.0%	(D)	(D)	4.7%
Arts, entertainment, and recreation	0.2%	0.3%	(D)	0.4%	0.8%	1.0%	14.5%
Accommodation and food services	1.3%	1.3%	(D)	2.9%	1.8%	4.4%	16.6%
Other services, except public administration	2.6%	5.7%	3.3%	3.9%	3.6%	4.0%	3.8%
Federal government	3.6%	2.3%	2.3%	3.2%	4.9%	11.1%	3.9%
State government	0.8%	1.4%	1.6%	1.4%	0.9%	9.6%	0.4%
Local government	12.9%	12.5%	16.1%	9.3%	21.8%	9.0%	11.4%
Categories for which data were not disclosed	10.7%	21.3%	13.3%	0.0%	14.8%	22.2%	3.6%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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**Table 4. Labor Income Percentages by Industry Sector and County and Non-Labor Income Percentages by County in 2010 (continued)**

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Population	393,466	83,020	7,017	189,410	89,616	34,233
Non-labor income as a proportion of total personal income <sup>2</sup>	31.4%	38.0%	34.9%	42.5%	36.6%	41.0%
Dividends, interest, and rent as a proportion of total personal income	16.9%	14.0%	16.4%	14.2%	24.3%	18.0%
Personal current transfer receipts as a proportion of total personal income <sup>3</sup>	14.5%	24.1%	18.5%	28.3%	12.4%	23.0%
Adjustment for residence as a proportion of total personal income <sup>4</sup>	-4.0%	4.1%	43.9%	8.8%	-0.5%	-1.0%
Contributions for government social insurance as a proportion of total personal income <sup>5</sup>	10.0%	9.0%	3.5%	7.8%	9.3%	9.1%
Total personal income by place of residence (\$ millions)	\$15,234.3	\$2,373.5	\$252.9	\$4,304.0	\$3,222.0	\$1,256.6
Earnings by place of work (\$ millions) <sup>6</sup>	\$12,591.9	\$1,586.7	\$62.3	\$2,429.5	\$2,356.3	\$869.2
<b>Total earnings by place of work by sector<sup>7, 8</sup></b>						
Farm	0.4%	0.6%	0.7%	5.6%	1.1%	0.0%
Forestry, fishing, & related activities <sup>9</sup>	0.1%	(D)	(D)	1.3%	0.4%	(D)
Mining (including oil and gas)	0.1%	(D)	(D)	0.1%	0.7%	8.6%
Utilities	1.0%	0.7%	(D)	0.6%	0.5%	(D)
Construction	7.2%	7.0%	4.9%	7.2%	10.9%	4.1%
Manufacturing	11.5%	8.4%	1.0%	13.5%	5.6%	4.6%
Wholesale trade	5.2%	3.6%	(D)	5.4%	4.2%	2.8%
Retail trade	7.1%	7.9%	4.0%	9.5%	10.5%	10.8%
Transportation and warehousing	2.1%	5.5%	4.0%	5.3%	1.9%	(D)
Information	1.9%	1.3%	(D)	1.2%	1.4%	2.4%

<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Gallatin and Silver Bow Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

<sup>2</sup> Non-labor income includes dividends, interest, and rent and personal current transfer receipts.

<sup>3</sup> Personal current transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and institutions, such as retirement and disability insurance benefits.

<sup>4</sup> Residence adjustment represents the net inflow of the earnings of inter-area commuters. A positive number indicates that, on balance, area residents commute outside to find jobs; a negative number indicates that, on balance, people from outside the area commute in to find jobs.

<sup>5</sup> Contributions for government social insurance consist of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance.

<sup>6</sup> Earnings by place of work differs from total personal income by the exclusion of dividends, interest, and rent, as well as adjustments to account for net transfer payments (e.g., unemployment benefits and Social Security taxes and payments) and the residential adjustment.

<sup>7</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>8</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

<sup>9</sup> "Related activities" includes hunting and trapping, as well as agricultural services such as custom tillage.

	Ada, ID <sup>1</sup>	Bannock, ID	Boise, ID	Canyon, ID	Gallatin, MT	Silver Bow, MT
Finance and insurance	5.7%	5.0%	(D)	2.7%	4.5%	2.5%
Real estate and rental and leasing	1.5%	1.0%	(D)	1.0%	2.4%	0.9%
Professional and technical services	10.0%	4.6%	(D)	3.9%	11.5%	6.2%
Management of companies and enterprises	3.5%	0.8%	(D)	0.7%	0.4%	(D)
Administrative and waste services	6.0%	4.0%	4.2%	3.2%	2.2%	(D)
Educational services	0.8%	0.5%	0.2%	2.0%	0.7%	0.4%
Health care and social assistance	13.5%	15.5%	3.0%	11.7%	9.6%	15.5%
Arts, entertainment, and recreation	1.0%	0.5%	12.9%	0.3%	1.9%	1.3%
Accommodation and food services	2.6%	3.4%	4.1%	2.3%	5.1%	4.1%
Other services, except public administration	3.2%	4.1%	4.1%	4.3%	4.0%	3.7%
Federal government	5.1%	4.4%	25.5%	2.8%	3.5%	4.1%
State government	5.0%	12.2%	1.4%	2.0%	11.0%	7.3%
Local government	5.7%	8.8%	18.3%	13.4%	6.1%	7.2%
Categories for which data were not disclosed	0.0%	0.1%	11.5%	0.0%	0.0%	13.7%

Source: U.S. Department of Commerce. 2012. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

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Table 5. Employment Trends by Select Industry Sector and County, 2002-2010<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Mining</b>									
Adams, ID	(L)	11	10	(L)	11	15	32	31	52
Bear Lake, ID	(L)	11	(D)	(D)	(D)	(D)	(D)	31	(D)
Bingham, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Blaine, ID	112	(D)	101	97	108	130	103	90	96
Bonneville, ID	48	(D)	48	(D)	(D)	(D)	(D)	185	(D)
Butte, ID	(L)	12	10	(L)	11	16	36	34	57
Camas, ID	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
Caribou, ID	358	(D)	(D)	352	360	375	352	319	336
Cassia, ID	122	130	174	220	202	184	166	114	107
Clark, ID	(D)	12	10	(L)	11	16	36	34	57
Custer, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Elmore, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Fremont, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gem, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gooding, ID	10	12	10	(D)	(D)	(D)	(D)	(D)	(D)
Jefferson, ID	10	12	10	(L)	11	(D)	(D)	(D)	56
Jerome, ID	10	12	10	(L)	11	16	36	34	56
Lemhi, ID	(D)	25	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Lincoln, ID	10	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
Madison, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Minidoka, ID	10	12	10	(D)	(D)	(D)	(D)	(D)	(D)
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Payette, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Power, ID	10	12	10	(L)	11	16	36	34	56
Twin Falls, ID	68	82	65	65	69	99	106	76	101
Washington, ID	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	56
Beaverhead, MT	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Madison, MT	57	51	43	59	102	116	138	114	92
<b>Socioeconomic Study Area</b>	<b>835</b>	<b>383</b>	<b>501</b>	<b>793</b>	<b>896</b>	<b>968</b>	<b>1,009</b>	<b>1,065</b>	<b>1,070</b>

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than 10 jobs, but the estimates for this item are included in the totals.

**Table 5. Employment Trends by Select Industry Sector and County, 2002-2010<sup>1,2</sup>**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Farming<sup>1</sup></b>									
Adams, ID	355	332	309	291	269	254	253	254	251
Bear Lake, ID	516	506	499	498	490	488	492	489	488
Bingham, ID	2,532	2,400	2,361	2,292	2,259	2,186	2,233	2,178	2,192
Blaine, ID	503	444	406	361	325	285	293	284	286
Bonneville, ID	1,527	1,418	1,363	1,301	1,250	1,198	1,213	1,195	1,196
Butte, ID	290	278	276	271	269	266	270	265	264
Camas, ID	131	127	129	132	134	135	137	135	135
Caribou, ID	797	720	676	626	582	540	549	540	540
Cassia, ID	1,728	1,692	1,741	1,732	1,771	1,742	1,811	1,734	1,761
Clark, ID	162	154	152	147	143	137	142	138	139
Custer, ID	370	341	327	314	302	292	296	294	293
Elmore, ID	970	925	920	891	885	854	881	848	859
Fremont, ID	826	775	756	730	710	687	700	688	689
Gem, ID	1,022	978	944	924	895	878	875	874	870
Gooding, ID	2,199	2,129	2,161	2,120	2,147	2,087	2,166	2,071	2,105
Jefferson, ID	1,279	1,264	1,288	1,295	1,317	1,319	1,344	1,311	1,320
Jerome, ID	1,802	1,778	1,837	1,835	1,885	1,858	1,930	1,846	1,876
Lemhi, ID	464	435	425	413	404	397	400	397	397
Lincoln, ID	479	482	498	504	517	516	532	515	520
Madison, ID	811	754	735	702	683	652	668	651	656
Minidoka, ID	1,423	1,393	1,411	1,397	1,411	1,382	1,427	1,375	1,392
Oneida, ID	514	496	487	482	474	468	472	469	468
Owyhee, ID	1,301	1,219	1,190	1,139	1,113	1,064	1,092	1,060	1,069
Payette, ID	977	954	953	951	951	949	959	942	946
Power, ID	627	629	670	689	722	734	760	733	742
Twin Falls, ID	2,800	2,583	2,473	2,327	2,227	2,092	2,135	2,081	2,096
Washington, ID	694	676	677	679	683	690	693	686	685
Beaverhead, MT	595	560	555	537	533	530	543	529	533
Madison, MT	684	651	640	623	610	612	623	615	615
<b>Socioeconomic Study Area</b>	<b>28,378</b>	<b>27,093</b>	<b>26,859</b>	<b>26,203</b>	<b>25,961</b>	<b>25,292</b>	<b>25,889</b>	<b>25,197</b>	<b>25,383</b>

<sup>1</sup> Farming values sum data for “Farm” and “Agriculture and forestry support activities.”



Table 5. Employment Trends by Select Industry Sector and County, 2002-2010<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Retail trade</b>									
Adams, ID	221	237	361	378	377	370	285	317	309
Bear Lake, ID	408	403	409	406	432	439	482	473	453
Bingham, ID	1,978	2,005	2,043	2,132	2,227	2,300	2,096	2,057	1,961
Blaine, ID	1,929	1,999	2,104	2,177	2,216	2,328	2,147	1,984	1,828
Bonneville, ID	7,314	7,735	7,708	8,267	8,517	8,717	9,033	8,563	8,411
Butte, ID	152	146	148	142	149	167	162	160	130
Camas, ID	(D)	(D)	34	(D)	(D)	28	27	(D)	(D)
Caribou, ID	464	477	485	519	529	566	513	474	404
Cassia, ID	1,794	1,791	1,698	1,771	1,780	1,848	1,894	1,838	1,750
Clark, ID	(D)	(D)	48	(D)	(D)	35	68	(D)	(D)
Custer, ID	281	300	282	276	276	281	287	292	278
Elmore, ID	1,409	1,357	1,388	1,437	1,496	1,548	1,360	1,270	1,174
Fremont, ID	423	447	417	430	454	482	483	479	463
Gem, ID	625	663	673	729	760	790	685	633	600
Gooding, ID	578	617	642	673	695	709	628	592	585
Jefferson, ID	838	822	835	784	833	860	935	990	920
Jerome, ID	1,358	1,321	1,236	1,230	1,282	1,252	1,336	1,248	1,138
Lemhi, ID	513	537	539	552	579	595	491	461	439
Lincoln, ID	83	82	82	117	118	119	147	159	147
Madison, ID	1,800	1,840	1,809	1,828	1,957	2,066	2,090	1,988	1,906
Minidoka, ID	749	753	806	871	877	853	772	736	710
Oneida, ID	189	178	186	203	220	236	230	230	199
Owyhee, ID	309	332	366	401	412	430	382	352	326
Payette, ID	870	882	884	844	817	799	819	789	737
Power, ID	308	353	352	331	331	344	296	288	251
Twin Falls, ID	5,419	5,577	5,347	5,495	5,842	5,958	5,887	5,788	5,761
Washington, ID	368	376	372	382	410	446	460	417	392
Beaverhead, MT	586	568	546	540	536	579	641	598	580
Madison, MT	390	371	342	361	371	367	398	420	401
<b>Socioeconomic Study Area</b>	<b>31,356</b>	<b>32,169</b>	<b>32,142</b>	<b>33,276</b>	<b>34,493</b>	<b>35,512</b>	<b>35,034</b>	<b>33,596</b>	<b>32,253</b>
<b>Accommodation and food services</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	95	94
Bear Lake, ID	(D)	(D)	(D)	235	235	(D)	194	205	200
Bingham, ID	742	717	750	855	819	961	933	849	779
Blaine, ID	2,583	2,614	2,619	2,746	2,824	2,911	2,878	2,682	2,747

Table 5. Employment Trends by Select Industry Sector and County, 2002-2010<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bonneville, ID	3,665	3,891	4,201	3,823	3,956	4,306	4,406	4,222	4,268
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	88
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	(D)	153	146	151	168	144	159	187	175
Cassia, ID	(D)	571	535	551	574	511	521	477	482
Clark, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Custer, ID	216	231	231	226	231	256	314	300	288
Elmore, ID	696	726	745	814	839	854	848	823	801
Fremont, ID	371	321	327	288	337	348	331	(D)	320
Gem, ID	245	241	(D)	256	256	255	240	253	252
Gooding, ID	296	304	280	290	269	307	286	301	290
Jefferson, ID	217	220	226	230	265	264	250	246	311
Jerome, ID	386	432	377	420	415	404	441	424	399
Lemhi, ID	311	334	344	363	378	368	333	308	299
Lincoln, ID	80	80	76	71	(D)	(D)	(D)	(D)	(D)
Madison, ID	803	798	821	1,004	1,036	1,116	1,213	1,098	998
Minidoka, ID	527	549	540	545	568	592	558	532	527
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	161	198	206	210	200	183
Payette, ID	(D)	(D)	(D)	342	393	(D)	393	334	309
Power, ID	122	116	98	(D)	(D)	100	(D)	(D)	(D)
Twin Falls, ID	2,690	2,560	2,478	2,545	2,618	2,662	2,865	2,775	2,800
Washington, ID	199	190	173	193	224	248	208	199	177
Beaverhead, MT	511	514	495	512	526	520	519	533	538
Madison, MT	953	993	1,017	1,093	1,004	1,043	(D)	1,070	984
<b>Socioeconomic Study Area</b>	<b>15,613</b>	<b>16,555</b>	<b>16,479</b>	<b>17,714</b>	<b>18,133</b>	<b>18,376</b>	<b>18,100</b>	<b>18,113</b>	<b>18,309</b>
<b>Arts, entertainment, and recreation</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	120	148
Bear Lake, ID	(D)	(D)	(D)	32	33	(D)	59	58	64
Bingham, ID	194	215	207	191	205	212	211	194	199
Blaine, ID	670	704	722	746	784	806	783	832	836
Bonneville, ID	792	843	752	814	942	1026	949	947	963
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	46
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Table 5. Employment Trends by Select Industry Sector and County, 2002-2010<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Caribou, ID	(D)	51	(D)	(D)	(D)	50	54	46	56
Cassia, ID	(D)	159	162	176	176	178	159	161	157
Clark, ID	(D)	(D)	(D)	(D)	(D)	(D)	(L)	(L)	16
Custer, ID	96	92	97	84	88	95	94	98	85
Elmore, ID	73	83	84	92	96	102	100	94	87
Fremont, ID	68	65	58	60	64	71	65	(D)	68
Gem, ID	59	66	71	65	(D)	77	82	64	75
Gooding, ID	(D)	131	122	128	118	112	110	114	116
Jefferson, ID	183	188	192	231	259	246	290	229	287
Jerome, ID	149	148	148	152	151	163	163	160	175
Lemhi, ID	138	131	118	128	151	142	141	111	114
Lincoln, ID	16	13	14	14	(D)	(D)	(D)	(D)	(D)
Madison, ID	181	184	204	219	225	202	215	214	326
Minidoka, ID	63	56	60	67	87	83	91	81	68
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	37	43	49	61	60	52
Payette, ID	(D)	(D)	(D)	67	75	(D)	93	89	92
Power, ID	38	39	40	(D)	(D)	37	(D)	(D)	(D)
Twin Falls, ID	526	546	529	534	577	615	569	555	532
Washington, ID	58	60	53	61	65	72	60	62	52
Beaverhead, MT	145	153	147	161	199	207	195	187	180
Madison, MT	300	343	411	497	682	851	(D)	618	501
<b>Socioeconomic Study Area</b>	<b>3,749</b>	<b>4,270</b>	<b>4,191</b>	<b>4,556</b>	<b>5,020</b>	<b>5,396</b>	<b>4,544</b>	<b>5,094</b>	<b>5,295</b>

Source: U.S. Department of Commerce. 2014. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>.

**Table 6. Labor Earnings Trends by Select Industry Sector and County, 2002-2010, presented in 2010 dollars (thousands)<sup>1,2</sup>**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Mining</b>									
Adams, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.7	\$0.5	\$0.1	(L)	(L)
Bear Lake, ID	\$0.2	\$0.2	(D)	(D)	(D)	(D)	(D)	(L)	(D)
Bingham, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Blaine, ID	\$4.3	(D)	\$4.6	\$7.0	\$10.5	\$7.8	\$15.3	\$5.5	\$5.1
Bonneville, ID	\$0.9	(D)	\$0.8	(D)	(D)	(D)	(D)	\$1.3	(D)
Butte, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.4	\$0.2	\$0.1	(L)	(L)
Camas, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.4	\$0.2	\$0.1	(L)	(L)
Caribou, ID	\$23.6	(D)	(D)	\$23.5	\$24.5	\$22.2	\$24.4	\$23.0	\$25.4
Cassia, ID	\$5.5	\$6.0	\$7.3	\$9.4	\$10.4	\$8.3	\$12.0	\$6.0	\$5.5
Clark, ID	(D)	\$0.2	\$0.3	\$0.4	\$0.7	\$0.5	\$0.1	(L)	(L)
Custer, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Elmore, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Fremont, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gem, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Gooding, ID	\$0.2	\$0.2	\$0.3	(D)	(D)	(D)	(D)	(D)	(D)
Jefferson, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.7	(D)	(D)	(D)	(L)
Jerome, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.4	\$0.2	\$0.1	(L)	(L)
Lemhi, ID	(D)	\$1.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Lincoln, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.6	\$0.4	\$0.1	(L)	(L)
Madison, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Minidoka, ID	\$0.1	\$0.1	\$0.1	(D)	(D)	(D)	(D)	(D)	(D)
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Payette, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Power, ID	\$0.2	\$0.2	\$0.3	\$0.4	\$0.6	\$0.4	\$0.1	(L)	(L)
Twin Falls, ID	\$1.3	\$1.1	\$1.4	\$1.5	\$1.7	\$2.1	\$2.7	\$1.6	\$1.0
Washington, ID	\$0.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(L)
Beaverhead, MT	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Madison, MT	\$1.3	\$0.6	\$0.7	\$1.2	\$4.6	\$4.9	\$5.8	\$6.2	\$4.5
<b>Socioeconomic Study Area</b>	<b>\$38.93</b>	<b>\$10.76</b>	<b>\$17.65</b>	<b>\$45.81</b>	<b>\$56.14</b>	<b>\$47.68</b>	<b>\$60.85</b>	<b>\$43.60</b>	<b>\$41.50</b>

<sup>1</sup> (D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

<sup>2</sup> (L) Less than \$50,000, but the estimates for this item are included in the totals.

**Table 6. Labor Earnings Trends by Select Industry Sector and County, 2002-2010, presented in 2010 dollars (thousands)<sup>1,2</sup>**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Farming<sup>1</sup></b>									
Adams, ID	\$0.8	\$1.0	\$2.3	\$0.3	-\$0.9	-\$2.2	-\$2.8	-\$2.8	-\$1.9
Bear Lake, ID	\$2.8	\$5.6	\$6.3	\$5.8	\$1.6	\$4.2	\$4.5	\$3.3	\$3.7
Bingham, ID	\$81.1	\$42.0	\$79.9	\$54.3	\$86.3	\$108.4	\$131.4	\$114.7	\$106.5
Blaine, ID	\$9.2	\$7.0	\$9.8	\$7.8	\$7.5	\$7.3	\$8.4	\$8.2	\$6.9
Bonneville, ID	\$58.8	\$30.6	\$50.2	\$36.4	\$53.8	\$66.6	\$81.9	\$85.6	\$72.0
Butte, ID	\$7.2	\$4.1	\$6.1	\$1.7	\$0.0	-\$1.9	\$6.4	\$3.5	\$1.4
Camas, ID	\$3.8	\$2.2	\$2.3	\$2.5	\$2.3	\$2.9	\$4.6	\$4.7	\$2.9
Caribou, ID	\$20.5	\$15.4	\$24.2	\$20.5	\$18.7	\$17.4	\$25.3	\$31.4	\$21.2
Cassia, ID	\$108.5	\$100.8	\$125.9	\$136.6	\$109.1	\$155.5	\$188.4	\$130.4	\$153.1
Clark, ID	\$9.5	\$6.1	\$6.9	\$5.2	\$1.9	\$2.8	\$8.0	\$8.1	\$8.3
Custer, ID	-\$0.1	\$0.7	\$2.4	\$1.2	\$0.1	\$1.7	\$5.9	\$11.8	\$7.2
Elmore, ID	\$52.9	\$48.3	\$51.1	\$50.6	\$43.8	\$39.8	\$40.3	\$26.5	\$33.4
Fremont, ID	\$25.2	\$6.8	\$18.8	\$8.6	\$19.7	\$19.9	\$23.5	\$36.8	\$16.0
Gem, ID	\$6.5	\$5.6	\$8.0	\$4.1	\$1.2	\$2.1	\$3.9	\$4.1	\$5.1
Gooding, ID	\$117.5	\$102.4	\$197.4	\$172.2	\$120.6	\$216.6	\$194.3	\$72.6	\$170.6
Jefferson, ID	\$67.6	\$39.8	\$62.4	\$43.6	\$43.3	\$73.5	\$88.6	\$83.0	\$79.0
Jerome, ID	\$108.4	\$98.4	\$143.8	\$129.5	\$104.9	\$162.9	\$150.5	\$95.3	\$126.1
Lemhi, ID	\$2.7	\$2.1	\$4.1	\$0.6	-\$2.3	-\$3.0	\$0.3	\$0.2	\$2.1
Lincoln, ID	\$15.9	\$14.1	\$23.2	\$21.4	\$18.0	\$38.0	\$47.9	\$28.7	\$40.8
Madison, ID	\$34.9	\$12.9	\$22.7	\$11.0	\$20.0	\$21.1	\$27.7	\$37.5	\$20.8
Minidoka, ID	\$89.5	\$60.5	\$82.7	\$65.9	\$77.8	\$90.6	\$108.5	\$92.0	\$76.9
Oneida, ID	\$3.3	\$6.6	\$9.4	\$8.3	\$5.8	\$10.0	\$12.4	\$10.2	\$12.8
Owyhee, ID	\$45.2	\$39.8	\$63.1	\$54.1	\$51.7	\$70.8	\$66.6	\$48.0	\$63.1
Payette, ID	\$43.2	\$45.9	\$50.9	\$45.5	\$25.3	\$23.2	\$24.0	\$11.9	\$21.8
Power, ID	\$50.0	\$30.4	\$45.9	\$38.1	\$47.2	\$61.1	\$77.3	\$66.0	\$55.1
Twin Falls, ID	\$112.5	\$96.2	\$165.2	\$146.2	\$111.5	\$183.1	\$183.1	\$126.6	\$155.8
Washington, ID	\$13.2	\$10.8	\$11.9	\$5.0	\$2.6	\$5.1	\$6.7	\$5.1	\$6.3
Beaverhead, MT	\$10.0	\$11.5	\$17.6	\$24.0	\$8.9	\$13.5	\$4.9	\$5.5	\$8.5
Madison, MT	-\$2.8	-\$1.0	\$6.1	\$7.5	-\$2.4	-\$0.2	-\$3.4	-\$2.7	\$1.6
<b>Socioeconomic Study Area</b>	<b>\$1,097.59</b>	<b>\$846.64</b>	<b>\$1,300.58</b>	<b>\$1,108.34</b>	<b>\$978.09</b>	<b>\$1,390.76</b>	<b>\$1,518.85</b>	<b>\$1,146.29</b>	<b>\$1,276.99</b>
<b>Retail trade</b>									
Adams, ID	\$3.7	\$3.8	\$8.8	\$9.3	\$9.6	\$8.6	\$6.9	\$8.2	\$8.4
Bear Lake, ID	\$8.1	\$7.8	\$7.8	\$7.7	\$7.9	\$8.2	\$7.5	\$8.1	\$7.9

<sup>1</sup> Farming values sum data for "Farm" and "Agriculture and forestry support activities."

Table 6. Labor Earnings Trends by Select Industry Sector and County, 2002-2010, presented in 2010 dollars (thousands)<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bingham, ID	\$42.7	\$44.5	\$42.7	\$44.9	\$49.7	\$50.0	\$40.1	\$40.2	\$39.0
Blaine, ID	\$66.2	\$68.8	\$73.2	\$76.6	\$80.2	\$82.3	\$72.4	\$64.1	\$59.2
Bonneville, ID	\$211.7	\$225.0	\$225.2	\$245.0	\$261.8	\$269.3	\$246.4	\$241.5	\$235.7
Butte, ID	\$2.2	\$2.3	\$2.1	\$2.1	\$2.2	\$2.5	\$1.9	\$2.3	\$2.4
Camas, ID	(D)	(D)	\$0.3	(D)	(D)	\$0.3	\$0.2	(D)	(D)
Caribou, ID	\$9.3	\$9.5	\$9.4	\$9.8	\$10.1	\$10.1	\$8.5	\$8.0	\$7.4
Cassia, ID	\$50.5	\$49.2	\$47.6	\$48.0	\$52.2	\$52.1	\$45.9	\$43.5	\$44.3
Clark, ID	(D)	(D)	\$0.6	(D)	(D)	\$0.3	\$0.7	(D)	(D)
Custer, ID	\$5.2	\$5.5	\$5.2	\$5.2	\$5.5	\$5.7	\$4.6	\$5.3	\$5.2
Elmore, ID	\$31.3	\$31.1	\$31.8	\$34.1	\$37.3	\$36.9	\$32.0	\$31.4	\$29.6
Fremont, ID	\$9.2	\$9.5	\$9.4	\$9.9	\$10.6	\$10.7	\$9.1	\$8.9	\$8.3
Gem, ID	\$10.5	\$10.9	\$10.9	\$11.7	\$14.3	\$14.2	\$11.9	\$10.1	\$10.3
Gooding, ID	\$11.0	\$13.3	\$13.6	\$13.8	\$13.8	\$13.9	\$13.1	\$13.1	\$10.9
Jefferson, ID	\$16.0	\$16.7	\$17.4	\$16.2	\$17.4	\$18.4	\$16.2	\$16.4	\$17.1
Jerome, ID	\$44.2	\$46.0	\$45.3	\$42.5	\$45.0	\$41.9	\$36.8	\$37.2	\$36.1
Lemhi, ID	\$12.7	\$12.8	\$12.2	\$12.4	\$13.2	\$13.6	\$10.8	\$10.2	\$10.3
Lincoln, ID	\$1.3	\$1.5	\$1.5	\$2.4	\$2.5	\$2.7	\$1.8	\$2.5	\$2.5
Madison, ID	\$42.3	\$44.0	\$44.1	\$45.9	\$50.5	\$51.6	\$48.3	\$45.9	\$43.7
Minidoka, ID	\$15.7	\$15.9	\$16.4	\$16.9	\$16.2	\$15.0	\$14.5	\$14.6	\$14.6
Oneida, ID	\$2.5	\$2.6	\$2.7	\$2.8	\$3.0	\$3.1	\$2.6	\$2.8	\$9.5
Owyhee, ID	\$5.2	\$5.7	\$6.1	\$7.0	\$7.2	\$7.3	\$6.6	\$6.4	\$6.5
Payette, ID	\$19.4	\$20.1	\$21.3	\$19.9	\$22.2	\$19.8	\$15.5	\$14.5	\$13.4
Power, ID	\$5.6	\$5.9	\$6.0	\$5.6	\$5.7	\$5.8	\$5.2	\$5.6	\$5.6
Twin Falls, ID	\$191.9	\$182.0	\$166.9	\$174.0	\$192.3	\$187.8	\$161.0	\$155.7	\$153.0
Washington, ID	\$8.5	\$8.6	\$8.6	\$8.8	\$9.9	\$10.9	\$8.9	\$9.0	\$8.9
Beaverhead, MT	\$12.3	\$12.3	\$12.2	\$11.3	\$11.9	\$13.3	\$13.1	\$11.8	\$12.0
Madison, MT	\$8.3	\$8.3	\$8.5	\$8.7	\$8.9	\$8.3	\$7.4	\$7.4	\$7.5
<b>Socioeconomic Study Area</b>	<b>\$847.73</b>	<b>\$863.70</b>	<b>\$858.03</b>	<b>\$892.64</b>	<b>\$961.18</b>	<b>\$964.35</b>	<b>\$849.82</b>	<b>\$824.86</b>	<b>\$808.97</b>
<b>Accommodation and food services</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	\$1.2	\$1.1
Bear Lake, ID	(D)	(D)	(D)	\$2.8	\$2.7	(D)	\$2.5	\$2.9	\$2.9
Bingham, ID	\$8.7	\$9.0	\$9.2	\$9.7	\$9.2	\$10.4	\$10.2	\$9.4	\$9.0
Blaine, ID	\$68.9	\$69.6	\$72.7	\$75.2	\$79.7	\$81.8	\$80.1	\$74.7	\$73.9
Bonneville, ID	\$57.9	\$61.6	\$66.9	\$59.8	\$62.9	\$67.3	\$67.4	\$68.1	\$69.8

Table 6. Labor Earnings Trends by Select Industry Sector and County, 2002-2010, presented in 2010 dollars (thousands)<sup>1,2</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	\$1.1
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	(D)	\$1.7	\$1.5	\$1.6	\$1.7	\$1.6	\$1.8	\$2.2	\$2.3
Cassia, ID	(D)	\$8.0	\$7.1	\$6.8	\$6.7	\$5.5	\$6.0	\$5.7	\$5.9
Clark, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Custer, ID	\$3.8	\$3.9	\$4.0	\$3.9	\$3.9	\$4.2	\$4.8	\$4.6	\$4.5
Elmore, ID	\$12.0	\$11.9	\$12.6	\$14.3	\$14.7	\$13.8	\$13.8	\$12.6	\$12.2
Fremont, ID	\$5.5	\$5.0	\$5.0	\$4.5	\$4.7	\$4.8	\$4.9	(D)	\$4.8
Gem, ID	\$3.2	\$3.3	(D)	\$3.5	\$3.5	\$3.5	\$3.1	\$3.3	\$3.4
Gooding, ID	\$3.5	\$3.6	\$3.4	\$3.6	\$3.3	\$3.4	\$3.1	\$3.3	\$3.3
Jefferson, ID	\$2.0	\$2.3	\$2.6	\$2.4	\$3.0	\$2.8	\$2.6	\$2.5	\$3.2
Jerome, ID	\$5.0	\$5.8	\$5.6	\$5.5	\$5.6	\$5.4	\$5.8	\$5.7	\$5.5
Lemhi, ID	\$4.3	\$4.7	\$5.0	\$5.2	\$5.2	\$5.2	\$4.2	\$3.9	\$4.2
Lincoln, ID	\$0.9	\$0.9	\$0.9	\$0.9	(D)	(D)	(D)	(D)	(D)
Madison, ID	\$11.2	\$11.4	\$12.1	\$14.0	\$14.9	\$15.0	\$16.5	\$15.4	\$14.2
Minidoka, ID	\$7.8	\$8.1	\$7.8	\$7.6	\$7.9	\$8.1	\$7.7	\$7.4	\$7.5
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	\$1.9	\$2.2	\$2.2	\$2.2	\$2.1	\$2.1
Payette, ID	(D)	(D)	(D)	\$4.3	\$4.8	(D)	\$4.1	\$3.7	\$3.5
Power, ID	\$1.3	\$1.3	\$1.0	(D)	(D)	\$1.0	(D)	(D)	(D)
Twin Falls, ID	\$39.7	\$39.3	\$39.3	\$39.9	\$41.5	\$40.2	\$45.1	\$44.1	\$45.9
Washington, ID	\$2.2	\$2.2	\$2.1	\$2.2	\$2.5	\$2.7	\$2.3	\$2.3	\$2.1
Beaverhead, MT	\$6.6	\$6.6	\$6.8	\$6.5	\$6.7	\$6.7	\$7.0	\$7.2	\$7.2
Madison, MT	\$20.3	\$20.9	\$21.0	\$22.7	\$24.6	\$27.2	(D)	\$26.6	\$26.5
<b>Socioeconomic Study Area</b>	<b>\$264.82</b>	<b>\$281.10</b>	<b>\$286.58</b>	<b>\$298.68</b>	<b>\$312.09</b>	<b>\$312.66</b>	<b>\$295.22</b>	<b>\$308.97</b>	<b>\$316.09</b>
<b>Arts, entertainment, and recreation</b>									
Adams, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	\$2.8	\$2.9
Bear Lake, ID	(D)	(D)	(D)	\$0.2	\$0.2	(D)	\$0.3	\$0.3	\$0.4
Bingham, ID	\$0.9	\$1.0	\$1.1	\$0.9	\$1.0	\$1.0	\$1.1	\$1.1	\$1.0
Blaine, ID	\$70.8	\$32.0	\$21.9	\$13.7	\$15.0	\$17.3	\$15.4	\$14.4	\$15.8
Bonneville, ID	\$13.4	\$14.5	\$9.0	\$9.1	\$9.8	\$10.3	\$8.5	\$8.6	\$8.2
Butte, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(L)
Camas, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Caribou, ID	(D)	\$0.1	(D)	(D)	(D)	\$0.1	\$0.2	\$0.1	\$0.2
Cassia, ID	(D)	\$1.5	\$1.6	\$1.5	\$1.6	\$1.2	\$1.4	\$1.5	\$1.7
Clark, ID	(D)	(D)	(D)	(D)	(D)	(D)	(L)	(L)	(L)

**Table 6. Labor Earnings Trends by Select Industry Sector and County, 2002-2010, presented in 2010 dollars (thousands)<sup>1,2</sup>**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Custer, ID	\$2.1	\$2.4	\$2.4	\$2.0	\$1.8	\$1.4	\$1.3	\$1.1	\$1.0
Elmore, ID	\$0.3	\$0.3	\$0.4	\$0.3	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2
Fremont, ID	\$0.4	\$0.4	\$0.4	\$0.2	\$0.3	\$0.1	\$0.3	(D)	\$0.4
Gem, ID	\$0.4	\$0.4	\$0.4	\$0.3	(D)	\$0.3	\$0.4	\$0.3	\$0.4
Gooding, ID	(D)	\$1.3	\$1.3	\$1.2	\$0.9	\$0.7	\$0.9	\$1.1	\$1.3
Jefferson, ID	\$1.8	\$1.7	\$1.9	\$1.9	\$1.9	\$1.6	\$1.7	\$1.4	\$1.8
Jerome, ID	\$2.2	\$2.3	\$2.7	\$2.5	\$2.6	\$2.4	\$3.0	\$2.8	\$3.4
Lemhi, ID	\$2.0	\$1.9	\$1.9	\$2.0	\$2.4	\$1.9	\$2.1	\$1.3	\$1.3
Lincoln, ID	\$0.2	\$0.1	\$0.2	\$0.2	(D)	(D)	(D)	(D)	(D)
Madison, ID	\$1.2	\$1.1	\$1.4	\$1.3	\$1.4	\$0.8	\$1.4	\$1.5	\$2.4
Minidoka, ID	\$0.6	\$0.5	\$0.6	\$0.6	\$0.8	\$0.4	\$0.6	\$0.6	\$0.8
Oneida, ID	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Owyhee, ID	(D)	(D)	(D)	\$0.2	\$0.3	\$0.2	\$0.2	\$0.1	\$0.2
Payette, ID	(D)	(D)	(D)	\$0.4	\$0.5	(D)	\$0.4	\$0.5	\$0.6
Power, ID	\$0.2	\$0.2	\$0.2	(D)	(D)	(L)	(D)	(D)	(D)
Twin Falls, ID	\$5.9	\$5.6	\$5.8	\$5.3	\$5.9	\$5.9	\$4.6	\$4.8	\$4.4
Washington, ID	\$0.9	\$0.9	\$0.8	\$0.9	\$1.0	\$0.9	\$0.8	\$0.6	\$0.7
Beaverhead, MT	\$1.7	\$1.5	\$1.4	\$1.4	\$1.6	\$1.5	\$1.6	\$1.6	\$1.7
Madison, MT	\$8.8	\$11.8	\$14.1	\$19.5	\$23.9	\$22.7	(D)	\$19.5	\$22.4
<b>Socioeconomic Study Area</b>	<b>\$113.80</b>	<b>\$81.50</b>	<b>\$69.50</b>	<b>\$65.60</b>	<b>\$73.20</b>	<b>\$71.00</b>	<b>\$46.40</b>	<b>\$66.20</b>	<b>\$73.20</b>

Source: U.S. Department of Commerce. 2014. Bureau of Economic Analysis, Regional Economic Information System, Local Area Personal Income & Employment. Available at: <http://www.bea.gov/regional/index.htm>. Values reported in 2001 dollars were converted to 2010 dollars using the Consumer Price Index (BLS, 2012a).



**Table 7. Annual Population by County, 2000-2010<sup>1</sup>**

<b>Geographic Area</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010<sup>2</sup></b>
Adams, ID	3,477	3,495	3,559	3,624	3,693	3,817	3,788	3,949	4,021	4,000	3,953
Bear Lake, ID	6,424	6,394	6,219	6,219	6,170	6,077	6,071	6,049	6,027	6,014	5,971
Bingham, ID	41,753	42,073	42,101	42,555	42,702	43,173	43,396	43,816	44,414	45,087	45,769
Blaine, ID	19,115	19,755	20,189	20,557	20,811	20,897	21,082	21,169	21,477	21,590	21,326
Bonneville, ID	82,968	83,907	85,060	86,846	89,514	91,709	94,756	97,890	100,811	103,016	104,592
Butte, ID	2,894	2,853	2,906	2,842	2,812	2,825	2,786	2,838	2,846	2,835	2,907
Camas, ID	968	1,000	1,025	1,029	1,022	1,069	1,073	1,103	1,120	1,133	1,109
Caribou, ID	7,281	7,326	7,161	7,105	7,106	6,963	6,886	6,873	6,840	6,922	6,977
Cassia, ID	21,393	21,557	21,504	21,466	21,323	21,372	21,281	21,568	22,134	22,476	23,088
Clark, ID	1,024	965	948	892	923	925	947	948	981	961	988
Custer, ID	4,336	4,223	4,143	4,116	4,129	4,084	4,155	4,200	4,300	4,363	4,366
Elmore, ID	28,610	27,613	27,047	25,972	26,355	25,919	25,927	26,595	26,930	26,769	27,123
Fremont, ID	11,769	11,891	12,029	12,370	12,640	12,610	12,770	13,005	13,112	13,173	13,251
Gem, ID	15,215	15,393	15,488	15,693	15,925	16,304	16,632	16,833	16,941	16,809	16,675
Gooding, ID	14,196	14,215	14,342	14,483	14,562	14,614	14,749	14,963	15,216	15,270	15,503
Jefferson, ID	19,193	19,322	19,802	20,249	20,842	21,674	22,439	23,475	24,696	25,770	26,236
Jerome, ID	18,493	18,579	18,730	18,971	19,331	19,654	20,111	20,572	21,217	22,039	22,469
Lemhi, ID	7,724	7,593	7,590	7,600	7,660	7,708	7,795	7,780	7,902	7,870	7,957
Lincoln, ID	4,051	4,159	4,242	4,372	4,441	4,694	4,762	4,938	5,041	5,151	5,211
Madison, ID	27,519	27,699	28,478	29,997	31,990	33,807	34,984	35,771	36,564	37,121	37,623
Minidoka, ID	20,103	19,603	19,542	19,389	19,167	19,013	19,046	19,184	19,393	19,884	20,112
Oneida, ID	4,135	4,176	4,125	4,089	4,086	4,137	4,146	4,167	4,201	4,248	4,298
Owyhee, ID	10,690	10,877	10,876	11,033	10,990	10,993	11,114	11,255	11,515	11,547	11,512
Payette, ID	20,624	20,796	20,966	21,133	21,139	21,484	21,916	22,437	22,618	22,665	22,621
Power, ID	7,484	7,422	7,371	7,293	7,432	7,426	7,564	7,532	7,564	7,628	7,879
Twin Falls, ID	64,360	64,556	65,473	67,092	68,309	69,833	71,974	73,738	75,143	76,271	77,517
Washington, ID	9,970	9,936	9,904	9,904	9,947	9,995	10,025	10,027	10,095	10,173	10,205
Beaverhead, MT	9,204	9,058	9,018	8,924	8,908	8,904	9,012	9,028	9,166	9,200	9,253
Madison, MT	6,870	6,856	6,935	6,894	6,999	7,211	7,343	7,560	7,674	7,674	7,691
<b>Socioeconomic Study Area</b>	<b>491,843</b>	<b>493,292</b>	<b>496,773</b>	<b>502,709</b>	<b>510,928</b>	<b>518,891</b>	<b>528,530</b>	<b>539,263</b>	<b>549,959</b>	<b>557,659</b>	<b>564,182</b>
<b>Idaho</b>	<b>1,299,430</b>	<b>1,319,962</b>	<b>1,340,372</b>	<b>1,363,380</b>	<b>1,391,802</b>	<b>1,428,241</b>	<b>1,468,669</b>	<b>1,505,105</b>	<b>1,534,320</b>	<b>1,554,439</b>	<b>1,571,450</b>

<sup>1</sup> Population values provided as of July 1 of each year.

<sup>2</sup> The values for July 1, 2010 were produced by applying estimates of change in the population between April 1 and July 1 of 2010 to the 2010 Census counts. Further details on this methodology are available at [http://www.census.gov/popest/methodology/intercensal\\_nat\\_meth.pdf](http://www.census.gov/popest/methodology/intercensal_nat_meth.pdf).

**Table 7. Annual Population by County, 2000-2010<sup>1</sup>**

Geographic Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 <sup>2</sup>
<b>Montana</b>	<b>903,773</b>	<b>906,961</b>	<b>911,667</b>	<b>919,630</b>	<b>930,009</b>	<b>940,102</b>	<b>952,692</b>	<b>964,706</b>	<b>976,415</b>	<b>983,982</b>	<b>990,898</b>
Ada, ID <sup>1</sup>	303,328	313,896	321,616	327,393	334,926	348,755	363,498	375,368	382,618	388,577	393,531
Bannock, ID	75,728	76,296	76,487	76,312	76,834	77,419	78,491	79,338	80,609	81,994	83,071
Boise, ID	6,702	6,733	6,854	6,977	7,004	6,981	7,151	7,229	7,148	7,051	7,032
Canyon, ID	133,082	139,179	145,160	151,395	157,130	163,947	172,188	179,645	184,996	187,357	189,428
Gallatin, MT	68,375	70,120	71,824	74,504	77,124	80,310	83,984	86,620	88,932	89,187	89,658
Silver Bow, MT	34,571	33,882	33,636	33,474	33,416	33,414	33,441	33,489	33,812	34,008	34,234

Source: U.S. Census Bureau. 2011. Population Estimates, Intercensal Estimates of the Resident Population for Counties: April 1, 2000 to July 1, 2010. Available at: <http://www.census.gov/popest/data/intercensal/county/CO-EST00INT-01.html>.

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<sup>1</sup> Ada, Bannock, Boise, and Canyon Counties in Idaho and Gallatin and Silver Bow Counties in Montana constitute a secondary study area, as documented in the Chapter 3 text.

## Appendix XXX

### Greater Sage-Grouse (GRSG) Disturbance Caps

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). The 18 threats have been aggregated into three measures:

- Sagebrush Availability (percent of sagebrush per unit area)
- Habitat Degradation (percent of human activity per unit area)
- Density of Energy and Mining (facilities and locations per unit area)

Habitat Degradation and Density of Energy and Mining will be evaluated under the Disturbance Cap and Density Cap respectively and are further described in this appendix. The three measures, in conjunction with other information, will be considered during the NEPA process for projects authorized or undertaken by the BLM.

#### Disturbance Cap:

This land use plan has incorporated a 3% disturbance cap within Greater Sage-Grouse (GRSG) Priority Habitat Management Areas (PHMAs) and the subsequent land use planning actions if the cap is met:

*If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas (PHMA) in any given Biologically Significant Unit (BSU), then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG PHMAs in any given BSU until the disturbance has been reduced to less than the cap.*

*If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a PHMA, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

The disturbance cap applies to the PHMA within both the Biologically Significant Units (BSU) and at the project authorization scale. For the BSUs, west-wide habitat degradation (disturbance) data layers (Table 1) will be used at a minimum to calculate the amount of disturbance and to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented. Locally collected disturbance data will be used to determine if the disturbance cap has been exceeded for project authorizations, and may also be used to calculate the amount of disturbance in the BSUs.

Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities will be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

Formulas for calculations of the amount of disturbance in the PHMA in a BSU and or in a proposed project area are as follows:

- For the BSUs:

$$\text{\% Degradation Disturbance} = (\text{combined acres of the 12 degradation threats}^1) \div (\text{acres of all lands within the PHMAs in a BSU}) \times 100.$$

- For the Project Analysis Area:

$$\text{\% Degradation Disturbance} = (\text{combined acres of the 12 degradation threats}^1 \text{ plus the 7 site scale threats}^2) \div (\text{acres of all lands within the PHMA in the project analysis area}) \times 100.$$

<sup>1</sup> see Table 1. <sup>2</sup> see Table 2

The denominator in the disturbance calculation formula consists of all acres of lands classified as PHMA within the analysis area (BSU or project area). Areas that are not sage-grouse seasonal habitats, or are not currently supporting sagebrush cover (e.g., due to wildfire), are not excluded from the acres of PHMA in the denominator of the formula. Information regarding sage-grouse seasonal habitats, sagebrush availability, and areas with the potential to support sage-grouse populations will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.

#### Density Cap:

This land use plan has also incorporated a cap on the density of energy and mining facilities at an average of one facility per 640 acres in the PHMA in a project authorization area. If the disturbance density in the PHMA in a proposed project area is on average less than 1 facility per 640 acres, the analysis will proceed through the NEPA process incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1 facility per 640 acres, the proposed project will either be deferred until the density of energy and mining facilities is less than the cap or co-located it into existing disturbed area (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.). Facilities included in the density calculation (Table 3) are:

- Energy (oil and gas wells and development facilities)

- Energy (coal mines)
- Energy (wind towers)
- Energy (solar fields)
- Energy (geothermal)
- Mining (active locatable, leasable, and saleable developments)

Project Analysis Area Method for Permitting Surface Disturbance Activities:

- Determine potentially affected occupied leks by placing a four mile boundary around the proposed area of physical disturbance related to the project. All occupied leks located within the four mile project boundary and within PHMA will be considered affected by the project.
- Next, place a four mile boundary around each of the affected occupied leks.
- The PHMA within the four mile lek boundary and the four mile project boundary creates the project analysis area for each individual project. If there are no occupied leks within the four-mile project boundary, the project analysis area will be that portion of the four-mile project boundary within the PHMA.
- Digitize all existing anthropogenic disturbances identified in Table 1 and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use existing local data if available.
- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven site scale features considered threats to sage-grouse included in the disturbance calculation for project authorizations.

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol> <p>Definitions:</p> <ol style="list-style-type: none"> <li>1. <b>Coalbed Methane and other Energy-related Retention Ponds</b> – The footprint boundary will follow the fenceline and includes the area within the fenceline surrounding the impoundment. If the pond is not fenced, the impoundment itself is the footprint. Other infrastructure associated with the containment ponds (roads, well pads, etc.) will be captured in other disturbance categories.</li> <li>2. <b>Meteorological Towers</b> – This feature includes long-term weather monitoring and temporary meteorological towers associated with short-term wind testing. The footprint boundary includes the area underneath the guy wires.</li> <li>3. <b>Nuclear Energy Facilities</b> – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.</li> <li>4. <b>Airport Facilities and Infrastructure (public and private)</b> –The footprint boundary of will follow the boundary of the airport or heliport and includes mowed areas, parking lots, hangers, taxiways, driveways, terminals, maintenance facilities, beacons and related features. Indicators of the boundary, such as distinct land cover changes, fences and perimeter roads, will be used to encompass the entire airport or heliport.</li> <li>5. <b>Military Range Facilities &amp; Infrastructure</b> – The footprint boundary will follow the outer edge of the disturbed areas around buildings and includes undisturbed areas within the facility’s perimeter.</li> <li>6. <b>Hydroelectric Plants</b> – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.</li> <li>7. <b>Recreation Areas &amp; Facilities</b> – This feature includes all sites/facilities larger than 0.25 acres in size. The footprint boundary will include any undisturbed areas within the site/facility.</li> </ol>
---

**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X

March 31, 2015

Energy (coal mines)	X	X
Energy (wind towers)	X	X
Energy (solar fields)	X	X
Energy (geothermal)	X	X
Mining (active locatable, leasable, and saleable developments)	X	X
Infrastructure (roads)	X	
Infrastructure (railroads)	X	
Infrastructure (power lines)	X	
Infrastructure (communication towers)	X	
Infrastructure (other vertical structures)	X	
Other developed rights-of-way	X	



**From:** Herren, Vicki  
**Sent:** Thursday, January 29, 2015 12:19 PM  
**To:** Stephanie Carman  
**Subject:** Disturbance paper for ID  
**Attachments:** Idaho Disturbance paper marked up Jan 29 2015.docx; Idaho  
Disturbance paper Final Jan 29 2015.docx

Stephanie  
The Idaho specific paper

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Vicki Herren  
BLM National Sage-Grouse Coordinator  
BLM Washington Office, Division of Fish and Wildlife Conservation  
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## Attachment IV

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until*

*disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU-BSUs and for the Project Analysis Areas:

$$\begin{aligned}
 & \text{Disturbance Percentage} \\
 & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100
 \end{aligned}$$

Disturbance Calculations for Project Analysis Areas:

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the Project Area} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

- ~~For the BSUs: % Degradation Disturbance = (combined acres of the 12 degradation threats\*) ÷ (acres of all lands within the PHMAs in a BSU) x 100.~~
- ~~For the Project Analysis Area: % Degradation Disturbance = (combined acres of the 12 degradation threats<sup>1</sup> plus the 7 site scale threats<sup>2</sup>) ÷ (acres of all lands within the project analysis area in the PHMA) x 100.~~

~~<sup>1</sup> see Table 3. <sup>2</sup> see Table 2~~

~~<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.~~

Project analysis area method for permitting surface disturbance activities:

- Draw the project analysis area polygon which consists of a 4 mile buffer around the proposed project footprint ~~plus plus~~ all of the areas within a 4 mile buffer from nearby leks if those lek buffers intersected the project buffer by any 4 mile buffers from nearby leks. In areas with or mapped or modeled seasonal-nesting habitats, the areas to be included in the project analysis area are the mapped/modeled habitat within 4 miles beyond the project 4 mile buffer.
- Map disturbances or use locally available data. Use of NAIP imagery is recommended.
- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.



Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
---

**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

<b>USFWS Listing Decision Threat</b>	<b>Sagebrush Availability</b>	<b>Habitat Degradation</b>	<b>Energy and Mining Density</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	



## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>6</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj./Loc. Hab. Area <sup>6</sup>
	Management:	Internal BLM & FS estimates	3% <sup>3</sup> Cap, Adapt. Mgmt <sup>4</sup>	3% <sup>3</sup> Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations		Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pads and Mines<sup>1</sup></u> Square Mile	n/a	<u>Well Pads and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs

**ACRONYMS**

PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit  
 EVT = Existing Vegetation Type                BpS = Areas of Biotic Potential

<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.  
<sup>2</sup> Westwide data will be used only if state or local data are not available.  
<sup>3</sup> A 5% disturbance cap will be allowed in Wyoming.  
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.  
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management  
<sup>6</sup> The analysis area will be based on a 4-mile project area, 4-mile buffers around leks/lek complexes, or other seasonal habitat, and clipped to sage-grouse habitat and PHMA (DDCT methodology).  
<sup>7</sup> See Table 2

		Scales				
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)		
Habitat Degradation	Unit:	WAPWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>		
	Area of Interest:	PHMAs	PHMAs	PHMAs		
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local		
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7</u> PHMAs in Proj. <sup>3</sup>		
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap		
	All Lands:	Yes	Yes	Yes		
	Fire Included:	No	No	No		
	Who:	BLM NOC	BLM NOC <sup>2</sup> or State Offices	State Offices or Field Offices		
	Sagebrush Availability	Unit:	WAPWA Populations	Biologically Significant Unit	n/a	
		Area of Interest:	PHMAs	PHMAs		
Data:		LANDFIRE Updated EVT	Updated EVT or State data			
Formula (Measure 1a):		<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs			
Management:		Internal BLM & FS estimates	Adaptive Management <sup>4</sup>			
All Lands:		Yes	Yes			
Fire Included:		Yes	Yes			
Who:		BLM NOC	BLM NOC <sup>2</sup> or State Offices			
Energy and Mining		Unit:	WAPWA Populations	n/a		Project Area & Seasonal Hab.
		Area of Interest:	PHMAs			PHMAs
	Data:	Westwide well & mine data	Westwide <sup>2</sup> , State data			
	Formula (Measure 3):	<u>Well Pads and Mines</u> <sup>1</sup> Square Mile			<u>Well Pads and Mines</u> <sup>1</sup> Square Mile	
	Management:	Internal BLM & FS estimates			Project Authorization	
	All Lands:	Yes			Yes	
	Fire Included:	No			No	
	Who:	BLM NOC			BLM NOC or SOs or POs	
	<b>ACRONYMS</b>					
	PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit					
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential						
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.						
<sup>2</sup> Westwide data will be used only if state or local data are not available.						
<sup>3</sup> This footnote was removed from the table, January 2015.						
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.						
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management						
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).						
<sup>7</sup> See Table 2						

*For Idaho BLM*

Attachment IV

**Greater Sage-Grouse (GRSG) Land Use Plans  
Disturbance Caps Guidance**

**Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

**Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until*

*disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\begin{aligned}
 & \text{Disturbance Percentage} \\
 & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100
 \end{aligned}$$

Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300



**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

<b>USFWS Listing Decision Threat</b>	<b>Sagebrush Availability</b>	<b>Habitat Degradation</b>	<b>Energy and Mining Density</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales			
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)	
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>	
	Area of Interest:	PHMAs	PHMAs	PHMAs	
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local	
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7</u> PHMAs in Proj. <sup>7</sup>	
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap	
	All Lands:	Yes	Yes	Yes	
	Fire Included:	No	No	No	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices	
	Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
Area of Interest:		PHMAs	PHMAs		
Data:		LANDFIRE Updated EVT	Updated EVT or State data		
Formula (Measure 1a):		<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs		
Management:		Internal BLM & FS estimates	Adaptive Management <sup>4</sup>		
All Lands:		Yes	Yes		
Fire Included:		Yes	Yes		
Who:		BLM NOC	BLM NOC <sup>3</sup> or State Offices		
Energy and Mining		Unit:	WAFWA Populations	n/a	
	Area of Interest:	PHMAs	PHMAs		
	Data:	Westwide well & mine data	Westwide <sup>2</sup> , State data		
	Formula (Measure 3):	<u>Well Pads and Mines</u> <sup>1</sup> Square Mile			<u>Well Pads and Mines</u> <sup>1</sup> Square Mile
	Management:	Internal BLM & FS estimates			Project Authorization
	All Lands:	Yes			Yes
	Fire Included:	No			No
	Who:	BLM NOC			BLM NOC or SOs or POs
	<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit					
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential					
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.					
<sup>2</sup> Westwide data will be used only if state or local data are not available.					
<sup>3</sup> This footnote was removed from the table, January 2015.					
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.					
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management					
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).					
<sup>7</sup> See Table 2					

GOA Number for Draft EIS	GOA Program	New GOA	GOA 11/6/2012	Program Area
			4	4 Adaptive Management
			5	5 Common to All Alternatives
	IDMT-GO-1	1	6	6 Goal
		9	7	7 Designation of Habitat
			7	Priority Setting
			8	8 Common to All Alternatives
		10	9	9 Designation of Habitat
			10	9.1 Habitat Fragmentation
		2	11	Goal
			11	10 Desired Conditions
			12	11 Habitat Fragmentation
		27	13	Designation of Habitat
			13	11.1 Monitoring
			14	12 Habitat Fragmentation
		3	15	13 Objective
			15	Disease
			16	14 Habitat Fragmentation
		8	17	15 Designation of Habitat
			17	Desired Conditions
			18	16 Habitat Fragmentation
			18	Monitoring
			19	17 Adaptive Management
			19	Habitat Fragmentation
		4	20	18 Objective
		28	21	Designation of Habitat
			21	19 Objective
			22	20 Common to All Alternatives
		12	23	21 Designation of Habitat
		21	24	22 Designation of Habitat
		13	25	23 Designation of Habitat
			26	24 Priority Setting
		14	27	25 Designation of Habitat
		15	28	26 Designation of Habitat
		16	30	28 Designation of Habitat
		17	31	29 Designation of Habitat
		18	32	30 Designation of Habitat
		5	33	31 Designation of Habitat
		23	34	32 Designation of Habitat
		24	35	33 Designation of Habitat
		19	36	34 Designation of Habitat
		20	37	35 Designation of Habitat
		6	38	36 Designation of Habitat
		7	39	37 Designation of Habitat
			40	39 Wildfire

	41	40 Implementation
26	42	41 Designation of Habitat
11	43	42 Designation of Habitat
	44	43 Desired Conditions
	45	44 Desired Conditions
	46	45 Implementation
	47	46 Habitat Fragmentation
	48	47 Implementation
	49	48 Adaptive Management
	50	49 Adaptive Management
	51	50 Adaptive Management
	52	51 Adaptive Management
	53	52 Adaptive Management
	54	53 Adaptive Management
	55	54 Adaptive Management
	56	55 Adaptive Management
	57	56 Adaptive Management
	58	57 Adaptive Management
	59	58 Adaptive Management
	60	59 Adaptive Management
25	61	60 Designation of Habitat
	62	61 Valid Existing Authorizations
	63	62 Valid Existing Authorizations
	64	63 Valid Existing Authorizations
	65	64 Valid Existing Authorizations
	66	65 Valid Existing Authorizations
	67	66 Mitigation
	68	67 Mitigation
22	69	68 Designation of Habitat
	70	69 Mitigation
	71	70 Monitoring
	72	71 Monitoring
	73	72 Monitoring
	74	73 Monitoring
	75	74 Monitoring
	76	75 Monitoring
	77	77 Monitoring
	78	78 Monitoring
	79	79 Habitat Fragmentation
	80	80 Habitat Fragmentation
	81	81 Human Disturbance
	82	82 Habitat Fragmentation
	83	83 Habitat Fragmentation
	84	87 Habitat Fragmentation
	85	89 Habitat Fragmentation
	86	90 Human Disturbance
	87	92 Predation

88	94 Habitat Fragmentation
89	96 Human Disturbance
90	98 Fuels
91	ACEC
91	99 Habitat Fragmentation
92	101 Habitat Fragmentation
93	102 Habitat Fragmentation
94	105 Habitat Fragmentation
95	BMP
95	117 Habitat Fragmentation
96	118 Habitat Fragmentation
97	119 Habitat Fragmentation
97	Habitat Fragmentation
97	Implementation
98	120 Common to All Alternatives
99	ACEC
99	121 Habitat Fragmentation
100	122 Habitat Fragmentation
101	123 Habitat Fragmentation
102	ACEC
102	124 Habitat Fragmentation
103	125 Habitat Fragmentation
104	126 Habitat Fragmentation
105	127 Habitat Fragmentation
106	128 Habitat Fragmentation
110	132 ACEC
115	151 Restoration
116	152 Restoration
117	153 Restoration
118	156 Restoration
119	162 Restoration
120	163 Restoration
121	164 Restoration
122	165 Restoration
123	166 Restoration
125	168 Restoration
126	169 Restoration
129	172 Restoration
132	175 Monitoring
133	Fuels
133	Fuels
133	176 Suppression
134	177 Invasive Species
135	Restoration
135	178 Vegetation

136	179 Restoration
137	180 Restoration
138	181 Monitoring
139	182 Invasive Species
140	183 Invasive Species
141	184 Restoration
142	185 Restoration
143	186 Restoration
144	BMP
144	187 Invasive Species
145	188 Invasive Species
146	189 Monitoring
152	220 Fuels
155	223 Fuels
155	Restoration
155	Suppression
156	224 Suppression
157	225 Suppression
159	227 Fuels
159	Suppression
160	228 Fuels
162	Fuels
162	230 Suppression
163	231 Fuels
164	232 Suppression
165	233 Suppression
168	Fuels
168	236 Suppression
172	240 Suppression
173	246 Restoration
173	Suppression
174	249 Restoration
175	250 Restoration
177	252 Restoration
178	253 Restoration
179	254 Restoration
180	255 Restoration
181	256 Fuels
182	257 Suppression
183	258 Suppression
184	259 Suppression
188	268 Non Energy Leasable Minerals
189	272 Non Energy Leasable Minerals
195	283 Locatable Minerals
196	284 Locatable Minerals
199	287 Locatable Minerals
202	300 Saleable Minerals

203	301 Saleable Minerals
204	304 Saleable Minerals
205	307 Unleased Federal Fluid Mineral
206	308 Unleased Federal Fluid Mineral
208	312 Unleased Federal Fluid Mineral
209	313 Unleased Federal Fluid Mineral
211	320 Leased Federal Fluid Mineral Est
212	322 Leased Federal Fluid Mineral Est
212	Unleased Federal Fluid Mineral I
213	323 Leased Federal Fluid Mineral Est
215	325 Leased Federal Fluid Mineral Est
216	326 Leased Federal Fluid Mineral Est
217	327 Leased Federal Fluid Mineral Est
218	328 Habitat Fragmentation
219	329 Leased Federal Fluid Mineral Est
220	330 Leased Federal Fluid Mineral Est
223	333 ACECs
224	334 Leased Federal Fluid Mineral Est
225	335 Leased Federal Fluid Mineral Est
226	336 Leased Federal Fluid Mineral Est
227	337 Mineral Split Estate
228	338 Mineral Split Estate
233	343 Travel Management
234	344 Travel Management
235	345 Travel Management
236	346 Travel Management
237	347 Travel Management
238	348 Travel Management
240	350 Travel Management
241	351 Travel Management
243	353 Travel Management
246	356 Recreation and Visitor Services
246	Travel Management
247	357 Recreation and Visitor Services
247	Travel Management
248	358 Recreation and Visitor Services
248	Travel Management
249	359 Recreation and Visitor Services
249	Travel Management
250	360 Travel Management
251	361 Travel Management
260	374 Livestock Grazing
261	376 Livestock Grazing
262	377 Livestock Grazing
263	378 Livestock Grazing
264	379 Livestock Grazing
267	382 Livestock Grazing



268	383 Livestock Grazing
269	384 Livestock Grazing
270	385 Livestock Grazing
271	386 Livestock Grazing
273	388 Livestock Grazing
273	Livestock Grazing
274	389 Livestock Grazing
274	Livestock Grazing
278	393 Livestock Grazing
278	Livestock Grazing
280	395 Livestock Grazing
280	Livestock Grazing
281	396 Livestock Grazing
281	Livestock Grazing
284	Coordination
284	399 Restoration
285	400 Restoration
288	Desired Conditions
288	Invasive Species
288	403 Livestock Grazing
288	Livestock Grazing
289	404 Livestock Grazing
289	Livestock Grazing
290	405 Livestock Grazing
291	406 Livestock Grazing
292	407 Invasive Species
293	408 Livestock Grazing
294	409 Livestock Grazing
295	410 Monitoring
298	413 Livestock Grazing
299	414 Fuels
300	Livestock Grazing
300	415 Restoration
301	416 Fuels
318	433 Livestock Grazing
319	434 Livestock Grazing
320	435 Livestock Grazing
321	436 Livestock Grazing
322	437 Livestock Grazing
323	438 Livestock Grazing
325	440 Restoration
326	441 Adaptive Management
327	442 Livestock Grazing
328	443 Livestock Grazing
329	444 Livestock Grazing
330	445 Livestock Grazing
331	446 Livestock Grazing

332	447 Coordination
333	448 Livestock Grazing
334	449 Livestock Grazing
334	Livestock Grazing
335	450 Livestock Grazing
336	451 Livestock Grazing
337	452 Livestock Grazing
338	453 Livestock Grazing
339	454 Livestock Grazing
340	455 Livestock Grazing
341	456 Livestock Grazing
342	457 Wild Horses and Burros
344	459 Wild Horses and Burros
345	460 Wild Horses and Burros
346	461 Wild Horses and Burros
347	462 Wild Horses and Burros
348	463 Implementation
355	470 Wild Horses and Burros
356	471 ACECs
356	West Nile Virus
357	472 West Nile Virus
358	473 West Nile Virus
359	474 West Nile Virus
360	475 West Nile Virus
361	476 West Nile Virus
377	532 BMP
378	533 BMP
379	534 BMP
380	535 BMP
381	536 BMP
382	537 BMP
383	538 BMP
384	539 BMP
385	540 BMP
386	BMP
386	541 BMP
387	BMP
387	542 BMP
388	BMP
388	543 BMP
389	544 BMP
390	BMP
390	545 BMP
391	BMP
391	546 BMP
392	547 BMP
393	548 BMP

394	549 BMP
395	550 BMP
397	552 BMP
398	553 BMP
399	554 BMP
400	555 BMP
401	556 BMP
402	557 BMP
403	558 BMP
404	559 BMP
405	560 BMP
406	561 BMP
407	562 BMP
408	563 BMP
409	564 BMP
410	565 BMP
411	566 BMP
412	567 BMP
413	568 BMP
414	569 BMP
415	570 BMP
416	571 BMP
417	572 BMP
418	573 BMP
419	574 BMP
420	575 BMP
421	576 BMP
422	577 BMP
424	579 BMP
424	BMP
425	580 BMP
426	581 BMP
427	582 BMP
428	583 BMP
464	619 BMP
469	624 BMP
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481	636 BMP
482	637 BMP
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485	640 BMP
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501	656 BMP
502	657 BMP
503	BMP
503	658 BMP
504	659 BMP
505	660 BMP
506	661 BMP
507	662 BMP
508	663 BMP
509	664 BMP
510	665 BMP
511	666 BMP
512	667 BMP
513	668 BMP
514	669 BMP
515	670 BMP
516	671 Exemption Process

Sub Topic	Threat	Indicator	Review Comment	Alternative A -	Alternative A -	Alternative B -	Alternative B -
Best Management Practice Implementation	N/A	N/E	G - referen	Action: No	0	Action: No	No Action
SG Abundance and Designation of Habitat Implementation	All	Acres of Habitat & pop	Same as N	0	0	GOAL: Mai	GOAL: Sam
Designation of Habitat Implementation	Human Dis	Acres of Habitat	Same as N	0	0	Objective: No	Action
Designation of Habitat	N/A	N/E	Action: No	Similar Act	0	Action: No	No Action
Designation of Habitat	All	Acres of PPH/PGH map	Same as Su	0	0	Sub-object	Sub-object
Designation of Habitat	Infrastruct	Acres of PP	Need to de	Same as N	0	Action: No	No Action
Desired Conditions	Wildfire, In	Acres of sagebrush hak	Same as SF	0	0	Sub-objec	No Action
Desired Conditions	Wildfire, In	N/E	Same as N	0	0	Action: No	No Action
Desired Conditions	All	Acres of PPH/PGH map of pph by	alternative	0	0	Sub-objec	No Action
Desired Conditions	N/A	N/E	Need to sp	Action: No	0	Sub-object	No Action
DFC Thresholds	Infrastruct	Acres of H <sub>2</sub>	Need to de	Same as SF	0	Sub-object	No Action
Distribution	All	Acres of Habitat	Same as SF	0	0	OBJECTIVE	No Action
West Nile Virus							
Disturbances sagebrush	Human Dis	Acres of H <sub>2</sub>	Action: No	0	0	OBJECTIVE	No Action
Connectivity	All	Acres of H <sub>2</sub>	May be du	Action: No	0	Action: No	Sub-object
Connectivity	All	Acres of H <sub>2</sub>	May be sim	Action: No	0	Action: No	Sub-object
Connectivity	All	N/E	Action: No	0	0	Action: No	Sub-o
Rehabilitation	All	Acres of Habitat	Action: No	Similar Act	0	Objective: No	Action
ACEC	All	N/E	Action: No	0	0	Objective: No	Action
Process	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Montana s	0	0	Priority saç	General sa
Populations	All	N/E	nothing to	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Adaptive Management	All	N/E	Action: No	0	0	Action: No	No Action
Threats	All	N/E	Action: No	0	0	Action: No	No Action
Threats	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Mapping	All	N/E	Action: No	0	0	Action: No	No Action
Adaptive Management	All	N/E	Action: No	0	0	Action: No	No Action
Adaptive Management	All	N/E	Action: No	0	0	Action: No	No Action
Priorities	Wildfire	Acres of H <sub>2</sub>	Action: No	0	0	Action: No	No Action

Process	All	N/E		Action: No 0	Action: No No Action
Uses	All			Action: No 0	Action: No No Action
Indicators				Action: No 0	Action: No No Action
DFC	All	Acres of Habitat	Need to include	Action: No 0	Action: No No Action
DFC	All	Acres of Habitat	Include Take	Action: No 0	Action: No No Action
Process	All	N/E		Action: No 0	Action: No No Action
Resiliency	All	Acres of Habitat		Action: No 0	Action: No No Action
Adaptive Management	All	N/E	mapping up	Action: No 0	Action: No No Action
Process	All	N/E	Governor -	Action: No 0	Action: No No Action
Process	All	N/E		Action: No 0	Action: No No Action
Wildfire	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Grazing	Grazing	Acres of Habitat		Action: No 0	Action: No No Action
Process	All	Population		Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Wildfire	Wildfire	Acres of Habitat		Action: No 0	Action: No No Action
Process	All	N/E		Action: No 0	Action: No No Action
Process	All	N/E		Action: No 0	Action: No No Action
Trigger	All	Acres of Designation		Action: No 0	Action: No No Action
Foundational	N/A	Acres of Rights		Action: No 0	Action: No No Action
Foundational	N/A	Acres of Rights		Action: No 0	Action: No No Action
Foundational	Minerals	Acres of valid existing		Action: No 0	Action: No No Action
Foundational	Minerals	Acres of Mining		Action: No 0	Action: No No Action
Valid Existing Rights	All	Acres of Va		Action: No 0	Action: No No Action
Process	Infrastructure	Acres/mile:		Action: No 0	Action: No No Action
Process	All	Acres of ha		Action: No 0	Action: No No Action
Restoration	All	Acres Treat		Action: No 0	Action: No No Action
Restoration	All	Acres Treat		Action: No 0	Action: No No Action
Process	Wildfire, In	Acres of wi	Reference	Action: No 0	Action: No No Action
Process	Grazing	Acres of th		Action: No 0	Action: No No Action
Process	All		Outside BLM	Action: No 0	Action: No No Action
Process	Wildfire	Acres of tre		Action: No 0	Action: No No Action
Process	All	Acres		Action: No 0	Action: No No Action
Process	All	Population		Action: No 0	Action: No No Action
process	grazing	acres in DF		Action: No Similar Act	Action: No No Action
Process	Grazing	Acres in DF incorporate		Action: No Similar Act	Action: No No Action
Land Use Authorizations			IM Referen	Same as Sub Regional	Action: No No Action
Land Use Authorizations				Same as SF NEED TO D	Action: No No Action
Land Use Authorizations				Same as Sub Regional	Action: No No Action
Land Use Authorizations			rationale fo	DFO PPH same as sub	Action: No No Action
Land Use Authorizations			rationale fo	Current RMP Pg. 64 A	Action: No No Action
Land Use Authorizations				Current DFO RMP - ap	Action: No No Action
Land Use Authorizations			Define lek	Same as #90 above fro	Action: No No Action
Land Use Authorizations			Apply to ne	Same as SR PPH and P	Action: No No Action
Land Use Authorizations			Differences	Same as #90 above fro	Action: No No Action

Land Use Authorizations	Differences	Same as SR PPH and P	Action: No	No Action
Land Use Authorizations	What are the	Current RMP Pg 64, A	Action: No	No Action
		Same as SR	Action: No	No Action
Land Use Authorizations	Infrastructure	Acres excluded, acres	Action: No	Similar Act
Land Use Authorizations	Infrastructure	miles of lines buried	Action: No	Similar Act
Reclamation	Infrastructure	miles of line reclaimed	Action: No	Similar Act
Relocation	Infrastructure	miles of line relocated,	Action: No	Similar Act
Avoidance	Infrastructure	acres of avoidance	Action: No	Similar Act
Co-location	Infrastructure	miles of lines; footprint	Action: No	Similar Act
Land Tenure	Urbanizatio	acres retained; acres o	Acquisition	Criteria - A
Implementation			Action: No	Similar Act
Acquisition	Urbanizatio	acres identified for acc	Action: No	Similar Act
Withdrawal	Mining	acres with Keep SR Dis	Current RMP - Withdr	Action: Prc
Withdrawal	Mining	Acres closed/withdraw	Same as N	Same as N
Corridors	Infrastructure	Acres/miles of corridor	Current RMP - Acquis	Action: No
Land Tenure	Predation	Acres	Land Ownership Adjus	Action: No
Wind Energy	Infrastructure	Acres avail;	Appendix X pg 213 Iss	Action: No
unauthorized uses	infrastruct	acres	Same as sub -region	Action: No
siting	Infrastructure	acres avail;	2. Use the 0	Action: No
			4. Restrict 0	Action: No
			Appendix X. pg 208 Iss	Action: Pri
	Incorporate	See above		Action: Inc
			Action: No	Similar Act
		Rangeland Veg pg. 51	Action: Re	No Action
		Same as NA - See resp	Action: De	No Action
			Action: No	Similar Act
			Action: No	Similar Act
			Action: No	Similar Act
		Same as SR	Action: In f	No Action
		Action: No 0	Action: No	No Action
		Action: No 0	Action: No	No Action
		Action: No 0	Action: No	No Action
		Livestock (	Same as N	Action: No
				No Action
		Appendix X pg.208 Co	Action: No	No Action
		NOXIOUS \ DFO has a	Action: No	No Action
		See above 0	Action: No	No Action

	Same as NA - under cu	Action: No	No	Action
	Appendix E pg. 118	Action: No	No	Action
	WILDLIFE i DFO is also	Action: No	No	Action
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Objective: No	Action	
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: Int	No	Action
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: No	No	Action
	DFO ROD/RMP pg. 28	Action: No	No	Action
	DFO ROD/i All prescri o	Action: No	Action	
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: No	No	Action
	Action: No Similar Act	Action: De	No	Action
	Appendix X pg.208	Action: Du	No	Action
	Action: No Similar Act	Action: In	Action: In	g
Is there a n	N/A	Action: No	No	Action
Is there a n	N/A	Action: No	No	Action
Incorporate	Same NTT.	Action: Fo	No	Action
	DFO RMP i All projects	Action: No	No	Action
	Same as SR	Action: Pri	No	Action
	Fuels and F	Action: De	No	Action
	Same as SF Climate ch	Action: Co	No	Action
	Action: No 0	Action: No	No	Action
	Action: No 0	Action: No	No	Action
	Action: No 0	Action: No	No	Action
	Action: No 0	Action: No	No	Action
	Action: No 0	Action: No	No	Action
	Same as N.0	Action: No	No	Action
	Same as N.0	Action: No	No	Action
	Same as NA/SR - from	Action: No	No	Action
Identify kno	Proposed RMP/Final E	Action: Clo	No	Action
What about	Same as N. Appendix E	Action: For	No	Action
	Proposed F Appendix E §	Action: I	No	Action
Include BM	Action: No Similar Act	Action: Ma	No	Action
	Proposed F This was cc	Action: No	No	Action
	Salable Mir also Apper	Action: Clo	No	Action



Estate

Same as NA - Covered	Action: In	No Action
Same as SR for PPH ar	Action: No	No Action
Pg. 45 Acti No Lease v	Action (Alt	No Action
RMP Final DFO curre	Action (Alt	No Action
Action: No Similar Act	Action (Alt	No Action
Action: No Similar Act	Action (Alt	No Action
Same as SF 0	1. Action: I	No Action
Same as SF 0	o Action:	No Action

Stipulation Need to up	Conservati	No Action
Same as SF 0	Conservati	No Action
Same as SR	Conservati	No Action
Same as SF 0	Conservati	No Action
Action: No Similar Act	Conservati	No Action
Same as SR	Conservati	No Action
Same as SR	Conservati	No Action
Action: No Similar Act	Action: No	No Action
Action: No Similar Act	Action: No	No Action
Action: No Similar Act	Action: No	No Action
Action: No Similar Act	Objective: No	Action
DFO ROD/RMP pg. 44	Action: Wf	No Action

Reference Same as SR	Action: Wf	No Action
Incorporate RMP pg. 6	Same as N	Action: In
	Action: No Similar Act	No Action
Pg. 61 Acti Same as N	Action: In	No Action
Move to fir Same as N	Same as N	Action: Co
	Same as N	No Action
Pg. 59 Acti Same as N	Action: In	No Action
Action: No Similar Act	Action: In	No Action
Appendix Is this a Re	Action: In	No Action
Same as al Is this a Re	Action: Wf	No Action
Same as SF Is this a Re	Action: No	No Action

Define nue Not really ; SRP in sag	Action: On	No Action
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What does Appendix X pp. 215 R	Action: No	No Action
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Need to de Appendix X pp. 214 R	Action: No	No Action
Need to define restrictions - BMPs?		

Need to de Appendix Same as N	Action: No	No Action
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Same as SF Most of ou	Action: No	No Action
Action: No Similar Act	Action: No	No Action
Action: No Similar Act	Action: No	No Action

Need SG M Livestock C No Concer	Action: Wi	No Action
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Define inte Answered Same as N	Action: In	No Action
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Define mar Livestock C Same as N	Action: Pri	No Action
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Same as N Currently k	Action: In	No Action
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Same as N Sams as N	Action: De	No Action
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Objectives



Riparian

Drought

Improvements

Improvements

Improvements

Improvements

Improvements

Improvements

Improvements

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

Development

Development

Development

Roads

Development

Roads

Development

Roads

Roads

Development

Roads

Development

Roads

Roads

Roads

Need to locate

Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
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Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Objective: No	Action
Action: No	Similar Act	Objective: No	Action
Not applic	0	Action: Wi	No Action
N/A - NO V	0	Action: For	No Action
N/A - NO V	0	Action: Co	No Action
N/A - NO V	0	Action: Wf	No Action
N/A - NO V	0	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Appendix >	0	Increase t	No Action
Action: No	0	Build steep	No Action
Action: No	0	Maintain t	No Action
Action: No	0	Construct	No Action
Action: No	0	Line the ch	No Action
Action: No	0	Line the ov	No Action
Action: No	0	Fence pon	No Action
Action: No	0	BMP Secti	No Action
Action: No	0	Roads - PP	No Action
Action: No	0	Design roa	Design roa
Action: No	0	Locate roa	No Action
Action: No	0	Coordinate	Coordinate
Action: No	0	Construct	Construct
Action: No	0	Establish s	Establish s
Action: No	0	Establish t	No Action
Action: No	0	Do not iss	Do not iss
Action: No	0	Restrict ve	No Action

Roads	Action: No 0	Use dust a Use dust a
Roads	Action: No 0	Close and i No Action
Development	Action: No 0	Cluster dis Cluster dis
Development	Action: No 0	Use directi Use directi
Development	Action: No 0	Place infra No Action
Development	Action: No 0	Apply a ph No Action
Development	Action: No 0	Place liquic No Action
Development	Action: No 0	Pipelines n No Action
Roads	Action: No 0	Use remot Use remot
Development	Action: No 0	Restrict th Restrict th
Development	Action: No 0	Site and/o No Action
Development	Action: No 0	Place new No Action
Development	Action: No 0	Bury distri No Action
Development	Action: No 0	Collocate p No Action
Development	Action: No 0	Design or s No Action
Development	Action: No 0	Cover (e.g. Cover (e.g.
Development	Action: No 0	Equip tank Equip tank
Development	Action: No 0	Control th Control th
Development	Action: No 0	Use only cl No Action
West Nile Virus	Action: No 0	Restrict pit Restrict pit
West Nile Virus	Action: No 0	Remove or No Action
Development	Action: No 0	Limit noise No Action
Development	Action: No 0	Require nc No Action
Development	Action: No 0	Fit transmi No Action
Development	Action: No 0	Require sa No Action
Development	Action: No 0	Locate nev No Action
Development	Action: No 0	Clean up r Clean up r
Development	Action: No 0	Locate ma No Action
Reclamation	Action: No 0	Include ob No Action
Reclamation		Address post reclam
Reclamation	Action: No 0	Maximize 1 No Action
Reclamation	Action: No 0	Restore di No Action
Reclamation	Action: No 0	Irrigate int No Action
Reclamation	Action: No 0	Utilize mul No Action
Development	Action: No 0	Bury powe No Action
Development	Action: No 0	Require sa No Action
Fuels	Action: No 0	Where ap No Action
Fuels	Action: No 0	Provide tr No Action
Fuels	Action: No 0	Use fire pr No Action
Fuels	Action: No 0	Ensure pro No Action
Fuels	Action: No 0	Where ap No Action
Fuels	Action: No 0	Where ap No Action
Fuels	Action: No 0	Power-wa No Action
Fuels	Action: No 0	Design veg No Action
Fuels	Action: No 0	Give priori No Action
Fuels	Action: No 0	As funding No Action
Fuels	Action: No 0	Emphasize No Action

Fuels  
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Action: No	0	Remove st	No Action
Action: No	0	Protect wil	No Action
Action: No	0	Reduce th	No Action
Action: No	0	Strategical	No Action
Action: No	0	Develop st	No Action
Action: No	0	Provide loc	No Action
Action: No	0	Assign a sa	No Action
Action: No	0	On critical	No Action
Action: No	0	During per	No Action
Action: No	0	To the ext	No Action
Action: No	0	Power-wa	No Action
Action: No	0	Minimize	No Action
Action: No	0	Minimize	No Action
Action: No	0	Utilize ret	No Action
Action: No	0	As safety a	No Action
Action: No	0	Action: No	No Action
Action: No	0	Action: No	No Action
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Action: No	0	Action: No	No Action
Action: No	0	Action: No	No Action
Action: No	0	Action: No	No Action
Action: No	0	Action: No	No Action
Action: No	0	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action
Action: No	Similar Act	Action: No	No Action

Alternative C - Priority	Alternati ve D -	Alternati ve D -	Alternati ve D -	Alternati ve D -	Alternati ve E -	Alternati ve E -	Alternati ve E -	Alternati ve E -
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Continuou	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain e	Action: No	Action: No	Action: No
GOAL: Same as	GOAL: Sam	GOAL: Sam	GOAL: Same	as Altern	Conserve t	Same as C	Same as C	Same as C
Objective: Sam	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Conserve,	enhance or restore general habitat areas to i	Action: No	Focus man	Focus man
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Activities n	Action: No	Action: No	Action: No
Designate all pr	Sub-objecti	Sub-objecti	Sub-objective:	Same a	Action: No	Sub-object	Sub-object	Sub-object
Action: No Sim	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Manage g	Action: No	Action: No	Action: No	Action: No
					Conserve s	Action: No	Action: No	Action: No
Action: No Sim	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Same as P	Priority.			
Action: No Sim	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Reduce th	Action: No	Action: No	Action: No	Action: No
					Action: No	Core Habit	Important	General Ha
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti				
Action: No Sim	OBJECTIVE:	OBJECTIVE:	Action: No	Similar Acti	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Similar Action				Action: No	Action: No	Action: No	Action: No
	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Reduce or	minimize risk of West Nile Virus or other dise			
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Objective 1	Objective 1	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti				
					Action: No	Objective 1	Objective 1	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti				
					Objective 2	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti				
					Action: No	Objective 2	Objective 2	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No	Action: No
					Delineate r	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti				
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Analyze im	Action: No	Action: No	Action: No
Action: No Sim	Priority sag	Medial sag	General sage	-grouse h	The Conse	CHZ and IH	CHZ and IH	GHZ (Map
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	CHZ includ	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	The CHZ er	The IHZ en	The GHZ er
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Prioritize c	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Areas desi	The IHZ is	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Depending	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Designate	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Classify th	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Establish tl	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain, t	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Wildfire ar	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Sage-grouse	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	The Conse	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	The Conse	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Habitats d	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	The map o	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Reduce th	Utilize and	Utilize and	Action: No

Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Coordinate	Afford proj	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Generally	Generally	Generally
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No CHZ and IH	CHZ and IH	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Manage sa	Manage sa	Manage sa
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Manage su	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Coordinate	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Increase re	Increase re	Maintain p
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Administra	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Adaptive R	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Curtailmer	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Emergency	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No This altern	This altern	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No The adapti	The adapti	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Implement	Implement	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Objective 2	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Provide a r	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Apply adaç	Apply adaç	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Apply imm	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Apply adaç	Apply adaç	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Apply CHZ	Apply CHZ	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Correction	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain a	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain a	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain e	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Maintain e	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	All existing	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Plan, selec	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Utilize a sc	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Areas not ı	Focus mitiç	Focus mitiç
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	The State \	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Objective 1	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Objective 1	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Objective 1	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Objective 2	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Objective 2	Objective 2	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Objective 2	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Conduct fiı	Conduct fiı	Conduct fiı
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Conduct a	Conduct as	Conduct as
Action: No Sim	Designate 2	Designate 2	Same as Med	Medial Habit	Action: No	Action: No	Action: No
Action: No Sim	New ROW	Same as Pr	New ROW	and land us	Action: No	Action: No	Action: No
Action: No Sim	Land autho	Same as pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No Sim	New autho	New autho	Same as medial areas.		Action: No	Action: No	Action: No
Action: No Sim	New autho	New autho	Same as medial areas.		Action: No	Action: No	Action: No
Action: No Sim	Removal/rı	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No Sim	Site new at	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No Sim	Guy wires \	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No Sim	Design stru	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No

Action: No Sim	New power	New power	Same as medial areas.	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Adhere to	Same as Pr	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Linear ROV	Same as Pr	Same as pr	See Fire M	Action: No	Action: No	Action: No
New corridors/facilities	New transmission corridors,	ROWS for	corridors (oil, gas, water/aquifer mining), a	Action: No	Action: No	Action: No	Action: No
Action: New co	Action: No	Action: No	Action: No	Similar Acti	Action: No	Designate	Designate
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Designate	Manage ne
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Prohibit th	Authorize i
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Prohibit th	Action: No
					Action: No	Apply best	Action: No
Action: Same a	Action: No	Action: No	Action: No	Similar Action			
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Infrastruct	Action: No	Action: No
All public lands	Retain pub	Same as pr	Same as priority areas.		There are r		
	Action: Lands currently identified for retention within priority areas would be retained unl						
					Modify, an	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Conduct a	Action: No	Action: No
Action: BLM and FS will strive to acquire important private lands in BLM-designated ACECs and FS Sage-G						Action: No	Action: No
Action: Acquisi	Action: No	Action: No	Action: No	Similar Acti	Action: No	New infras	Action: No
Action: Same a	Action: No	Key Decisic	Action: No	Similar Acti	Action: No	Allow for e	Action: No
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	In allowing	Action: No
Action: Existing	designated corridors in BLM ACECs and FS	Special Areas	may be accessed for maintenance				
Action: ROWs v	Action: No	Key Decisic	Action: No	Similar Acti	Action: No	Maintain a	Action: No
No action.	Key Decisic	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No Sim	Solar and v	Action: Wi	Action: Lands shall be		Action: No	Action: No	Action: No
Action: No simi	Action: Pro	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Industr	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Same a	Action: Pri	Same as Pr	Same as priority areas		Action: No	Prioritize tl	Prioritize tl
Action: Same a	Action: De	Same as Pr	Same as priority areas		Action: No	Actively re	Actively re
Action: Compo	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Same a	Same as Al	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: Same a	Action: Im	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Same a	Action: No	Action: San	Action: No	Similar Acti	Action: No	Action: No	Action: No
Active restorat	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Active restorat	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No Sim	Action: Uti	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
	Use strateg	Same as Pr	Same as priority areas.				
	Strategicall	Same as Pr	Same as priority areas.				
	Same as						
	Priority						
No action.	Action: Pro areas.	Same as priority areas			Action: No	Action: No	Action: No
No action.	Action: Im	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
	Action: Im	Same as Pr	Same as priority areas.				
Action: No similar action.					Action: No	Action: No	Action: No



Action: No Sim	Action: Uti	Same as Pr	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: Co	Same as Pr	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: Co	Same as Pr	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Actively m	Actively m; Aggressive
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Control inv	Control coi
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Emphasize	Emphasize
Objective: No s	Action: No	Action: No	Action: No	Similar Acti	Action: No	Reallocate	Reallocate
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No	Where the	Where the
						Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Action			
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Eradicate c
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Monitor w
Action: No Sim	GOAL: In p	Same as Pr	Same as pr	Utilize simi	Action: No	Action: No	Action: No
Action: Same a	Action: Des	Same as Pr	Same as priority areas.				
	Action: Ma	Same as Pr	Same as priority areas.				
	Action: Suppress	wildland fires in	sage-grouse		Action: No	Reduce th	Reduce th
Action: Lands v	Action: No	No similar ;	Action: No	Similar Acti	Action: No	Prioritize p	Prioritize p
Action: Any fue	Action: No	No similar ;	Action: No	Similar Acti	Action: No	Decrease v	Decrease v
Action: Same a	Action: No	No similar ;	Action: No	Implementa		tion level objectives.	
						Action: No	Develop a
Action: Same a	Action: Dur	Same as pr	Same as priority areas		Action: No	Action: No	Create and
						Action: No	Prescribe c
Action: Same a	Same as Al	Same as Pr	Action: In general sage-grouse habitat, prioritize suppression of sage		Action: No	Action: No	Coordinate
Action: No Sim	Action: No	Standard p	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Standard p	Action: No	Similar Acti	Action: No	Action: No	Action: No
						Action: No	Action: No
Action: Same a	Action: No	See BMPs	Action: No	Similar Action			
Action: No Sim	Delineate c	Same as Pr	Same as Priority Areas		Action: No	Action: No	Action: No
Action: Same a	Same as Al	Same as Pr	Same as priority areas.				
						Action: No	Action: No
Action: Same a	Action: Des	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: Same a	Action: To ;	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: Mowing	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
Action: No Sim	Ensure fire	Same as Pr	Same as pr	Revised sc	Action: No	Action: No	Action: No
Action: No Sim	Use knowle	Same as Pr	Same as pr	Revised sc	Action: No	Action: No	Action: No
Action: No Sim	Where app	Same as Pr	Same as pr	Revised sl	Action: No	Action: No	Action: No
Action: Same a	Action: Lan	Action: Lan	Action: Lands are avail		Action: No	Action: No	Action: No
Action: Same a	Action: For	Action: For	Action: For existing un		Action: No	Action: No	Action: No
Action: Same a	Lands woul	Same as Pr	Same as priority areas		Action: No	Action: No	Action: No
Action: Same a	Action: No	Action: No	Action: No	Similar Acti	Action: No	Action: No	Action: No
No action.	Require ne	Require ne	Require new 3809 not		Action: No	Action: No	Action: No
Action: Same a	No new au	No new au	No new authorization:		Action: No	Action: No	Action: No

Action: Same as	Action: Res Same as Pr	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Reclamatio	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: No new	Action: Lar	Same as priority areas	Action: No	Action: No	Action: No	Action: No
Action: Same as	Action: All	Action: Allow geophys	Action: No	Action: No	Action: No	Action: No
Action: Same as	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No	Action: No
Action: Same as	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No	Action: No
Action: Same as	Not Applicæ	Action: Cor Not Applicable - no ex	Action: No	Oil and gas	Oil and gas	Action: No
Action: Same as	Alternative B.		Action: No	Action: No	Action: No	Action: No
	Action: Wh	Action: Wh Same as Medial Areas.				
Timing avoidan	Covered in	Covered in	Action # 20	Action: No	Action: No	Action: No
Conservation M	Conservati	Same as Pr	Same as priority areas	Action: No	Action: No	Action: No
Conservation M	Conservati	Same as Pr	Action: No Similar Acti	Action: No	Action: No	Action: No
Conservation M	Same as Al	Same as pr	Same as priority areas	Action: No	Action: No	Action: No
Conservation M	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Conservation M	Conservati	Conservati	Conservation Measure	Action: No	Action: No	Action: No
Conservation M	Conservati	Conservati	Conservation Measure	Action: No	Action: No	Action: No
Action: Agencie	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Action: Include	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Action: No wai	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Objective: Any	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Action: Same as	Action: Wh	Action: Wh	Action: Where the fed	Action: No	Action: No	Action: No
Action: Same as	Where the	Where the	Recommend to the mi	Action: No	Action: No	Action: No
Action: Same as	Action: Lir	Same as Pr	Same as pr Incorporat	Action: No	Action: No	Action: No
Action: Same as	Action: No	No similar	Action: No Needs to fi	Action: No	Action: No	Action: No
Action: Same as	Action: Træ	Same as Pr	Same as pr Is this the	Action: No	Action: No	Action: No
Action: Same as	Action: Pri	Action: Co	Same as priority areas	Action: No	Action: No	Action: No
Action: Same as	Action: Cor	Same as Pr	Same as pr Combined	Action: No	Action: No	Action: No
Action: Same as	Action: No	Action: No	Action: No Repeat of	Action: No	Action: No	Action: No
Action: Same as	Action: Pric	Action: Pric	Action: Pric Changed ic	Action: No	Action: No	Action: No
Action: Same as	Action: Wf	Same as Pr	Same as pr Use definit	Action: No	Action: No	Action: No
No action.	Schedule ræ	Same as Pr	Same as pr Added an æ	Action: No	Action: No	Action: No
Action: Same as	Action: SRI	Same as Pr	Same as pr Keep Idaho	language. Hard to demonstrate neutral and	Action: No	Prioritize tl
					Prioritize tl	Same as Al
Action: Same as	Designate c	Same as Pr	Same as pr Keep Idaho	language - no similar actions in region.	Action: No	Restrict ve
					Restrict ve	Same as Al
No action.	Incorporat	Same as Pr	Same as pr Keep Idaho	language recommend incorporation across	Action: No	Designate
					Designate	Action: No
Action: No Sim	Recreation	Same as Pr	Same as pr No similar	action across region.	Action: No	Re-route e
					Re-route e	Action: No
Action: No Sim	Limit snow	Same as Pr	Same as pr Added an æ	Action: No	Reduce act	Reduce act
Action: No Sim	Action: No Repeat	Action: No	Action: No Similar Acti	Action: No	Prioritize tl	Prioritize tl
Action: No graz	Action: No	Action: No	Action: No Similar Acti	Action: No	Action: No	Action: No
Action: No simi	Action: Wit	Same as Pr	Same as pr Our is bett	Action: No	Prioritize p	Prioritize p
Action: No simi	Where opp	Same as Pr	Same as pr Keep Idaho	Action: No	Action: No	Action: No
Action: No simi	Action: Pric	Action: Pric	Action: Pric Keep Idaho	Action: No	Action: No	Action: No
Action: No simi	Action: Du	Same as Pr	Same as pr Keep Idaho	Action: No	Action: No	Action: No
Action: No simi	Action: Us	Same as Pr	Same as pr Keep Idaho	Action: No	Conduct ra	Conduct ra
					Action: No	Action: No

Action: No simi	Action: M	Same as Pr	Same as pr	Keep Idaho	Action: No Maintain e	Maintain e	Action: No
Action: No simi	Action: Wh	Same as Pr	Same as pr	Language i	Action: No Adjust gra	Adjust gra	Action: No
Action: No simi	Action: Adj	Same as Pr	Same as pr	Recommen	Action: No	Action: No	Action: No
Action: No simi	Manage liv	Same as Pr	Same as pr	Recommen	Action: No Implement	Implement	Action: No
Action: No simi	Action: No	Action: No	Action: No	Recommend	dropping - this can be covered under ripar		
Action: No simi	Action: No	Action: No	Action: No	Recommend	dropping		
Action: No simi	Action: No	Action: No	Action: No	Covered under	384	Complete	1
Action: No simi	Action: Lim	Same as Pr	New water	Recommend	making an overarching statement regardir		
Action: No simi	Action: Dt	Same as Pr	Same as pr	Keep this	language		
Action: No simi	Action: No	Action: No	Action: No	Include me	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Inform anc	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Cover under	restoration section		
Action: No simi	Action: Ass	Same as Pr	Same as pr	Recommen	Action: No	Action: No	Action: No
	Consider th	Same as Pr	Same as pr	priority areas.	Use sage-g	Action: No	Action: No
Action: No simi	Action: Des	Same as Pr	Same as pr	Recommend	modified wording		
Action: No simi	Action: Wh	Action: Wh	Action: Wh	Keep Idaho	wording		
Action: No simi	Action: Dur	Same as pr	Action: Dur	REVISIT the	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Covered ur	Action: No	Action: No	Action: No
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Action: No simi	Action: Wh	Same as pr	Same as pr	Revisit wh	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	We don't t	Action: No	Action: No	Action: No
Action: No simi	Action: No	Action: No	Action: No	Check stat	Action: No	Action: No	Action: No
No action.	Action: Inc	Same as Pr	Same as Pr	Recommen	Action: No	Action: No	Action: No
No action." "	Where opp	Same as Pr	Same as Pr	HAVE FUEL	Action: No	Action: No	Action: No
Action: No simi	action.			Priority Areas.	Action: No	Action: No	Action: No
No action.	Grazing to	Same as Pr	Same as Pr	Recommen	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	HAVE FUEL	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Avoid cons	Avoid cons
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Design nev	Design nev
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Install ram	Install ram
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Place and	Place and
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Avoid insta	Avoid insta
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Establish s	Establish s
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Initiate veg	Initiating v
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Apply ada	Apply ada
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Implement	Implement
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Modify gra	Modify gra
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Graze exot	Graze exot
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Modify aut	Modify aut
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No	Maintain r	Maintain r

Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Inform per Inform per	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Manage gr Manage gr	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Modify gra Same as Cc	Action: No
					Prioritize e Same as Core Areas.	
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Place salt c Place salt c	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Reduce the Reduce the	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Mark fence Mark fence	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Remove ur Remove ur Remove ur	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Consider ir Consider ir	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Construct i Construct i	Action: No
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Place new, Place new,	Action: No
Objective: Sam	Same as Al	Same as Pr	Same as pr	Do not incl	Action: No Action: No Action: No	Action: No
Objective: Sam	Same as Al	Same as Pr	Same as pr	carry forw	Action: No Action: No Action: No	Action: No
Action: Same a	Same as Al	Same as Pr	Same as pr	Recommen	Action: No Action: No Action: No	Action: No
Action: Same a	Action: Wf	Same as Pr	Same as pr	Recommen	Action: No Action: No Action: No	Action: No
Action: Same a	Utilize inte	Same as Pr	Same as pr	Recommen	Action: No Action: No Action: No	Action: No
Action: Same a	Refer to liv	Refer to liv	Refer to liv	Recommen	Action: No Action: No Action: No	Action: No
Action: No Sim	Do not exp	Action: An	Action: No	Similar Acti	Action: No Action: No Action: No	Action: No
Action: Large A	Action: No	Action: No	Action: No	Similar Action		
					Action: No Construct i Construct i	Action: No
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No Return wa Return wa	Action: No
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No Minimize c Minimize c	Minimize t
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No Permit anc Permit anc	Permit anc
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	Action: No Minimize t Minimize t	Action: No
No action.	Action: No	Action: No	Action: No	Similar Acti	Action: No Develop ar Develop ar	Develop ar
Action: No Similar Action				Have repla	Action: No Action: No Action: No	Action: No
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Action: No Similar Action				Have repla	Action: No Action: No Action: No	Action: No
Action: No Similar Action				Have repla	Action: No Action: No Action: No	Action: No
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Action: No Similar Action				Have repla	Action: No Action: No Action: No	Action: No
Action: No Similar Action				NTT Recon	Action: No Action: No Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE (pe	Action: No Evaluate ai Evaluate ai	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - 3	Action: No Limit surfa Limit surfa	Action: No
					Action: No Apply no si Apply no si	Action: No
Action: No Sim	Design roa	Same as Pr	Same as pr	NTT Recomm	NTT Recommendation used for Core, PPH and PGH. Lar	
	Constructi	Same as Pr	Same as pr	priority areas	Action: No Limit activi Limit activi	Action: No
Action: No Sim	Same as Al	Same as pr	Same as pr	Aspects of	NTT Recommendation and Governor's BMP's	
					Action: No Allow expl Allow expl	Action: No
Action: No Sim	Coordinate	Same as Pr	Same as pr	NTT Recomm	NTT Recommendation used for Core, PPH and PGH. Lar	
Action: No Sim	Construct r	Same as Pr	Same as pr	NTT Recon	Action: No Locate mai Locate mai	Action: No
					Action: No Limit noise Limit noise	Action: No
Action: No Sim	Establish sç	Same as Pr	Same as pr	NTT Recomm	NTT Recommendation used for Core, PPH and PGH. Lar	
					Action: No Limit sagel Limit sagel	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - To be consistent with Line 558.		
Action: No Sim	Action: No	Action: No	Action: No	DELETE - D	Action: No Action: No Action: No	Action: No
Action: No Sim	Restrict vel	Same as Pr	Same as pr	NTT Recon	Action: No Action: No Action: No	Action: No

Action: No Sim	Use dust at	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Close and r	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Cluster dist	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Use directi	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Place infra	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Apply a ph	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Place liquic	Same as Pr	No Similar	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Consider pl	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Develop a j	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Restrict the	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - Li	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Place new i	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Where phy	Where phy	Where phy	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - A	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Design or s	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Cover (e.g.,	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Equip tank	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Control the	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - Ir	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Restrict pit	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Remove or	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - S	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Require no	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Fit transmi	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Require sa	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETE - S	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Clean up re	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Locate tem	Same as Pr	No Similar	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	tion managem	Same as Alternative B.	Same as pr	priority areas.				
Action: No Sim	When road	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	These are	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	These are	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Where app	Where app	Where app	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No

Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETED - A	Action: No	Action: No	Action: No	Action: No
	Minimize u	Same as Pr	Same as pr	priority areas.				
Action: No Sim	Minimize u	Same as Pr	Same as pr	NTT Recon	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	NA to Land	Action: No	Action: No	Action: No	Action: No
Action: No Sim	Utilize exis	Same as Pr	Same as pr	Used Gove	Action: No	Utilize exis	Utilize exis	Action: No
Action: No Sim	Construct r	Same as Pr	Same as pr	Used Gove	Action: No	Construct r	Same as Cr	Action: No
Action: No Sim	Micro-site	Same as Pr	Same as pr	Used Gove	Action: No	Micro-site	Micro-site	Action: No
Action: No Sim	Locate stag	Same as Pr	Same as pr	Used Gove	Action: No	Locate stag	Action: No	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETED - A	Action: No	Co-locate l	Same as Cr	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETED - A	Action: No	Co-locatio	Same as Cr	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETED - V	Action: No	Construct r	Same as Cr	Action: No
Action: No Sim	Action: No	Action: No	Action: No	DELETED - A	Action: No	Site essent	Same as Cr	Action: No
Action: No Sim	Wind enerç	Wind enerç	Same as M	Used Gove	Action: No	Wind enerç	Wind enerç	Action: No
Action: No Sim	General prç	Same as Pr	Same as pr	This is the	Action: No	Action: No	Action: No	Action: No

Alternative E -	Alternative E -	Alternative E -	Alternative F -	Alternative F -	Alternative F -
p. 45, pp. 1	Same as Alternative A		Action: No Similar Action		
p. 46, pp. 2	Same as Alternative A		Action: No Similar Action		
p. 1, pp. 1, 1	Same as Alternative A		GOAL: Maintain and increase current sage-grouse abundance; improve habitat condition and cover	GOAL: Maintain and increase current sage-grouse abundance; improve habitat condition and cover	GOAL: Maintain and increase current sage-grouse abundance; improve habitat condition and cover
p. 25, pp. 4	Same as Alternative A		Objective: No similar objective.		
Similar Action: Design	Same as Alternative A		Action: No Similar Action		
Similar Action: Design	Same as Alternative A		Objective: Designate Restoration sage-grouse habitat, based on	Objective: Designate Restoration sage-grouse habitat, based on	Objective: Designate Restoration sage-grouse habitat, based on
p. 1, pp. 3, 3	Same as Alternative A		Action: No Similar Action		
Similar Action: Design	Same as Alternative A		Objective: No similar objective.		
p. 3, pp. 1, 1	Same as Alternative A		Action: No Similar Action		
			Sub-objective: No similar sub-objective.		
p. 5, pp. 2, 2	Same as Alternative A		Sub-objective: No similar sub-objective.		
p. 5, pp. 2, 2	Same as Alternative A		Action: No Similar Action		
measures.					
p. 7, pp. 1, 1	Same as Alternative A		Action: No Similar Action		
			Sub-objective: No similar sub-objective.		
p. 7, pp. 1, 1	Same as Alternative A		Sub-objective: No similar sub-objective.		
p. 7, pp. 3, 3	Same as Alternative A		Sub-objective: No similar sub-objective.		
p. 7, pp. 4, 4	Same as Alternative A		Sub-objective: No similar sub-objective.		
p. 5, pp. 5, 5	Same as Alternative A		Objective: Restore and maintain sagebrush steppe to its ecological potential in	Objective: Restore and maintain sagebrush steppe to its ecological potential in	Objective: Restore and maintain sagebrush steppe to its ecological potential in
Similar Action: Design	Same as Alternative A		Objective: Establish a system of sagebrush reserves to anchor recovery efforts in	Objective: Establish a system of sagebrush reserves to anchor recovery efforts in	Objective: Establish a system of sagebrush reserves to anchor recovery efforts in
Similar Action: Design	Same as Alternative A		Action: No Similar Action		
p. 5, pp. 5, 5	Same as Alternative A		Action: No Similar Action		
p. 5, pp. 6, 6	Same as Alternative A		Action: No Similar Action		
p. 24, pp. 5, 5	Same as Alternative A		Action: No Similar Action		
p. 24, pp. 6, 6	Same as Alternative A		Action: No Similar Action		
p. 24, pp. 7, 7	Same as Alternative A		Action: No Similar Action		
p. 25, pp. 2, 2	Same as Alternative A		Action: No Similar Action		
p. 31, pp. 1, 1	Same as Alternative A		Action: No Similar Action		
p. 31, pp. 2, 2	Same as Alternative A		Action: No Similar Action		
p. 31, pp. 3, 3	Same as Alternative A		Action: No Similar Action		
p. 31, pp. 4, 4	Same as Alternative A		Action: No Similar Action		
p. 5, pp. 6, 6	Same as Alternative A		Action: No Similar Action		
p. 5, pp. 6, 6	Same as Alternative A		Action: No Similar Action		
p. 6, pp. 2, 2	Same as Alternative A		Action: No Similar Action		
p. 6, pp. 3, 3	Same as Alternative A		Action: No Similar Action		
p. 11, p. 3, 3	Same as Alternative A		Action: No Similar Action		
p. 11, pp. 2, 2	Same as Alternative A		Action: No Similar Action		
p. 25, pp. 5, 5	Same as Alternative A		Action: No Similar Action		





Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

and communication or other towers are prohibited in ACECs and occupied habitats. (WWP)

p. 26, pp. 3 Same as Alternative A Action: Priority sage-grouse habitat areas shall be exclusion areas for new ROW

Similar Act Same as Alternative A Action: Same as Alternative B (WEG)” “ “ “

p. 33, pp. 5 Same as Alternative A Action: Same as Alternative B (WEG)” “ “ “

p. 34, pp. 1 Same as Alternative A Action: Same as Alternative B (WEG)” “

p. 34, pp. 2 Same as Alternative A

Action: No similar action.” “

p. 11, s. 4; Same as Alternative A Action: No similar action.

Action: Same as Alternative B, without exceptions for disposal to consolidate or

less disposal of those lands would increase the extent or provide for connectivity of priority areas.

p. 24, pp. 3 Same as Alternative A

p. 24, pp. 2 Same as Alternative A Action: No Similar Action

grouse Special Areas.

p. 26, pp. 6 Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “ “ “ “

p. 27, pp. 1 Same as Alternative A Action: Do not approve withdrawal proposals not associated with mineral activ

e. (WWP)” “

p. 27, pp. 3 Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: Do not site wind energy development in priority sage-grouse habitat (Jc

Similar Act Same as Alternative A Action: Site wind energy development at least five miles from active sage-grou

Similar Act Same as Alternative A Action: No similar action.

p. 33, pp. 3 Same as Alternative A Action: Prioritize implementation of restoration projects based on environment

p. 33, pp. 4 Same as Alternative A Action: Include sage-grouse habitat objectives parameters as defined by Conne

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: Same as Alternative B.” “

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: Avoid sagebrush reduction/treatments to increase livestock or big game

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A Action: In sage-grouse habitat, ensure that soil cover and native herbaceous pla

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

p. 26, pp. 2 Same as Alternative A Action: No Similar Action

p. 32, pp. 3 Same as Alternative A Action: No Similar Action

p. 32, pp. 4 Same as Alternative A Action: No Similar Action

p. 32, pp. 4 Same as Alternative A Objective: Develop and implement methods for prioritizing and restoring sageb

p. 32, pp. 4 Same as Alternative A No action.

p. 39, pp. 4 Same as Alternative A  
Action: No Similar Action

p. 39, pp. 5 Same as Alternative A No action.

p. 39, pp. 6 Same as Alternative A No action.

Similar Act Same as Alternative A Action: No Similar Action  
Action: Design and implement fuels treatments with an emphasis on protecting

p. 31, pp. 6 Same as Alternative A

p. 26, p. 1; Same as Alternative A Action: No similar action.

p. 31, pp. 8 Same as Alternative A Action: No similar action.  
Action: No similar action. (WEG)" "

p. 32, pp. 1 Same as Alternative A

p. 38, pp. 5 Same as Alternative A Action: No similar action. (WEG)" "

p. 38, pp. 1 Same as Alternative A

ge-grouse and threatened and enc Action: Same as Alternative B. (WEG)" "

p. 38, pp. 1 Same as Alternative A

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

p. 28, pp. 3 Same as Alternative A  
Action: Same as Alternative B. (WEG)" "

Similar Act Same as Alternative A Action: No Similar Action  
Action: Same as Alternative B.

p. 3, pp. 2, Same as Alternative A

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Action: Establish and strengthen networks with seed growers to assure availabi

Similar Act Same as Alternative A Action: Post fire recovery must include establishing adequately sized exclosures

Similar Act Same as Alternative A Action: Livestock grazing should be excluded from burned areas until woody an

Similar Act Same as Alternative A Action: Where burned sage-grouse habitat cannot be fenced from other unburn

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)" "

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)" "

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)" "

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)" "

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: Upon expiration or termination of existing leases, do not accept nominal

Similar Act Same as Alternative A Action: Allow geophysical exploration within priority sage-grouse habitat areas

Similar Act Same as Alternative A Same as Alternative B.

Similar Act Same as Alternative A Action: Allow geophysical exploration within priority sage-grouse habitat areas  
p. 34, pp. 3 Same as Alternative A 1. Action: Apply the following conservation measures as Conditions of Approval

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B. “ “

Similar Act Same as Alternative A Conservation Measure: Apply a seasonal restriction on exploratory drilling that

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Same as Alternative B.

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B.

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Conservation Measure: Same as Alternative B. (WEG)

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: No similar action.

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “

Similar Act Same as Alternative A Action: Same as Alternative B. (WEG)” “

Similar Act Same as Alternative A Action: Prohibit new road construction within 4 miles of active sage-grouse lek

Similar Act Same as Alternative A Action: Same as Alternative B.” “ “ “

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Limit route construction to realignments of existing designated routes if

Similar Act Same as Alternative A Action: Same as Alternative B using a 4-mile buffer from leks to determine road

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: When reseeding closed roads, primitive roads and trails, use appropriate

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A Action: Same as Alternative B.  
beneficial impacts. Incorporates

Similar Act Same as Alternative A Action: Same as Alternative B.  
p. 34, pp. 5

Similar Act Same as Alternative A Action: Seasonally prohibit camping and other non-motorized recreation within  
p. 34, pp. 6

Similar Act Same as Alternative A No action.  
region.

Similar Act Same as Alternative A Action: No Similar Action  
p. 35, pp. 1

Similar Act Same as Alternative A Action: No Similar Action  
p. 35, pp. 2

Similar Act Same as Alternative A Action: No Similar Action  
p. 35, pp. 3

Similar Act Same as Alternative A Action: No Similar Action  
p. 26, pp. 4

Similar Act Same as Alternative A Action: No Similar Action

Similar Act Same as Alternative A Action: Same as Alternative B.  
p. 26, pp. 5

Similar Act Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Same as Alternative B. “ “

Similar Act Same as Alternative A Action: Same as Alternative B.  
p. 36, pp. 2

Similar Act Same as Alternative A Action: No similar action.

p. 36, pp. 3 Same as Alternative A Action: Manage for vegetation composition and structure consistent with ecol

p. 36, pp 4 Same as Alternative A Same as Alternative B.

Similar Act Same as Alternative A Action: During drought periods, prioritize evaluating effects of the drought in p

p. 36, pp. 6 Same as Alternative A Action: Same as Alternative B.

ian objectives/actions Same as Alternative B.

p. 12, pp. 6 Same as Alternative A

Action: Same as Alternative B.

p. 12, pp. 7 Same as Alternative A

Action: No similar action.

p. p. 13, pp. 8 Same as Alternative A

ing the priority of SG habitat relative Action: Authorize no new water developments for diversion from spring or seep

p. 14, pp. 2 Same as Alternative A

Action: Analyze springs, seeps and associated water developments pipelines to

p. 14, pp. 5 Same as Alternative A

p. 13, pp. 4 Same as Alternative A

Action: Ensure that vegetation treatments Restore native (or desirable) plants and

Similar Act Same as Alternative A Action: Evaluate the role of existing seedings that are currently composed of pr

p. 13, pp. 2 Same as Alternative A

Action: Avoid all new structural range developments in priority sage-grouse habitat

Action: Same as Alternative B. (WEG)” “

p. 13, pp. 3 Same as Alternative A

Similar Act Same as Alternative A Action: Same as Alternative B.” “ “ “

Similar Act Same as Alternative A Action: To reduce outright sage-grouse strikes and mortality, rRemove, modify

p. 48, pp. 8 Same as Alternative A Action: Same as Alternative B.

Similar Act Same as Alternative A Action: Same as Alternative B.” “ “ “

Similar Act Same as Alternative A Action: In each planning process, identify grazing allotments where permanent

Similar Act Same as Alternative A Objective: Encourage partners to monitor effects of retiring grazing permits in s

Similar Act Same as Alternative A No action.

Similar Act Same as Alternative A No action.” “

Similar Act Same as Alternative A Action: Any vegetation treatment plan must include pretreatment data on wild

Similar Act Same as Alternative A No action.

p. 48, pp. 2 Same as Alternative A Action: No Similar Action

p. 48, pp. 3 Same as Alternative A Action: No Similar Action

p. 48, pp. 4 Same as Alternative A Action: No Similar Action

p. 48, pp. 5 Same as Alternative A Action: No Similar Action

p. 48, pp. 6 Same as Alternative A Action: No Similar Action

p. 48, pp. 7 Same as Alternative A Action: No Similar Action

p. 48, pp. 8 Same as Alternative A Action: No Similar Action

p. 46, pp. 8 Same as Alternative A Action: No Similar Action

p. 47, pp. 2 Same as Alternative A Action: No Similar Action

p. 47, pp. 3 Same as Alternative A Action: No Similar Action

p. 47, pp. 4 Same as Alternative A Action: No Similar Action

p. 47, pp. 5 Same as Alternative A Action: No Similar Action

p. 47, pp. 6 Same as Alternative A Action: No Similar Action

p. 47, pp. 7 Same as Alternative A Action: No Similar Action  
p. 47, pp. 8 Same as Alternative A Action: No Similar Action  
p. 47, pp. 9 Same as Alternative A Action: No Similar Action

p. 47, pp. 1 Same as Alternative A Action: No Similar Action  
p. 39, pp. 7 Same as Alternative A Action: No Similar Action  
p. 37, pp. 1 Same as Alternative A Action: No Similar Action  
p. 37, pp. 2 Same as Alternative A Action: No Similar Action  
p. 37, pp. 3 Same as Alternative A Action: No Similar Action  
p. 37, pp. 4 Same as Alternative A Action: No Similar Action  
p. 37, pp. 5 Same as Alternative A Action: No Similar Action  
Similar Act Same as Alternative A Objective: Same as Alternative B.  
Similar Act Same as Alternative A Objective: Same as Alternative B. (WEG)  
Similar Act Same as Alternative A Action: Same as Alternative B.  
Similar Act Same as Alternative A Action: No similar action. (WEG)  
Similar Act Same as Alternative A Action: Same as Alternative B.  
Similar Act Same as Alternative A Action: Same as Alternative B.  
Similar Act Same as Alternative A Action: No Similar Action

Action: Designate Areas of Critical Environmental Concern (ACECs) (BLM) and S:

p. 35, pp. 8 Same as Alternative A  
p. 35, pp. 9 Same as Alternative A No action.  
p. 35, pp. 10 Same as Alternative A No action.  
p. 35, pp. 11 Same as Alternative A No action.  
p. 35, pp. 12 Same as Alternative A Action: No Similar Action  
p. 35, pp. 13 Same as Alternative A No action.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.


p. 44, pp. 7 Same as Alternative A Action: No Similar Action  
p. 44, pp. 8 Same as Alternative A Action: No Similar Action  
p. 44, pp. 9 Same as Alternative A  
Language was not changed. (per La Same as Alternative B.  
p. 44, pp. 10

Language was not changed. (per La Same as Alternative B.  
p. 45, pp. 1 Same as Alternative A  
Language was not changed. (per La Same as Alternative B.  
p. 45, pp. 2 Same as Alternative A Same as Alternative B.  
p. 45, pp. 3 Same as Alternative A  
Language was not changed. (per La Same as Alternative B.  
p. 45, pp. 4 Same as Alternative A  
Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.



Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.

Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
Similar Act Same as Alternative A Same as Alternative B.  
p. 43, pp. 1 Same as Alternative A Action: No Similar Action  
p. 43, pp. 1 Same as Alternative A Action: No Similar Action  
p. 43, pp. 1 Same as Alternative A Action: No Similar Action  
p. 44, pp. 1 Same as Alternative A Action: No Similar Action  
p. 44, pp. 2 Same as Alternative A Action: No Similar Action  
p. 44, pp. 3 Same as Alternative A Action: No Similar Action  
p. 44, pp. 4 Same as Alternative A Action: No Similar Action  
p. 44, pp. 5 Same as Alternative A Action: No Similar Action  
p. 44, pp. 6 Same as Alternative A Action: No Similar Action  
Similar Act Same as Alternative A Action: No Similar Action



ance and distribution by conserving, enhancing or restoring the sagebrush ecosystem.

sed on its importance to sage-grouse and the likelihood of successfully restoring sagebrush communitie

occupied sage-grouse habitat.

by protecting the highest quality habitats.





's permits. Consider the following exceptions:" "Within designated ROW corridors encumbered by existi

wnership that would be beneficial to sage-grouse.

ity unless the land management is consistent with sage-grouse conservation measures. (For example;, ir

ones 2012). (WEG)

se leks. (WEG)

tal variables that improve chances for project success in areas most likely to benefit sage-grouse (Meink  
lly et al. (2000), Hagen et al. (2007) or if available, State Sage Grouse Conservation plans and appropriat

ē forage in priority habitat and include plans to restore high-quality habitat in areas with invasive specie:

ants are at their ESD potential to help protect against invasive plants. In areas without ESDs, reference si

sagebrush steppe invaded by nonnative plants. (WEG)

for existing sagebrush ecosystems. “ “Do not reduce sagebrush canopy cover to less than 15% (Connelly et

availability of native seed for ES&R projects. “ “

areas (free of livestock grazing) that can be used to assess recovery. (WEG)

and herbaceous plants achieve sage-grouse habitat objectives. (WEG)

in degraded habitat, the entire area (e.g., allotment/pasture) should be closed to grazing until recovered. (WEG)

ations/expressions of interest for parcels within priority habitat. (WEG)  
to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat area

to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat area  
val at the project and well permitting stages, and through RMP implementation decisions and upon con

prohibits surface-disturbing activities during the nesting and brood-rearing season in all priority sage-gr

s, and avoid new road construction in priority sage-grouse habitat. (WEG)

f that realignment has a minimal impact on sage-grouse habitat, eliminates the need to construct a new  
l route.

e native seed mixes and require consider the use of transplanted sagebrush. (WEG)" "

l 4 miles of active sage-grouse leks. (WEG)

ological site potential and within the reference state to achieve sage-grouse habitat objectives.

riority sage-grouse habitat areas relative to their biological needs for food and cover, as well as drought

p sources only when within priority sage-grouse habitat would benefit from the development. This inclu

determine if modifications are necessary to maintain the continuity of the predevelopment riparian are

and create landscape patterns which most benefit sage-grouse. Only allow treatments that conserve, en  
imarily introduced perennial grasses in and adjacent to priority sage-grouse habitat to determine if they

ohabit unless independent peer-reviewed studies show that the range improvement structure benefits sa

or mark fences in high risk areas of moderate or high risk of sage-grouse strikes within priority sage-gro

retirement of grazing privileges would be potentially beneficial to sage-grouse. (WEG)

sage-grouse habitat. (WEG)

life and habitat condition, establish non-grazing exclosures, and include long-term monitoring where tre

sagebrush Conservation Areas (SCAs) (USFS), respectively, as sagebrush reserves to conserve sage-grouse









s (Meinke et al. 2009; Wisdom et al. 2005c), as degraded or fragmented habitat that is currently unoccu



ng ROW authorizations: new ROWs may be co-located only if the entire footprint of the proposed proje

ra a proposed withdrawal for a military training range buffer area, manage the buffer area with sage-grou

e et al. 2009).” "" “Prioritize restoration in seasonal habitats that are thought to be limiting sage-grouse  
e local information in habitat restoration projects objectives. Make meeting these objectives within pric

s. (Audubon)

tes would be utilized to identify appropriate vegetation communities and soil cover.

t al. 2000, Hagen et al. 2007) unless a fuels management objective requires additional reduction in sage

s. Only allow “geophysical operations by helicopter-portable drilling methods and in accordance with s

s. Only allow “geophysical operations by helicopter-portable drilling methods and in accordance with s  
npletion of the environmental record of review (43 CFR § 3162.5), including appropriate documentation

ouse habitat during this period. This seasonal restriction shall also to apply to related activities that are r

road, or is necessary for motorist safety. Mitigate any impacts with methods that have been demonstra

effects on ungrazed reference areas. Since there is a lag in vegetation recovery following drought (Thur

des developing new water sources for livestock as part of an AMP/conservation plan to improve sage-gr  
a within priority sage-grouse habitats. Make modifications where necessary, including dismantling wate

hance, or restore sage-grouse habitat are demonstrated to benefit sage-grouse and retain sagebrush he  
r should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part

ge-grouse. Design any new structural range improvements and location of supplements (salt or protein l

use habitat based on proximity to lek, lek size, and topography (Christiansen 2009; Stevens 2011). (WEG

ated areas are monitored for at least three years before grazing returns. Continue monitoring for” “five

and other sagebrush-dependent species. (WEG).









impacted by sage-grouse, but might be useful to the species if restored to its potential natural community.



ct (including construction and staging), can be completed within the existing disturbance associated with

use conservation measures that have been demonstrated to be effective.) (WEG)

· distribution and/or abundance and where factors causing degradation have already been addressed (e.g., priority sage-grouse habitat the highest restoration priority. (WEG)

brush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for

easonal timing restrictions and/or other restrictions that may apply. Geophysical exploration shall be su

easonal timing restrictions and/or other restrictions that may apply. Geophysical exploration shall be su  
of compliance with NEPA. In this process evaluate, among other things:" "Whether the conservation m

disruptive to sage-grouse, including vehicle traffic and other human presence. (WEG)

ated to be effective to offset the loss of sage-grouse habitat. (WEG)

ow and Taylor 1999; Cagney et al. 2010), ensure that post-drought management allows for vegetation r

rouse habitat. (WEG)

r developments considering impacts to other water uses when such considerations are neutral or benef

ight and cover consistent with sage-grouse habitat objectives (this includes treatments that benefit live  
of an AMP/Conservation Plan or if they provide value in conserving or enhancing the rest of the priority

blocks) to conserve, enhance, or restore sage-grouse habitat through an improved grazing management

i)

years after livestock are returned to the area, and compare to treated, ungrazed exclosures, as well as













h the authorized ROWs.” “Subject to valid, existing rights: where new ROWs associated with valid existir

g., changes in livestock management). (WEG)” “

r the species. “ “Closely evaluate the benefits of the fuel break against the additional loss of sagebrush c

bject to seasonal restrictions that preclude activities in breeding, nesting, brood rearing and winter habi

bject to seasonal restrictions that preclude activities in breeding, nesting, brood rearing and winter habi  
easure is "reasonable" (43 CFR § 3101.1-2) with the valid existing rights; and" "Whether the action is in

recovery that meets sage-grouse needs in priority sage-grouse habitat areas based on sage-grouse habitat

critical to sage-grouse. (WEG)

stock as part of an AMP/Conservation Plan to improve sage-grouse habitat). (WEG)  
sage-grouse habitats, then no restoration would be necessary. Assess the compatibility of these seedin

system relative to sage-grouse objectives. Structural range improvements developments, in this contex

untreated areas. (WEG)













ing rights are required, co-locate new ROWs within existing ROWs or where it best minimizes sage-grouse

cover in the EA process. “ “Apply appropriate seasonal restrictions for implementing fuels management

itats during their season of use by sage-grouse. (WEG)” ““SUB-ALTERNATIVE:” “Action: No new geophy

itats during their season of use by sage-grouse. (WEG)

conformance with the approved RMP. (WEG)



at objectives. (WEG)

gs for sage-grouse habitat or as a component of a grazing system during the land health assessments (D

ct, include but are not limited to cattleguards, fences, exclosures, corrals or other livestock handling stru











e impacts. Use existing roads, or realignments as described above, to access valid existing rights that are

treatments according to the type of seasonal habitats present in a priority area.” “Allow no fuels treatm



Physical exploration permits will be issued. “ “ “

avies et al. 2011). (WEG)” “

ctures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), win











: not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new roa



ents in known winter range unless the treatments are designed to strategically reduce wildfire risk arou



dmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishr













d constructed to the absolute minimum standard necessary, and add the surface disturbance to the tot:

ind or in the winter range and will maintain winter range habitat quality. “ “Do not use fire to treat sage



ment or increase following construction must be considered in the project planning process and monitor













al disturbance in the priority area. If that disturbance exceeds 3% for that area, then make additional eff

brush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush spe



ered and treated post-construction. Consider the comparative cost of changing grazing management inste













fective mitigation

pecies; Conn



ead of constructing additi

	New	GOA	Program Area	Sub	Threa	Indica	Revie	Altern	Altern	Altern	Altern
Incorporat	1	1	Purpose	Found	N/A	N/E	DELE	Action	0	Action	No
Incorporat	2	2	Scope	Found	N/A	N/E	DELE	Action	0	Action	No
Incorporat	3	3	Purpose	Found	N/A	N/E	DELE	Action	0	Action	No
	4	4	Best	Proces	N/A	N/E	G -	Action	0	Action	No
	5	5	Scope and	Proces	N/A	N/E		Action	0	Action	No
	6	6	Goal	SG	All	Acres	Citizer	Same	0	GOAL	No
	7	7	Objective	Habita	Huma	Acres	Object	Same	0	Object	No
	8	8	Scope	Found	N/A	N/E	Should	Action		Action	No
	9	9	Objective	Design	All	Acres		Same	0	Sub-	No
	10	9.1	Objective	Design	All	Acres	Citize	Same	0	Action	No
	11	10	Objective	DFC	All	Acres	Gover	Same	0	Sub-	No
	12	11	Objective	group	N/A	N/E		Same	0	Action	No
	13	11.1	Objective	group	N/A	N/E	Need	Action	0	Sub-	No
	14	12	Objective	DFC	Infrast	Acres	Split	Same	0		No
	15	13	Objective	Distrib	All	Acres	Gover	Same	0	OBJE	No
	16	14	Objective	Distur	Huma	Acres		Action	0	OBJE	No
	17	15	Objective	Conne	All	Acres	Gover	Action	0	Action	Sub-
	18	16	Objective	Conne	All	Acres	Gover	Action	0	Action	Sub-
	19	17	Objective	Data	All	N/E	Gover	Action	0	Action	
	20	18	Objective	Rehabi	All	Acres	Citize	Action		Object	No
	21	19	Objective	ACEC	All	N/E	Gover	Action	0	Object	No
	22	20	Scope	Proces	All	N/E	Should	Action	0	Action	No
	23	21	Mapping	Mappi	All	N/E	Citize	Monta	0	Priorit	Gener
	24	22	Mapping	Popula	All	N/E		nothin	0	Action	No
	25	23	Mapping	Mappi	All	N/E	Combi	Action	0	Action	No
	26	24	Mapping	Mappi	All	N/E	combi	Action	0	Action	No
	27	25	Mapping	Mappi	All	N/E	Como	Action	0	Action	No
	28	26	Mapping	Mappi	All	N/E	combi	Action	0	Action	No
	29	27	Mapping	Mappi	All	N/E	See #	Action	0	Action	No
	30	28	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	31	29	Mapping	Mappi	All	N/E	Combi	Action	0	Action	No
	32	30	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	33	31	Mapping	Proces	All	N/E		Action	0	Action	No
	34	32	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	35	33	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	36	34	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	37	35	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	38	36	Mapping	Proces	All	N/E		Action	0	Action	No
	39	37	Mapping	Proces	All	N/E	combi	Action	0	Action	No
	40	39	Management	Prioriti	Wildfi	Acres		Action	0	Action	No
	41	40	Management	Proces	All	N/E		Action	0	Action	No
	42	41	Management	Uses	All			Action	0	Action	No

43	42	Indicators	Proces			Delete	Action 0	Action No
44	43	Desired Future	DFC	All	Acres		Action 0	Action No
45	44	Desired Future	DFC	All	Acres	combi	Action 0	Action No
46	45	Implementation	Policy	All	N/E	Outsid	Action 0	Action No
47	46	Collaboration	Resilie	All	Acres		Action 0	Action No
48	47	Adaptive	Proces	All	N/E	mappi	Action 0	Action No
49	48	Adaptive	Proces	All	N/E	Gover	Action 0	Action No
50	49	Adaptive	Proces	All	N/E	See #	Action 0	Action No
51	50	Adaptive	Wildfi	Wildfi	Acres	Gover	Action 0	Action No
52	51	Adaptive	Trigge	Wildfi	Acres	Gover	Action 0	Action No
53	52	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
54	53	Adaptive	Grazin	Grazin	Acres	Relian	Action 0	Action No
55	54	Adaptive	Proces	All	Popula		Action 0	Action No
56	55	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
57	56	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
58	57	Adaptive	Wildfi	Wildfi	Acres	Combi	Action 0	Action No
59	58	Adaptive	Proces	All	N/E	ii is	Action 0	Action No
60	59	Adaptive	Proces	All	N/E	Combi	Action 0	Action No
61	60	Adaptive	Trigge	All	Acres	What	Action 0	Action No
62	61	Valid Existing	Found	N/A	Acres		Action 0	Action No
63	62	Valid Existing	Found	N/A	Acres	Combi	Action 0	Action No
64	63	Valid Existing	Found	Miner	Acres	Combi	Action 0	Action No
65	64	Valid Existing	Found	Miner	Acres	Combi	Action 0	Action No
66	65	Valid Existing	Valid	All	Acres		Action 0	Action No
67	66	Mitigation	Proces	Infrast	Acres/		Action 0	Action No
68	67	Mitigation	Proces	All	Acres		Action 0	Action No
69	68	Mitigation	Restor	All	Acres		Action 0	Action No
70	69	Mitigation	Restor	All	Acres		Action 0	Action No
71	70	Monitoring	Proces	Wildfi	Acres		Action 0	Action No
72	71	Monitoring	Proces	Grazin	Acres		Action 0	Action No
73	72	Monitoring	Proces	All		Outsid	Action 0	Action No
74	73	Monitoring	Proces	Wildfi	Acres		Action 0	Action No
75	74	Monitoring	Proces	All	Acres		Action 0	Action No
76	75	Monitoring	Proces	All	Popula		Action 0	Action No
77	77	Monitoring	proces	grazin	acres		Action	Action No
78	78	Monitoring	Proces	Grazin	Acres	incorp	Action	Action No
79	79	Land Use	Land				Same	Action No
80	80	Land Use	Land				Same NEED	Action No
81	81	Land Use	Land				Same	Action No
82	82	Land Use	Land				DFO	Action No
83	83	Land Use	Land				Curren	Action No
84	87	Land Use					Curren	Action No
85	89	Land Use					Same	Action No



86	90	Land Use					Same		Action	No
87	92	Land Use					Same		Action	No
88	94	Land Use					Same		Action	No
89	96	Land Use					Curren		Action	No
90	98	Land Use					Same		Action	No
91	99	Land Use	Exclus	Infrast	Acres	Citize	Action		Action	No
92	101	Land Use	Under	Infrast	miles	Gover	Action		Action	No
93	102	Land Use	Recla	Infrast	miles	Gover	Action		Action	No
94	105	Land Use	Reloca	Infrast	miles	Gover	Action		Planni	No
95	117	Land Use	Avoid	Infrast	acres	Gover	Action		Action	Action
96	118	Land Use	Co-	Infrast	miles	Gover	Action		Action	Action
97	119	Land Use	Land	Urbani	acres	Gover	Acquis		Action	No
98	120	Land Use					Action		Action	No
99	121	Land Use	Acquis	Urbani	acres	Citize	Action		Action	No
100	122	Land Use	Withdr	Minin	acres	Gover	Curren		Action	No
101	123	Land Use	Withdr	Minin	Acres	Gover	Same	Same	Action	No
102	124	Land Use	Corrid	Infrast	Acres/	Citize	Curren		Action	No
103	125	Land Use	BMPs	Predati	Acres	Subreg	Land		Action	No
104	126	Land Use	Wind	Infrast	Acres		Appen		Action	No
105	127	Land Use	unauth	infrast	acres		Same		Action	No
106	128	Wind Energy	siting	Infrast	acres		2. Use	0	Action	No
107	129	Wind Energy	siting	Infrast	Acres		a)	0	Action	No
108	130	Wind Energy	Siting	Infrast	acres		b) site	0	Action	No
109	131	Wind Energy	siting	Infrast	acres		3.	0	Action	No
110	132	Wind Energy					4.	0	Action	No
111	133	Industrial Solar					a)	0	Action	No
112	134	Industrial Solar					b)		Action	No
113	135	All Renewable					5.		Action	No
114	136	All Renewable					6.		Action	No
115	151	Habitat					Appen		Action	No
116	152	Habitat					See		Action	No
117	153	Habitat					Action		Action	No
118	156	Habitat					Rangel		Action	No
119	162	Habitat					Same		Action	No
120	163	Habitat					Action		Action	No
121	164	Habitat					Action		Action	No
122	165	Habitat					Action		Action	No
123	166	Habitat					Same		Action	No
124	167	Habitat					Action	0	Action	No
125	168	Habitat					Action	0	Action	No
126	169	Habitat					Action	0	Action	No
127	170	Habitat					Action	0	Action	No
128	171	Habitat					Action	0	Action	No

129	172	Habitat	Action	0	Action	No
130	173	Habitat	Action	0	Action	No
131	174	Habitat	Action	0	Action	No
132	175	Habitat		Same	Action	No
133	176	Habitat	Appen		Action	No
134	177	Habitat	NOXI	DFO	Action	No
135	178	Habitat	See	0	Action	No
136	179	Habitat	Same		Action	No
137	180	Habitat	Appen		Action	No
138	181	Habitat	WILD	DFO	Action	No
139	182	Integrated	Action		Action	No
140	183	Invasive	Action		Action	No
141	184	Invasive	Action		Action	No
142	185	Invasive	Action		Object	No
143	186	Invasive	Action		Action	No
144	187	Invasive	Action		Action	No
145	188	Invasive	Action		Action	No
146	189	Invasive	Action		Action	No
147	190	Invasive	Action		Action	No
148	193	Invasive	Action		Action	No
149	217	Fire	Action		Action	No
150	218	Fire	Action		Action	No
151	219	Fire	Action		Action	No
152	220	Fire	DFO		Action	No
153	221	Fire	Action		Action	No
154	222	Fire	Action		Action	No
155	223	Fire	DFO	All	o	No
156	224	Fire	Action		Action:	No
157	225	Fire	Action		Action	No
158	226	Fire	Action		Action	No
159	227	Fire	Action		Action	No
160	228	Fire	Appen		Action	No
161	229	Fire	Action		Action	No
162	230	Fire	Action		Action	No
163	231	Fire	Appen		Action	Action
164	232	Fire	N/A		Action	No
165	233	Fire	N/A		Action	No
166	234	Fire	N/A		Action	No
167	235	Fire	N/A		Action	No
168	236	Fire	Same		Action	No
169	237	Fire	N/A		Action	No
170	238	Fire	N/A		Action	No
171	239	Fire	N/A		Action	No

172	240	Fire	DFO	All	Action	No
173	246	Fire	Same		Action	No
174	249	Fire	Fuels	Same	Action	No
175	250	Fire	Same	Climat	Action	No
176	251	Fire	Action	0	Action	No
177	252	Fire	Action	0	Action	No
178	253	Fire	Action	0	Action	No
179	254	Fire	Action	0	Action	No
180	255	Fire	Action	0	Action	No
181	256	Fire	Action	0	Action	No
182	257	Fire	Same	0	Action	No
183	258	Fire	Same	0	Action	No
184	259	Fire	Same		Action	No
185	260	Fire	Action		Action	No
186	261	Fire	Appen	Same	Action	No
187	263	Fire	Appen	Also	Action	No
188	268	Non Energy	Propos		Action	No
189	272	Non Energy	Same	Appen	Action	No
190	273	Solid Minerals -	Propos	No	Action	No
191	274	Solid Minerals -	Action		Action	No
192	277	Solid Minerals -	Action		Action	No
193	278	Solid Minerals -	Action		Action	Action
194	279	Solid Minerals -	Action		Action	No
195	283	Locatable	Propos	Appen §	No	No
196	284	Locatable	Action		Action	No
197	285	Locatable	Action		Action	No
198	286	Locatable	Action		Action	No
199	287	Locatable	Propos	This	Action	No
200	288	Non Locatable	Action		Action	No
201	289	Non Locatable	Action		Action	No
202	300	Saleable	Salabl	also	Action	No
203	301	Saleable	Same		Action	No
204	304	Saleable	Same		Action	No
205	307	Unleased	Pg. 45	No	Action	No
206	308	Unleased	RMP	DFO	Action	No
207	310	Unleased	Appen	↑Refer	Action	No
208	312	Unleased	Action		Action	No
209	313	Unleased	Action		Action	No
210	314	Unleased	Action		Action	No
211	320	Leased Federal	Same	0	1.	No
212	322	Leased Federal	Same	0	o	No
213	323	Leased Federal	Stipula	Need	Conser	No
214	324	Leased Federal	Same	0	Conser	No

215	325	Leased Federal	Same	0	Conser	No
216	326	Leased Federal	Same		§	No
217	327	Leased Federal	Same	0	Conser	No
218	328	Leased Federal	Action		Conser	No
219	329	Leased Federal	Same		Conser	No
220	330	Leased Federal	Same		Conser	No
221	331	Leased Federal	Action		Action	No
222	332	Leased Federal	Action		Action	No
223	333	Leased Federal	Action		Action	No
224	334	Leased Federal	Action		Action	No
225	335	Leased Federal	Action		Action	No
226	336	Leased Federal	Action		Object	No
227	337	Mineral Split	DFO		Action	No
228	338	Mineral Split	Same		Action	No
229	339	Mineral Split	Action		Action	No
230	340	Mineral Split	Action		Action	No
231	341	Mineral Split	Action		Action	No
232	342	Mineral Split	Action		Action	No
233	343	Travel	RMP	Same	Action	No
234	344	Travel	Action		Action	No
235	345	Travel	Pg. 61	Same	Action	No
236	346	Travel	Same	Same	Action	No
237	347	Travel	Pg. 59	Same	Action	No
238	348	Travel	Action		Action	No
239	349	Travel	Appen	Same	Action	No
240	350	Travel	Appen	Is this	Action	No
241	351	Travel	Same	Is this	Action	No
242	352	Travel	Action	0	Action	No
243	353	Travel	Same	Is this	Action	No
244	354	Travel	Action		Action	No
245	355	Recreation and	Action		Action	No
246	356	Recreation and	Not	SRP	Action	No
247	357	Recreation and	Appen		Action	No
248	358	Recreation and	Appen		Action	No
249	359	Recreation and	Appen	Same	Action	No
250	360	Recreation and	Same	Most	Action	No
251	361	Recreation and	Action		Action	No
252	362	Recreation and	Action		Action	No
253	363	Recreation and	Action		Action	No
254	364	Recreation and	Action		Action	No
255	365	Recreation and	Action		Action	No
256	366	Recreation and	Action		Action	No
257	367	Recreation and	Action		Action	No

258	368	Recreation and	Action	Action	No
259	369	Recreation and	Action	Action	No
260	374	Recreation and	Action	Action	No
261	376	Livestock	Livest	No	Action No
262	377	Livestock	Answer	Same	Action No
263	378	Livestock	Livest	Same	Action No
264	379	Livestock	Same	Current	Action No
265	380	Livestock	Action		Action No
266	381	Livestock	Action		Action No
267	382	Livestock	Same	Sams	Action No
268	383	Livestock	Same	address	Action No
269	384	Livestock	Same	This is	Action No
270	385	Livestock	Pg. 42	Same	Action No
271	386	Livestock	Ripari		Action No
272	387	Livestock	Action		Action No
273	388	Livestock	Action		Action No
274	389	Livestock	Action		Action No
275	390	Livestock	Action		Action No
276	391	Livestock	Action		Action No
277	392	Livestock	Action		Action No
278	393	Livestock	Action		Action No
279	394	Livestock	Action		Action No
280	395	Livestock	Pg 69,	Same	Action No
281	396	Livestock	Pg 69		Action No
282	397	Livestock	Action		Action No
283	398	Livestock	Action		Action No
284	399	Livestock	Action		Action No
285	400	Livestock	Pg 51	Same	Action No
286	401	Livestock	Action		Action No
287	402	Livestock	Action		Action No
288	403	Livestock	Pg 69	Same	Action No
289	404	Livestock	Same	West	Action No
290	405	Livestock	Pg 69	These	Action No
291	406	Livestock	Action		Action No
292	407	Livestock	Action		Action No
293	408	Livestock	pg. 42	If	Action No
294	409	Livestock	Action		<i>Planni</i> No
295	410	Livestock	Action		<i>No</i> No
296	411	Livestock	Action		Action No
297	412	Livestock	Action		Action No
298	413	Livestock	Same	This is	Action No
299	414	Livestock	Same	0	Action No
300	415	Livestock	Pg 43	Same	Action No

301	416	Livestock	Same	Not	Action	No
302	417	Livestock	Action		Action	No
303	418	Livestock	Action		Action	No
304	419	Livestock	Action		Action	No
305	420	Livestock	Action		Action	No
306	421	Livestock	Action		Action	No
307	422	Livestock	Action		Action	No
308	423	Livestock	Action		Action	No
309	424	Livestock	Action		Action	No
310	425	Livestock	Action		Action	No
311	426	Livestock	Action		Action	No
312	427	Livestock	Action		Action	No
313	428	Livestock	Action		Action	No
314	429	Livestock	Action		Action	No
315	430	Livestock	Action		Action	No
316	431	Livestock	Action		Action	No
317	432	Livestock	Action		Action	No
318	433	Grazing	Action		Action	No
319	434	Grazing	Action		Action	No
320	435	Grazing	Action		Action	No
321	436	grazing	Action		Action	No
322	437	Grazing	Action		Action	No
323	438	Grazing	Action		Action	No
324	439	Grazing	Action		Action	No
325	440	Grazing	Action		Action	No
326	441	Grazing	Action		Action	No
327	442	Grazing	Action		Action	No
328	443	Grazing	Action		Action	No
329	444	Grazing	Action		Action	No
330	445	Grazing	Action		Action	No
331	446	Grazing	Action		Action	No
332	447	Grazing	Action		Action	No
333	448	grazing	Action		Action	No
334	449	Grazing	Action		Action	No
335	450	Grazing	Action		Action	No
336	451	Livestock	Action		Action	No
337	452	Livestock	Action		Action	No
338	453	Livestock	Action		Action	No
339	454	Livestock	Action		Action	No
340	455	Livestock	Action		Action	No
341	456	Livestock	Action		Action	No
342	457	Wild Horses	Action		Object	No
343	458	Wild Horses	Action		Action	No

344	459	Wild Horses	Action	Object	No
345	460	Wild Horses	Not 0	Action	No
346	461	Wild Horses	N/A - 0	Action	No
347	462	Wild Horses	N/A - 0	Action	No
348	463	Wild Horses	N/A - 0	Action	No
349	464	Wild Horses	Action	Action	No
350	465	Wild Horses	Action	Action	No
351	466	Wild Horses	Action	Action	No
352	467	Wild Horses	Action	Action	No
353	468	Wild Horses	Action	Action	No
354	469	Wild Horses	Action	Action	No
355	470	Wild Horses	N/A - 0	Action	No
356	471	West Nile	Action	Action	No
357	472	West Nile	Action	Action	No
358	473	West Nile	Action	Action	No
359	474	West Nile	Action	Action	No
360	475	West Nile	Action	Action	No
361	476	West Nile	Action	Action	No
362	477	Areas of	Action	Action	No
363	478	Areas of	Action	Action	No
364	479	Areas of	Action	Action	No
365	480	Areas of	Action	Action	No
366	481	Areas of	Action	Action	No
367	482	Areas of	Action	Action	No
368	484	Cultural	Action	Action	No
369	485	Cultural	Action	Action	No
370	486	Hazardous	Action	Action	No
371	487	Hazardous	Action	Action	No
372	488	Soils	Action	Action	No
373	489	Habitat	Action	Action	No
374	490	Habitat	Action	Action	No
375	491	Visual	Action	Action	No
376	531	BMP West Nile	Action	BMP	No
377	532	BMP West Nile	Appen 0	Increas	No
378	533	BMP West Nile	Action 0	Build	No
379	534	BMP West Nile	Action 0	Mainta	No
380	535	BMP West Nile	Action 0	Constr	No
381	536	BMP West Nile	Action 0	Line	No
382	537	BMP West Nile	Action 0	Line	No
383	538	BMP West Nile	Action 0	Fence	No
384	539	BMP Fluid	Action 0	<i>BMP</i>	No
385	540	BMP Fluid	Action 0	<i>Roads</i>	No
386	541	BMP Fluid	Action 0	Design	No

387	542	BMP Fluid	Action 0	Locate No
388	543	BMP Fluid	Action 0	Coordi No
389	544	BMP Fluid	Action 0	Constr No
390	545	BMP Fluid	Action 0	Establi No
391	546	BMP Fluid	Action 0	Establi No
392	547	BMP Fluid	Action 0	Do not No
393	548	BMP Fluid	Action 0	Restrict No
394	549	BMP Fluid	Action 0	Use No
395	550	BMP Fluid	Action 0	Close No
396	551	BMP Fluid	Action 0	<i>Opera</i> No
397	552	BMP Fluid	Action 0	Cluste No
398	553	BMP Fluid	Action 0	Use No
399	554	BMP Fluid	Action 0	Place No
400	555	BMP Fluid	Action 0	Apply No
401	556	BMP Fluid	Action 0	Place No
402	557	BMP Fluid	Action 0	Pipelin No
403	558	BMP Fluid	Action 0	Use No
404	559	BMP Fluid	Action 0	Restrict No
405	560	BMP Fluid	Action 0	Site No
406	561	BMP Fluid	Action 0	Place No
407	562	BMP Fluid	Action 0	Bury No
408	563	BMP Fluid	Action 0	Colloc No
409	564	BMP Fluid	Action 0	Design No
410	565	BMP Fluid	Action 0	Cover No
411	566	BMP Fluid	Action 0	Equip No
412	567	BMP Fluid	Action 0	Contro No
413	568	BMP Fluid	Action 0	Use No
414	569	BMP Fluid	Action 0	Restrict No
415	570	BMP Fluid	Action 0	Remov No
416	571	BMP Fluid	Action 0	Limit No
417	572	BMP Fluid	Action 0	Requir No
418	573	BMP Fluid	Action 0	Fit No
419	574	BMP Fluid	Action 0	Requir No
420	575	BMP Fluid	Action 0	Locate No
421	576	BMP Fluid	Action 0	Clean No
422	577	BMP Fluid	Action 0	Locate No
423	578	BMP Fluid	Action 0	<i>Recla</i> No
424	579	BMP Fluid	Action 0	Includ No
425	580	BMP Fluid	Action 0	Maxim No
426	581	BMP Fluid	Action 0	Restor No
427	582	BMP Fluid	Action 0	Irrigat No
428	583	BMP Fluid	Action 0	Utilize No
429	584	BMP Fluid	Action 0	<i>Roads</i> No



430	585	BMP Fluid	Action 0	Design No
431	586	BMP Fluid	Action 0	Do not No
432	587	BMP Fluid	Action 0	Establi No
433	588	BMP Fluid	Action 0	Coordi No
434	589	BMP Fluid	Action 0	Constr No
435	590	BMP Fluid	Action 0	Use No
436	591	BMP Fluid	Action 0	Close No
437	592	BMP Fluid	Action 0	<i>Opera</i> No
438	593	BMP Fluid	Action 0	Cluste No
439	594	BMP Fluid	Action 0	Use No
440	595	BMP Fluid	Action 0	Clean No
441	596	BMP Fluid	Action 0	Restrict No
442	597	BMP Fluid	Action 0	Cover No
443	598	BMP Fluid	Action 0	Equip No
444	599	BMP Fluid	Action 0	Use No
445	600	BMP Fluid	Action 0	Contro No
446	601	BMP Fluid	Action 0	Restrict No
447	602	BMP Locatable	Action 0	<i>BMP</i> No
448	603	BMP Locatable	Action 0	<i>Roads</i> No
449	604	BMP Locatable	Action 0	Design No
450	605	BMP Locatable	Action 0	Locate No
451	606	BMP Locatable	Action 0	Coordi No
452	607	BMP Locatable	Action 0	Constr No
453	608	BMP Locatable	Action 0	Establi No
454	609	BMP Locatable	Action 0	Do not No
455	610	BMP Locatable	Action 0	Restrict No
456	611	BMP Locatable	Action 0	Use No
457	612	BMP Locatable	Action 0	Close No
458	613	BMP Locatable	Action 0	<i>Opera</i> No
459	614	BMP Locatable	Action 0	Cluste No
460	615	BMP Locatable	Action 0	Place No
461	616	BMP Locatable	Action 0	Restrict No
462	617	BMP Locatable	Action 0	Site No
463	618	BMP Locatable	Action 0	Place No
464	619	BMP Locatable	Action 0	Bury No
465	620	BMP Locatable	Action 0	Cover No
466	621	BMP Locatable	Action 0	Equip No
467	622	BMP Locatable	Action 0	Contro No
468	623	BMP Locatable	Action 0	Restrict No
469	624	BMP Locatable	Action 0	Requir No
470	625	BMP Locatable	Action 0	Clean No
471	626	BMP Locatable	Action 0	Locate No
472	627	BMP Locatable	Action 0	<i>Recla</i> No

473	628	BMP Locatable	Action 0	Includ	No
474	629	BMP Locatable	Action 0	Addre	No
475	630	BMP Locatable	Action 0	Maxim	No
476	631	BMP Locatable	Action 0	Restor	No
477	632	BMP Locatable	Action 0	Irrigat	No
478	633	BMP Fuels	Action 0	<i>BMP</i>	No
479	634	BMP Fuels	Action 0	<i>Fuels</i>	No
480	635	BMP Fuels	Action 0	Where	No
481	636	BMP Fuels	Action 0	Provid	No
482	637	BMP Fuels	Action 0	Use	No
483	638	BMP Fuels	Action 0	Ensure	No
484	639	BMP Fuels	Action 0	Where	No
485	640	BMP Fuels	Action 0	Where	No
486	641	BMP Fuels	Action 0	Power-	No
487	642	BMP Fuels	Action 0	Design	No
488	643	BMP Fuels	Action 0	Give	No
489	644	BMP Fuels	Action 0	As	No
490	645	BMP Fuels	Action 0	Empha	No
491	646	BMP Fuels	Action 0	Remov	No
492	647	BMP Fuels	Action 0	Protect	No
493	648	BMP Fuels	Action 0	Reduc	No
494	649	BMP Fuels	Action 0	Strateg	No
495	650	BMP Fire	Action 0	<i>Fire</i>	No
496	651	BMP Fire	Action 0	Develo	No
497	652	BMP Fire	Action 0	Provid	No
498	653	BMP Fire	Action 0	Assign	No
499	654	BMP Fire	Action 0	On	No
500	655	BMP Fire	Action 0	During	No
501	656	BMP Fire	Action 0	To the	No
502	657	BMP Fire	Action 0	Power-	No
503	658	BMP Fire	Action 0	Minim	No
504	659	BMP Fire	Action 0	Minim	No
505	660	BMP Fire	Action 0	Utilize	No
506	661	BMP Fire	Action 0	As	No
507	662	BMP	Action 0	Action	No
508	663	BMP	Action 0	Action	No
509	664	BMP	Action 0	Action	No
510	665	BMP	Action 0	Action	No
511	666	BMP	Action 0	Action	No
512	667	BMP	Action 0	Action	No
513	668	BMP	Action 0	Action	No
514	669	BMP	Action	Action	No
515	670	BMP	Action	Action	No







Action	Guy wires will be avoided were	Guy wires will be avoided were
Action	Design structures and facilities to	Design structures and facilities to
Action	New power and communication	New power and communication
Action	Adhere to seasonal restrictions	Adhere to seasonal restrictions
Action	Linear ROWs may be considered as	Linear ROWs may be considered as
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
All	Action: No Similar Action	Key Decision: Lands for Retention
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	Key Decision: Identify Proposed
Action	Action: No Similar Action	See Above.
Action	Action: No Similar Action	Key Decision: Lands for Acquisition
No	Action: No Similar Action	Key Decision: Lands for Exchange
Action	Action: No Similar Action	Key Decision: Identify existing and
Action	Action: No Similar Action	Action: Identify and process
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	8 Action: Prioritize implementation
Action	Action: No Similar Action	6 Action: Develop objectives for
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	9 Action: Same as Alternative B.
Action	Action: No Similar Action	10 Action: Implement management
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	14 Action: Same as Alternative B.
No	Action: No Similar Action	Action: No Similar Action
-	Action: No Similar Action	Action: No Similar Action
Active	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action

Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	None Developed
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	1 Action: Utilize existing rangeland
No	Action: No Similar Action	2 Action: Proactively protect
No	Action: No Similar Action	3 Action: Implement integrated
Action	Action: No Similar Action	4 Action: implement rehabilitation
Action	Action: No Similar Action	5 Action: Utilize cooperative
Action	Action: No Similar Action	7 Action: Consider design features
Action	Action: No Similar Action	17 Action: Conduct monitoring of
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Object	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	See #176
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	GOAL: In priority habitat, design
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	See # 193
Action	Same as priority	Action: In priority habitat, design
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Same as priority	Action: During fuels management
Action	Action: No Similar Action	See #176
Action	Action: No Similar Action	Priorities discussed under a separate
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Addressed under fire fighter safety -
Action	Action: No Similar Action	Policy not an RMP decision.
Action	Action: No Similar Action	See BMPs
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	No similar action.

Action	Action: No Similar Action	Delineate conifer encroachment
Action	Action: No Similar Action	Same as Alternative B.
Action	Action: No Similar Action	Action: Design post fuel,
Action	Action: No Similar Action	Action: To address potential climate
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Ensure firefighter personnel receive
Action	Action: No Similar Action	Use knowledgeable resource
Action	Action: No Similar Action	Where appropriate, stage initial
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Protect sage-grouse habitat during
Action	Action: No Similar Action	Proactively protect sage-grouse
Action	Action: Lands are available for	Action: Lands are available for
Action	Action: For existing undeveloped	Action: For existing undeveloped
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
No	Not Applicable	Not Applicable
Action	Lands would remain open to	Lands in Priority Habitat would
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Require new 3809 notices and Plans	Require new 3809 notices and Plans
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	No new authorizations would be	No new authorizations would be
Action	Action: In core habitat, restore	Action: In priority habitat, restore
Action	Reclamation bonding will be	Reclamation bonding will be
Action	Action: Lands are available for	Action: Lands are available for
Action	Action: Allow geophysical	Action: Allow geophysical
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Not Applicable - there are no	Action: Continue to only allow
Action	Action: When a surface disturbing	Action: In NEPA documents
Timin	Covered in Action #205	Covered in Action # 205
Conser	Not Applicable	Not Applicable



Conser	Conservation Measure: For future	Conservation Measure: For future
Conser	Conservation Measure: When	Conservation Measure: When
Conser	Conservation Measure: If a field is	Conservation Measure: If a field is
Conser	Action: No Similar Action	Action: No Similar Action
Conser	Conservation Measure: If surface	Conservation Measure: If surface
Conser	Conservation Measure: When an	Conservation Measure: When an
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Object	Action: No Similar Action	Action: No Similar Action
Action	Action: Where the federal	Action: Where the federal
Action	Where the federal government owns	Where the federal government owns
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: Action: In priority habitat,	Action: Action: In priority habitat,
Action	Action: No Similar Action	No similar action.
Action	Same as Priority	CTTM 2: Management Action: In
Action	Same as Priority	CTTM 3: Management Action:
Action	Action: No Similar Action	Action: Design and designate a
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: Design and designate a
Action	Action: No Similar Action	Action: Prioritize restoration of
Action	Action: No Similar Action	Action: When rehabilitating linear
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Schedule road maintenance to avoid
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: SRPs would be analyzed on
Action	Same as Priority	Designate or design developed
No	Same as Priority	Incorporate seasonal restrictions for
Action	Same as Priority	Recreation activities and developed
Action	Action: No Similar Action	Limit snow machine travel to
Action	Action: No Similar Action	Repeat
Action	Action: No Similar Action	See # 358
Action	Action: No Similar Action	See # 359
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action. See SRP
Action	Action: No Similar Action	No similar action. - Refer to
Action	Action: No Similar Action	See action #358

Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	See action #359.
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: Within grazing allotments
Action	Same as Priority	Where opportunities exist, work
Action	Action: Core areas are the highest	Action: Prioritize land health
Action	Same as Priority	Action: During the land health
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: Use monitoring information
Action	Same as Priority	Action: Manage for vegetation
Action	Same as Priority	Action: Where livestock
Action	Same as Priority	Action: In priority sage-grouse
Action	Manage livestock grazing in priority	Manage livestock grazing in priority
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: Limit authorization of new	Action: Limit authorization of new
Action	Action: During project inspections,	Action: During project inspections,
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: Assess the compatibility of	Action: Assess the compatibility of
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: In priority habitat, design	Action: In priority habitat, design
Action	Action: When developing or	Action: When developing or
Action	Action: During project inspections,	Action: During project inspections,
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: When grazing privileges are
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: Incorporate Terms and	Action: Incorporate Terms and
No	Where opportunities exist, consider	Where opportunities exist, consider
Action	Outside of occupied or potential	Outside of occupied or potential



Object	Action: No Similar Action	Action: No Similar Action
Action	Action: Within priority habitat,	Action: Within priority habitat,
Action	Action: When evaluating AML on	Action: When evaluating AML on
Action	Utilize interdisciplinary land health	Utilize interdisciplinary land health
Action	Refer to livestock grazing actions	Refer to livestock grazing actions
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	6. Action: Analysis of proposed
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Fence whole or portion of pond site	Fence whole or portion of pond site
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Design roads to an appropriate	Design roads to an appropriate

Action	Construction, operations and	Construction, operations and
Action	Coordinate road construction and	Coordinate road construction and
Action	Construct road crossings at right	Construct road crossings at right
Action	Establish speed limits on BLM and	Establish speed limits on BLM and
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Restrict vehicle traffic to only	Restrict vehicle traffic to only
Action	Use dust abatement on roads and	Use dust abatement on roads and
Action	Close and rehabilitate duplicate	Close and rehabilitate duplicate
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible	To the maximum extent possible
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Place liquid gathering facilities	Place liquid gathering facilities
Action	Consider placing pipelines under or	Consider placing pipelines under or
Action	Develop a plan to reduce the	Develop a plan to reduce the
Action	Restrict the construction of tall	Restrict the construction of tall
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Where physically feasible, bury	Where physically feasible, bury
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible	To the maximum extent possible
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Control the spread and effects of	Control the spread and effects of
Action	Action: No Similar Action	Action: No Similar Action
Action	Restrict pit and impoundment	Restrict pit and impoundment
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Action: No Similar Action	Action: No Similar Action
Action	Require noise shields when drilling	Require noise shields when drilling
Action	To the maximum extent possible, fit	To the maximum extent possible, fit
Action	Require sage-grouse-safe fences: use	Require sage-grouse-safe fences: use
Action	Action: No Similar Action	Action: No Similar Action
Action	Clean up refuse (Bui et al. 2011).	Clean up refuse (Bui et al. 2011).
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Action: No Similar Action	Action: No Similar Action
Action	Include objectives for ensuring	Include objectives for ensuring
Action	When road and well pad is no longer	When road and well pad is no longer
Action	Restore disturbed areas at final	Restore disturbed areas at final
Action	Irrigate interim reclamation if	Irrigate interim reclamation if
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Action: No Similar Action	Action: No Similar Action



Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Where applicable, incorporate linear	Where applicable, incorporate linear
Action	Power-wash all vehicles and	Power-wash all vehicles and
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Emphasize the use of native plant	Emphasize the use of native plant
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Reduce the risk of vehicle or human-	Reduce the risk of vehicle or human-
Action	Strategically place and maintain pre-	Strategically place and maintain pre-
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Minimize unnecessary cross-country	Minimize unnecessary cross-country
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Utilize existing roads, or	Utilize existing roads, or
Action	Construct new roads to minimum	Construct new roads to minimum
Action	To the extent possible, micro-site	To the extent possible, micro-site
Action	Locate staging areas outside the core	Locate staging areas outside the core
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Wind energy development project	Wind energy development project





Alternative D - General Habitat	Altern	Altern	Altern	Altern	Altern	Altern	Altern	Altern	Altern
Action: No Similar Action	Provid	Action	Action	Action	p. 30,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 10,	Same		Action	
Action: No Similar Action	Replac	Action	Action	Action	p. 45,	Same		Action	
Action: No Similar Action	Contin	Action	Action	Action	p. 45,	Same		Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 46,	Same		Action	
GOAL: Maintain and/or increase	Conser	Action	Action	Action	p. 1,	Same		GOAL	
OBJECTIVE: Conserve, enhance or	Action	Focus	Focus	Focus	p. 25,	Same		Object	
Action: No Similar Action	Activit	Action	Action	Action		Same		Action	
Action: No Similar Action	Action	Action	Action	Action		Same		Object	
OBJECTIVE: Manage general	Action	Action	Action	Action		Same		Action	
Action: No Similar Action	Conser	Action	Action	Action	p. 1,	Same		Object	
Action: No Similar Action	Action	Action	Action	Action		Same		Action	
Action: No Similar Action	Action	Core	Import	Gener	p. 3,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Action	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Sub-	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same		Sub-	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Object	
Action: No Similar Action	Deline	Action	Action	Action		Same		Object	
Action: No Similar Action	Analyz	Action	Action	Action		Same		Action	
General sage-grouse habitat is	The	CHZ	CHZ	GHZ	p. 5,	Same		Unless	
Action: No Similar Action	Action	CHZ	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Action	The	The	The	p. 24,	Same		Action	
Action: No Similar Action	Action	Prioriti	Action	Action	p. 24,	Same		Action	
Action: No Similar Action	Action	Areas	The	Action	p. 24,	Same		Action	
Action: No Similar Action	Action	Depen	Action	Action	p. 25,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 30,	Same		Action	
Action: No Similar Action	Design	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Classif	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Establi	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Wildfi	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Sage-	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 6,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 6,	Same		Action	
Action: No Similar Action	Habita	Action	Action	Action	p. 11,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 11,	Same		Action	
Action: No Similar Action	Reduc	Utilize	Utilize	Action	p. 25,	Same		Action	
Action: No Similar Action	Action	Coordi	Afford	Action	p. 25,	Same		Action	
Action: No Similar Action	Action	Gener	Gener	Gener	p. 26,	Same		Action	

Action: No Similar Action	Action	CHZ	CHZ	Action	p. 23,	Same	Action	
Action: No Similar Action	Manag	Manag	Manag	Manag	Same	p. 13,	Same	Action
Action: No Similar Action	Manag	Action	Action	Action	p. 14,	Same	Action	
Action: No Similar Action	Coordi	Action	Action	Action	p. 19,	Same	Action	
Action: No Similar Action	Action	Increas	Increas	Mainta	p. 25,	Same	Action	
Action: No Similar Action	Admin	Action	Action	Action	p. 46,	Same	Action	
Action: No Similar Action	Adapti	Action	Action	Action	p. 46,	Same	Action	
Action: No Similar Action	Curtail	Action	Action	Action	p. 46,	Same	Action	
Action: No Similar Action	Emerg	Action	Action	Action	p. 46,	Same	Action	
Action: No Similar Action	Action	This	This	Action	p. 5,	Same	Action	
Action: No Similar Action	Action	The	The	Action	p. 5,	Same	Action	
Action: No Similar Action	Action	Imple	Imple	Action	p. 14,	Same	Action	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action	
Action: No Similar Action	Provid	Action	Action	Action	p. 30,	Same	Action	
Action: No Similar Action	Action	Apply	Apply	Action	p. 9,	Same	Action	
Action: No Similar Action	Apply	Action	Action	Action	p. 9,	Same	Action	
Action: No Similar Action	Action	Apply	Action	Action		Same	Action	
Action: No Similar Action	Action	Apply	Apply	Action	p. 10,	Same	Action	
Action: No Similar Action	Correc	Action	Action	Action	p. 46,	Same	Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action	
Action: No Similar Action	All	Action	Action	Action	p. 11,	Same	Action	
Action: No Similar Action	Plan,	Action	Action	Action	p. 11,	Same	Action	
Action: No Similar Action	Utilize	Action	Action	Action	p. 11,	Same	Action	
Action: No Similar Action	Areas	Focus	Focus	Action	p. 12,	Same	Action	
Action: No Similar Action	The	Action	Action	Action	p. 12,	Same	Action	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same	Action	
Action: No Similar Action	Action	Object	Action	Action	p. 8,	Same	Action	
Action: No Similar Action	Condu	Condu	Condu	Action	p. 13,	Same	Action	
Action: No Similar Action	Condu	Condu	Condu	Action	p. 13,	Same	Action	
Designate General areas as ROW	Action	Action	Action	Action		Same	Action	
ROW and land use authorizations	Action	Action	Action	Action		Same	Action	
Not applicable	Action	Action	Action	Action		Same	Action	
New authorizations and	Action	Action	Action	Action		Same	Action	
New authorizations or modifications	Action	Action	Action	Action		Same	Action	
Removal/relocation/ or burial	Action	Action	Action	Action		Same	Action	
Site new authorizations or facilities	Action	Action	Action	Action		Same	Action	

Guy wires will be avoided were	Action	Action	Action	Action	Same	Action
Design structures and facilities to	Action	Action	Action	Action	Same	Action
New power and communication	Action	Action	Action	Action	Same	Action
Adhere to seasonal restrictions	Action	Action	Action	Action	Same	Action
Linear ROWs may be considered as See	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Design	Design	Manag	p. 26, Same	.
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Prohib	Author	Author	p. 33, Same	Action
Action: No Similar Action	Action	Prohib	Action	Action	p. 34, Same	Action
Action: No Similar Action	Action	Apply	Action	Action	p. 34, Same	Action
Action: No Similar Action	Infrast	Action	Action	There	p. 11, Same	Action
Action: No Similar Action	Modif	Action	Action	Action	p. 24, Same	Action
Action: No Similar Action	Condu	Action	Action	Action	p. 24, Same	Action
Action: No Similar Action	Action	New	Action	Action	p. 26, Same	Action
Action: No Similar Action	Action	Allow	Action	Action	Same	Action
Action: No Similar Action	Action	In	Action	Action	p. 27, Same	Action
Action: No Similar Action	Action	Mainta	Action	Action	p. 27, Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Prioriti	Prioriti	Action	p. 33, Same	Action
Action: No Similar Action	Action	Active	Active	Action	p. 33, Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	No

Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Active	Active	Aggres p. 26,	Same	Action
Action: No Similar Action		Action	Contro	Contro	Action p. 32,	Same	Action
Action: No Similar Action		Action	Empha	Empha	Action p. 32,	Same	Action
Action: No Similar Action		Action	Reallo	Reallo	Action p. 32,	Same	Object
Action: No Similar Action		Action	Where	Where	Action p. 32,	Same	No
Action: No Similar Action		Action	Action	Requir	Action p. 39,	Same	Action
Action: No Similar Action		Action	Action	Eradic	Eradic p. 39,	Same	No
Action: No Similar Action		Action	Action	Monit	Monit p. 39,	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Utilize	Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Same as priority		Action	Reduc	Reduc	Reduc p. 31,	Same	Action
Action: No Similar Action		Action	Prioriti	Prioriti	Empha p. 26,	Same	Action
Action: No Similar Action		Action	Decrea	Decrea	Action p. 31,	Same	Action
Action: No Similar Action	Refer	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Imple	Action	Develo	Develo	Action p. 32,	Same	Action
Same as priority		Action	Action	Create	Create p. 38,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Prescri	Prescri p. 38,	Same	Action
Action: In general sage-grouse		Action	Action	Coordi	Action p. 38,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Develo	Action p. 28,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	No	Action	Action	Action	Action	Same	Action

Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Prioriti	Action	Action	p. 3, Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: Lands are available for		Action	Action	Action	Action	Same	Action
Action: For existing undeveloped		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	No
Lands in General Habitat would		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Require new 3809 notices and plans		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
No new authorizations would be		Action	Action	Action	Action	Same	Action
Action: In general habitat, restore		Action	Action	Action	Action	Same	Action
Reclamation bonding will be		Action	Action	Action	Action	Same	Action
Action: Lands are open to leasing,		Action	Action	Action	Action	Same	Action
Action: Allow geophysical		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Not Applicable - no existing leases		Action	Oil	Oil	Action	p. 34, Same	1.
Action: When a surface disturbing		Action	Action	Action	Action	Same	Conser
Covered in Action # 205		Action	Action	Action	Action	Same	Conser
Not Applicable		Action	Action	Action	Action	Same	Conser



Action: No Similar Action	No	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Keep	Action	Action	Action	Action		Same	Action
Action: No Similar Action		Action	Action	Action	Action		Same	Action
Same as Priority	Our is	Action	Prioriti	Prioriti	Action	p. 26,	Same	Action
Same as Priority	Keep	Action	Action	Action	Action		Same	Action
lower priority	Keep	Action	Action	Action	Action		Same	Action
Same as Priority	Keep	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Do not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Idaho	Action	Action	Action	Action		Same	Action
Same as Priority	Keep	Action	Condu	Condu	Action	p. 36,	Same	Action
Same as Priority	Keep	Action	Mainta	Mainta	Action	p. 36,	Same	Action
Same as Priority	Langu	Action	Adjust	Adjust	Action	p. 36,	Same	Action
Same as Priority	Recom	Action	Action	Action	Action		Same	Action
Manage livestock grazing in priority	Recom	Action	Imple	Imple	Action	p. 36,	Same	Action
Action: No Similar Action	Tried	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Recom	Consid	Action	Action	Action	p. 12,	Same	Action
Action: No Similar Action	Recom	Consid	Alterin	Enhan	Enhan	p. 12,	Same	Action
Action: No Similar Action	Not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Compl	Prioriti	Prioriti	Action	p. p.	Same	Action
Action: No Similar Action	Most	Action	Action	Action	Action		Same	No
New water developments that divert	Recom	Utilize	Action	Action	Action	p. 14,	Same	Action
Action: During project inspections,	Keep	Includ	Action	Action	Action	p. 14,	Same	Action
Action: No Similar Action	Added	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Added	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Cover	Inform	Action	Action	Action	p. 13,	Same	Action
Action: Assess the compatibility of	Recom	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: In priority habitat, design	Recom	Use	Action	Action	Action	p. 13,	Same	Action
Action: When developing or	Keep	Mainta	Action	Action	Action	p. 13,	Same	Action
Action: During project inspections,	REVIS	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Recom	Action	Action	Action	Action		Same	Action
Same as Priority	Revisit	Action	Action	Action	Action		Same	Action
Action: No Similar Action	We	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Check	Action	Action	Action	Action		Same	Object
Action: No Similar Action	We	Action	Action	Action	Action		Same	No
Action: No Similar Action	Sugges	Action	Action	Action	Action		Same	No
Action: Incorporate Terms and	Recom	Action	Action	Action	Action		Same	No
Where opportunities exist, consider	HAVE	Action	Action	Action	Action		Same	No
Outside of occupied or potential	Recom	Action	Action	Action	Action		Same	Action

Grazing to achieve fuels	HAVE	Action	Action	Action	Action	Same	No
Action: No Similar Action	This is	Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Avoid	Avoid	Action p. 48,	Same	Action
Action: No Similar Action		Action	Design	Design	Action p. 48,	Same	Action
Action: No Similar Action		Action	Install	Install	Action p. 48,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 48,	Same	Action
Action: No Similar Action		Action	Avoid	Avoid	Action p. 48,	Same	Action
Action: No Similar Action		Action	Establi	Establi	Action p. 48,	Same	Action
Action: No Similar Action		Action	Treat	Treat	Action p. 48,	Same	Action
Action: No Similar Action		Action	Initiati	Initiati	Action p. 48,	Same	Action
Action: No Similar Action		Action	Apply	Apply	Action p. 46,	Same	Action
Action: No Similar Action		Action	Imple	Imple	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Graze	Graze	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Mainta	Mainta	Action p. 47,	Same	Action
Action: No Similar Action		Action	Inform	Inform	Action p. 47,	Same	Action
Action: No Similar Action		Action	Manag	Manag	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 47,	Same	Action
Action: No Similar Action		Action	Reduc	Reduc	Action p. 39,	Same	Action
Action: No Similar Action		Action	Mark	Mark	Action p. 37,	Same	Action
Action: No Similar Action		Action	Remov	Remov	Remov p. 37,	Same	Action
Action: No Similar Action		Action	Consid	Consid	Action p. 37,	Same	Action
Action: No Similar Action		Action	Constr	Constr	Action p. 37,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 37,	Same	Action
Action: No Similar Action	Do not	Action	Action	Action	Action	Same	Object
Action: No Similar Action	Do not	Action	Action	Action	Action	Same	Action



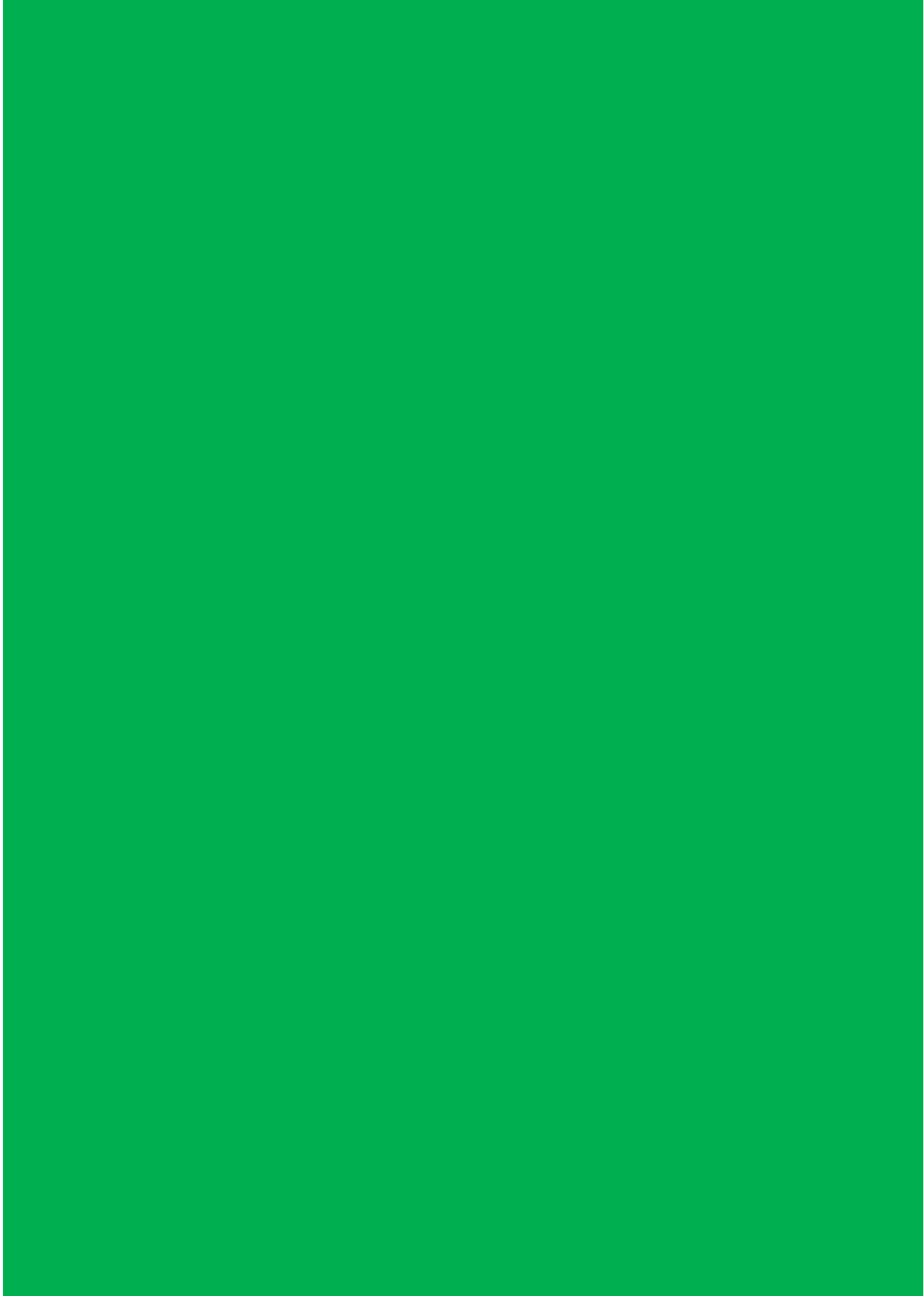
Action: No Similar Action	carry	Action	Action	Action	Action	Same	Object
Action: Within priority habitat,	Recom	Action	Action	Action	Action	Same	Action
Action: When evaluating AML on	Recom	Action	Action	Action	Action	Same	Action
Utilize interdisciplinary land health	Recom	Action	Action	Action	Action	Same	Action
Refer to livestock grazing actions	Recom	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Requir	Action	Action	Action	Action	Same	No
Action: No Similar Action	Recom	Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Constr	Constr	Action p. 35,	Same	Action
Action: No Similar Action		Action	Return	Return	Action p. 35,	Same	No
Action: No Similar Action		Action	Minim	Minim	Minim p. 35,	Same	No
Action: No Similar Action		Action	Permit	Permit	Permit p. 35,	Same	No
Action: No Similar Action		Action	Minim	Minim	Action p. 35.	Same	Action
Action: No Similar Action		Action	Develo	Develo	Develo p. 35,	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Fence whole or portion of pond site	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Evalua	Evalua	Action p. 44.	Same	Action
Action: No Similar Action	DELE	Action	Limit	Limit	Action p. 44,	Same	Action
Design roads to an appropriate	NTT	Action	Apply	Apply	Action p. 44,	Same	Same

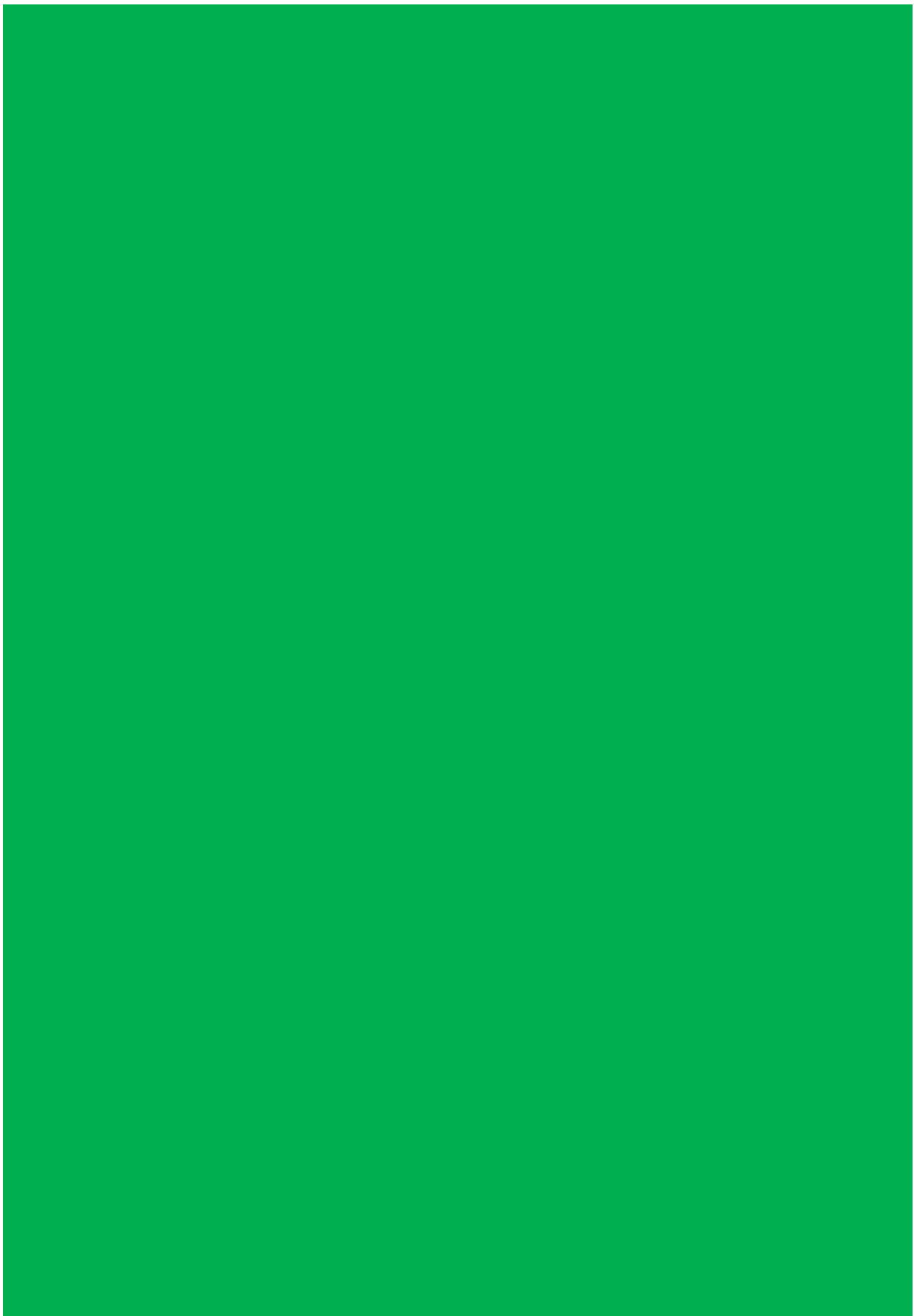
Construction, operations and	Aspect	Action	Limit	Limit	Action	p. 44,	Same	Same
Coordinate road construction and	NTT	Action	Allow	Allow	Action	p. 45.	Same	Same
Construct road crossings at right	NTT	Action	Locate	Locate	Action	p. 45,	Same	Same
Establish speed limits on BLM and	NTT	Action	Limit	Limit	Action	p. 45,	Same	Same
Action: No Similar Action	DELE	Action	Limit	Limit	Action	p. 45,	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Restrict vehicle traffic to only	NTT	Action	Action	Action	Action		Same	Same
Use dust abatement on roads and	NTT	Action	Action	Action	Action		Same	Same
Close and rehabilitate duplicate	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action
To the maximum extent possible	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Place liquid gathering facilities	NTT	Action	Action	Action	Action		Same	Same
Consider placing pipelines under or	NTT	Action	Action	Action	Action		Same	Same
Develop a plan to reduce the	NTT	Action	Action	Action	Action		Same	Same
Restrict the construction of tall	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Where physically feasible, bury	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Control the spread and effects of	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Restrict pit and impoundment	NTT	Action	Action	Action	Action		Same	Same
Remove or re-inject produced water	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Require noise shields when drilling	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible, fit	NTT	Action	Action	Action	Action		Same	Same
Require sage-grouse-safe fences: use	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Clean up refuse (Bui et al. 2011).	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action
Include objectives for ensuring	NTT	Action	Action	Action	Action		Same	Same
When road and well pad is no longer	NTT	Action	Action	Action	Action		Same	Same
Restore disturbed areas at final	NTT	Action	Action	Action	Action		Same	Same
Irrigate interim reclamation if	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action

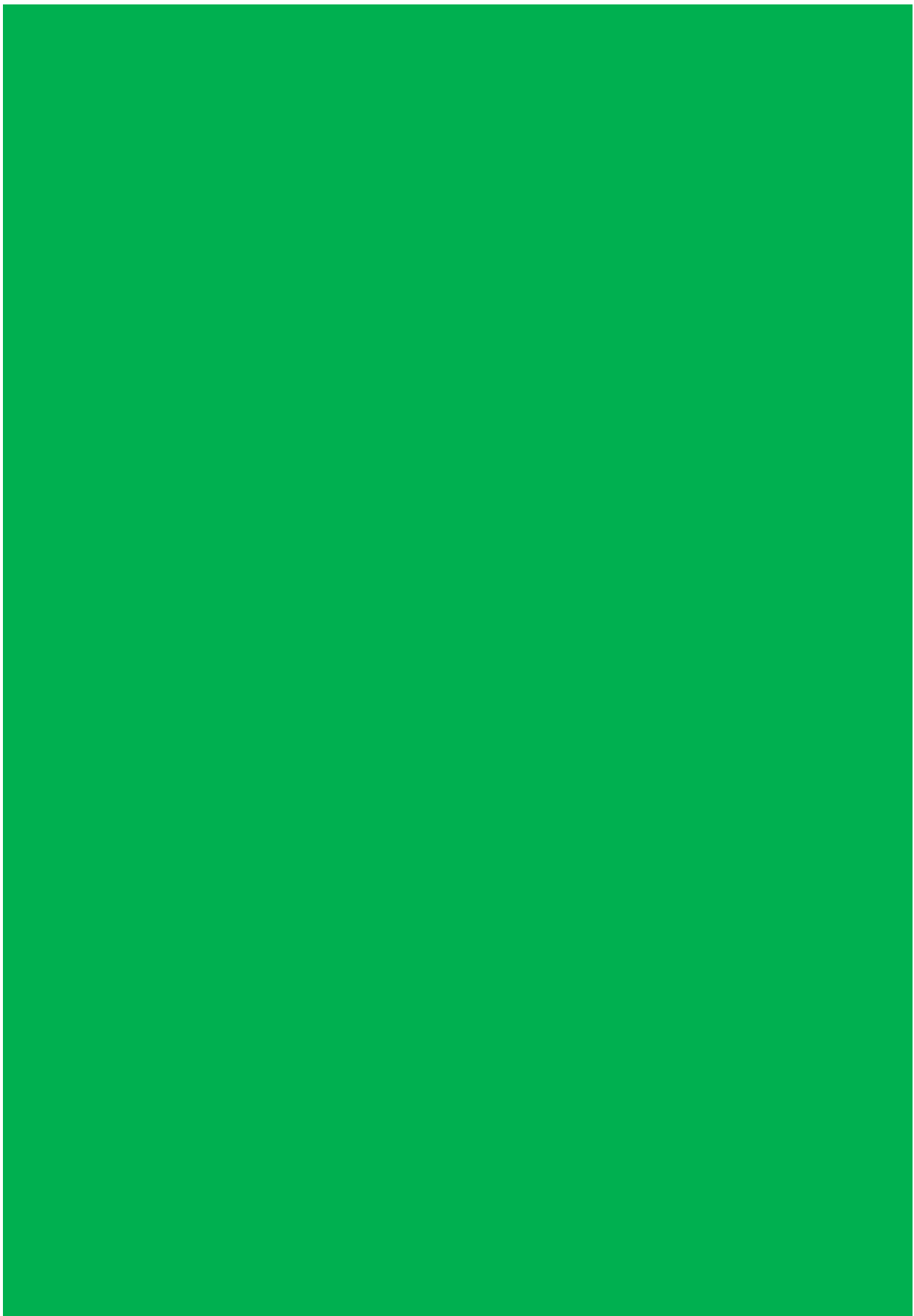


Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Where applicable, incorporate linear	NTT	Action	Action	Action	Action	Same	Same
Power-wash all vehicles and	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Emphasize the use of native plant	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Reduce the risk of vehicle or human-	NTT	Action	Action	Action	Action	Same	Same
Strategically place and maintain pre-	Correc	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Same
Minimize unnecessary cross-country	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Utilize existing roads, or	Used	Action	Utilize	Utilize	Action p. 43,	Same	Action
Construct new roads to minimum	Used	Action	Constr	Constr	Action p. 43,	Same	Action
To the extent possible, micro-site	Used	Action	Micro-	Micro-	Action p. 43,	Same	Action
Locate staging areas outside the core	Used	Action	Locate	Action	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Co-	Co-	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Co-	Co-	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Constr	Constr	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Site	Site	Action p. 44,	Same	Action
Wind energy development project	Used	Action	Wind	Wind	Action p. 44,	Same	Action

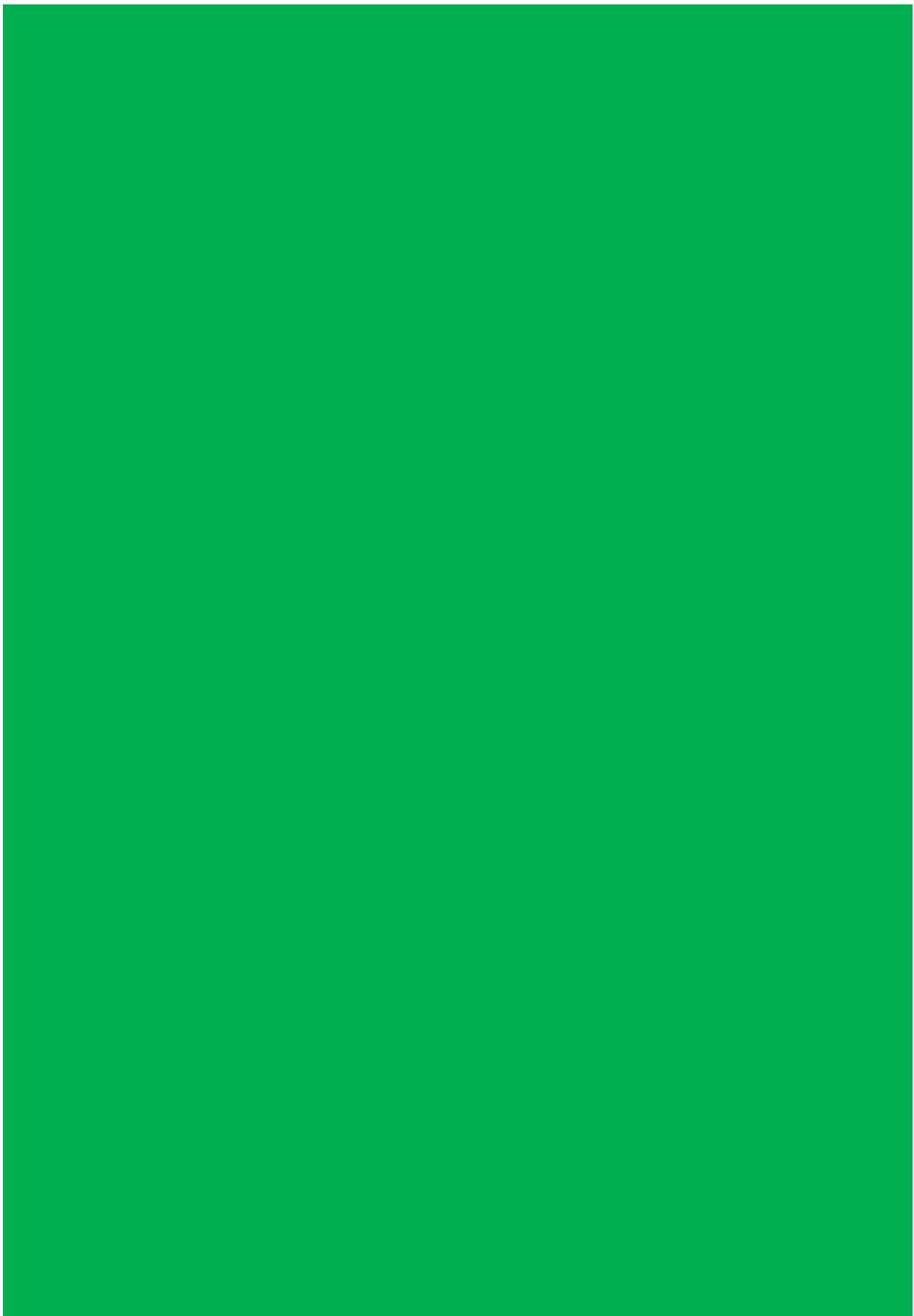
General procedure for requesting    This is Action Action Action Action    Same    Action

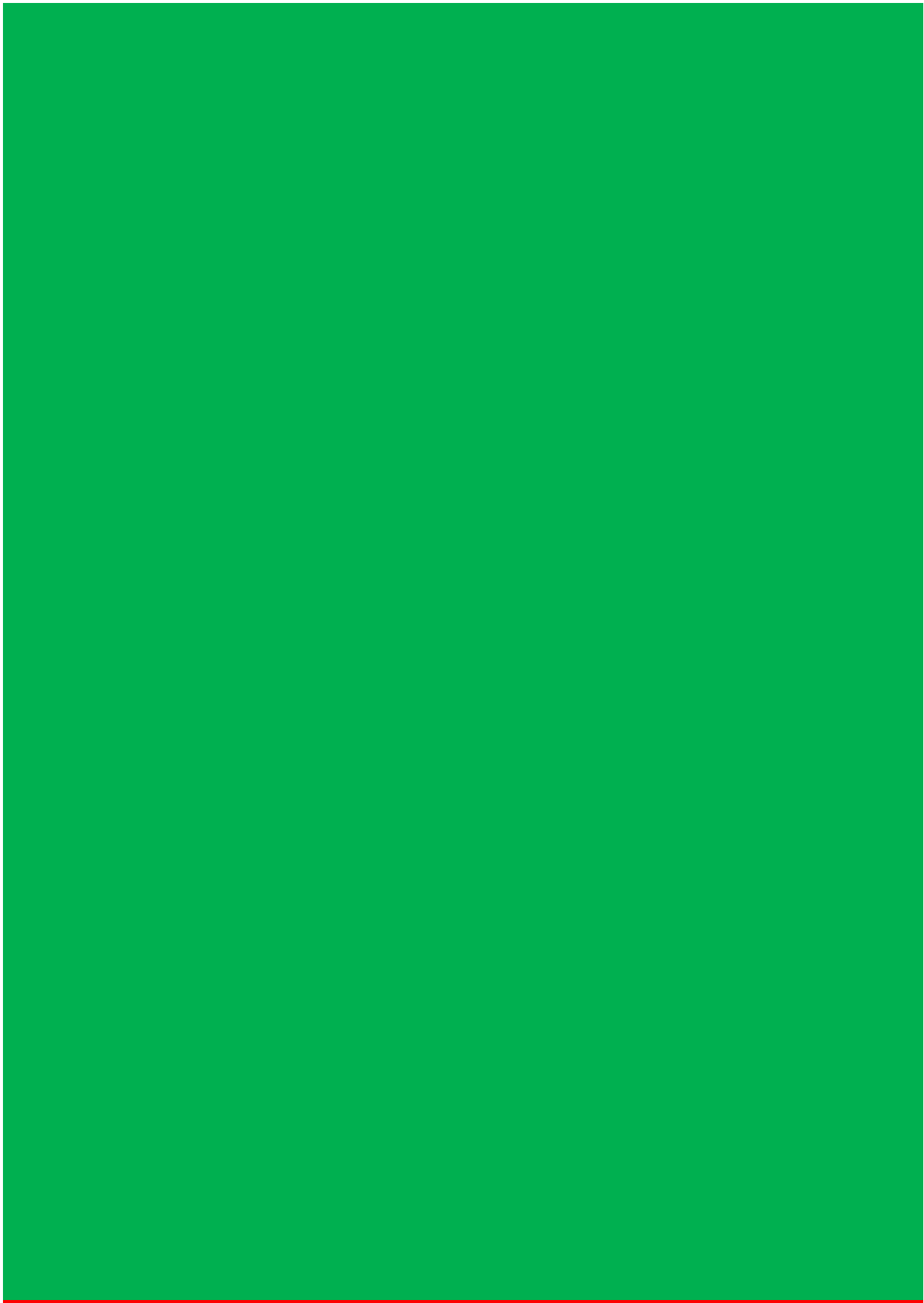






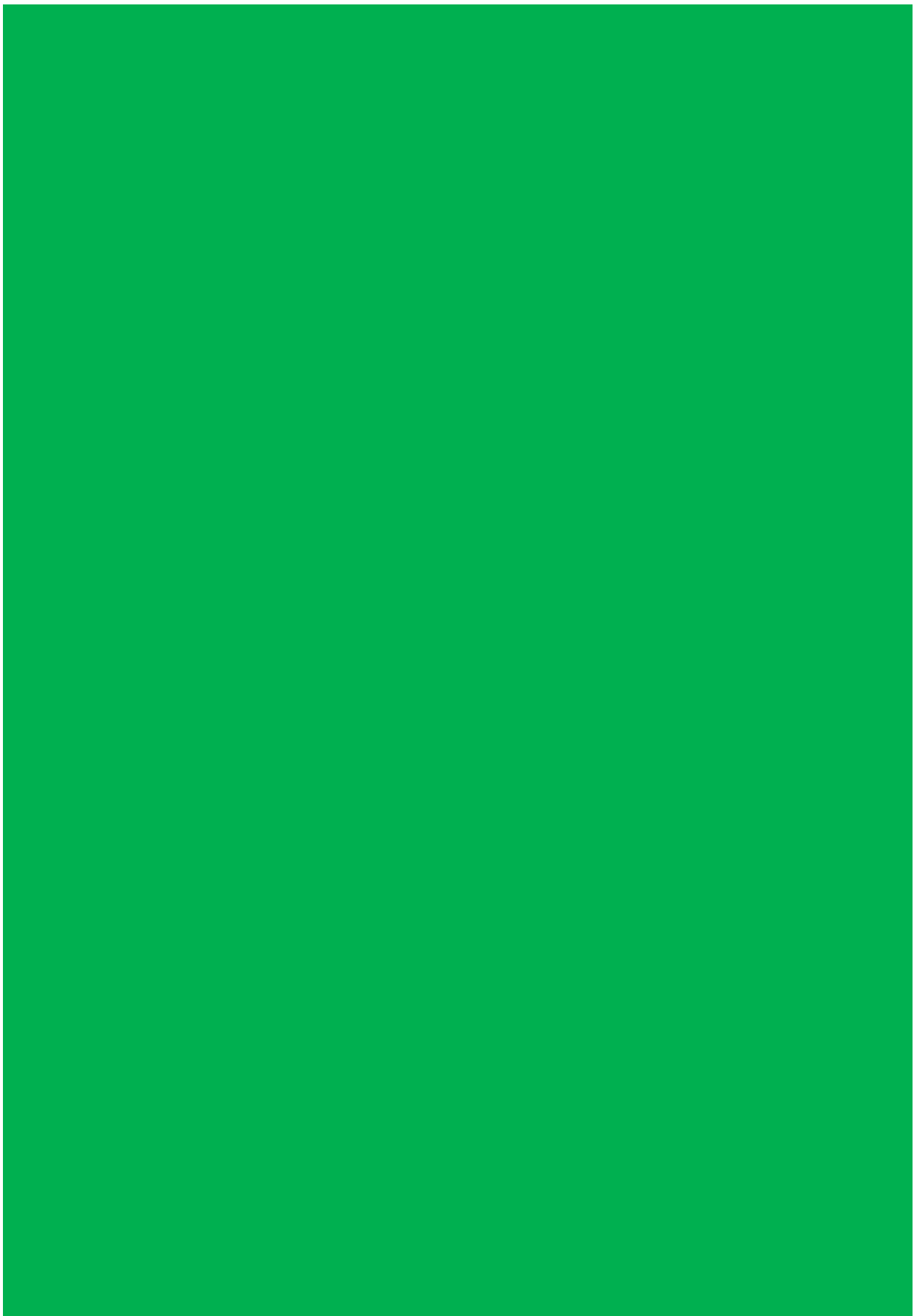




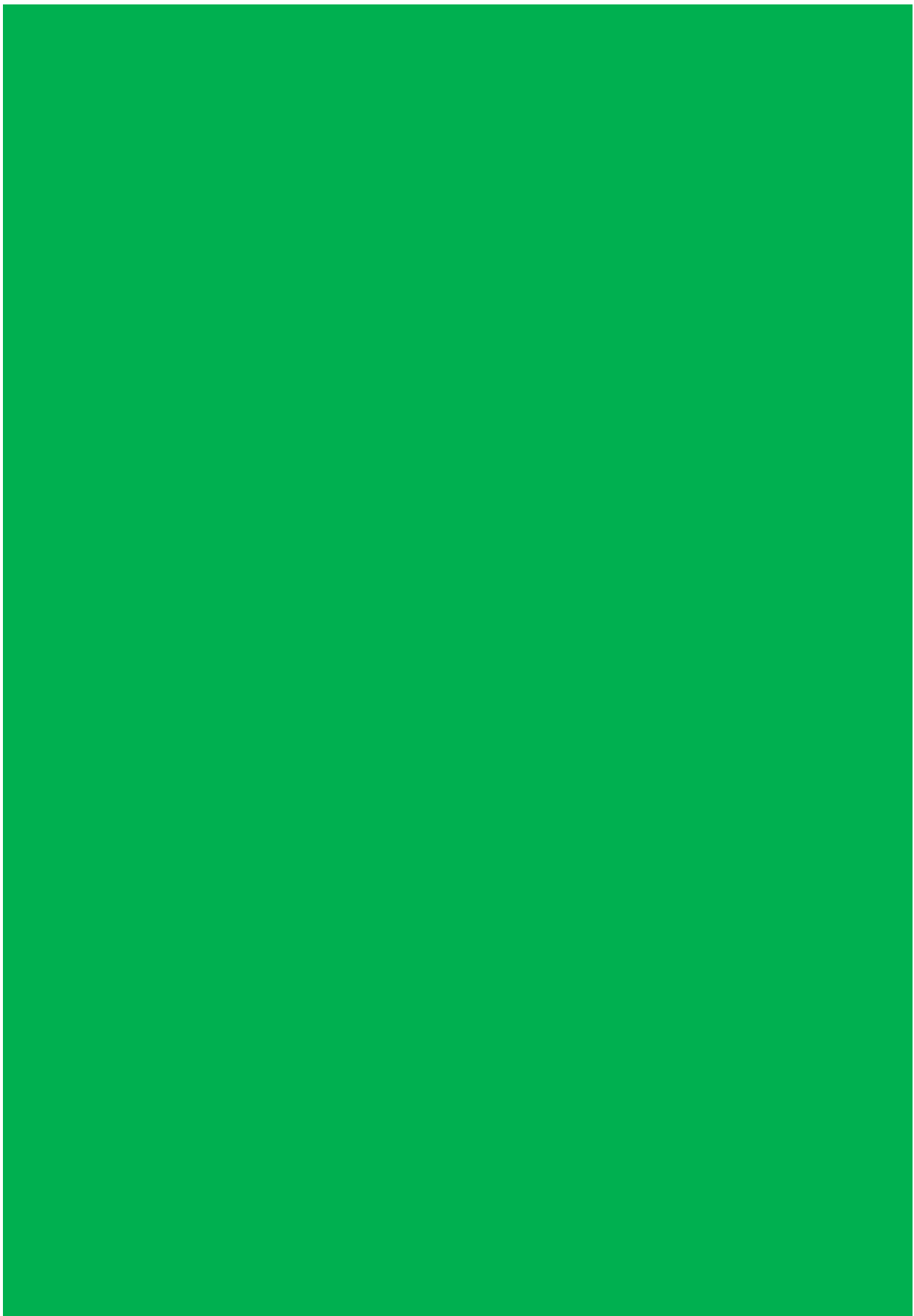


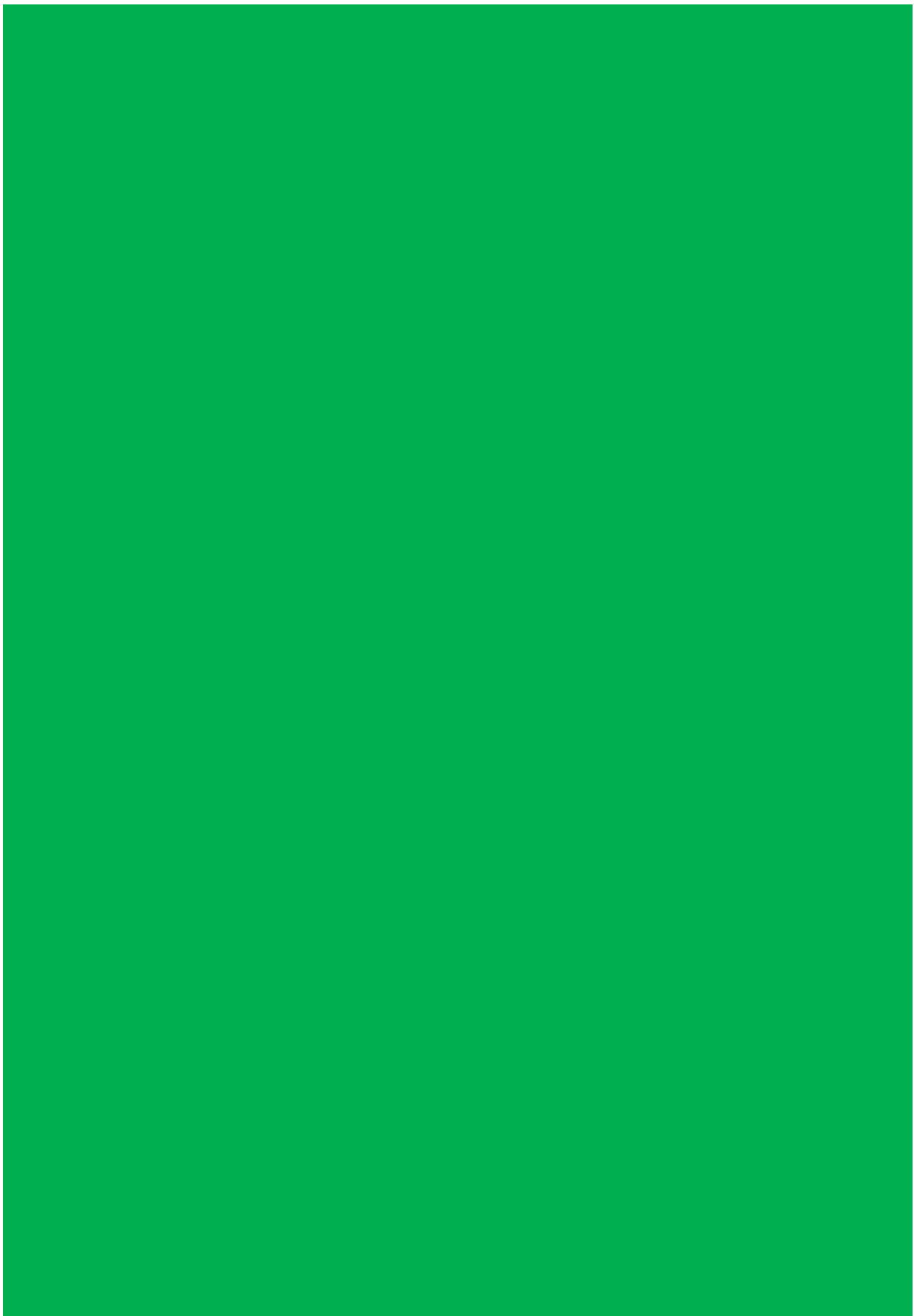
Does not apply to Sub region because no full field development or EISs that have addressed cumulative

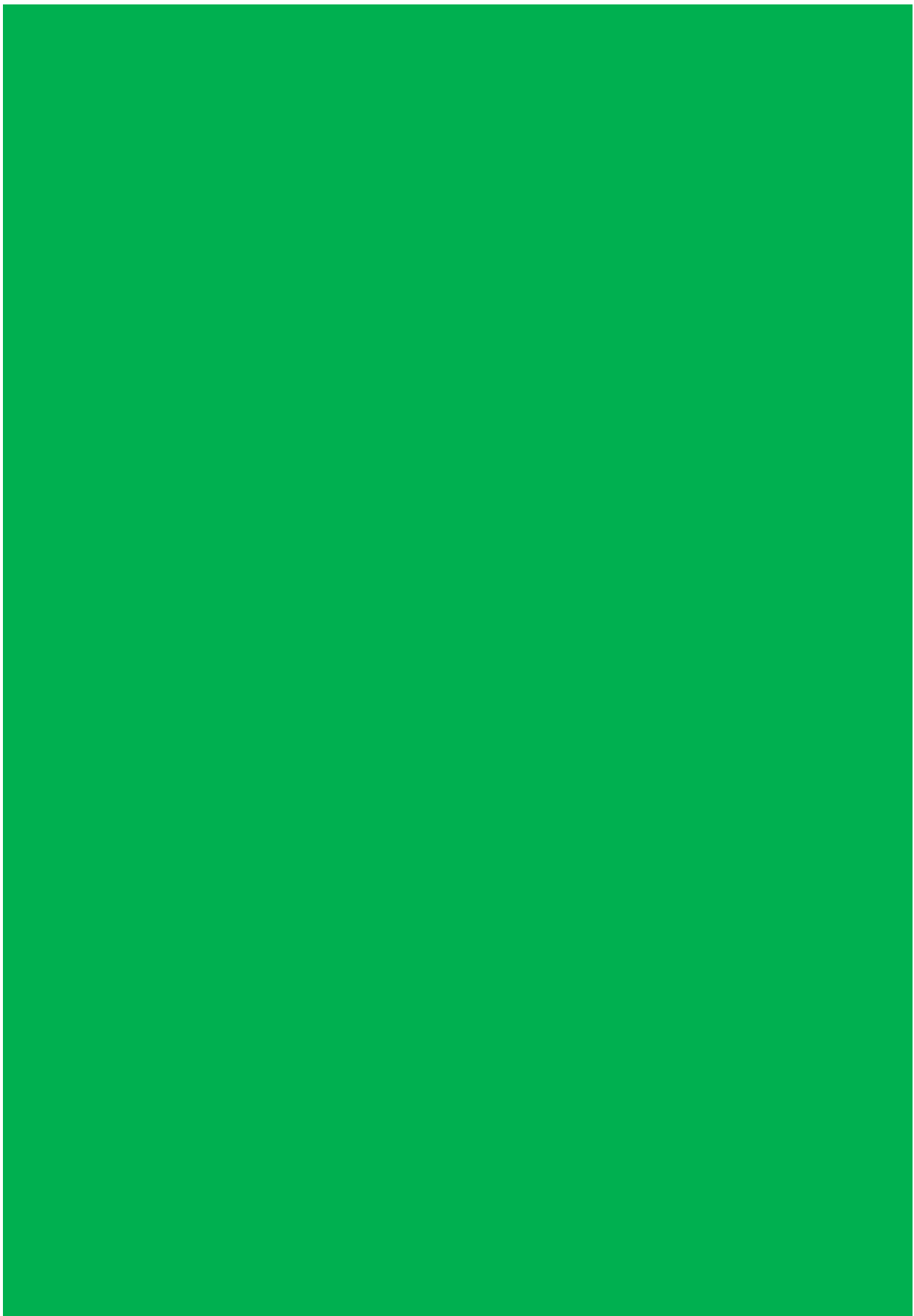
Coal not



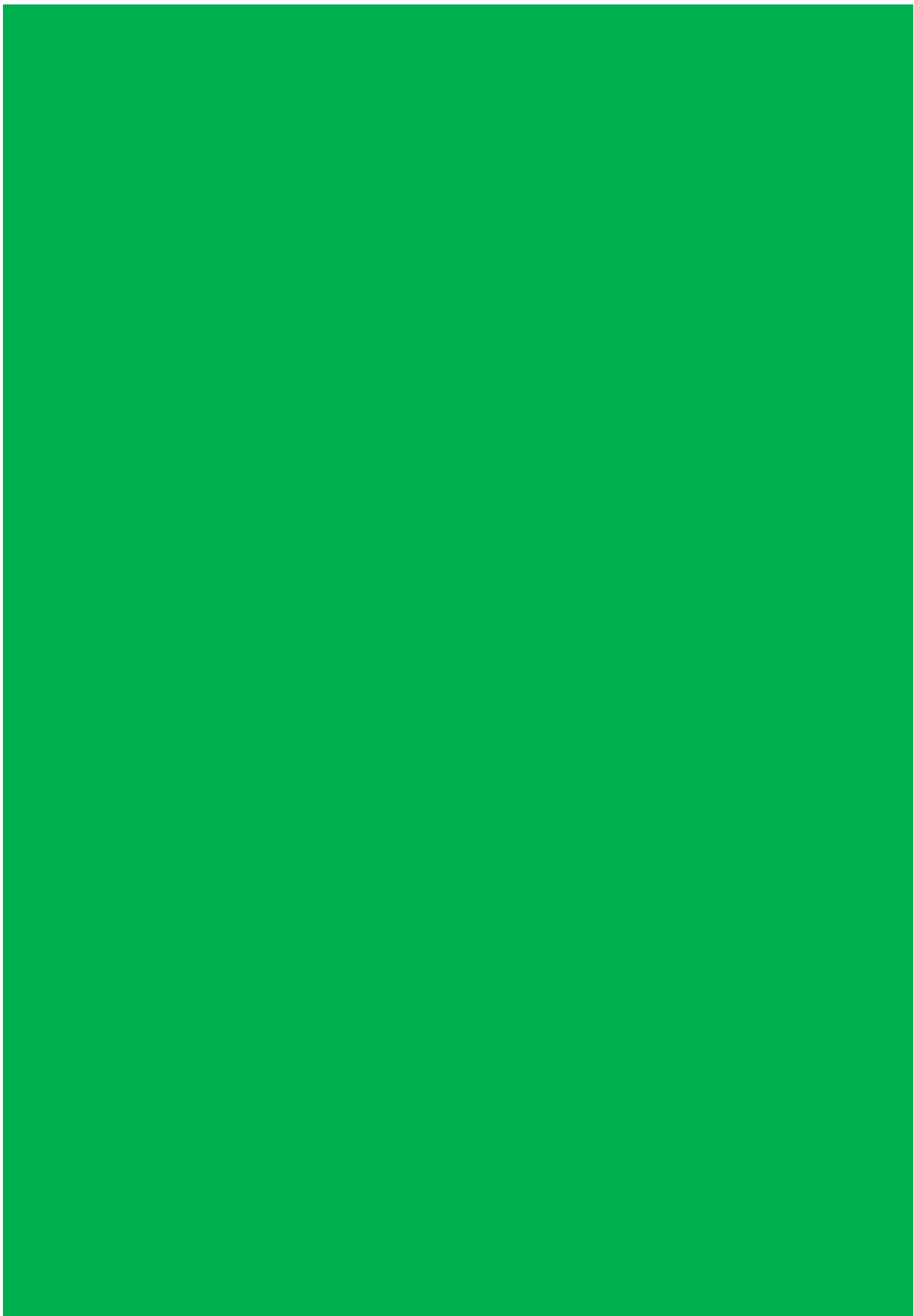
Combined with action 292



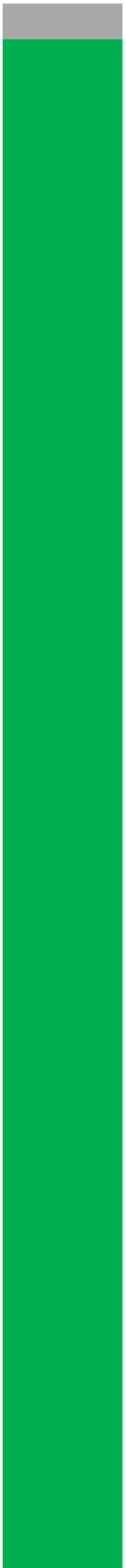


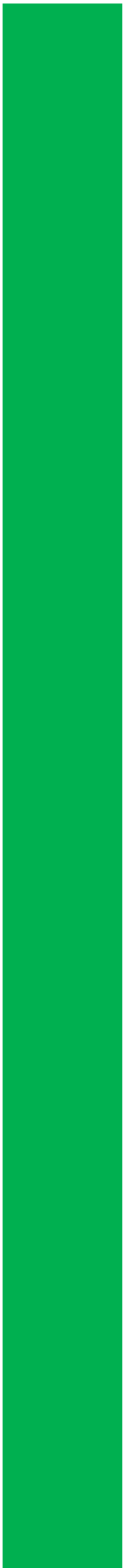


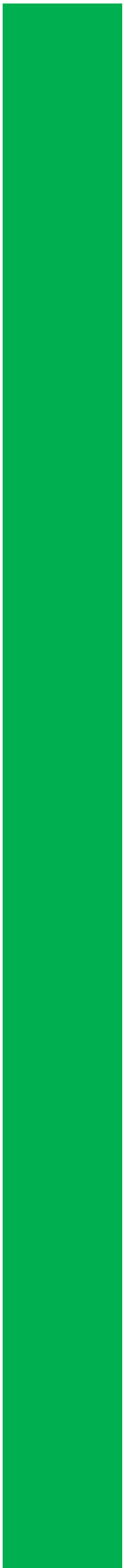


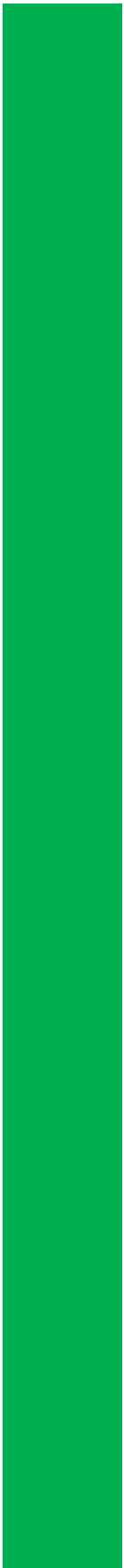












impacts.

New GOA 1/28/2013	Program Area	Sub Topic	Threat
4	Adaptive Management	Best Management Prac	N/A
5	Common to All Alternatives	Implementation	N/A
6	Goal	SG Abundance and Dist	All
7	Designation of Habitat	Designation of Habitat	Human Disturbance
7	Priority Setting	Implementation	
8	Common to All Alternatives		N/A
9	Designation of Habitat	Designation of Habitat	All
10	Habitat Fragmentation		Infrastructure
11	Goal		
11	Desired Conditions	Desired Conditions	Wildfire, Invasive Species
12	Habitat Fragmentation		Wildfire, Invasive Species
13	Designation of Habitat		All
13	Monitoring	group	N/A
14	Habitat Fragmentation	DFC Thresholds	Infrastructure Human Disturbance
15	Objective	Distribution	All
15	Disease	West Nile Virus	
16	Habitat Fragmentation	Disturbances sagebrush	Human Disturbance
17	Designation of Habitat	Connectivity	All
17	Desired Conditions		
18	Habitat Fragmentation	Connectivity	All
18	Monitoring		
19	Adaptive Management		All
19	Habitat Fragmentation		
20	Objective	Rehabilitation	All
21	Designation of Habitat		
21	Objective	ACEC	All
22	Common to All Alternatives	Process	All
23	Designation of Habitat	Mapping	All
24	Designation of Habitat	Populations	All
25	Designation of Habitat	Mapping	All
26	Priority Setting	Mapping	All
27	Designation of Habitat	Mapping	All
28	Designation of Habitat	Mapping	All
30	Designation of Habitat	Mapping	All
31	Designation of Habitat	Mapping	All
32	Designation of Habitat	Mapping	All
33	Designation of Habitat	Adaptive Management	All
34	Designation of Habitat	Threats	All
35	Designation of Habitat	Threats	All
36	Designation of Habitat	Mapping	All



37	Designation of Habitat	Mapping	All
38	Designation of Habitat	Adaptive Management	All
39	Designation of Habitat	Adaptive Management	All
40	Wildfire	Priorities	Wildfire
41	Implementation	Process	All
42	Designation of Habitat	Uses	All
43	Designation of Habitat	Indicators	
44	Desired Conditions	DFC	All
45	Desired Conditions	DFC	All
46	Implementation	Process	All
47	Habitat Fragmentation	Resiliency	All
48	Implementation	Adaptive Management	All
49	Adaptive Management	Process	All
50	Adaptive Management	Process	All
51	Adaptive Management	Wildfire	Wildfire
52	Adaptive Management	Trigger	Wildfire
53	Adaptive Management	Trigger	Wildfire
54	Adaptive Management	Grazing	Grazing
55	Adaptive Management	Process	All
56	Adaptive Management	Trigger	Wildfire
57	Adaptive Management	Trigger	Wildfire
58	Adaptive Management	Wildfire	Wildfire
59	Adaptive Management	Process	All
60	Adaptive Management	Process	All
61	Designation of Habitat	Trigger	All
62	Valid Existing Authorizations	Foundational	N/A
63	Valid Existing Authorizations	Foundational	N/A
64	Valid Existing Authorizations	Foundational	Minerals
65	Valid Existing Authorizations	Foundational	Minerals
66	Valid Existing Authorizations	Valid Existing Rights	All
67	Mitigation	Process	Infrastructure
68	Mitigation	Process	All
69	Designation of Habitat	Restoration	All
70	Mitigation	Restoration	All
71	Monitoring	Process	Wildfire, Invasives, Infrastructure
72	Monitoring	Process	Grazing
73	Monitoring	Process	All
74	Monitoring	Process	Wildfire
75	Monitoring	Process	All
76	Monitoring	Process	All
77	Monitoring	process	grazing
78	Monitoring	Process	Grazing
79	Habitat Fragmentation	Land Use Authorizations	

80 Habitat Fragmentation

Land Use Authorizations

81 Human Disturbance

Land Use Authorizations

82 Habitat Fragmentation

Land Use Authorizations

83 Habitat Fragmentation

Land Use Authorizations

84 Habitat Fragmentation	Land Use Authorizations
85 Habitat Fragmentation	Land Use Authorizations
86 Human Disturbance	Land Use Authorizations
87 Predation	Land Use Authorizations
88 Habitat Fragmentation	Land Use Authorizations

89 Human Disturbance	Land Use Authorizations	
90 Fuels		
91 ACEC		
91 Habitat Fragmentation	Land Use Authorizati	Infrastructure
92 Habitat Fragmentation	Land Use Authorizati	Infrastructure
93 Habitat Fragmentation	Reclamation	Infrastructure
94 Habitat Fragmentation	Relocation	Infrastructure
95 BMP		
95 Habitat Fragmentation	Avoidance	Infrastructure
96 Habitat Fragmentation	Co-location	Infrastructure

97 Habitat Fragmentation	Land Tenure	Urbanization/Convernson
97 Habitat Fragmentation		
97 Implementation		
98 Common to All Alternatives	Implementation	
99 ACEC		
99 Habitat Fragmentation	Acquisition	Urbanization/Convernson

100 Habitat Fragmentation

Withdrawal

Mining

101 Habitat Fragmentation  
102 ACEC

Withdrawal

Mining

102 Habitat Fragmentation

Corridors

Infrastructure

103 Habitat Fragmentation

Land Tenure

Predation

104 Habitat Fragmentation  
105 Habitat Fragmentation  
106 Habitat Fragmentation

Wind Energy  
unauthorized uses  
siting

Infrastructure  
infrastructure  
Infrastructure

110 ACEC

115 Restoration



116 Restoration  
117 Restoration

118 Restoration

119 Restoration  
120 Restoration  
121 Restoration  
122 Restoration  
123 Restoration

125 Restoration  
126 Restoration  
129 Restoration

132 Monitoring  
133 Fuels  
133 Fuels

133 Suppression

134 Invasive Species  
135 Restoration

135 Vegetation

136 Restoration

137 Restoration

138 Monitoring  
139 Invasive Species  
140 Invasive Species  
141 Restoration  
142 Restoration  
143 Restoration  
144 BMP  
144 Invasive Species  
145 Invasive Species  
146 Monitoring

152 Fuels



155 Fuels  
155 Restoration  
155 Suppression  
156 Suppression  
157 Suppression  
159 Fuels  
159 Suppression

160 Fuels  
162 Fuels  
162 Suppression  
163 Fuels  
164 Suppression  
165 Suppression  
168 Fuels  
168 Suppression

172 Suppression  
173 Restoration  
173 Suppression

174 Restoration

175 Restoration

177 Restoration

178 Restoration

179 Restoration

180 Restoration

181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals  
196 Locatable Minerals

199 Locatable Minerals

202 Saleable Minerals  
203 Saleable Minerals  
204 Saleable Minerals



205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral  
208 Unleased Federal Fluid Mineral  
209 Unleased Federal Fluid Mineral  
211 Leased Federal Fluid Mineral Est  
212 Leased Federal Fluid Mineral Est  
212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est  
215 Leased Federal Fluid Mineral Est  
216 Leased Federal Fluid Mineral Est  
217 Leased Federal Fluid Mineral Est  
218 Habitat Fragmentation  
219 Leased Federal Fluid Mineral Est  
220 Leased Federal Fluid Mineral Est  
223 ACECs  
224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est  
226 Leased Federal Fluid Mineral Est

227 Mineral Split Estate  
228 Mineral Split Estate

233 Travel Management  
234 Travel Management

235 Travel Management  
236 Travel Management

237 Travel Management  
238 Travel Management

240 Travel Management

241 Travel Management

243 Travel Management

246 Recreation and Visitor Services

246 Travel Management

247 Recreation and Visitor Services

247 Travel Management

248 Recreation and Visitor Services

248 Travel Management

249 Recreation and Visitor Services  
249 Travel Management

250 Travel Management  
251 Travel Management  
260 Livestock Grazing

261 Livestock Grazing

262 Livestock Grazing



263 Livestock Grazing

264 Livestock Grazing

267 Livestock Grazing

Objectives

268 Livestock Grazing

Objectives

269 Livestock Grazing

270 Livestock Grazing

Drought

271 Livestock Grazing	Riparian
273 Livestock Grazing	Riparian
273 Livestock Grazing	
274 Livestock Grazing	Riparian
274 Livestock Grazing	
278 Livestock Grazing	Riparian
278 Livestock Grazing	

280 Livestock Grazing  
280 Livestock Grazing

Water Development

281 Livestock Grazing  
281 Livestock Grazing  
284 Coordination  
284 Restoration

Water Development

285 Restoration  
288 Desired Conditions  
288 Invasive Species

288 Livestock Grazing  
288 Livestock Grazing

Improvements  
Improvements

289 Livestock Grazing  
289 Livestock Grazing

Water Development



290 Livestock Grazing  
291 Livestock Grazing  
292 Invasive Species

Improvements  
Improvements

293 Livestock Grazing

294 Livestock Grazing

295 Monitoring

298 Livestock Grazing

Trailing

299 Fuels

300 Livestock Grazing

Sheep

300 Restoration

301 Fuels

318 Livestock Grazing	Improvements
319 Livestock Grazing	Water Development
320 Livestock Grazing	Water Development
321 Livestock Grazing	Water Development
322 Livestock Grazing	Water Development
323 Livestock Grazing	
325 Restoration	
326 Adaptive Management	
327 Livestock Grazing	
328 Livestock Grazing	
329 Livestock Grazing	
330 Livestock Grazing	
331 Livestock Grazing	
332 Coordination	
333 Livestock Grazing	Riparian
334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements
336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements

341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	
346 Wild Horses and Burros	
347 Wild Horses and Burros	
348 Implementation	
355 Wild Horses and Burros	
356 ACECs	
356 West Nile Virus	
357 West Nile Virus	
358 West Nile Virus	
359 West Nile Virus	
360 West Nile Virus	
361 West Nile Virus	

377 BMP	West Nile Virus
378 BMP	West Nile Virus
379 BMP	West Nile Virus
380 BMP	West Nile Virus
381 BMP	West Nile Virus
382 BMP	West Nile Virus
383 BMP	West Nile Virus
384 BMP	Development
385 BMP	Development
386 BMP	Development
386 BMP	Roads
387 BMP	Development
387 BMP	Roads
388 BMP	Development
388 BMP	Roads
389 BMP	Roads
390 BMP	Development
390 BMP	Roads
391 BMP	Development
391 BMP	Roads
392 BMP	Roads
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395 BMP	Roads
397 BMP	Development

398 BMP	Development
399 BMP	Development
400 BMP	Development
401 BMP	Development
402 BMP	Development
403 BMP	Roads
404 BMP	Development
405 BMP	Development
406 BMP	Development
407 BMP	Development
408 BMP	Development
409 BMP	Development
410 BMP	Development
411 BMP	Development
412 BMP	Development
413 BMP	Development
414 BMP	West Nile Virus
415 BMP	West Nile Virus
416 BMP	Development
417 BMP	Development
418 BMP	Development
419 BMP	Development
420 BMP	Development
421 BMP	Development
422 BMP	Development
424 BMP	Reclamation
424 BMP	Reclamation
425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels
485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels
493 BMP	Fuels

494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression
503 BMP	Development
503 BMP	Suppression
504 BMP	Suppression
505 BMP	Suppression
506 BMP	Suppression
507 BMP	Roads
508 BMP	Roads
509 BMP	Development
510 BMP	Development
511 BMP	Development
512 BMP	Development
513 BMP	Development
514 BMP	Development
515 BMP	Development
516 Exemption Process	

Indicator	Alternative A - Dillon RMP
N/E	Action: No Similar Action
N/E	Action: No Similar Action
	Same as No Action - NA (Current DFO RMP guidance)
Acres of Habitat & population number	
Acres of Habitat	Same as No Action - Covered in Various Resource Programs
N/E	Action: No Similar Action
Acres of PPH/PGH map of pph by alternative	Same as Sub-Region (SR) PPH and PGH
Acres of PPH/PGH map of pph by alternative	Same as No Action
Acres of sagebrush habitat	Same as SR PPH and PGH
N/E	Same as No Action
Acres of PPH/PGH map of pph by alternative	
N/E	Action: No Similar Action
Acres of Habitat	Same as SR PPH and PGH
Acres of Habitat	Same as SR PPH and PGH, May not be an issue in the DFO.
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Montana specific discussion on original Core, PPH, PGH
N/E	nothing to add same as sub-region
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action

N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat, Acres of Habitat Bu	Action: No Similar Action
N/E	Action: No Similar Action
	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Population	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Designation	Action: No Similar Action
Acres of Rights	Action: No Similar Action
Acres of Rights	Action: No Similar Action
Acres of valid existing rights	Action: No Similar Action
Acres of Mining	Action: No Similar Action
Acres of Valid Existing Rights	Action: No Similar Action
Acres/miles of infrastructure	Action: No Similar Action
Acres of habitat treated	Action: No Similar Action
Acres Treated	Action: No Similar Action
Acres Treated	Action: No Similar Action
Acres of wildfire, invasives, infrastruc	Action: No Similar Action
Acres of threat	Action: No Similar Action
	Action: No Similar Action
Acres of treatment	Action: No Similar Action
Acres	Action: No Similar Action
Population numbers	Action: No Similar Action
acres in DFC	Action: No Similar Action
Acres in DFC	Action: No Similar Action
	Same as Sub Regional PPH and PGH



Same as SR minus 3% threshold. NEED TO DETERMINE HOW TO ADDRESS THE 3% DISTURBANCE THRESHOLD. If the 3% disturbance is analyzed under the NTT alternative, does it have to be here?

Same as Sub Regional PPH and PGH  
DFO PPH same as sub-region Core and DFO PGH same as SR PGH

Current RMP Pg. 64 Actions 2,3,7 and 8 Note:

Actions described under the lands and realty section and not repeated here still apply to utility and communications corridors and related authorizations.

2. Analyze requests for land use authorizations on a case-by-case basis and apply mitigation measures as necessary in compliance with the NEPA process.

3. Locate new right-of-way facilities within or adjacent to existing rights-of-way, to the extent practical, in order to minimize adverse environmental impacts and the proliferation of separate rights-of-way.

7. Where avoidance areas and designated corridors overlap (e.g. the Lewis and Clark Trail and the designated corridor through the Beaverhead River Canyon), issuance of new right-of-way and upgrade/expansion of existing rights-of-way will be allowed if mitigated measures can reduce impacts to resources of concern to an appropriate level.

8. Provide access across public lands to and along right-of-way corridors and use areas necessary to construct new facilities, except in avoidance areas where access would be considered on a case-by-case basis.

Current DFO RMP - appendix X pg. 213 Powerlines and Generation Facilities Issue: Existing power lines near a lek, brood-rearing habitat, or winter habitat increases the risk of predation on sage grouse by raptors. 1. Document the segment(s) of line causing problems. 2. Determine by cooperative action-agencies, utilities, and landowners- whether or not modification of poles to limit perching will prevent electrocution of raptors and decrease predation on sage grouse. 3. Emphasize the following if perch prevention modifications do not work to protect sage grouse and sage-brush habitat: a) reroute the line using distance, topography, or vegetative cover; or b) bury the line. 4. Explore opportunities for technical assistance and funding. 5. Remove power line when use is completed. Issue: Existing power line is causing consistent or significant collision mortality on sage grouse. 1. Document the segment(s) of line causing consistent or biologically significant mortality- with agencies, utilities, and landowners cooperating in the effort. 2. Initiate collision prevention measures using guidelines (Avian Power Line Action Committee 1994) on identified segments. Measures are subject to restriction or modification for wind and ice loading or other engineering concerns, or updated collision prevention information. 3. Remove power lines that traverse

Same as #90 above from Current DFO RMP - appendix X pg. 213

Same as SR PPH and PGH

Same as #90 above from Current DFO RMP - appendix X pg. 213 RMP also referenced to use Avian Powerline Action Committee guidelines (1994) which were updated in 2006, also Avian Protection Plan Guidelines published by APLIC and USFWS 2005 is available.

Same as SR PPH and PGH also refer to Appendix E pg. 118 NATURAL REVEGETATION

Current RMP Pg 64, Action 2. Analyze requests for land use authorizations on a case-by-case basis and apply mitigation measures as necessary in compliance with the NEPA process. Appendix X. pg 213 Issue: New power lines proposed in areas that provide sage grouse habitat can pose threat to sage grouse. # 6. Restrict construction to prevent disturbance during critical periods: a)breeding - March 15-May 15 b)winter - Dec 1 - March 15.

Same as SR

Acres excluded, acres below 3%, acres  
miles of lines buried Action: No Similar Action  
miles of line reclaimed Action: No Similar Action  
miles of line relocated, acres excluded Action: No Similar Action

acres of avoidance Action: No Similar Action  
miles of lines; footprint area Action: No Similar Action

Acquisition Criteria - Appendix H pg.129 Lands would be considered for acquisition if one of more of the following criteria is met and acquisition would:

- Facilitate access to public lands and resources
- Maintain or enhance the manageability of public lands and resources
- Maintain or enhance important public values and uses, especially
  - o Special Status Species plant, animal and fish habitats

acres retained; acres of habitat Action: No Similar Action

acres identified for acquisition Action: No Similar Action

Current RMP - Withdrawals Pg 41 Actions 1,2,3,5  
1. Review existing withdrawals on a case-by-case basis prior to the end of the withdrawal period or as other-wise required by law to determine whether the withdrawals should be extended, revoked, or modified. Withdrawals no longer needed, in whole or in part, for the purpose for which they were withdrawn will be revoked or modified. Appendix J describes the existing withdrawals in the planning area as shown on Map 16 (oversized). 2. Consider other agency requests for withdrawal relinquishments, extensions or modifications on a case-by- case basis. 3. Consider new withdrawal proposals on a case-by-case basis where the public land would transfer from one federal agency to another or where resource values or agency investments are best protected by withdrawal. Lands proposed to be withdrawn should be the minimum area required for the intended use and where applicable alternative prescriptions such as the use of rights-of-way, leases, permits, or cooperative agreements are inadequate to protect the resource values. 5. Review any additional existing land classifications on a case-by-case basis to determine if they should be continued or terminated.

acres withdrawn

Same as NA?

Acres closed/withdrawn

Current RMP - Acquisition Criteria - Appendix H pg.129 Lands would be considered for acquisition if one of more of the following criteria is met and acquisition would:

- Facilitate access to public lands and resources
- Maintain or enhance the manageability of public lands and resources
- Maintain or enhance important public values and uses, especially
  - o Special Status Species plant, animal and fish habitats

Acres/miles of corridors

Land Ownership Adjustment Pg. 38 In considering whether an exchange is in the public interest, consideration is given to the opportunity to:

- achieve better management of Federal lands,
- meet the needs of state and local residents and their economies,
- secure important objectives, including but not limited to, protection of fish and wildlife habitats, cultural re-sources, watersheds, wilderness and aesthetic values; enhancement of recreation opportunities and public access; consolidation of lands and/or interests in lands; consolidation of split estate; expansion of communities; accommodation of land use authorizations; pro-motion of multiple-use values; and fulfillment of public needs.

Goal 2 pg. 39 Retain public lands with high resource values in public ownership. Adjust land ownership to consolidate public land holdings, acquire lands with high public resource values, and meet public and community needs.

Acres

Appendix X pg 213 Issue: Wind generation may impact sage grouse and sage grouse habitat. 1. Consult with USFWS Ecological Services for site selection evaluation information.

2. Use the best available information to:
  - a) identify important sage grouse breeding, brood-rearing, and winter habitat in an appropriate vicinity of a proposed facility and associated infra-structure; and
  - b) site wind generation facilities – with agencies, utilities, and landowners cooperating – using topography, vegetative cover, site distance, etc. to effectively protect identified sage grouse habitat.
3. Identify and avoid both local (daily) and seasonal migration routes.
4. Restrict timing of construction to minimize disturbance during critical periods:
  - a) breeding – March 15 – May 15
  - b) winter – December 1 – March 15
5. Take appropriate measures to prevent introduction or dispersal of noxious weeds during construction, maintenance, and operation as required by federal and state laws.
6. Develop offsite mitigation strategies in situations in which fragmentation or degradation of sage grouse habitat is unavoidable.

Acres available for renewable  
acres  
acres available for wind

Same as sub -region

2. Use the best available information to:
4. Restrict timing of construction to minimize disturbance during critical periods:

Appendix X. pg 208 Issue: Some sagebrush communities may have been significantly altered by past grazing management practices. 1. Implement appropriate grazing management strategies and range management practices where soil conditions and ecological processes will support sage grouse and desired commodities and societal values. 2. Establish suitable goals for sagebrush communities that have deteriorated to such an extent that livestock management alone may not contribute to habitat objectives. 3. Offer private landowners incentives when and where appropriate to achieve sage grouse objectives. Rangeland Veg pg. 51 Action 14 14. Improve existing seedings that are not meeting rangeland health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. also refer to Appendix E pg. 118

NATURAL REVEGETATION

See above↑ - WAFWA guidelines are incorporated in Appendix X and include restoration guidelines, also refer to Appendix E pg. 118 NATURAL

REVEGETATION Rangeland Veg pg. 51 Action 14  
14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Sagebrush Steppe Wildlife Habitats Pg. 73 Actions 42, 43, 44

42. Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43. Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.

Action: No Similar Action

Rangeland Veg pg. 51 Action 14 14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. also refer to Appendix E pg. 118 NATURAL REVEGETATION

Same as NA - See responses above and conservation measures in Appendix X. Also covered under various other resources

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as SR



Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Livestock Grazing Pg. 42 Actions 1,2 and 4

1. Authorize an average of between 101,183 and 113,219 Animal Unit Months (AUMs) on about 425 allotments, subject to lands meeting the Western Montana Standards for Rangeland Health and make adjustments to allotments for management efficiency.
2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.

Appendix X pg.208 Conservations measures for Fire Management Issue: Reduction of sagebrush by wildfire.

1. Schedule annual coordination meetings – with appropriate resource staff including fire specialists, wildlife biologists, and range ecologists – to incorporate new sage grouse habitat and other wildlife habitat information needed to set wildfire suppression priorities related to resources. Distribute updates to fire dispatchers for initial attack planning.
2. Identify the location of known sage grouse habitat and other wildlife habitats of concern, such as latitude and longitude with a polygon and radius, to avoid disturbance or degradation by temporary facilities, such as fire camps, staging areas, and helibases.
3. Incorporate known sage grouse habitat information into each Wildfire Situation Analysis to help determine appropriate suppression plans and prioritize multiple fires.
4. Retain unburned areas of sage grouse habitat, such as interior islands and patches between roads and fire perimeter, unless compelling safety, resource protection, or control objectives are at risk.

NOXIOUS WEEDS, INVASIVE AND NON-NATIVE SPECIES pg 49 Actions:

- 1 Manage Montana State designated noxious weeds according to the principles of integrated pest management found in Partners Against Weeds: An Action Plan for the Bureau of Land Management (USDI-BLM 1996b), the Montana Weed Management Plan (Duncan 2001), and the Montana Noxious Weed Act.
- 2 Participate in education and awareness programs for staff, cooperators, and the public.
- 3 Continue inventory of public lands for noxious weeds.
- 4 Monitor treatment areas
- 5 Continue cooperative agreements with Beaverhead and Madison counties for Integrated Weed Management.
- 6 Encourage development of Cooperative Weed Management Areas where all the landowners are cooperatively working to contain or eradicate noxious weeds within designated areas.
- 7 Control noxious weeds by various methods that include chemical, cultural, physical, mechanical, and biological treatments or other land practices.
- 8 Evaluate treatment and control of invasive species such as cheatgrass in site-specific projects associated with the watershed analysis.
- 9 Reestablish perennial vegetation in a timely manner

See above↑ - WAFWA guidelines are incorporated in Appendix X and include restoration guidelines, also refer to Appendix E pg. 118 NATURAL

REVEGETATION Rangeland Veg pg. 51 Action 14  
14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Sagebrush Steppe Wildlife Habitats Pg. 73 Actions 42, 43, 44

42. Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43. Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.

Same as NA - under current management public is involved in planning during watershed assessments and MTFWP is consulted on all projects and BLM is actively involved in the local sage grouse working group and has a local Resource Advisory Council (RAC), consisting of landowners and other local interests.

Appendix E pg. 118 NATURAL REVEGETATION In many cases, successful reestablishment of native species occurs if the perennial plant species are not killed as a result of the fire, or if viable and desirable seed or root mass is present. Generally, in these areas it would be necessary to rest the burned area from livestock grazing for at least two growing seasons. In some situations, the area may be closed to vehicles by issuing a temporary emergency closure. The only rehabilitation that may be necessary is repairing damaged fencing and/or construction of temporary fencing around the burned area until the native vegetation is successfully re-established. Seeding guidelines:

- Native species will be utilized over nonnative species as appropriate and based on seed availability.
- A project inspector will monitor all phases of implementation.
- The area to be seeded will be rested from grazing for at least two growing seasons or until vegetation is successfully established. Livestock will be excluded by using fencing, closing specific pastures, or closing en-tire allotments.
- Only native species will be seeded in WSAs.
- Monitoring will determine the effectiveness of seeding and to indicate when grazing will resume.
- Use only certified weed-free sources and collect seed samples for an All States Noxious Weed Test. Seed nonnatives only in areas of the burn where high

WILDLIFE including SPECIAL STATUS BIRDS AND MAMMALS - pg 73 Monitoring Support and assist FWP in monitoring wildlife habitat and population goals through the Montana Comprehensive Fish and Wildlife Conservation Strategy. Assess changes in sagebrush, coniferous forest and riparian/wetland habitat distribution, canopy, composition and condition on a landscape and watershed basis during watershed evaluations (see Map 20 for watershed areas). Where vegetation treatments have been implemented, or natural events have occurred, monitor changes in species composition and structure compared to pre-treatment conditions. Continue to monitor known populations of special status species, in conjunction with Federal, state and private agencies or organizations (bald eagle, peregrine falcon, sage grouse, pygmy rabbit, trumpeter swan, raptors). Monitoring may use intensive research projects or periodic population/habitat inventories to determine habitat extent or population status. This monitoring may be accomplished through contracts and/or with the aid of partnership funding sources in support of individual species conservation strategies. Participate in Intermountain Joint Venture efforts for all-bird monitoring at mid- and fine-scale.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

DFO ROD/RMP pg. 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners. Appendix X pg.207 Conservations measures for Fire Management Issue: Reduction of sagebrush by prescribed fire. 1. Sites should not be burned unless: a) biological and physical limitations of the site and impact on sage grouse are identified and considered, b) management objectives for the site, including those for wildlife, are clearly defined, c) potential for weed invasion and successional trends are well understood, and d) capability exists to

DFO ROD/RMP pg. 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners. Appendix X pg.207 Conservations measures for Fire Management Issue: Reduction of sagebrush by prescribed fire. 1. Sites should not be burned unless: a) biological and physical limitations of the site and impact on sage grouse are identified and considered, b) management objectives for the site, including those for wildlife, are clearly defined, c) potential for weed invasion and successional trends are well understood, and d) capability exists to

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Appendix X pg.208 Conservations measures for Fire Management Issue: Reduction of sagebrush by wildfire. 1. Schedule annual coordination meetings – with appropriate resource staff including fire specialists, wildlife biologists, and range ecologists – to incorporate new sage grouse habitat and other wildlife habitat information needed to set wildfire suppression priorities related to resources. Distribute updates to fire dispatchers for initial attack planning. 2. Identify the location of know sage grouse habitat and other wildlife habitats of concern, such as latitude and longitude with a polygon and radius, to avoid disturbance or degradation by temporary facilities, such as fire camps, staging areas, and helibases. 3. Incorporate known sage grouse habitat information into each Wildfire Situation Analysis to help determine appropriate suppression plans and prioritize multiple fires. 4. Retain unburned areas of sage grouse habitat, such as interior islands and patches between roads and fire perimeter, unless compelling safety, resource protection, or control objectives are at risk.

Action: No Similar Action

N/A

N/A

Same NTT.

DFO RMP pg 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1,2 and 5: 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners.

Same as SR

Fuels and Fire Management pg 29, Goal 3 Use rehabilitation to mitigate the adverse effects of fire on the soil, vegetation, and water resources in a cost effective manner. Actions 1. Consider if emergency fire rehabilitation is necessary following a wildland fire, depending on the situation. 2. If necessary, pursue funding and follow the process outlined in BLM's Emergency Fire Rehabilitation Handbook (H-1742-1) and Appendix E. Separate environmental analysis will only be completed for emergency fire rehabilitation projects that are outside the scope of activities described in Appendix E. Appendix E. pg. 118 Seeding guidelines:

- Native species will be utilized over nonnative species as appropriate and based on seed availability.
- A project inspector will monitor all phases of implementation.
- The area to be seeded will be rested from grazing for at least two growing seasons or until vegetation is successfully established. Livestock will be excluded by using fencing, closing specific pastures, or closing en-tire allotments.
- Only native species will be seeded in WSAs.
- Monitoring will determine the effectiveness of seeding and to indicate when grazing will resume.
- Use only certified weed-free sources and collect seed samples for an All States Noxious Weed Test. Seed nonnatives only in areas of the burn where high

Same as SR

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as NA/SR - from IM 2011-138

Same as NA/SR - from IM 2011-138

Same as NA/SR - from IM 2011-138

Proposed RMP/Final EIS Ch 2 pg. 55 Coal and Oil Shale Management Common to All Alternatives

Under all alternatives, BLM would consider proposals for coal and oil shale leasing on a case-by-case basis for mineral resources under the administration of the federal government. To date, no areas have been identified with economic reserves to support future leasing analysis. Site-specific environmental analysis and a plan amendment would be required to lease for coal or oil shale. There are currently no regulations governing the leasing of oil shale. Any leases issued would be issued under the authority of 30 U.S.C. Chapter 3A, Subchapter V, Sec. 241 which authorizes the Secretary of the Interior to lease deposits of oil shale. Unsuitability criteria described in 43 CFR 3461 would be applied to coal lands determined to have development potential on a case-by-case.

ROD/RMP pg45 - Action 9 Consider proposals for coal and oil shale leasing on a case-by-case basis. A plan amendment would be necessary to lease, along with the appropriate level of environmental analysis.

- Issue any oil shale leases under the authority of 30 U.S.C. Chapter 3A, Subchapter V, Sec. 241 which authorizes the Secretary of the Interior to lease deposits of oil shale
- Apply unsuitability criteria described in 43 CFR Part 3461 to coal lands determined to have development potential on a case-

Same as NA

Proposed RMP/Final EIS Ch 2 pg. 57- LOCATABLE MINERALS Goal – Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation. Management Common to All Alternatives Standard management practices in the public land administration of locatable minerals would continue across all alternatives. BLM would coordinate with MT DEQ during the review, approval, inspection and reclamation of mining operations. At a minimum, conduct annual compliance inspections on each active notice. Requirements of all state and federal laws would be met in the management of mining operations. Administration of locatable minerals on public lands would continue as required by law and regulation (43 CFR 3809) by taking the following steps: Review and process notices to ensure the proposed action does not create unnecessary or undue degradation of the environment. Review and process plans of operation to ensure the proposed action does not create unnecessary or undue degradation of the environment. Conduct at a minimum annual compliance inspections on each active notice and plan of operation. Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.

Action: No Similar Action

Proposed RMP/Final EIS Ch 2 pg. 57- LOCATABLE MINERALS Goal – Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation. Management Common to All Alternatives Standard management practices in the public land administration of locatable minerals would continue across all alternatives. BLM would coordinate with MT DEQ during the review, approval, inspection and reclamation of mining operations. At a minimum, conduct annual compliance inspections on each active notice. Requirements of all state and federal laws would be met in the management of mining operations. Administration of locatable minerals on public lands would continue as required by law and regulation (43 CFR 3809) by taking the following steps: Review and process notices to ensure the proposed action does not create unnecessary or undue degradation of the environment. Review and process plans of operation to ensure the proposed action does not create unnecessary or undue degradation of the environment. Conduct at a minimum annual compliance inspections on each active notice and plan of operation. Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.

Salable Minerals (Mineral Materials) pg 49. Goal: Provide for the extraction of mineral materials to meet public demand, while minimizing adverse impacts to other resource values.

#### Allocations

Manage 136,226 acres as closed to mineral material disposal in the following areas (see Map 22):

- Bear Trap Wilderness
- All nine Wilderness Study Areas
- Centennial Sandhills
- Christnot Mill
- Developed recreation sites
- Lewis's Lookout
- Sheep Creek Common Use Area
- Lands within one-quarter mile either side of the Big Sheep Creek Road, except in sections 26 and 35 in T14S, R10W and section 2 in T15S, R10W

Manage the remainder of the planning area as open to mineral material disposal, subject to the provisions described in the Action section below.

#### Actions:

1 Maintain current mineral material sites (see Map 22) until material is exhausted or other circumstances warrant closure.

2 Encourage extraction of mineral materials from previously disturbed sites rather than opening new sites.

Same as NA - Covered in Appendix N pg 169

Same as SR for PPH and PGH

Pg. 45 Action 3 Manage oil and gas leases existing prior to the Record of Decision for the Dillon RMP according to the existing lease stipulations. When the lease expires, manage those lands according to the oil and gas decisions and required stipulations outlined in the ROD/Approved Plan. All stipulations for fluid mineral development apply to geophysical explorations as well. All leased parcels have stipulations applied consistent with DFO RMP as outlined in Table 5 on pg 44 of RMP. (Did not attempt to paste table in here for formatting reasons)

RMP Final EIS Alt. C Pg. 53 Table 6 lists stipulations that were analyzed. Winter/Spring habitat – NL  
Leks – NL ½ mile buffer Breeding habitat – NSO NL  
= no lease NSO = no surface occupancy Under Alternative C, 80 percent (1,086,596 acres) of the planning area would not be available for oil and gas leasing. This includes all the lands identified in Alternative B, plus lands in these additional locations:

- Sage Grouse Winter/Spring Range
- Lands within 1/2 mile of Sage Grouse Strutting Grounds (leks)

DFO RMP Appendix M pg. 156, pp 5 The BLM planning process is the mechanism used to evaluate and determine where and how federal oil and gas resources will be made available for leasing. In areas where oil and gas development may conflict with other resources, the areas may be closed to leasing.



RMP Final EIS Alt. C Pg. 53 Table 6 lists stipulations that were analyzed. Winter/Spring habitat – NL Leks – NL ½ mile buffer Breeding habitat – NSO NL = no lease NSO = no surface occupancy Under Alternative C, 80 percent (1,086,596 acres) of the planning area would not be available for oil and gas leasing. This includes all the lands identified in Alternative B, plus lands in these additional locations:

- Sage Grouse Winter/Spring Range
- Lands within 1/2 mile of Sage Grouse Strutting Grounds (leks)

Final RMP Pg. 46 Goal 2 Allow environmentally responsible geophysical exploration for energy resources in the Dillon Field Office on lands administered by the BLM. Actions: 1 Review Notices of Intent to Conduct Geophysical Exploration (NOI) in the planning area and develop appropriate mitigation measures so as not to create undue and unnecessary degradation. 2 Prepare a site-specific environmental analysis for each NOI filed. Develop mitigation measures using the oil and gas lease stipulations approved in this plan as the starting point.

- The transient nature of geophysical exploration and the short-term impacts of the exploration may provide an opportunity for operations to occur in seasonal wildlife areas during the time of closure under lease stipulations without creating detrimental effects on wild-life. As such the proposed exploration will be

Action: No Similar Action

Action: No Similar Action

Same as SR?

Same as SR?

Stipulations already apply in DFO - Appendix K. Oil and Gas Stipulations and Lease Notices

Same as SR

Same as SR

Same as SR

Action: No Similar Action

Same as SR

Same as SR

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

DFO ROD/RMP pg. 44 Allocations Make the remainder of federal mineral estate in the planning area (approximately 1,209,278 acres) available for leasing, subject to the stipulations specified in Table 5 or under Standard Lease Terms. • Approximately 433,797 acres are available for oil and gas leasing, subject to No Surface Occupancy stipulations. • Approximately 632,061 acres are available for oil and gas leasing, subject to Timing Limitations and/ or Controlled Surface Use stipulations. • Approximately 143,420 acres are available and subject to standard lease terms (and to the CSUs listed on Table 5 that apply to the entire planning area) Appendix M - Split Estate, pg. 167 On split estate lands where the surface ownership is private, the BLM places necessary restrictions and requirements on its leases and permit approvals and works in cooperation with the surface owner. BLM has established policies for the management of federal oil and gas resources in accordance with federal laws and regulations. The BLM does not have the legal authority to regulate how private surface is managed. BLM does have the statutory authority to require measures by lessees to avoid or minimize adverse impacts that may result from federally authorized mineral lease activities. These measures, in the form of lease stipulations or permit

Same as SR

RMP pg. 60 Wheeled Motorized Use/Non-Motorized Use Manage no areas as "open" under the regulations at 43 CFR Part 8340-8342. Manage 826,876 acres as "limited" to designated routes for OHV use under the regulations at 43 CFR Part 8340-8342. • Designate approximately 1,342 miles of road on BLM lands as open to public travel as shown on Maps 26 and 27 (oversized). • Make 159 miles of the 1,342 miles of road subject to seasonal restrictions Appendix X pg. 214 Roads and Motorized Vehicles Issue: Roads may increase sage grouse mortality through collisions with vehicles, displacement because of human disturbance, or other factors. 1. Identify, map, quantify, and evaluate impacts of existing roads, including 2-tracks, in relation to known lek locations and sage grouse winter ranges. 2. Consider impacts to sage grouse when designing new roads and modifying existing roads. 3. Consider seasonal use restrictions or signing to avoid disturbance of critical times, such as winter and nesting periods.

Action: No Similar Action

Pg. 61 Action 9 9. Evaluate "new roads" on a case-by-case basis through an environmental assessment process to determine whether they will be open to public travel. "New roads" means roads that do not presently exist but are necessary for access to timber sales, mining activities, to provide general access, or to facilitate other authorized uses of public lands. Designate routes determined to enhance public access opportunities that do not conflict with management of other resources as open and add them to the travel management map through routine plan maintenance.

Same as NA- Travel Management plan is complete for DFO

Pg. 59 Action 1 TRANSPORTATION AND FACILITIES MAINTENANCE Goal 1 Manage facilities, including roads and trails, to provide for public access or administrative needs, while maintaining or protecting resource values and in coordination with other federal agencies, state and local governments, and private landowners. Actions 1 Inventory and maintain transportation system roads and trails under BLM jurisdiction in accordance with assigned maintenance levels as outlined in Appendix O to meet public health and safety requirements, but also in consideration of resource issues including but not limited to proliferation of weeds and disturbance of cultural resources. Appendix O pg. 171 Transportation system roads and trails are classified by maintenance levels specified in BLM Manual Handbook H-9113- 2. Any changes or updates to maintenance levels will be incorporated into this planning guidance.

Action: No Similar Action

Appendix X pg 215 Issue: Roads and their associated disturbances and cumulative effects contribute to the loss of habitat and declining sage grouse populations.

1. Develop a transportation management plan across ownership boundaries in critical sage grouse habitats.
2. Participate in travel planning efforts and educate the general public about the impacts of roads on sage grouse and critical habitat.
3. Consider buffers, removal, realignment, or seasonal closures where appropriate to avoid degradation of habitat.
4. Re-vegetate closed roads with plant species beneficial to sage grouse.

Same as above ↑ also covered in Appendix X under Vegetation pg 215 and Rangeland Vegetation, Invasive Species, Travel management and any other place re-vegetation is discussed

Same as SR

Not really a Concern, but can use same wording as SR.

Appendix X pp. 215 Roads and Motorized Vehicles

Issue: Roads and their associated disturbances and cumulative effects contribute to the loss of habitat and declining sage grouse populations. Action 3. Consider buffers, removal, realignment, or seasonal closures where appropriate to avoid degradation of habitat. Action 5. Issue special use permits for certain activities with distance and timing restrictions to maintain the integrity of breeding habitat.

Appendix X pp. 214 Roads and Motorized Vehicles

Issue: Roads may increase sage grouse mortality through collisions with vehicles, displacement because of human disturbance or other factors. 1. Identify, map, quantify, and evaluate impacts of existing roads, including 2-tracks, in relation to known lek locations and sage grouse winter ranges. 2. Consider impacts to sage grouse when designing new roads and modifying existing roads. 3. Consider seasonal use restrictions or signing to avoid disturbance of critical times, such as winter and nesting periods. 4. Consider the use of speed bumps where appropriate to reduce vehicle speeds near leks, such as during oil and gas development. 5. Manage on-road travel and OHV use in key grouse areas to avoid disturbance during critical times such as winter and nesting periods. 6. Plan or permit organized events to avoid increased traffic and impacts to sage grouse

RMP pg. 60 Wheeled Motorized Use/Non-Motorized Use Manage no areas as "open" under the regulations at 43 CFR Part 8340-8342. Manage 826,876 acres as "limited" to designated routes for OHV use under the regulations at 43 CFR Part 8340-8342. • Designate approximately 1,342 miles of road on BLM lands as open to public travel as shown

Appendix X pp. 214 Recreational Disturbance of Sage Grouse Issue: Management of lek viewing may be necessary.

1. Establish viewing guidelines, i.e., distance, timing, approach methods, signage, parking areas, and area closures.
2. Consider sage grouse needs when developing roads and OHV management plans.
3. Develop and provide educational materials to the public describing effects of concentrated recreational activities and the importance of seasonal ranges to sage grouse.
4. Encourage recreationists to avoid continuous or concentrated use within 1.5 miles of leks from March 15 to May 15.
5. Issue special use permits for certain activities with distance and timing restrictions to maintain the integrity of breeding habitat.
6. Discourage concentration of hunters on critical seasonal habitats, such as during late big game seasons, when sage grouse are present.

Same as SR?

Action: No Similar Action

Action: No Similar Action

Livestock Grazing Pg. 42 Actions 2, 3, 4, 5, 6, and 8

2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.
5. Continue to implement existing Allotment Management Plans (AMPs), including the associated range improvement projects.
6. Develop and implement new Allotment Management Plans to direct site-specific management of livestock grazing after completion of rangeland health assessments conducted on a watershed basis.
8. Establish allowable use levels for grazing allotments during the watershed evaluation process. Make any adjustments to livestock numbers, including increases or decreases, following watershed evaluations, standards for rangeland health

Answered above ↑ Appendix X pg. 208 action 3  
Grazing Management Issue: Conflicting priorities for land uses, species, and habitats.

3. Offer private landowners incentives when and where appropriated to achieve sage grouse objectives.

Livestock Grazing Pg. 42 Actions 2, 3, 4, 5, 6, and 8

2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.
5. Continue to implement existing Allotment Management Plans (AMPs), including the associated range improvement projects.
6. Develop and implement new Allotment Management Plans to direct site-specific management of livestock grazing after completion of rangeland health assessments conducted on a watershed basis.
8. Establish allowable use levels for grazing allotments during the watershed evaluation process. Make any adjustments to livestock numbers, including increases or decreases, following watershed evaluations, standards for rangeland health



Same as NA - Wildlife and SSS Pg 72 Actions 42-48 sagebrush steppe wildlife habitats 42 Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43 Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.
- In habitats that include predominately Wyoming big sagebrush, manage sites with ecological potential to maintain sagebrush over at least 60 percent of those areas in a canopy closure of 5 to 25 percent.
- Maintain an herbaceous understory emphasizing multiple species of native forbs and grasses, recognizing that herbaceous productivity decreases at >10-15 percent canopy cover.
- Emphasize restoration and rehabilitation of sagebrush in areas that are capable of supporting sagebrush and contribute to the distribution and con-

Same as NA - All actions listed above Appendix B - Montana BMP's for grazing pg. 105 Appendix X Sage Grouse Management incorporates WAFWA guidelines

Same as NA - All actions listed above, also see Pg 72 Actions - sagebrush steppe wildlife habitat also guidance in Appendix A pg 97, Appendix B pg. 105- Montana BMP's for grazing Appendix X pg 207 Sage Grouse Management - also incorporates WAFWA guidelines

Same as NA - Appendix B pg. 105 - Montana BMP's for grazing incorporated by reference.

Appendix X pg 208

Issue: Improper grazing or lack of grazing can change the composition and/or structure of the native plant community and thereby reduce or eliminate food and cover for sage grouse.

1. Monitor the response of forbs (kinds, vigor, and production), and the compositional diversity of native species with respect to livestock grazing, evaluate the data, and make necessary adjustments.
2. Identify reasons for lack of grass and forb cover in sage-brush communities and recommend practices to increase the native herbaceous understory.
3. Identify critical sage grouse areas, and adjust grazing to minimize conflict among the production of commodities and protection of societal values.
4. Use monitoring methods that are best suited to the type of grazing management being incorporated at a site.
5. Adjust stocking levels (up or down) within the carrying capacity of the pasture or range. Adjustments should be based on monitoring program evaluating plant and soil response with respect to actual livestock use, weather, wildlife use, insects, and other environmental factors.

Pg. 42 Action 7. Modify grazing schedules and livestock management practices as necessary during drought conditions. Appendix X, pg 208 Issue: Drought may result in the degradation of native plant communities, and reduces forage production and sage grouse habitat.

1. Livestock managers should have drought management strategies or plans, e.g. water facilities; forage sources formulated for implementation during periods of drought.

Riparian Wetland Veg pg. 55 Objectives (Desired Future Condition after 20- 50 years of management)

Riparian and wetland vegetation supports the biological, hydrologic, and physical components of streams and wetlands based on site-specific capabilities. Deciduous woody and coniferous communities are present with diverse composition, density, and age structure within site potential. Herbaceous plant communities are dominated by deep- rooted native species that support streambank and shore-line stability, floodplain development, and nutrient cycling. Stream channels display the dimensions, pattern, and profile that are representative of site potential (Rosgen).

Emphasize maintenance of riparian communities on approximately 415 miles of stream dominated by a tall deciduous shrub or aspen/cottonwood habitat types and on approximately 500 miles of stream dominated by herbaceous and coniferous habitat types (based on 2002 inventory summary).

Action: 3 Implement the Western Montana Standards for Range-land Health (see Appendix A) to achieve proper functioning condition in riparian and wetland habitats. Incorporate the Guidelines for Livestock Grazing, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable. Appendix X pg 208 Issue: Riparian

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Pg 69, Action 7. Install functional wildlife access ramps on all water tanks on public lands. Pg. 56

Action 13 Analyze water developments on a case-by-case basis, considering the following:

- Available water flow. In general, no water developments that remove more than 50% of average summer daily flows from a water source will be constructed unless systems can be designed for return flows back into the drainage within a 1/4 mile of the diversion.
- Protection of source water riparian and wet-land habitat. Where isolated springs are developed, associated riparian habitat will be protected, usually through fencing.
- Protection of other resource values from direct and indirect impacts from construction and use of the water source. Measures to protect riparian habitats and other resource values including but not limited to sensitive plant species and cultural resources will be implemented based on site-specific needs. Only off- stream water developments and/or armored water gaps will be considered on streams where fencing has excluded the riparian area to prevent impacts to various resources.
- Location of water tanks in relation to other resource values. Measures to protect resource values in proximity to tank locations will be implemented based on site-specific needs. In general, water tanks will be placed at least 1/4 mile from

Pg 69 Actions 7, 8, 9, 16 7. Install functional wildlife access ramps on all water tanks on public lands. 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. 16. Coordinate when new roads are proposed for construction and/or when changes are proposed regarding travel restrictions on existing roads to determine if concerns with wildlife displacement and/or habitat fragmentation exist. See the Travel Management section for additional details.

Pg. 73 Action 44 44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards. Also see fencing below

Action: No Similar Action

Pg 51 Action 14 Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Appendix X pg. 215 Issue: The age distribution of sagebrush may have been altered by management, such as a young stand recovering from disturbance or a mature stand with poor regeneration. 1. Map and inventory areas believed to be deficient in quality of habitat or exhibiting poor health. 2. Evaluate the site potential and desired condition, and develop specific objectives accordingly within specific landscapes. 3. If sagebrush is lacking: a) develop and implement grazing practices that influence sagebrush growth, b) inter-seed historical breeding and winter habitats with the appropriate sagebrush species, c) identify and promote seed sources for habitat restoration efforts, d) encourage the voluntary use of sagebrush in habitat incentive programs, such as the Conservation Reserve Program, and work to develop additional funding sources for such programs, e) reclaim and/or re-seed areas disturbed by treatments when necessary, and f) promote sage plantings,

Pg 69 Actions 8 and 9 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. Appendix X pg 209 Issue: Potential for sage grouse to be disturbed or displaced by concentrations of livestock near leks or winter habitat. 1. Discourage concentration of livestock on leks or other key sage grouse habitats. • Avoid placement of salt or mineral supplements near leks during the breeding season (March-June), and • Avoid supplemental winter feeding of livestock, where practical, on sage grouse winter habitat and around leks Issue: Existing fences near breeding, brood-rearing, or winter habitats can increase the risk of collision mortalities and /or predation on sage grouse by hawks, eagles, and ravens by providing perches. 1. If portions of existing fences are found to pose a significant threat to sage grouse as strike sties or raptor perches, mitigate through moving or modifying posts, implementation of predator control programs, etc. Actions may include increasing the visibility of the fences by flagging or by designing "take-down" fences. 2. Offer private landowners incentives when and where appropriate to achieve sage grouse objectives. Appendix X Pg 211- 212 Noxious Weed Mgmnt Issue: Weed infestations

Same as SR? Adapt the BMP's

Pg 69 Actions 7, 8, 9, 16 7. Install functional wildlife access ramps on all water tanks on public lands. 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. 16. Coordinate when new roads are proposed for construction and/or when changes are proposed regarding travel restrictions on existing roads to determine if concerns with wildlife displacement and/or habitat fragmentation exist. See the Travel Management section for additional details.

Pg. 73 Action 44 44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards.

Action: No Similar Action

Action: No Similar Action



pg. 42 Allocations Manage approximately 47,837 acres of public land as un-available for livestock grazing (see Map 19, oversized). No term grazing permits or leases would be issued for these areas. These areas could be grazed with livestock on a temporary nonrenewable basis to meet resource objectives of the area. Lands that are not available include: • Unalloted areas • Blue Lake • Eli Springs area Maintain the Cross and Exchange Allotments as Resource Reserve Allotments. (A Resource Reserve Allotment is a unit of public land that will not have term grazing permits issued. Such an allotment will only be grazed on a temporary nonrenewable basis. The use of these allotments will be to provide temporary grazing to rest other areas following wildfire, habitat treatments, or to allow for more rapid attainment of rangeland health. The allotment must be of sufficient size to be managed as a discrete unit. Resource Reserve Allotments should be distributed throughout the planning area). Designate Resource Reserve Allotments on a case-by-case basis following watershed evaluations as described in Livestock - Maintain all current riparian exclosures as un-leased for livestock grazing.

Pg. 43 Grazing Actions 20, 21, and 22. 20. Evaluate currently unleased/unpermitted lands during the watershed assessment process to determine if they

Action: No Similar Action  
Action: No Similar Action  
Same as NA - See Above↑  
Same as NA - This is analyzed during our watershed assesments by working with our fuels specialists.

Pg 43 Livestock Grazing Actions 12, 18 and 19.

12. Implement the "Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitats" when allowing grazing in bighorn sheep habitat. 18. Maintain cattle as the primary class of livestock on mountain mahogany habitat. Sheep grazing on mountain mahogany habitat will be mitigated through site specific management treatments, changed to cattle use, or eliminated where monitoring data indicates it is necessary. 19. Authorize no new domestic sheep permits or conversion of cattle permits to sheep within areas depicted on Map 33 that contain suitable grizzly bear and wolf habitat (also known as the wildlife dispersal/migration corridors in the Centennial Mountains, Snowcrest Mountains, Gravelly Range, Greenhorn Mountains, Axolotl Lakes area, and along the Continental Divide from Monida to Lemhi Pass).

Same as SR with reference to the "Western Montana S and G for Livestock Grazing" rather than ID

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Not applicable Addressed in RMP on pg. 67

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

Action: No Similar Action

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Action: No Similar Action

Appendix X pg. 211 Issue: Water discharge and impoundments can degrade or inundate breeding, nesting, and winter habitat. 1. Design impoundments and manage discharge so as not to degrade or inundate leks, nesting sites, and wintering sites. 2. Protect natural springs from any source of disturbance or degradation from energy-related activities.

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NEED TO DETERMINE HOW TO ADDRESS THE 3%  
DISTURBANCE THRESHOLD. Are we still waiting on  
guidance from the NTT or RMT?







Same as NA? Need more discussion for subregion, not sure what "see above " is in reference to.





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Same as NA. Dillon utilizes Watersheds Assessments and has a sage-grouse assessment process in place. All allotments in the DFO have been assessed in the last 10 years.





DFO has a very aggressive noxious weeds program





DFO is also monitoring sage grouse habitat following guidelines set forth in the Management Plan and Conservation Strategies for Sage Grouse in Montana.



All prescribed fire units are designed to improve habitat conditions and discussed with local FWP biologists to reduce conflicts with wildlife use, Did not paste it here, but also refer to Rangeland Vegetation pg. 51 Actions 4,5,6,7,8,9,12,13 All identify habitat considerations for fire management.





All projects are coordinated with FWP biologists to meet wildlife habitat needs.

Same as NA - Also addressed in grazing management, habitat restoration and noxious weeds

Climate change is not currently considered for re-seeding under current RMP guidelines

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Appendix E BMP's could be amended to the DFO RMP  
– MOST if not all are already used when site specific  
NEPA is done.

Appendix E BMP's could be amended to the DFO RMP  
– MOST if not all are already used when site specific  
NEPA is done.

This was common to all alternatives and therefore incorporated into the Final RMP on pg 46 and 47 under Locatable minerals. Also refer to Appendix N Standard operating procedures for Mineral material sites in DFO ROD/RMP pg. 169. I MAY JUST RECOMMEND USING WORDING FROM SUB-REGION ALTERNATIVE.

also Appendix N pg 169 of DFO RMP has SOP for Mineral Material Sites

No Lease was analyzed under alt C in draft RMP. See below for Final Decision I feel this is adequate as we have no active drilling/wells and no APD's in DFO Online link to BMP's for Fluid Minerals located in Appendix B Also see Washington Office IM No. 2004-194. Also refer to Appendix M Procedures in oil and gas recovery. In DFO ROD/RMP Any geophysical exploration would require site specific NEPA.

DFO currently does not have any level of development. Last geophysical exploration was in 2008. Nothing has been developed on those leases  
May need plan amendment to update the ¼ mile NSO currently in DFO RMP to 4m NSO if warranted.  
Can add Appendix D BMP's from NTT  
←← See scenario analyzed in RMP for full field development. max of ten wells could be drilled over the life of the RMP RMP plan amendment would be needed to exceed this over the life of the plan.

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Need to update NSO distance around active leks.

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Same as NA, All motorized travel in DFO is limited to designated routes. All of these actions listed under travel require an EA to be completed if we make any changes to the TMP.

Same as NA Would require an EA anyway Should this be under Travel Management?

Same as NA - Should this be under Travel Management?

Same as NA - Should this be under Travel  
Management?

Is this a Recreation/travel issue or Mineral Split  
Estate??

Is this a Recreation/travel issue or Mineral Split  
Estate??

Is this a Recreation/travel issue or Mineral Split  
Estate??

SRP in sage grouse habitat are not specifically addressed in RMP, however most if not all our SRP are outfitter /guides for fishing or big game hunting, not likely to impact sage grouse.

Same as NA

Most of our winter snow machine travel is not in gsg winter habitat. Do we even need to address this?

No Concern All allotments in DFO have had health assessments completed and ESD were used to determine Function. Changes have been made to improve sage grouse habitat conditions where standards were not met.

Same as NA - DFO is active in Local gsg working group, and works with landowners during permit renewal to benefit all wildlife species.

Same as NA, All allotments in DFO have been assessed in the past ten years and changes have been made where not meeting the standards or sagebrush habitat requirements.

Currently being done during Watershed Assesments.

Sams as NA - Not going to paste the whole thing here.  
No Concern. Monitoring and habitat objectives are outlined in WA EA's

addressed in multiple locations in RMP, and already pasted into multiple actions in this matrix.



This is all considered during Watershed assessments when AMP's are renewed.

Same as NA - Reductions were made during drought periods around 2003-2004 and post drought management was allotted for. We are currently talking to Permittees regarding possible reductions for 2013.



Same as NA - new water developments are analyzed during watershed assessments.



Same as NA - Currently evaluated during watershed analysis process, most historic seedings have converted back to sagebrush habitat.

Same as NA - the DFO has been modifying fences, marking fences around leks and has has an aggressive weeds management program for the past 10 years.

West nile has not been identified as an issue in DFO possibly due to elevation and the species of mosquito that is a carrier does not survive here.

These are all analyzed during Watershed assessments.  
The DFO has been actively removing, modifying and marking fences around leks.

If warranted no grazing is analyzed on specific parcels or pastures/allotments during Watershed assessments.

This is analyzed under Watershed Assesments.  
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Same as NA - This is analyzed during our watershed assessments

Not really an issue in MT to reduce threat of fire in annual grasslands.

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New GOA 1/28/2013	Program Area	Sub Topic	Threat	Indicator
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195 Locatable Minerals

211 Leased Federal Fluid Mineral Est

206 Unleased Federal Fluid Mineral

205 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

281 Livestock Grazing

Water Development

280 Livestock Grazing

Water Development

202 Saleable Minerals

188 Non Energy Leasable Minerals

236 Travel Management

175 Restoration

120 Restoration

347 Wild Horses and Burros

159 Fuels

174 Restoration

119 Restoration

267 Livestock Grazing

Objectives

270 Livestock Grazing

Drought

160 Fuels

92 Habitat Fragmentation

Land Use Authorizator Infrastructure miles of lin



285 Restoration

168 Suppression

346 Wild Horses and Burros

189 Non Energy Leasable Minerals

269 Livestock Grazing

123 Restoration

264 Livestock Grazing

240 Travel Management

288 Livestock Grazing

Improvements

101 Habitat Fragmentation

Withdrawal

Mining

Acres close

290 Livestock Grazing                      Improvements

233 Travel Management

237 Travel Management

268 Livestock Grazing                      Objectives

292 Invasive Species

284 Restoration

203 Saleable Minerals

235 Travel Management

238 Travel Management

262 Livestock Grazing

162 Suppression

116 Restoration

144 Invasive Species

293 Livestock Grazing

196 Locatable Minerals

91 Habitat Fragmentation      Land Use Authorizati      Infrastructu      Acres exclu

122 Restoration

271 Livestock Grazing      Riparian  
4 Adaptive Management      Best Management Prac      N/A      N/E  
5 Common to All Alternatives      Implementation      N/A      N/E  
8 Common to All Alternatives      N/A      N/E  
10 Habitat Fragmentation      Infrastructu      Acres of PP  
12 Habitat Fragmentation      Wildfire, In      N/E

17 Designation of Habitat      Connectivity      All      Acres of Ha

18	Habitat Fragmentation	Connectivity	All	Acres of Ha
19	Adaptive Management		All	N/E
22	Common to All Alternatives	Process	All	N/E
26	Priority Setting	Mapping	All	N/E
27	Designation of Habitat	Mapping	All	N/E
28	Designation of Habitat	Mapping	All	N/E
30	Designation of Habitat	Mapping	All	N/E
31	Designation of Habitat	Mapping	All	N/E
32	Designation of Habitat	Mapping	All	N/E
33	Designation of Habitat	Adaptive Management	All	N/E
34	Designation of Habitat	Threats	All	N/E
35	Designation of Habitat	Threats	All	N/E
36	Designation of Habitat	Mapping	All	N/E
37	Designation of Habitat	Mapping	All	N/E
38	Designation of Habitat	Adaptive Management	All	N/E
39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E
42	Designation of Habitat	Uses	All	
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha

57 Adaptive Management	Trigger	Wildfire	Acres of Ha
58 Adaptive Management	Wildfire	Wildfire	Acres of Ha
59 Adaptive Management	Process	All	N/E
60 Adaptive Management	Process	All	N/E
61 Designation of Habitat	Trigger	All	Acres of De
63 Valid Existing Authorizations	Foundational	N/A	Acres of Rig
64 Valid Existing Authorizations	Foundational	Minerals	Acres of va
65 Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
68 Mitigation	Process	All	Acres of ha
69 Designation of Habitat	Restoration	All	Acres Treat
70 Mitigation	Restoration	All	Acres Treat
71 Monitoring	Process	Wildfire, In	Acres of wi
72 Monitoring	Process	Grazing	Acres of th
73 Monitoring	Process	All	
74 Monitoring	Process	Wildfire	Acres of tre
75 Monitoring	Process	All	Acres
76 Monitoring	Process	All	Population
77 Monitoring	process	grazing	acres in DF
78 Monitoring	Process	Grazing	Acres in DF
79 Habitat Fragmentation	Land Use Authorizations		
80 Habitat Fragmentation	Land Use Authorizations		
81 Human Disturbance	Land Use Authorizations		
82 Habitat Fragmentation	Land Use Authorizations		
83 Habitat Fragmentation	Land Use Authorizations		
84 Habitat Fragmentation	Land Use Authorizations		
85 Habitat Fragmentation	Land Use Authorizations		
86 Human Disturbance	Land Use Authorizations		
87 Predation	Land Use Authorizations		
88 Habitat Fragmentation	Land Use Authorizations		
89 Human Disturbance	Land Use Authorizations		
90 Fuels			
95 Habitat Fragmentation	Avoidance	Infrastructu	acres of avi
96 Habitat Fragmentation	Co-location	Infrastructu	miles of lin
98 Common to All Alternatives	Implementation		
102 Habitat Fragmentation	Corridors	Infrastructu	Acres/mile:
103 Habitat Fragmentation	Land Tenure	Predation	Acres
104 Habitat Fragmentation	Wind Energy	Infrastructu	Acres avail:
105 Habitat Fragmentation	unauthorized uses	infrastructu	acres
106 Habitat Fragmentation	siting	Infrastructu	acres avail:
110 ACEC			
117 Restoration			
125 Restoration			
126 Restoration			

129 Restoration  
132 Monitoring  
133 Suppression  
134 Invasive Species  
135 Vegetation  
136 Restoration  
137 Restoration  
138 Monitoring  
139 Invasive Species  
140 Invasive Species  
141 Restoration  
143 Restoration  
145 Invasive Species  
146 Monitoring  
152 Fuels  
156 Suppression  
157 Suppression  
164 Suppression  
165 Suppression  
172 Suppression  
177 Restoration  
178 Restoration  
179 Restoration  
180 Restoration  
181 Fuels  
182 Suppression  
183 Suppression  
184 Suppression  
199 Locatable Minerals  
204 Saleable Minerals  
223 ACECs  
224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est  
243 Travel Management  
247 Recreation and Visitor Services  
248 Recreation and Visitor Services  
249 Recreation and Visitor Services  
250 Travel Management  
251 Travel Management  
260 Livestock Grazing  
298 Livestock Grazing                      Trailing  
299 Fuels  
300 Restoration  
301 Fuels  
318 Livestock Grazing                      Improvements  
319 Livestock Grazing                      Water Development  
320 Livestock Grazing                      Water Development



321 Livestock Grazing	Water Development		
322 Livestock Grazing	Water Development		
323 Livestock Grazing			
325 Restoration			
326 Adaptive Management			
327 Livestock Grazing			
328 Livestock Grazing			
329 Livestock Grazing			
330 Livestock Grazing			
331 Livestock Grazing			
332 Coordination			
333 Livestock Grazing	Riparian		
334 Livestock Grazing			
335 Livestock Grazing	Improvements		
336 Livestock Grazing	Improvements		
337 Livestock Grazing	Improvements		
338 Livestock Grazing	Improvements		
339 Livestock Grazing	Improvements		
340 Livestock Grazing	Improvements		
341 Livestock Grazing	Improvements		
355 Wild Horses and Burros			
356 ACECs			
357 West Nile Virus			
358 West Nile Virus			
359 West Nile Virus			
360 West Nile Virus			
361 West Nile Virus			
507 BMP	Roads		
508 BMP	Roads		
509 BMP	Development		
510 BMP	Development		
511 BMP	Development		
512 BMP	Development		
513 BMP	Development		
514 BMP	Development		
515 BMP	Development		
516 Exemption Process			
24 Designation of Habitat	Populations	All	N/E
25 Designation of Habitat	Mapping	All	N/E
43 Designation of Habitat	Indicators		
48 Implementation	Adaptive Management	All	N/E
49 Adaptive Management	Process	All	N/E
50 Adaptive Management	Process	All	N/E
51 Adaptive Management	Wildfire	Wildfire	Acres of Ha
62 Valid Existing Authorizations	Foundational	N/A	Acres of Riğ
67 Mitigation	Process	Infrastructu	Acres/mile:
234 Travel Management			

246 Recreation and Visitor Services

263 Livestock Grazing

115 Restoration

173 Restoration

100 Habitat Fragmentation

Withdrawal

Mining

acres with

118 Restoration

121 Restoration

97 Habitat Fragmentation

Land Tenure

Urbanizatic acres retair

291 Livestock Grazing

Improvements

348 Implementation

289 Livestock Grazing

Water Development

241 Travel Management

93 Habitat Fragmentation

Reclamation

Infrastructure miles of lin

274 Livestock Grazing

Riparian

99 Habitat Fragmentation

Acquisition

Urbanizatic acres ident

227 Mineral Split Estate

228 Mineral Split Estate

345 Wild Horses and Burros

261 Livestock Grazing

278 Livestock Grazing

Riparian

273 Livestock Grazing

Riparian

424 BMP

Reclamation

400 BMP

Development

489 BMP

Fuels

506 BMP

Suppression

498 BMP

Suppression

384 BMP

Development

378 BMP	West Nile Virus
407 BMP	Development
464 BMP	Development
421 BMP	Development

395 BMP	Roads
---------	-------

397 BMP	Development
---------	-------------

408 BMP	Development
---------	-------------

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

219 Leased Federal Fluid Mineral Est

218 Habitat Fragmentation

220 Leased Federal Fluid Mineral Est

217 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est

380 BMP                      West Nile Virus

389 BMP                      Roads

412 BMP                      Development

388 BMP                      Roads

410 BMP                      Development

409 BMP Development

386 BMP Roads

487 BMP Fuels

496 BMP Suppression

392 BMP Roads

500 BMP Suppression

490 BMP Fuels

483 BMP Fuels

411 BMP Development

390 BMP Roads

391 BMP Roads

383 BMP West Nile Virus



418 BMP

Development

488 BMP

Fuels

6 Goal

SG Abundance and Dist All

Acres of Ha

424 BMP

Reclamation

377 BMP

West Nile Virus

427 BMP

Reclamation

416 BMP

Development

381 BMP

West Nile Virus

382 BMP West Nile Virus

422 BMP Development

420 BMP Development

387 BMP Roads

379 BMP West Nile Virus

425 BMP Reclamation

504 BMP Suppression

503 BMP Suppression  
295 Monitoring

155 Fuels



499 BMP	Suppression		
402 BMP	Development		
399 BMP	Development		
401 BMP	Development		
406 BMP	Development		
94 Habitat Fragmentation	Relocation	Infrastructure	miles of lin
294 Livestock Grazing			
502 BMP	Suppression		
486 BMP	Fuels		
23 Designation of Habitat	Mapping	All	N/E
492 BMP	Fuels		

497 BMP                      Suppression

481 BMP                      Fuels

493 BMP                      Fuels

415 BMP                      West Nile Virus

491 BMP                      Fuels

417 BMP                      Development

469 BMP                      Development

419 BMP                      Development

426 BMP                      Reclamation

414 BMP                      West Nile Virus

404 BMP Development

393 BMP Roads  
385 BMP Development

405 BMP Development

494 BMP Fuels

9 Designation of Habitat Designation of Habitat All Acres of PP

13 Monitoring group N/A N/E

14 Habitat Fragmentation

DFC Thresholds

Infrastructure Acres of Ha

11 Desired Conditions

Desired Conditions

Wildfire, In Acres of sa

501 BMP

Suppression

398 BMP

Development

394 BMP

Roads

482 BMP

Fuels

413 BMP

Development



403 BMP	Roads		
428 BMP	Reclamation		
505 BMP	Suppression		
480 BMP	Fuels		
485 BMP	Fuels		
484 BMP	Fuels		
7 Priority Setting	Implementation		
11 Goal			
13 Designation of Habitat		All	Acres of PP
15 Disease	West Nile Virus		
17 Desired Conditions			
18 Monitoring			
19 Habitat Fragmentation			
21 Designation of Habitat			
91 ACEC			
95 BMP			
97 Habitat Fragmentation			
97 Implementation			
99 ACEC			
102 ACEC			
133 Fuels			
133 Fuels			
135 Restoration			
144 BMP			
155 Restoration			
155 Suppression			
159 Suppression			
162 Fuels			
163 Fuels			
168 Fuels			
173 Suppression			
212 Unleased Federal Fluid Mineral Estate			
246 Travel Management			
247 Travel Management			

248	Travel Management	
249	Travel Management	
273	Livestock Grazing	
274	Livestock Grazing	
278	Livestock Grazing	
280	Livestock Grazing	
281	Livestock Grazing	
284	Coordination	
288	Desired Conditions	
288	Invasive Species	
288	Livestock Grazing	Improvements
289	Livestock Grazing	
300	Livestock Grazing	Sheep
334	Livestock Grazing	Drought
356	West Nile Virus	
386	BMP	Development
387	BMP	Development
388	BMP	Development
390	BMP	Development
391	BMP	Development
503	BMP	Development

**Alternative B – Priority Areas****Alternative B - General Areas**

§ Action: In priority habitat, propose withdrawal from mineral entry based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development. Make any existing claims within the withdrawal area subject to validity exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal. In plans of operations required prior to any proposed surface disturbing activities, include the following: Additional, effective mitigation in perpetuity for conservation (In accordance with existing policy, WO IM 2008-204). Example: purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government). Consider seasonal restrictions if deemed effective.

No Action

1. Action: In priority habitat, apply the following nine conservation measures through Resource Management Plan (RMP) implementation decisions (e.g., approval of an Application for Permit to Drill, Sundry Notice, etc.) and upon completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, among other things: Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and Whether the action is in conformance with the approved RMP.

No Action

Action (Alternative 1): Allow geophysical exploration within priority sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat areas. Allow geophysical operations only by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply.

No Action

Action (Alternative 1): Close priority sage-grouse habitat areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas. No Action

Action (Alternative 2): Allow geophysical exploration within priority sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat areas. Only allow geophysical operations by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply. No Action

Action (Alternative 2): Close priority sage-grouse habitat areas to fluid mineral leasing. Consider an exception when there is an opportunity for the BLM and FS to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (i.e., checkerboard ownership). In this case, a plan amendment may be developed that opens the priority area for new leasing. The plan must demonstrate long-term population increases in the priority area through mitigation (prior to issuing the lease) including lease stipulations, off-site mitigation, etc., and avoid short-term losses that put the sage-grouse population at risk from stochastic events leading to extirpation. No Action

Action: Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to sage-grouse. No Action

Action: Authorize new water development for diversion from spring or seep source only when priority sage-grouse habitat would benefit from the development. This includes developing new water sources for livestock as part of an AMP/conservation plan to improve sage-grouse habitat. Same as Priority Areas.

Action: Close priority habitat to mineral material sales. No Action

Action: Close priority habitat to non-energy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine. No Action

Action: Complete activity level travel plans within five years of the record of decision. During activity level planning, where appropriate, designate routes in priority habitat with current administrative/agency purpose or need to administrative access only. No Action

Action: Consider potential changes in climate (Miller et al. 2011) when proposing post-fire seedings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seed. (Kramer and Havens 2009). No Action

Action: Consider potential changes in climate (Miller et al. 2011) when proposing restoration seedings when using native plants. Consider collection from the warmer component of the species current range when selecting native species (Kramer and Havens 2009). No Action

Action: Coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments to determine existing structure/condition/composition of vegetation within all BLM HMAs and FS WHTs. No Action

Action: Design fuels management projects in priority sage-grouse habitat to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more linear versus block design (Launchbaugh et al. 2007). No Action

Action: Design post ES&R and BAER management to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ES&R and BAER projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006). No Action

Action: Design post restoration management to ensure long term persistence. This could include changes in livestock grazing management, wild horse and burro management and travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits sage-grouse (Eiswerth and Shonkwiler 2006).

No Action

Action: Develop specific objectives to conserve, enhance or restore priority sage-grouse habitat based on BLM ESDs (FS may use other methods) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances sage-grouse habitat in the NEPA document prepared for the permit renewal (Doherty et al. 2011b, Williams et al. 2011).

No Action

Action: During drought periods, prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999, Cagney et al. 2010), ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.

No Action

Action: During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al. 2007). Consult with ecologists to minimize impacts to native perennial grasses.

No Action

Action: Evaluate and take advantage of opportunities to remove, bury, or modify existing power lines within priority sage-grouse habitat areas.

No Action

Action: Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/ Conservation Plan or if they provide value in conserving or enhancing the rest of the priority habitats, then no restoration would be necessary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing system during the land health assessments (or other analyses [FS only]) (Davies et al. 2011).

No Action

Action: Follow Best Management Practices (WO IM 2011-138, see appendix E.)

No Action

Action: For all BLM HMAs and FS WHTs within priority sage-grouse habitat, prioritize the evaluation of all AMLs based on indicators that address structure/condition/composition of vegetation and measurements specific to achieving sage-grouse habitat objectives.

No Action

Action: For existing non-energy leasable mineral leases in priority habitat, in addition to the solid minerals BMPs (Appendix E), follow the same BMPs applied to Fluid Minerals (Appendix D), when wells are used for solution mining.

No Action

Action: Implement management actions (grazing decisions, Annual Operating Instructions [FS only], AMP/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements (Connelly et al. 2011c). Consider singly, or in combination, changes in: 1) Season or timing of use; 2) Numbers of livestock (includes temporary non-use or livestock removal); 3) Distribution of livestock use; 4) Intensity of use; and 5) Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) (Briske et al. 2011).

No Action

Action: In fire prone areas where sagebrush seed is required for sage-grouse habitat restoration, consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) and are a priority for protection from outside disturbances.

No Action

Action: In priority habitat, conduct land health assessments that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving sage-grouse habitat objectives (Doherty et al. 2011). If local/state seasonal habitat objectives are not available, use sage-grouse habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007.

No Action

Action: In priority habitat, conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected for protection in previous RMPs.

No Action

Action: In priority habitat, design any new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.

No Action

Action: In priority habitat, do not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with sage-grouse conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with sage-grouse conservation measures.)

No Action



Action: In priority habitat, evaluate existing structural range improvements and location of supplements (salt or protein blocks) to make sure they conserve, enhance or restore sage-grouse habitat.

No Action

Action: In priority habitat, limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.

No Action

Action: In priority habitat, limit route construction to realignments of existing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates the need to construct a new road, or is necessary for motorist safety.

No Action

Action: In priority habitat, manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve sage-grouse seasonal habitat objectives.

No Action

Action: In priority habitat, monitor for, and treat invasive species associated with existing range improvements (Gelbard and Belnap 2003 and Bergquist et al. 2007).

No Action

Action: In priority habitat, only allow treatments that conserve, enhance or restore sage-grouse habitat (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat).

No Action

Action: In priority habitat, restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives.

No Action

Action: In priority habitat, travel management should evaluate the need for permanent or seasonal road closures.

No Action

Action: In priority habitat, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 % for that area, then evaluate and implement additional, effective mitigation necessary to offset the resulting loss of sage-grouse habitat (see Objectives).

No Action

Action: In priority habitat, work cooperatively on integrated ranch planning within sage-grouse habitat so operations with deeded/BLM and/or FS allotments can be planned as single units.

No Action

Action: In priority sage-grouse habitat areas, prioritize suppression, immediately after life and property, to conserve the habitat.

Action: In general sage-grouse habitat, prioritize suppression where wildfires threaten priority sage-grouse habitat.

Action: Include sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State Sage-Grouse Conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within priority sage-grouse habitat areas the highest restoration priority.

No Action

Action: Integrated Vegetation Management would be used to control, suppress, and eradicate, where possible, noxious and invasive species per BLM

No Action

Action: Maintain retirement of grazing privileges as an option in priority sage-grouse areas when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals.

No Action

Action: Make applicable Best Management Practices (see Appendix E) mandatory as Conditions of Approval within priority sage-grouse habitat.

No Action

Action: Make priority sage-grouse habitat areas exclusion areas for new BLM ROW or FS Special Use Authorization (SUA) permits. Consider the following exceptions: Within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations: new ROWs or SUAs may be co-located only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs or SUAs. Subject to valid, existing rights: where new ROWs or SUAs associated with valid existing rights are required, co-locate new ROWs or SUAs within existing ROWs or SUAs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, then evaluate and implement additional effective mitigation on a case-by-case basis to offset the resulting loss of sage-grouse habitat.

No Action

Action: Make re-establishment of sagebrush cover and desirable understory plants (relative to ecological site potential) the highest priority for restoration efforts.

No Action

Action: Manage riparian areas and wet meadows for proper functioning condition or other similar methodology (FS only) within priority sage-grouse habitats.

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

Sub-objective: Quantify and delineate general habitat for capability to provide connectivity among priority areas (Knick and Hanser 2011).

Action: No Similar Action

Sub-objective: Conserve, enhance or restore sage-grouse habitat and connectivity (Knick and Hanser 2011) to promote movement and genetic diversity, with emphasis on those habitats occupied by sage-grouse.

Action: No Similar Action

· Sub-objective: Assess general sage-grouse habitats to determine potential to replace lost priority habitat caused by perturbations and/or disturbances and provide connectivity (Knick and Hanser 2011) between priority areas. These habitats should be given some priority over other general sage-grouse habitats that provide marginal or substandard sage-grouse habitat. Restore historical habitat functionality to support sage-grouse populations guided by objectives to maintain or enhance connectivity. Total area and locations will be determined at the Land Use Plan level. Enhance general sage-grouse habitat such that population declines in one area are replaced elsewhere within the habitat.

Action: No Similar Action

No Action

Action: No Similar Action

No Action

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No Action







Action: Only allow BLM Special Recreation Permits (SRPs) and FS Recreation Special Use Authorizations (RSUAs) in priority habitat that have neutral or beneficial effects to priority habitat areas.

No Action

Action: Prioritize completion of land health assessments (FS may use other analyses) and processing grazing permits within priority sage-grouse habitat areas. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. Utilize BLM Ecological Site Descriptions (ESDs) (FS may use other methods) to conduct land health assessments to determine if standards of range-land health are being met.

No Action

Action: Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse (Meinke et al. 2009). Prioritize restoration in seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance.

No Action

Action: Prioritize native seed allocation for use in sage-grouse habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from Emergency Stabilization and Rehabilitation (ES&R) (BLM) and/or Burn Area Emergency Rehabilitation (BAER) (FS) projects outside of priority sage-grouse habitat to those inside it. Use of native plant seeds for ES&R or BAER seedings is required based on availability, adaptation (site potential), and probability of success (Richards et al. 1998). Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet sage-grouse habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.

No Action

Action: Propose lands within priority sage-grouse habitat areas for mineral withdrawal.

No Action



Action: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Where probability of success or adapted seed availability is low, non-native seeds may be used as long as they support sage-grouse habitat objectives (Pyke 2011). No Action

Action: Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse. No Action

Action: Retain public ownership of priority sage-grouse habitat. Consider exceptions where: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area. Under priority sage-grouse habitat areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure consideration should be given to pursuing a permanent conservation easement. No Action

Action: To reduce outright sage-grouse strikes and mortality, remove, modify or mark fences in high risk areas within priority sage-grouse habitat based on proximity to lek, lek size, and topography (Christiansen 2009, Stevens 2011). No Action

Action: When conducting NEPA analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in priority sage-grouse habitat, address the direct and indirect effects to sage-grouse populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in priority habitats. No Action

Action: When developing or modifying water developments in priority habitat, use applicable best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011). No Action

Action: When reseeding roads, primitive roads and trails in priority habitat, use appropriate seed mixes and consider the use of transplanted sagebrush.	No Action
Action: Where existing leases or ROWs or SUAs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat.	No Action
Action: Where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (FS only), strive to attain reference state vegetation relative to the ecological site description.	Same as Priority Areas.
Action: Where suitable conservation actions cannot be achieved in priority habitat, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore sage-grouse habitat.	No Action
Action: Where the federal government owns the mineral estate in priority habitat, and the surface is in non-federal ownership, apply the conservation measures applied on public lands.	No Action
Action: Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, apply appropriate Fluid Mineral BMPs (see Appendix D) to surface development.	No Action
Action: Within priority habitat, develop or amend BLM Herd Management Area Plans (HMAPs) and FS Wildhorse Territory Plans (WHTPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMAs) and FS Wildhorse Territories (WHTs).	No Action
Action: Within priority sage-grouse habitat, incorporate sage-grouse habitat objectives and management considerations into all BLM and FS grazing allotments through Allotment Management Plans (AMPs) or permit renewals and/or FS Annual Operating Instructions.	No Action

Action: Within priority sage-grouse habitat, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by sage-grouse in the hot season (summer) (Aldridge and Brigham 2002, Crawford et al. 2004, Hagen et al. 2007).

No Action

Action: Within sage-grouse habitats, manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge to minimize elevated mortality during the late brood rearing period (Hagen et al. 2007, Kolada et al. 2009, Atamian et al. 2010).

Same as Priority Areas.

Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.

Apply a phased development approach with concurrent reclamation.

No Action

As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs.

No Action

As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.

No Action

Assign a sage-grouse resource advisor to all extended attack fires in or near key sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals.

No Action

BMP Section B: Fluid Minerals

No Action

Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments (Knight et al. 2003). Construction of steep shorelines also will create more permanent ponds that are a deterrent to colonizing mosquito species like Cx. tarsalis which prefer newly flooded sites with high primary productivity (Knight et al. 2003).	No Action
Bury distribution power lines.	No Action
Bury power lines.	No Action
Clean up refuse (Bui et al. 2011).	Clean up refuse (Bui et al. 2011).
Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation.	No Action
Cluster disturbances associated with operations (fracturing stimulation, liquids gatherin, etc.) and facilities as close as possible.	Cluster disturbances associated with operations (fracturing stimulation, liquids gatherin, etc.) and facilities as close as possible.
Collocate powerlines, flowlines, and small pipelines under or immediately adjacent to existing roads (Bui et al. 2010).	No Action
Conservation Measure: Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all priority sage-grouse habitat during this period.	No Action
Conservation Measure: Complete Master Development Plans in lieu of Application for Permit to Drill (APD)-by-APD processing for all but wildcat wells.	No Action
Conservation Measure: For future actions, require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Insure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000, Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors for the BLM or FS will perform the work.	No Action
Conservation Measure: Identify areas where acquisitions (including subsurface mineral rights) or conservation easements, would benefit sage-grouse habitat.	No Action

Conservation Measure: Make applicable Best Management Practices (BMPs, see Appendix D) mandatory as Conditions of Approval within priority sage-grouse habitat.	No Action
Conservation Measure: Require unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts to sage-grouse according to the Federal Lease Form, 3100-11, Sections 4 and 6.	No Action
Conservation Measure: When permitting APDs on existing leases that are not yet developed, the proposed surface disturbance cannot exceed 3% for that area. Consider an exception if: Additional, effective mitigation is demonstrated to offset the resulting loss of sage-grouse (see Objectives). When necessary, conduct additional, effective mitigation in 1) priority sage-grouse habitat areas or – less preferably – 2) general sage-grouse habitat (dependent upon the area-specific ability to increase sage-grouse populations). Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same Management Zone as the impact, per 2006 WAFWA Strategy – pg 2-17.	No Action
Construct dams or impoundments that restrict down slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage, or lining constructed ponds in areas where seepage is anticipated (Knight et al. 2003).	No Action
Construct road crossings at right angles to ephemeral drainages and stream crossings. Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007, Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)	Construct road crossings at right angles to ephemeral drainages and stream crossings. Control the spread and effects of non-native plant species (Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)
Coordinate road construction and use among ROW or SUA holders. Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.	Coordinate road construction and use among ROW or SUA holders. Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.

Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to sage-grouse.	No Action
Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.	Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.
Design vegetation treatment in areas of high fire frequency to facilitate firefighting safety, reduce the risk of extreme fire behavior; and to reduce the risk and rate of fire spread to key and restoration habitats.	No Action
Develop state-specific sage-grouse toolboxes containing maps, a list of resource advisors, contact information, local guidance, and other relevant information.	No Action
Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.	Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.
During periods of multiple fires, ensure line officers are involved in setting priorities.	No Action
Emphasize the use of native plant species, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.	No Action
Ensure proposed sagebrush treatments are planned with interdisciplinary input from BLM, FS, and /or state wildlife agency biologist and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.	No Action
Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.	Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.
Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.	Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.
Establish trip restrictions (Lyon and Anderson 2003) or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).	No Action
Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes.	No Action

Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).	No Action
Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats. Annual grasslands are second priority for restoration when the sites not adjacent to key habitat, but within 2 miles of key habitat. The third priority for annual grasslands habitat restoration projects are sites beyond 2 miles of key habitat. The intent is to focus restoration outward from existing, intact habitat.	No Action
GOAL: Maintain and/or increase sage-grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners.	GOAL: Same as Priority Habitat.
Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011).	No Action
Increase the size of fresh -water ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding Cx. tarsalis avoid (De Szalay and Resh 2000). This modification may reduce Cx. tarsalis habitat but could create larval habitat for Culicoides sonorensis, a vector of blue tongue disease, and should be used sparingly (Schmidtman et al. 2000). Steep shorelines should be used in combination with this technique whenever possible (Knight et al. 2003).	No Action
Irrigate interim reclamation if necessary for establishing seedlings more quickly.	No Action
Limit noise to less than 10 decibels above ambient measures (20-24 dBA) at sunrise at the perimeter of a lek during active lek season (Patricelli et al. 2010, Blickley et al. In preparation).	No Action
Line the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water, thus precluding shallow surface inflow and accumulation of sediment that promotes aquatic vegetation.	No Action

Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.	No Action
Locate man camps outside of priority sage-grouse habitats.	No Action
Locate new compressor stations outside priority habitats and design them to reduce noise that may be directed towards priority habitat.	No Action
Locate roads to avoid important areas and habitats.	No Action
Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open water produce 5-10 fold fewer Culex mosquitoes than completely vegetated wetlands (Walton and Workman 1998). Wetlands with open water also had significantly fewer stage III and IV instars which may be attributed to increased predator abundances in open water habitats (Walton and Workman 1998).	No Action
Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling and revegetating cut-and-fill slopes.	No Action
Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.	No Action
Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.	No Action
No Similar Objective	No Action



o Action: In priority habitat, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems. Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for the species. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in future NEPA documents. Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area. Allow no fuels treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality. Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered, in stands where cheatgrass is a very minor component in the

No Action

o Action: In priority habitat, provide the following conservation measures as terms and conditions of the approved RMP: Do not allow new surface occupancy on federal leases within priority habitats, this includes winter concentration areas (Doherty et al. 2008, Carpenter et al. 2010) during any time of the year. Consider an exception: If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section. If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or, depending on topography and other habitat aspects, in an area that is less demonstrably harmful to sage-grouse.

No Action

OBJECTIVE: Maintain or increase current distribution and abundance of sage-grouse on BLM administered lands in support of the range-wide goals.

No Action

OBJECTIVE: Manage land uses, habitat treatments, and anthropogenic disturbances below thresholds necessary to conserve local sage-grouse populations, sagebrush communities and landscapes.

No Action

Objective: Manage wild horse and burro population levels within established Appropriate Management Levels (AML).

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: Prioritize gathers in priority sage-grouse habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.

No Action

Objective: Protect priority sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse

No Action

On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.	No Action
Pipelines must be under or immediately adjacent to the road (Bui et al. 2010).	No Action
Place infrastructure in already disturbed locations where the habitat has not been fully restored.	No Action
Place liquid gathering facilities outside of priority areas. Have no tanks at well locations within priority habitat areas to minimize truck traffic and perching and nesting sites for ravens and raptors.	No Action
Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.	No Action
Planning Direction Note: Relocate existing designated ROW corridors crossing priority sage-grouse habitat void of any authorized ROWs, outside of the priority habitat area. If relocation is not possible, undesignate that entire corridor during the planning process.	No Action
Planning direction Note: Each planning effort will identify the specific allotment(s) where permanent retirement of grazing privileges is potentially beneficial.	No Action
Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and ATVs prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.	No Action
Power-wash all vehicles and equipment involved in fuels management activities prior to entering the area to minimize the introduction of undesirable and/or invasive plant species.	No Action
Priority sage-grouse habitats are areas that have the highest conservation value to maintaining or increasing sage-grouse populations. These areas would include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors.	General sage-grouse habitat is occupied (seasonal or year-round) habitat outside of priority habitat.
Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.	No Action

Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics.	No Action
Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.	No Action
Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species by planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.	No Action
Remove or re-inject produced water to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Construct dams or impoundments that restrict down slope seepage or overflow. Line the channel where discharge water flows into the pond with crushed rock. Construct spillway with steep sides and line it with crushed rock. Treat waters with larvicides to reduce mosquito production where water occurs on the surface.	No Action
Remove standing and encroaching trees within at least 100 meters of occupied sage-grouse leks and other habitats (e.g., nesting, wintering, and brood rearing) to reduce the availability of perch sites for avian predators, as appropriate, and resources permit.	No Action
Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.	No Action
Require sage-grouse safe fences around sumps.	No Action
Require sage-grouse-safe fences.	No Action
Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.	No Action
Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).	Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).

Restrict the construction of tall facilities and fences to the minimum number and amount needed.	Restrict the construction of tall facilities and fences to the minimum number and amount needed.
Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)	No Action
Roads - PPH	No Action
Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.	No Action
Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, and strictly managed grazed strips) to aid in controlling wildfire should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).	No Action
Sub-objective: Designate priority sage-grouse habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that are large enough to stabilize populations in the short term and enhance populations over the long term.	Sub-objective: Designate general sage-grouse habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that provide for major life history function (e.g., breeding, migration, or winter survival) in order to maintain genetic diversity needed for sustainable Greater Sage-Grouse populations.
Sub-objective: Develop quantifiable habitat and population objectives with WAFWA and other conservation partners at the management zone and/or other appropriate scales. Develop a monitoring and adaptive management strategy to track whether these objectives are being met, and allow for revisions to management approaches if they are not.	No Action

Sub-objective: Manage priority sage-grouse habitats so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat regardless of ownership. Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines. In priority habitats where the 3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by BLM or FS until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights). In this instance, an additional objective will be designated for the priority area to prioritize and reclaim/restore anthropogenic disturbances so that 3% or less of the total priority habitat area is disturbed within 10 years.

No Action

Sub-objective: To maintain or increase current populations, manage or restore priority areas so that at least 70% of the land cover provides adequate sagebrush habitat to meet sage-grouse needs.

No Action

To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, and heli-bases) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.

No Action

Use directional and horizontal drilling to reduce surface disturbance.  
Use dust abatement practices on roads and pads.

Use directional and horizontal drilling to reduce surface disturbance.  
Use dust abatement practices on roads and pads.

Use fire prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

No Action

Use only closed-loop systems for drilling operations and no reserve pits.

No Action

Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).	Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).
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Utilize mulching techniques to expedite reclamation and to protect soils.	No Action
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Utilize retardant and mechanized equipment to minimize burned acreage during initial attack.	No Action
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Where applicable, design fuels treatment objective to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.	No Action
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Where applicable, incorporate roads and natural fuel breaks into fuel break design.	No Action
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Where appropriate, ensure that treatments are configured in a manner (e.g., strips) that promotes use by sage-grouse (See Connelly et al., 2000*)	No Action
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H/PGH map of pph by alternative

New GOA 1/28/2013	Program Area	Sub Topic	Threat	Indicator
	4 Adaptive Management	Best Management Prac	N/A	N/E
	5 Common to All Alternatives	Implementation	N/A	N/E
	6 Goal	SG Abundance and Dist	All	Acres of Ha
	7 Designation of Habitat	Designation of Habitat	Human Dis	Acres of Ha
	7 Priority Setting	Implementation		
	8 Common to All Alternatives		N/A	N/E
	9 Designation of Habitat	Designation of Habitat	All	Acres of PP
	10 Habitat Fragmentation		Infrastructu	Acres of PP
	11 Goal			
	11 Desired Conditions	Desired Conditions	Wildfire, In	Acres of sa
	12 Habitat Fragmentation		Wildfire, In	N/E
	13 Designation of Habitat		All	Acres of PP
	13 Monitoring	group	N/A	N/E
	14 Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of Ha
	15 Objective	Distribution	All	Acres of Ha
	15 Disease	West Nile Virus		
	16 Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of Ha
	17 Designation of Habitat	Connectivity	All	Acres of Ha
	17 Desired Conditions			
	18 Habitat Fragmentation	Connectivity	All	Acres of Ha
	18 Monitoring			
	19 Adaptive Management		All	N/E
	19 Habitat Fragmentation			
	20 Objective	Rehabilitation	All	Acres of Ha
	21 Designation of Habitat			
	21 Objective	ACEC	All	N/E
	22 Common to All Alternatives	Process	All	N/E
	23 Designation of Habitat	Mapping	All	N/E
	24 Designation of Habitat	Populations	All	N/E
	25 Designation of Habitat	Mapping	All	N/E
	26 Priority Setting	Mapping	All	N/E
	27 Designation of Habitat	Mapping	All	N/E
	28 Designation of Habitat	Mapping	All	N/E
	30 Designation of Habitat	Mapping	All	N/E
	31 Designation of Habitat	Mapping	All	N/E
	32 Designation of Habitat	Mapping	All	N/E
	33 Designation of Habitat	Adaptive Management	All	N/E
	34 Designation of Habitat	Threats	All	N/E
	35 Designation of Habitat	Threats	All	N/E
	36 Designation of Habitat	Mapping	All	N/E
	37 Designation of Habitat	Mapping	All	N/E
	38 Designation of Habitat	Adaptive Management	All	N/E



39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E
42	Designation of Habitat	Uses	All	
43	Designation of Habitat	Indicators		
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
48	Implementation	Adaptive Management	All	N/E
49	Adaptive Management	Process	All	N/E
50	Adaptive Management	Process	All	N/E
51	Adaptive Management	Wildfire	Wildfire	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha
57	Adaptive Management	Trigger	Wildfire	Acres of Ha
58	Adaptive Management	Wildfire	Wildfire	Acres of Ha
59	Adaptive Management	Process	All	N/E
60	Adaptive Management	Process	All	N/E
61	Designation of Habitat	Trigger	All	Acres of De
62	Valid Existing Authorizations	Foundational	N/A	Acres of Rig
63	Valid Existing Authorizations	Foundational	N/A	Acres of Rig
64	Valid Existing Authorizations	Foundational	Minerals	Acres of va
65	Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66	Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
67	Mitigation	Process	Infrastructu	Acres/mile:
68	Mitigation	Process	All	Acres of ha
69	Designation of Habitat	Restoration	All	Acres Treat
70	Mitigation	Restoration	All	Acres Treat
71	Monitoring	Process	Wildfire, In	Acres of wi
72	Monitoring	Process	Grazing	Acres of thi
73	Monitoring	Process	All	
74	Monitoring	Process	Wildfire	Acres of tre
75	Monitoring	Process	All	Acres
76	Monitoring	Process	All	Population
77	Monitoring	process	grazing	acres in DF
78	Monitoring	Process	Grazing	Acres in DF
79	Habitat Fragmentation	Land Use Authorizations		
80	Habitat Fragmentation	Land Use Authorizations		
81	Human Disturbance	Land Use Authorizations		
82	Habitat Fragmentation	Land Use Authorizations		
83	Habitat Fragmentation	Land Use Authorizations		
84	Habitat Fragmentation	Land Use Authorizations		
85	Habitat Fragmentation	Land Use Authorizations		

86 Human Disturbance	Land Use Authorizations
87 Predation	Land Use Authorizations
88 Habitat Fragmentation	Land Use Authorizations
89 Human Disturbance	Land Use Authorizations
90 Fuels	

91 ACEC

91 Habitat Fragmentation	Land Use Authorization	Infrastructure	Acres exclu
92 Habitat Fragmentation	Land Use Authorization	Infrastructure	miles of lin
93 Habitat Fragmentation	Reclamation	Infrastructure	miles of lin
94 Habitat Fragmentation	Relocation	Infrastructure	miles of lin
95 BMP			
95 Habitat Fragmentation	Avoidance	Infrastructure	acres of av
96 Habitat Fragmentation	Co-location	Infrastructure	miles of lin

97 Habitat Fragmentation	Land Tenure	Urbanizatio	acres retain
97 Habitat Fragmentation			
97 Implementation			
98 Common to All Alternatives	Implementation		

99 ACEC

99 Habitat Fragmentation	Acquisition	Urbanizatio	acres ident
100 Habitat Fragmentation	Withdrawal	Mining	acres withc
101 Habitat Fragmentation	Withdrawal	Mining	Acres close

102 ACEC

102 Habitat Fragmentation	Corridors	Infrastructure	Acres/mile:
103 Habitat Fragmentation	Land Tenure	Predation	Acres
104 Habitat Fragmentation	Wind Energy	Infrastructure	Acres avail:
105 Habitat Fragmentation	unauthorized uses	infrastructure	acres
106 Habitat Fragmentation	siting	Infrastructure	acres avail:

110 ACEC

115 Restoration  
116 Restoration

117 Restoration  
118 Restoration  
119 Restoration

120 Restoration

121 Restoration

122 Restoration

123 Restoration

125 Restoration

126 Restoration

129 Restoration

132 Monitoring

133 Fuels

133 Fuels

133 Suppression

134 Invasive Species

135 Restoration

135 Vegetation

136 Restoration

137 Restoration

138 Monitoring

139 Invasive Species

140 Invasive Species

141 Restoration

142 Restoration

143 Restoration

144 BMP

144 Invasive Species

145 Invasive Species

146 Monitoring

152 Fuels

155 Fuels

155 Restoration

155 Suppression

156 Suppression

157 Suppression

159 Fuels

159 Suppression

160 Fuels

162 Fuels

162 Suppression

163 Fuels

164 Suppression

165 Suppression

168 Fuels

168 Suppression

172 Suppression

173 Restoration

173 Suppression

174 Restoration

175 Restoration

177 Restoration

178 Restoration

179 Restoration

180 Restoration

181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals

196 Locatable Minerals

199 Locatable Minerals

202 Saleable Minerals

203 Saleable Minerals

204 Saleable Minerals

205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

211 Leased Federal Fluid Mineral Est

212 Leased Federal Fluid Mineral Est

212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est  
217 Leased Federal Fluid Mineral Est  
218 Habitat Fragmentation  
219 Leased Federal Fluid Mineral Est  
220 Leased Federal Fluid Mineral Est

223 ACECs

224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est

226 Leased Federal Fluid Mineral Est  
227 Mineral Split Estate  
228 Mineral Split Estate  
233 Travel Management  
234 Travel Management  
235 Travel Management  
236 Travel Management  
237 Travel Management  
238 Travel Management  
240 Travel Management  
241 Travel Management  
243 Travel Management  
246 Recreation and Visitor Services  
246 Travel Management  
247 Recreation and Visitor Services  
247 Travel Management  
248 Recreation and Visitor Services  
248 Travel Management  
249 Recreation and Visitor Services  
249 Travel Management  
250 Travel Management  
251 Travel Management  
260 Livestock Grazing  
261 Livestock Grazing  
262 Livestock Grazing  
263 Livestock Grazing  
264 Livestock Grazing  
267 Livestock Grazing                      Objectives  
268 Livestock Grazing                      Objectives  
269 Livestock Grazing  
270 Livestock Grazing                      Drought  
271 Livestock Grazing                      Riparian  
273 Livestock Grazing                      Riparian

273 Livestock Grazing	
274 Livestock Grazing	Riparian
274 Livestock Grazing	
278 Livestock Grazing	Riparian
278 Livestock Grazing	
280 Livestock Grazing	Water Development
280 Livestock Grazing	
281 Livestock Grazing	Water Development
281 Livestock Grazing	
284 Coordination	
284 Restoration	
285 Restoration	
288 Desired Conditions	
288 Invasive Species	
288 Livestock Grazing	Improvements
288 Livestock Grazing	Improvements
289 Livestock Grazing	Water Development
289 Livestock Grazing	
290 Livestock Grazing	Improvements
291 Livestock Grazing	Improvements
292 Invasive Species	
293 Livestock Grazing	
294 Livestock Grazing	
295 Monitoring	
298 Livestock Grazing	Trailing
299 Fuels	
300 Livestock Grazing	Sheep
300 Restoration	
301 Fuels	
318 Livestock Grazing	Improvements
319 Livestock Grazing	Water Development
320 Livestock Grazing	Water Development
321 Livestock Grazing	Water Development
322 Livestock Grazing	Water Development
323 Livestock Grazing	
325 Restoration	
326 Adaptive Management	
327 Livestock Grazing	
328 Livestock Grazing	
329 Livestock Grazing	
330 Livestock Grazing	
331 Livestock Grazing	
332 Coordination	
333 Livestock Grazing	Riparian
334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements

336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements
341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	
346 Wild Horses and Burros	
347 Wild Horses and Burros	
348 Implementation	
355 Wild Horses and Burros	

356 ACECs	
356 West Nile Virus	
357 West Nile Virus	
358 West Nile Virus	
359 West Nile Virus	
360 West Nile Virus	
361 West Nile Virus	
377 BMP	West Nile Virus
378 BMP	West Nile Virus
379 BMP	West Nile Virus
380 BMP	West Nile Virus
381 BMP	West Nile Virus
382 BMP	West Nile Virus
383 BMP	West Nile Virus
384 BMP	Development
385 BMP	Development
386 BMP	Development
386 BMP	Roads
387 BMP	Development
387 BMP	Roads
388 BMP	Development
388 BMP	Roads
389 BMP	Roads
390 BMP	Development
390 BMP	Roads
391 BMP	Development
391 BMP	Roads
392 BMP	Roads
393 BMP	Roads
394 BMP	Roads
395 BMP	Roads

397 BMP	Development
398 BMP	Development
399 BMP	Development
400 BMP	Development
401 BMP	Development
402 BMP	Development
403 BMP	Roads
404 BMP	Development
405 BMP	Development
406 BMP	Development
407 BMP	Development
408 BMP	Development
409 BMP	Development
410 BMP	Development
411 BMP	Development
412 BMP	Development
413 BMP	Development
414 BMP	West Nile Virus
415 BMP	West Nile Virus
416 BMP	Development
417 BMP	Development
418 BMP	Development
419 BMP	Development
420 BMP	Development
421 BMP	Development
422 BMP	Development
424 BMP	Reclamation
424 BMP	Reclamation
425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels
485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels



493 BMP	Fuels
494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression
503 BMP	Development
503 BMP	Suppression
504 BMP	Suppression
505 BMP	Suppression
506 BMP	Suppression
507 BMP	Roads
508 BMP	Roads
509 BMP	Development
510 BMP	Development
511 BMP	Development
512 BMP	Development
513 BMP	Development
514 BMP	Development
515 BMP	Development
516 Exemption Process	

## Alternative C – Priority Areas

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

Objective: Same as Alternative B.

Action: No Similar Action

Designate all preliminary priority and general habitats as priority habitat areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

H/PGH map of pph by alternative

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

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Action: No Similar Action

New corridors/facilities New transmission corridors, ROWs for corridors (oil, gas, water/aquifer mining), and communication or other towers are prohibited in ACECs and occupied habitats. (WWP)

Action: New corridors/facilities will be sited in non-habitat and bundled with existing corridors to the maximum extent possible. (WWP)” “

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

All public lands in ACECs, occupied habitats, and identified restoration and rehab land areas will be retained in public ownership. (WWP)

Action: No Similar Action

Action: BLM and FS will strive to acquire important private lands in BLM-designated ACECs and FS Sage-Grouse Special Areas.

Action: Acquisition will be prioritized over easements. (WWP)” “ “ “

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Existing designated corridors in BLM ACECs and FS Special Areas may be accessed for maintenance. (WWP)” “

Action: ROWs will be amended to require features that enhance sage-grouse habitat security. (WWP)

No action.

Action: No Similar Action

Action: No similar action.

Action: No similar action.

Action: Industrial solar projects will be prohibited in ACECs and occupied habitats. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Composition, function, and structure of native vegetation communities will be consistent with the reference state of the appropriate ESD and will be maximized to provide for healthy, resilient, and recovering sage-grouse habitat components. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Exotic seedlings will be rehabbed, interseeded, restored to recover sagebrush in areas to expand occupied habitats. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Active restoration practices:” “Removal of livestock water troughs, pipelines, and wells.” “Where possible, without further damage to springs/water sources, remove waterline piping and maximize water at spring/stream sources supporting diverse riparian and meadow vegetation. “ “Promote natural healing of headcuts to the maximum extent possible by limiting disturbance throughout the watershed. At times, a combination of methods may need to be used – but gabions and structural devices and boulder dumping should be limited, and restoration should strive for a functioning system. “ “Ripping/recontouring of roads and seeding with native local ecotypes of shrubs and grasses. (WWP)

Active restoration of crested wheatgrass seedlings. This can be accomplished, following targeted restoration planning to expand, reconnect or recover habitats required by sage-grouse by:” “Inter-seeding sagebrush seed or seedlings. “ “Removal of crested wheatgrass through plowing while minimizing use of herbicides. Subsequent re-seeding with local native ecotypes. “ “Active restoration of cheatgrass infestation areas.” “In all cases, local native plant ecotype seeds and seedlings must be used. (WWP)

Action: No similar action.

Action: No Similar Action

No action.

No action.

Action: No similar action.

Action: No Similar Action

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Action: No Similar Action

Objective: No similar objective.

No action.

Action: No Similar Action

No action.

No action.

Action: No Similar Action

Action: Same as Alternative B.

Action: Lands will be managed to be in the good or better ecological condition to help minimize adverse impacts of fire. (WWP)

Action: Any fuels treatments will focus on interfaces with human habitation or significant existing disturbances.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No Similar Action

Action: No Similar Action

Action: Same as Alternative B.

Action: No Similar Action

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No similar action.

Action: No similar action.

Action: No similar action.

Action: No similar action.

Action: Mowing of grass will be used in any fuelbreak fuels reduction project (roadsides or other areas).

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

No action.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No Similar Action

Action: No new leases or permits will be issued. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Timing avoidance periods will be required. (WWP) “

Conservation Measure: Same as Alternative B.



Action: No similar action.

Action: No similar action.

Action: No similar action.

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Action: No similar action.

Action: No similar action.

Action: No similar action.” “

Action: No similar action.

Action: No similar action.

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Action: No similar action.

No action.

No action.” “

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No action.

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Action: No Similar Action



Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Objective: Same as Alternative A.

Objective: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: No Similar Action

Action: Large ACECs will be designated to preserve, protect, conserve, restore, and sustain sage-grouse populations and the sagebrush ecosystem on which the sage-grouse relies. See WWP ACEC proposals. (WWP)

No action.

No action.

No action.

Action: No Similar Action

No action.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action





New GOA 1/28/2013	Program Area	Sub Topic	Threat	Indicator
4	Adaptive Management	Best Management Prac	N/A	N/E
5	Common to All Alternatives	Implementation	N/A	N/E
6	Goal	SG Abundance and Dist	All	Acres of Ha
7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Ha
7	Priority Setting	Implementation		
8	Common to All Alternatives		N/A	N/E
9	Designation of Habitat	Designation of Habitat	All	Acres of PP
10	Habitat Fragmentation		Infrastruct	Acres of PP
11	Goal			
11	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sa
12	Habitat Fragmentation		Wildfire, In	N/E

13	Designation of Habitat		All	Acres of PP
13	Monitoring	group	N/A	N/E
14	Habitat Fragmentation	DFC Thresholds	Infrastructure	Acres of Ha
15	Objective	Distribution	All	Acres of Ha
15	Disease	West Nile Virus		
16	Habitat Fragmentation	Disturbances sagebrush	Human Dis	Acres of Ha
17	Designation of Habitat	Connectivity	All	Acres of Ha
17	Desired Conditions			
18	Habitat Fragmentation	Connectivity	All	Acres of Ha
18	Monitoring			
19	Adaptive Management		All	N/E
19	Habitat Fragmentation			
20	Objective	Rehabilitation	All	Acres of Ha
21	Designation of Habitat			
21	Objective	ACEC	All	N/E
22	Common to All Alternatives	Process	All	N/E
23	Designation of Habitat	Mapping	All	N/E
24	Designation of Habitat	Populations	All	N/E
25	Designation of Habitat	Mapping	All	N/E
26	Priority Setting	Mapping	All	N/E
27	Designation of Habitat	Mapping	All	N/E
28	Designation of Habitat	Mapping	All	N/E
30	Designation of Habitat	Mapping	All	N/E
31	Designation of Habitat	Mapping	All	N/E
32	Designation of Habitat	Mapping	All	N/E
33	Designation of Habitat	Adaptive Management	All	N/E
34	Designation of Habitat	Threats	All	N/E
35	Designation of Habitat	Threats	All	N/E
36	Designation of Habitat	Mapping	All	N/E
37	Designation of Habitat	Mapping	All	N/E
38	Designation of Habitat	Adaptive Management	All	N/E
39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E

42	Designation of Habitat	Uses	All	
43	Designation of Habitat	Indicators		
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
48	Implementation	Adaptive Management	All	N/E
49	Adaptive Management	Process	All	N/E
50	Adaptive Management	Process	All	N/E
51	Adaptive Management	Wildfire	Wildfire	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha
57	Adaptive Management	Trigger	Wildfire	Acres of Ha
58	Adaptive Management	Wildfire	Wildfire	Acres of Ha
59	Adaptive Management	Process	All	N/E
60	Adaptive Management	Process	All	N/E
61	Designation of Habitat	Trigger	All	Acres of De
62	Valid Existing Authorizations	Foundational	N/A	Acres of Riç
63	Valid Existing Authorizations	Foundational	N/A	Acres of Riç
64	Valid Existing Authorizations	Foundational	Minerals	Acres of va
65	Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66	Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
67	Mitigation	Process	Infrastructu	Acres/mile:
68	Mitigation	Process	All	Acres of ha
69	Designation of Habitat	Restoration	All	Acres Treat
70	Mitigation	Restoration	All	Acres Treat
71	Monitoring	Process	Wildfire, In	Acres of wi
72	Monitoring	Process	Grazing	Acres of thi
73	Monitoring	Process	All	
74	Monitoring	Process	Wildfire	Acres of tre
75	Monitoring	Process	All	Acres
76	Monitoring	Process	All	Population
77	Monitoring	process	grazing	acres in DF
78	Monitoring	Process	Grazing	Acres in DF

79 Habitat Fragmentation

Land Use Authorizations

80 Habitat Fragmentation

Land Use Authorizations

81 Human Disturbance

Land Use Authorizations

82 Habitat Fragmentation

Land Use Authorizations

83 Habitat Fragmentation Land Use Authorizations

84 Habitat Fragmentation Land Use Authorizations

85 Habitat Fragmentation Land Use Authorizations

86 Human Disturbance Land Use Authorizations

87 Predation Land Use Authorizations

88 Habitat Fragmentation Land Use Authorizations

89 Human Disturbance Land Use Authorizations

90 Fuels

91 ACEC

91 Habitat Fragmentation Land Use Authorizations Infrastructure Acres exclu

92 Habitat Fragmentation Land Use Authorizations Infrastructure miles of lin

93 Habitat Fragmentation Reclamation Infrastructure miles of lin

94 Habitat Fragmentation Relocation Infrastructure miles of lin

95 BMP

95 Habitat Fragmentation Avoidance Infrastructure acres of avi

96 Habitat Fragmentation Co-location Infrastructure miles of lin



97 Habitat Fragmentation      Land Tenure      Urbanizatic acres retain

97 Habitat Fragmentation

97 Implementation

98 Common to All Alternatives      Implementation

99 ACEC

99 Habitat Fragmentation      Acquisition      Urbanizatic acres ident

100 Habitat Fragmentation      Withdrawal      Mining      acres withc

101 Habitat Fragmentation      Withdrawal      Mining      Acres close

102 ACEC

102 Habitat Fragmentation

Corridors

Infrastructure Acres/mile:

103 Habitat Fragmentation

Land Tenure

Predation Acres

104 Habitat Fragmentation

Wind Energy

Infrastructure Acres avail:

105 Habitat Fragmentation  
106 Habitat Fragmentation  
110 ACEC

unauthorized uses  
siting

infrastructure  
Infrastructure available

115 Restoration

116 Restoration  
117 Restoration  
118 Restoration

119 Restoration  
120 Restoration  
121 Restoration  
122 Restoration  
123 Restoration  
125 Restoration  
126 Restoration  
129 Restoration

132 Monitoring

133 Fuels

133 Fuels

133 Suppression

134 Invasive Species

135 Restoration  
135 Vegetation

136 Restoration

137 Restoration

138 Monitoring

139 Invasive Species

140 Invasive Species

141 Restoration

142 Restoration

143 Restoration

144 BMP

144 Invasive Species

145 Invasive Species

146 Monitoring

152 Fuels

155 Fuels



155 Restoration

155 Suppression

156 Suppression

157 Suppression

159 Fuels

159 Suppression

160 Fuels

162 Fuels

162 Suppression

163 Fuels

164 Suppression

165 Suppression

168 Fuels

168 Suppression

172 Suppression

173 Restoration

173 Suppression

174 Restoration

175 Restoration

177 Restoration

178 Restoration

179 Restoration  
180 Restoration  
181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals  
196 Locatable Minerals

199 Locatable Minerals

202 Saleable Minerals

203 Saleable Minerals

204 Saleable Minerals

205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

211 Leased Federal Fluid Mineral Est

212 Leased Federal Fluid Mineral Est

212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est

217 Leased Federal Fluid Mineral Est

218 Habitat Fragmentation

219 Leased Federal Fluid Mineral Est

220 Leased Federal Fluid Mineral Est  
223 ACECs  
224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est  
226 Leased Federal Fluid Mineral Est

227 Mineral Split Estate

228 Mineral Split Estate

233 Travel Management  
234 Travel Management

235 Travel Management

236 Travel Management

237 Travel Management  
238 Travel Management

240 Travel Management

241 Travel Management

243 Travel Management

246 Recreation and Visitor Services  
246 Travel Management

247 Recreation and Visitor Services  
247 Travel Management

248 Recreation and Visitor Services  
248 Travel Management

249 Recreation and Visitor Services  
249 Travel Management

250 Travel Management  
251 Travel Management  
260 Livestock Grazing

261 Livestock Grazing

262 Livestock Grazing



263 Livestock Grazing

264 Livestock Grazing

267 Livestock Grazing

Objectives

268 Livestock Grazing

Objectives

269 Livestock Grazing

270 Livestock Grazing

Drought

271 Livestock Grazing

Riparian

273 Livestock Grazing

Riparian

273 Livestock Grazing

274 Livestock Grazing

Riparian

274 Livestock Grazing  
278 Livestock Grazing  
278 Livestock Grazing

Riparian

280 Livestock Grazing  
280 Livestock Grazing

Water Development

281 Livestock Grazing  
281 Livestock Grazing  
284 Coordination  
284 Restoration

Water Development

285 Restoration  
288 Desired Conditions

288 Invasive Species

288 Livestock Grazing                      Improvements

288 Livestock Grazing                      Improvements

289 Livestock Grazing                      Water Development  
289 Livestock Grazing

290 Livestock Grazing  
291 Livestock Grazing  
292 Invasive Species

Improvements  
Improvements

293 Livestock Grazing  
294 Livestock Grazing  
295 Monitoring

298 Livestock Grazing

Trailing

299 Fuels

300 Livestock Grazing  
300 Restoration

Sheep

301 Fuels  
318 Livestock Grazing  
319 Livestock Grazing  
320 Livestock Grazing  
321 Livestock Grazing  
322 Livestock Grazing  
323 Livestock Grazing  
325 Restoration  
326 Adaptive Management  
327 Livestock Grazing  
328 Livestock Grazing  
329 Livestock Grazing  
330 Livestock Grazing  
331 Livestock Grazing  
332 Coordination  
333 Livestock Grazing

Improvements  
Water Development  
Water Development  
Water Development  
Water Development

Riparian

334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements
336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements
341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	

346 Wild Horses and Burros

347 Wild Horses and Burros

348 Implementation

355 Wild Horses and Burros	
356 ACECs	
356 West Nile Virus	
357 West Nile Virus	
358 West Nile Virus	
359 West Nile Virus	
360 West Nile Virus	
361 West Nile Virus	
377 BMP	West Nile Virus
378 BMP	West Nile Virus



379 BMP	West Nile Virus
380 BMP	West Nile Virus
381 BMP	West Nile Virus
382 BMP	West Nile Virus
383 BMP	West Nile Virus
384 BMP	Development
385 BMP	Development
386 BMP	Development

386 BMP	Roads
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387 BMP	Development
387 BMP	Roads
388 BMP	Development

388 BMP	Roads
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389 BMP	Roads
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390 BMP	Development
390 BMP	Roads
391 BMP	Development
391 BMP	Roads
392 BMP	Roads
393 BMP	Roads
394 BMP	Roads
395 BMP	Roads
397 BMP	Development
398 BMP	Development
399 BMP	Development
400 BMP	Development
401 BMP	Development
402 BMP	Development

403 BMP	Roads
404 BMP	Development
405 BMP	Development
406 BMP	Development
407 BMP	Development
408 BMP	Development
409 BMP	Development
410 BMP	Development
411 BMP	Development
412 BMP	Development
413 BMP	Development
414 BMP	West Nile Virus

415 BMP West Nile Virus  
416 BMP Development

417 BMP Development

418 BMP Development

419 BMP Development  
420 BMP Development  
421 BMP Development

422 BMP Development  
424 BMP Reclamation  
424 BMP Reclamation

425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels

485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels

493 BMP	Fuels
494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression

503 BMP	Development
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503 BMP	Suppression
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504 BMP	Suppression
505 BMP	Suppression
506 BMP	Suppression
507 BMP	Roads
508 BMP	Roads
509 BMP	Development
510 BMP	Development
511 BMP	Development
512 BMP	Development
513 BMP	Development
514 BMP	Development
515 BMP	Development

516 Exemption Process

**Alternative D - Priority Habitat Areas**

**Alternative D - Medial Habitat Areas**

Action: No Similar Action  
Action: No Similar Action  
GOAL: Same as Alternative B.  
OBJECTIVE: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain sage-grouse population persistence.

Action: No Similar Action  
Sub-objective: Same as Alternative B.

OBJECTIVE: Identify and expand sagebrush areas to increase the extent and condition of available habitat on the landscape.

OBJECTIVE: Reconnect and expand areas of higher native plant community integrity/ rangeland health to increase the extent of high quality habitat and, where possible, to account for the future effects of climate change.

OBJECTIVE: Increase the amount and functionality of seasonal habitats. a. Increase canopy cover and average patch size of sagebrush in perennial grasslands. b. Increase the amount, condition and connectivity of seasonal habitats. c. Protect or improve sage-grouse migration/ movement corridors . d. Reduce conifer encroachment within sage-grouse seasonal habitats. e. Improve understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats. f. Reduce the extent of annual grasslands within to priority habitat.

Action: No Similar Action  
Action: No Similar Action  
GOAL: Same as Alternative B.  
OBJECTIVE: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain sage-grouse population persistence.

Action: No Similar Action  
Sub-objective: Designate medial sage-grouse habitats within WAFWA management zone IV (Stiver et al. 2006) that augment identified priority habitat areas.

OBJECTIVE: Identify and expand sagebrush areas to increase the extent and condition of available habitat on the landscape.

OBJECTIVE: Same as Priority.

OBJECTIVE: Increase the amount and functionality of seasonal habitats. a. Increase canopy cover and average patch size of sagebrush in perennial grasslands. b. Increase the amount, condition and connectivity of seasonal habitats. c. Protect or improve sage-grouse migration/ movement corridors . d. Reduce conifer encroachment within sage-grouse seasonal habitats. e. Improve understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats. f. Reduce the extent of annual grasslands within to priority habitat.



H/PGH map of pph by alternative

Action: No Similar Action

OBJECTIVE: Manage anthropogenic development and human disturbance in priority habitat to minimize the likelihood of adverse local population-level effects on sage-grouse and provide for no net loss of habitat.

bitat

OBJECTIVE: Reduce or minimize risk of West Nile Virus or other diseases.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Priority sage-grouse habitats are areas that have the highest conservation value to maintaining or increasing sage-grouse populations. These areas would include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

OBJECTIVE: Same as Priority Habitat.

OBJECTIVE: Reduce or minimize risk of West Nile Virus or other diseases.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Medial sage-grouse habitats are areas that have a high conservation value to maintaining or increasing sage-grouse populations outside of priority areas. These areas include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

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Designate areas as ROW Avoidance areas and exclusion areas for wind and solar development. The following uses are not allowed: Transmission facilities (greater than 50kV in size - based on recent IM), wind energy testing and development, commercial solar development, commercial geothermal development, nuclear development, oil and gas development, mineral development, airports, and ancillary facilities associated with any of the forementioned development; paved roads and graded gravel roads, and landfills.

Designate areas as ROW Avoidance areas.

New ROW and land use authorizations would be avoided whenever possible. Any new ROW and land use authorizations would not result in a net loss of sage-grouse habitat of the respective priority area.

Same as Priority areas.

Land authorizations that are temporary in nature (such as film permits, apiaries sites, etc.), that do not result in loss of sage-grouse habitat would be subject to seasonal or timing restrictions and are otherwise exempt from mitigation requirements regarding habitat loss.

Same as priority areas.

New authorizations and modifications to existing ROW and land use authorizations would be subject to siting prescriptions and design features considered on a case-by-case basis, in subsequent NEPA analysis. This could include modifications to the types of uses that are excluded from consideration as new authorizations. For example upgrade of an existing 50kV powerline to a 115kV powerline, to eliminate the need for an additional line could be considered.

New authorizations and modifications to existing ROW and land use authorizations would be considered subject to siting prescriptions and design features considered on a case-by-case basis, in subsequent NEPA analysis.

New authorizations or modifications should be sited substantially within an existing disturbance or minimum necessary adjacent to the existing footprint, where feasible.

New authorizations or modifications should be sited substantially within the existing disturbance footprints where feasible.

Removal/relocation/ or burial opportunities for powerlines should be explored and implemented where feasible.

Same as Priority areas.

Site new authorizations or facilities outside the lek avoidance buffer areas (defined as???) unless topographic features reduce or eliminate effects to the lek.

Same as Priority areas.

Guy wires will be avoided where feasible. Where guy wires are necessary and appropriate without causing a human safety risk, bird collision diverters will be required.

Same as Priority areas.

Design structures and facilities to reduce perching and nesting opportunities for avian predators.

Same as Priority areas.

New power and communication lines, outside of existing ROWs, would be buried, where physically feasible, and associated above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.

New power and communication lines, outside of existing ROWs, would be buried, where physically and economically feasible, and associated above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.

Adhere to seasonal restrictions?  
Linear ROWs may be considered as vegetated fuel-breaks.

Same as Priority areas.

Same as Priority areas.

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Retain public ownership of priority sage-grouse habitat. Consider exceptions where: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area.

Same as priority areas.

Action: Lands currently identified for retention within priority areas would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Key Decision: Identify Proposed Withdrawal Areas [We need for guidance here . Is the NTT action calling for withdrawals meant to be more for special designations such ACECs] Need to look at what needs to be retained and what we can get rid of, per LUP handbook Action: Withdrawal for the protection of sage-grouse may or may not be the most appropriate means to provide for the maintenance and enhancement for sage-grouse\*. ROW Avoidance and Exclusion designations will be evaluated to provide necessary protections. Action: When modifying or extending an existing withdrawal, ensure the lands are segregated from all of the mining and mineral leasing laws, as long as the segregation does not interfere with the intent of the withdrawal. \*Note: Lands are generally withdrawn for a specific use of the land by a BLM or another federal agency, and not simply to protect a resource. The withdrawn lands are generally segregated from some or all the public land laws and some or all of the mining and mineral leasing laws for a specific period of time. For example, if

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Key Decision: Lands for Acquisition Action: Identify lands for acquisition that increase the extent of or provide for connectivity of PPH. Action: Acquisition of sage-grouse PPH will have priority over the acquisition of land for other program purposes subject to the approval of the Authorized officer.

Key Decision: Lands for Exchange Action: Evaluate potential land exchanges containing historically low-quality sage-grouse habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal sage-grouse habitats or lands providing for T&E species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of PPH. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of PPH sagebrush areas currently in public ownership. Lower priority will be given to those lands that will promote enhancement the other PPH and PGH areas.

Same as Priority areas.

Solar and wind energy development is not allowed.

Action: Wind and solar energy development would be restricted where adverse effects could not be mitigated. Ancillary facilities such as roads, electric lines, etc. could potentially be authorized provided there is no net loss of sage-grouse habitat through mitigation.

Action: Process unauthorized use. If the unauthorized use does not serve the best interest of the public, reclaim the site by removing these features and restoring the habitat. If the use needs to be authorized, management actions for new authorizations would need to be consistent with objectives for conserving sage-grouse.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Prioritize implementation of vegetation rehabilitation projects to achieve the greatest improvement in sage-grouse abundance and distribution.

Same as Priority areas.

Factors contributing to higher emphasis for implementation include:

- Projects within priority habitat areas.
- Sites where environmental variables contribute to improved chances for project success (Meinke et al. 2009).
- Improvement of seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance (wintering areas, wet meadows and riparian areas, nesting areas, leks, etc.).
- Re-establishment of sagebrush cover in otherwise suitable sage-grouse habitat (native perennial grasslands, recently burned areas).
- Re-establishment of desirable understory vegetation in existing sagebrush stands.

- Cooperative efforts that may improve sage-grouse habitat quality over multiple ownerships.
- Projects in general habitat areas that may provide connectivity between suitable habitats or expand existing good quality habitats.
- Projects that address conifer encroachment into

Action: Develop objectives for rehabilitation projects that include sage-grouse habitat characteristics. Objectives for sagebrush canopy cover and plant community structure should be consistent with what would be expected for the ecological site( s) of the project area. Consult sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007), State or Local Sage-Grouse Conservation plans and other local information in order to develop restoration objectives that most effectively improve sage-grouse habitat quality.

Same as Priority areas.

Action: No Similar Action  
Same as Alternative B.

Action: No Similar Action  
Same as Priority areas.

Action: Implement management changes, as necessary, to maintain suitable sage-grouse habitat, improve unsuitable sage-grouse habitat and to ensure long-term persistence of improved sage-grouse habitat achieved through restoration efforts. (Eiswerth and Shonkwiler 2006). Management changes could be considered for livestock grazing, wild horse and burros, travel planning, etc.

Same as Priority areas.

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Action: No Similar Action  
Action: Same as Alternative B.  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Same as Priority areas.

Action: Utilize existing and appropriate rangeland health assessment and sage-grouse habitat assessment (currently the Habitat Assessment Framework) processes to quantify sage-grouse habitat quality. Prioritize assessment completion in priority habitat areas.



Use strategically placed fuel breaks (e.g. fire resistant vegetation, green-strip seedings, etc.) to aid in firefighter safety, assist in control of wildfire spread and in minimizing human ignitions and reduce the potential extent or chance of wildfire. Same as Priority areas.

Strategically pre-treat areas to reduce fine fuels through mechanical treatments, grazing strategies, chemical or biological application (brown stripping), etc. Same as Priority areas.

Action: Proactively protect sage-grouse habitat from fire through strategic wildfire suppression planning. Planning measures may include: pre-planning of wildfire suppression tactics in important sage-grouse habitat; prioritizing suppression of wildfire in priority areas; Train firefighting personnel regarding sage-grouse/sagebrush management issues as related to wildfire suppression activities, including maps (e.g. habitat, strategies, etc.); Where appropriate (e.g. expected lightning occurrence) stage initial attack resources closer to areas of expected lightning or storm paths to ensure quicker response times; Conducting burn-out/backfiring operations in a manner that minimizes the loss of sagebrush when possible; utilize other applicable fire management strategies; the Agency Administrator or Duty Officer will prioritize the assignment of resources for suppression activities in the event of multiple wildfire starts in priority habitat. Use resource advisors during extended attack. Resource Advisors should also be available on short notice during red flag conditions. Retain all

Action: Implement integrated weed management actions for noxious and invasive weed populations that are impacting or threatening sage-grouse habitat quality . In concert with partners and/or weed management areas as appropriate apply education, inventory, prevention, control, rehabilitation, and monitoring strategies that protect or enhance sage-grouse habitat .

Same as Priority areas.

Action: Implement rehabilitation projects that will increase sage-grouse abundance and distribution where sage-grouse habitat is of less quality than the land is capable of producing in relation to site potential .

Same as Priority areas.

Action: Utilize cooperative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from local landowners, working groups, and other federal, state, county, and private organizations should be solicited and considered in development of projects .

Same as Priority areas.

Action: Consider design features that will contribute to the most favorable conditions for success when planning and implementing rehabilitation projects.

Same as Priority areas.

Considerations should include: - Careful review of available plant species and their adaptation to the site when developing seed mixes. (Lambert 2005, VegSpec). - The impacts of potential climate changes (Miller et al. 2011), consider utilizing the warmer component of a species' current range when selecting native species for restoration (Kramer and Havens 2009). -

The need to reduce annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc. (Pyke 2011). - The need to reduce density and competition of perennial grasses and techniques to accomplish this reduction (Pellant and Lysne 2005 ). - Techniques to introduced desired species to the site such as drill seeding, broadcast seeding followed by a seed coverage technique such as harrowing, chaining or livestock trampling, transplanting container or bareroot seedlings , etc. - Assessment of on-site

Action: Conduct monitoring of vegetation utilizing techniques that quantify sage-grouse habitat parameters to determine if vegetation management objectives are being achieved. This monitoring would occur consistent with appropriate BLM and FS direction which current utilizes the Habitat Assessment Framework and BLM Technical Reference 1734-4.

Same as Priority areas.

Action: No Similar Action

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Action: No Similar Action

GOAL: In priority habitat, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.

Action: No Similar Action

Same as Priority areas.

Action: Design and implement fuels treatments with an emphasis on maintaining, protecting, and expanding sage grouse habitats. Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with sage-grouse habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of sage-grouse habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process. Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and will maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would

Same as Priority areas.

Action: Make progress toward desired future condition (DFC) in the Low-elevation Shrub, Perennial Grass, Invasive Annual Grass, Mid-Elevation Shrub, Mountain Shrubs, and Juniper vegetation types. Use chemical, mechanical, seeding, and prescribed fire treatments as appropriate to enhance and restore habitats that are currently in FRCC2 and FRCC3. In Perennial Grass, Invasive Annual Grass, and juniper-invaded cover types, restore sagebrush steppe with an aggressive sagebrush seeding effort, using the appropriate sagebrush subspecies for the treatment area. Conduct vegetation treatments in areas that pose a wildland fire risk to sage-grouse habitats. Treat areas within sage-grouse habitats that have low resiliency to disturbance (i.e. areas characterized by lower native plant species diversity than expected for the site, undesirable plant species composition, and dead or decadent sagebrush) to improve long-term habitat suitability for sage-grouse. Treat sage grouse habitat and potential restoration areas to expand priority areas. Improve sage grouse potential restoration habitats

Same as Priority areas.

Action: Suppress wildland fires in sage-grouse habitats.

Action: No Similar Action

No similar action.

Action: No Similar Action

No similar action.

Action: No Similar Action

No similar action.

Action: During fuels management project design, consider targeted livestock grazing to strategically reduce fine fuels, primarily in areas dominated by annual grasses and non-native perennial grasses (Diamond et al. 2009; Pellant et al. 2010), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al. 2007).

Same as priority areas.

Same as Alternative B.

Same as Priority Areas.

Action: No Similar Action

Standard procedures described in Fire Management Plan

Action: No Similar Action

Standard procedures described in Fire Management Plan

Action: No Similar Action

See BMPs

Delineate conifer (juniper) encroachment areas as areas to manage wildfire for resource benefit.

Same as Priority Areas.

Same as Alternative B.

Same as Priority areas.

Action: Design post fuel, restoration, and ES&R management to ensure long term persistence of seeded or pre-burn native plants. Use chemical, mechanical, and seeding treatments with appropriate plant materials to attempt to stabilize sites and prevent dominance of invasive, annual vegetation, and noxious weeds. Use native plant materials were determined to be appropriate and practical at the project-implementation level. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, fuels and rehabilitation, etc., to achieve and maintain the desired condition of ES&R projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006).

Same as Priority areas.

Action: To address potential climate changes (Miller at al. 2011), consider utilizing the warmer component of a species' current range where feasible (financially, seed availability, etc.) when selecting native species for restoration.

Same as Priority areas.

Action: No Similar Action

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Action: No Similar Action

Ensure firefighter personnel receive orientation regarding sage-grouse/sagebrush management issues as related to wildfire suppression activities.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as Priority areas.

Use knowledgeable resource advisors during extended attack. Resource Advisors should also be available on short notice during red flag conditions .

Same as Priority areas.

Where appropriate, stage initial attack resources closer to areas of expected higher fire occurrence areas to ensure quicker response times in or near sage-grouse habitat.

Same as Priority areas.

Action: Lands are available for leasing, subject to a stipulation that applies a timing restriction (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: Lands are available for leasing, subject to applicable timing restrictions (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or initial mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or initial mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Lands would remain open to locatable mineral entry.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Require new 3809 notices and Plans of Operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044). Require habitat restoration in reclamation plan, and include cost of restoring habitat in bond calculation. Require off-site mitigation if effects to habitat are unavoidable.

Require new 3809 notices and Plans of Operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044). Require habitat restoration in reclamation plan, and include cost of restoring habitat in bond calculation.

No new authorizations would be approved within xx miles of an occupied lek. Newly authorized disposals would be subject to seasonal timing restrictions and BMPs, as appropriate. Sales from existing community pits within Priority habitat would be subject to seasonal timing restrictions.

No new authorizations would be approved within xx miles of an occupied lek. Newly authorized disposals would be subject to seasonal timing restrictions and BMPs, as appropriate. Sales from existing community pits within medial habitat would be subject to seasonal timing restrictions.

Action: Restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives.

Same as Priority areas.

Reclamation bonding will be required on new authorizations for mineral material sales in core sage-grouse habitat (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).

Same as Priority areas.

Action: Lands are available for leasing, subject to appropriate timing stipulation (seasonal and daily), and a stipulation prohibiting surface occupancy within xx miles of an occupied lek. If development of a producing field is proposed, require a Master Development Plan to ensure surface disturbance is mitigated and minimized.

Same as priority areas.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

Action: No Similar Action

Action: No Similar Action



Action: No Similar Action  
Not Applicable - there are no existing leases in Core habitat in the planning area.

Action: No Similar Action  
Action: Continue to only allow exploration and drilling activity on currently leased areas between 7/1 and 11/15, unless monitoring of the area proposed to be disturbed shows signs of sage-grouse occupancy within that window. Additional required design features, as described below, would be applied as Conditions of Approval to a drilling permit, as appropriate.

Action: When a surface disturbing activity is proposed on a future fluid mineral lease, include in the NEPA analysis an alternative that sites the activity at the most distal part of the lease from any lek, or in an area that is less harmful to sage-grouse habitat.

Action: When a surface disturbing activity is proposed on a future fluid mineral lease, include in the NEPA analysis an alternative that sites the activity at the most distal part of the lease from any lek, or in an area that is less harmful to sage-grouse habitat.

Covered in Action #205  
Conservation Measure: For future leases where a producing field is proposed to be developed, complete a Master Development Plan in lieu of Application for Permit to Drill (APD)-by-APD processing.

Covered in Action # 205  
Same as Priority areas.

Conservation Measure: When approving a Master Development Plan on a future lease, if on-site mitigation is inadequate to restore habitat, consider requiring off-site mitigation to improve habitat, in accordance with 2006 WAFWA Strategy (pg 2-17).

Same as Priority areas.

Same as Alternative B.

Same as priority areas.

Action: No Similar Action  
Conservation Measure: If surface disturbing activities are proposed on a future lease, require a full reclamation bond specific to the site. Ensure reclamation bonds are sufficient to cover costs that would result in full rehabilitation. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

Action: No Similar Action  
Conservation Measure: If surface disturbing activities are proposed on an existing or future lease, require a full reclamation bond specific to the site. Ensure reclamation bonds are sufficient to cover costs that would result in full rehabilitation. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

Conservation Measure: When an APD is submitted for approval on a future lease, make applicable Best Management Practices (BMPs, see Appendix E of NTT Report) mandatory as Conditions of Approval.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Where the federal government owns the mineral estate in Core habitat and the surface is in non-federal ownership, apply stipulations, conservation measures, and design features consistent with those applied to public lands in Core habitat in the area.

Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in core habitat. Note: This would be a realty action, as the mineral estate is not involved.

Action: Limit motorized travel to designated roads, primitive roads, and trails at a minimum.

Action: No Similar Action

Action: Travel management planning would evaluate the need for permanent or seasonal road closures as per Travel Management Handbook 8342.1.

Action: Prioritize areas for complete transportation management plans as per handbook 8342.1.

Conservation Measure: When an APD is submitted for approval on an existing or future lease, make applicable Best Management Practices (BMPs) mandatory as Conditions of Approval.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Where the federal government owns the mineral estate in priority habitat and the surface is in non-federal ownership, apply stipulations, conservation measures, and design features consistent with those applied to public lands in priority habitat in the area.

Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, Recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in priority habitat. Note: This would be a realty action, as the mineral estate is not involved.

Same as Priority areas.

No similar action.

Same as Priority areas.

Action: Complete Transportation management plans as per handbook 8342.1.

Action: Consider sage-grouse objectives during subsequent travel management planning. Design and designate a travel system to minimize adverse effects to GSG (i.e. designate or design routes to direct use away from sensitive areas and still provide for high-quality and sustainable travel routes and administrative access, legislatively mandated requirements, and commercial needs). Allow for route upgrade, closure of existing routes, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within priority habitat would be placed on having a neutral or positive effect on sage grouse habitat.

Same as Priority areas.

Action: No Similar Action

Action: Prioritize restoration of linear disturbances (those routes not designated in a Travel Management Plan) in priority GSG habitat.

Action: When rehabilitating linear disturbances, use seed mixes or transplant techniques that will maintain or enhance GSG habitat.

Schedule road maintenance to avoid disturbance during sensitive periods and times.

Action: SRPs would be analyzed on a case by case basis per Special Recreation Permit Manual 2930 and through the NEPA process to minimize impacts to GRS and/or habitat by directing use away from sensitive seasons and/or areas. Coordinate issuance of SRPs with IDFG and Idaho Outfitter and Guide licensing board when relevant and appropriate.

Action: No Similar Action

Action: Prioritize restoration of linear disturbances (those routes not designated in a Travel Management Plan) after priority GSG habitat.

Same as Priority areas.

Same as Priority areas.

Same as Priority areas.

Designate or design developed recreation sites and associated facilities to direct use away from sensitive areas and provide sustainable recreational opportunities. Same as Priority areas.

Incorporate seasonal restrictions for authorized activities to minimize impacts to GRSG and/or their habitat. Same as Priority areas.

Recreation activities and developed recreation sites and facilities within lands not designated as a recreation management area would be managed and designed to minimize adverse effects to GRSG by directing use away from sensitive areas. Same as Priority areas.

Limit snow machine travel to existing routes in sage-grouse wintering areas from November 1 through March 31. Assess routes during subsequent travel management planning. Same as Priority areas.

Action: No Similar Action

Repeat

Action: No Similar Action

Action: No Similar Action

Action: Within grazing allotments containing sage-grouse habitat, incorporate grazing management measures designed to meet sage-grouse habitat objectives through allotment management plans (AMPs), grazing permit renewal or permit modification processes. Same as Priority areas.

Same as Priority areas.

Where opportunities exist, work cooperatively with other land managers to allow livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit sage-grouse and their habitat. Same as Priority areas.

Action: Priority areas are the highest priority for land health assessments (and FS assessments) and processing of grazing permits within priority sage-grouse habitat areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Action: Prioritize land health assessments (and FS assessments) and processing of grazing permits after priority areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Action: During the land health assessment process determine whether vegetation structure, condition and composition are meeting sage-grouse habitat objectives in sagebrush cover types through implementation of the habitat assessment framework, (Stiver et al 2010 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance.

Same as Priority areas.

Action: Use monitoring information and rangeland health assessments to develop specific habitat objectives and grazing management plans designed to maintain, enhance and restore sage-grouse habitat. Prioritize implementation of grazing systems or permit modifications that make progress towards meeting habitat objectives, in areas that are not meeting these objectives.

Same as Priority areas.

Action: Manage for vegetation composition and structure consistent with appropriate sage-grouse seasonal habitat objectives relative to site potential.

Same as Priority areas.

Action: Where livestock management practices are not compatible with meeting or making progress towards habitat objectives, implement changes in grazing management through grazing authorization modifications, or AMP implementation. Potential considerations include, but are not limited to, changes in: 1) Season or timing of use; 2) Numbers of livestock; 3) Distribution of livestock use; 4) Duration and/or level of use; 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011). 6) Voluntary measures such as temporary non-use; and 7) Grazing schedules (including rest or deferment)

Same as Priority areas.

Action: Adjust grazing management (i.e. delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing, etc.) to promote adequate food and cover for sage-grouse during drought periods. Use a recognized drought indicator, such as the Drought Monitor or Palmer Drought Severity Index, to determine when abnormally dry or drought conditions are developing, present, or easing. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999, Cagney et al. 2010), allow for vegetation recovery through post-drought management that meets sage-grouse needs in priority sage-grouse habitat areas.

Same as Priority areas.

Manage livestock grazing in sage-grouse habitats so that proper functioning conditions and late brood rearing habitat objectives are achieved in riparian and lentic areas according to site potential.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Limit authorization of new water developments to projects that would benefit, maintain, or have a neutral effect on priority sage-grouse habitat (such as by shifting livestock use away from critical areas). New developments that divert surface water must be designed to maintain integrity and functionality riparian or wetland vegetation and hydrology. New developments should also be sited in lower quality habitats or, disturbed areas where possible, and avoid areas that have not had significant prior grazing use (Adopted from Idaho State Plan page 4.64). Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as Priority areas.

Action: During project inspections, analyze the design and condition of existing water developments associated with springs, wetlands or playas, such as headboxes, exclosures, pipelines and troughs to determine if modification, repair or retrofitting or removal is needed to maintain or restore the integrity and functionality of the riparian/lentic areas to current site potential within priority sage-grouse habitat. Modifications may include, but are not limited to, installing float valves on troughs, reconfiguring exclosure fencing, or moving troughs out of riparian/lentic areas. Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Action: Assess the compatibility of existing non-native seedings for sage-grouse habitat or as a component of a grazing system or forage reserve during land health assessments (Davies et al. 2011). Evaluate existing seedings currently dominated by introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be diversified with native grasses, forbs, and shrubs, including sagebrush. If these seedings are part of an AMP/ Conservation Plan and if they provide value in conserving or enhancing the rest of the priority habitats, restoration may not be appropriate.

Same as Priority areas.

Consider the potential for invasive and noxious weed establishment or increase following construction in the project planning process and monitor and treat post-construction. Where appropriate, areas of soil disturbance will be planted with a seed mix designed to compete with invasive species.

Same as Priority areas.

Action: Design any new structural range improvements consistent with objectives to maintain, enhance, or restore sage-grouse habitat.

Same as Priority areas.

Design and locate fences to minimize the potential for sage-grouse strikes.

Same as Priority areas.

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).



Action: During project inspections, evaluate the design and location of existing structural range improvements and location of supplements (salt or protein blocks) with respect to their effect on sage-grouse habitat, including, but not limited to: potential for sage-grouse strikes, avian predation due to creation of roosting, perching or nesting sites, introduction of weeds, West Nile Virus and effects to vegetation structure or composition. Assess existing livestock management fences within priority sage-grouse habitat for risk of sage-grouse strikes based on proximity to leks, lek size, and topography (Christiansen 2009; Stevens 2011) or existing collision risk models (Stevens 2012). Prioritize removal, modification or marking of fences in areas of moderate or high collision risk to reduce the incidence of sage-grouse mortality due to fence strikes. Avoid building new permanent fences within 2 km of occupied leks or winter concentration areas. If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates. Utilize temporary fencing

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: When grazing privileges are relinquished in sage-grouse habitat, consider retiring the associated grazing preference, and analyze the effects of decreased or discontinued grazing on sage-grouse habitat conditions, including possible changes in wildfire and invasive species risks. When grazing privileges are relinquished the associated allotment(s) may be retired from grazing, or converted to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere (Adopted from Idaho State Plan page 4.64), when such actions are determined to result in a net benefit to sage-grouse habitat and other priority resources.

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Incorporate Terms and Conditions in crossing permits to limit disturbance of leks when trailing livestock across public lands in the spring. Appropriate Terms and Conditions include, but are not limited to: required herding practices, permitted routes, timing of livestock movements during lekking season, watering, overnighting and sheep bedding locations.

Same as Priority Areas.

Where opportunities exist, consider targeted domestic livestock grazing as a tool to reduce fuels and facilitate wildland fire suppression efforts in limited areas such as travel corridors (e.g. roads, rail lines) or around other likely ignition sources.

Same as Priority Areas.



Action: No Similar Action

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Same as Alternative B.

Same as Priority areas.

Same as Alternative B.

Same as Priority areas.

Same as Alternative B.

Same as Priority areas.

Action: When evaluating AML on HMAs within priority habitat, evaluate indicators that address

Same as Priority areas.

structure/condition/composition of vegetation and measurements specific to achieving sage-grouse habitat objectives.

Utilize interdisciplinary land health assessments in HMAs containing sage-grouse habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.

Same as Priority areas.

Refer to livestock grazing actions for guidance on water and rangeland developments for wild horse management

Refer to livestock grazing actions for guidance on water and rangeland developments for wild horse management

Do not expands HMAs.

Action: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts to sage-grouse habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of priority and medial habitat.

Action: No Similar Action

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Action: No Similar Action

Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose. Same as Priority areas.

Construction, operations and maintenance activities shall not cause noise greater than 10 decibels above ambient noise levels within 1.5 km of the perimeter of occupied or undetermined status leks from 6:00 p.m. to 9:00 a.m. between approximately March 15 and May 15 or at any time within known winter concentration areas from approximately December 1 to March 14. The 1.5 km distance may be increased based on NEPA analysis if the nature of the disturbance dictates that a greater disturbance buffer is warranted. Specific seasonal timeframes may be adjusted based on the chronology of sage-grouse locally. The default ambient noise level is defined as 20 decibels unless an appropriate and defensible site-specific acoustics study has occurred that is acceptable to the authorized officer. Modified from Blickley et al. 2012. Same as Priority areas.

Avoid human disturbance between 6:00 p.m. to 9:00 a.m. during the lekking period (generally March 15 to May 15). Specific seasonal timeframes may be adjusted based on the seasonal chronology of sage-

Same as Alternative B.

Same as priority areas.

Coordinate road construction and use among ROW or SUA holders.

Same as Priority areas.

Construct road crossings at right angles to ephemeral drainages and stream crossings.

Same as Priority areas.

Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds. Same as Priority areas.

Action: No Similar Action  
Action: No Similar Action  
Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.) Action: No Similar Action  
Action: No Similar Action  
Same as Priority areas.

Use dust abatement on roads and pads. Same as Priority areas.

Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation as soon as possible upon completion of activity. Same as priority areas.

Cluster disturbances, operations (fracture stimulation, liquids gathering, etc.), and facilities. Same as Priority areas.

Use directional and horizontal drilling to reduce surface disturbance. Same as Priority areas.

Place infrastructure in already disturbed locations where the habitat has not been fully restored. Same as Priority areas.

Apply a phased development approach with concurrent reclamation. Same as Priority areas.

Place liquid gathering facilities outside of priority areas. Have no tanks at well locations within priority habitat areas to minimize truck traffic and perching and nesting sites for ravens and raptors. Same as Priority areas.

Consider placing pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW. Same as Priority areas.

Develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003). For example, in oil and gas operations, this could include trip restrictions or minimization through use of telemetry and remote well control.	Same as Priority areas.
Restrict the construction of tall facilities and fences to the minimum number and amount needed.	Same as Priority areas.
Action: No Similar Action	Action: No Similar Action
Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.	Same as Priority areas.
Where physically feasible, bury distribution powerlines and communication lines	Where physically feasible, bury distribution powerlines and communication lines
Action: No Similar Action	Action: No Similar Action
Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to sage-grouse.	Same as Priority areas.
Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.	Same as Priority areas.
Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.	Same as Priority areas.
Control the spread and effects of non-native plant species (Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)	Same as Priority areas.
Action: No Similar Action	Action: No Similar Action
Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).	Same as Priority areas.

Remove or re-inject produced water (fluid mineral activities) to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Construct dams or impoundments that restrict down slope seepage or overflow. Line constructed ponds in areas where seepage is anticipated. Line the channel where discharge water flows into the pond with crushed rock. Construct spillway with steep sides and line it with crushed rock. Treat waters with larvicides to reduce mosquito production where water occurs on the surface.

Same as Priority areas.

Action: No Similar Action  
Require noise shields when drilling during the breeding (lekking, nesting, early brood-rearing), or wintering season.

Action: No Similar Action  
Same as Priority areas.

Fit transmission or distribution towers with anti-perch devices (Lammers and Collopy 2007).

Same as Priority areas.

Require sage-grouse-safe fences: use siting, marking, fence modification and/or fence density thresholds based on latest science (e.g. Stevens 2011)

Same as Priority areas.

Action: No Similar Action  
Clean up refuse (Bui et al. 2011).  
Locate temporary construction camps/sites, outside of priority habitats.

Action: No Similar Action  
Same as Priority areas.  
Same as Priority areas.

Same as Alternative B.  
Same as Alternative B.

Same as priority areas.



When road and well pad is no longer needed but access is still required, reduce access road width to minimum standard needed, seed edges of road, reclaim well pad by re-shaping to blend, topsoil, re-seed to surrounding landscape.

Same as priority areas.

Same as Alternative B.

Same as priority areas.

Same as Alternative B.

Same as priority areas.

Same as Alternative B.

Same as priority areas.

Action: No Similar Action

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Action: No Similar Action

Where applicable, incorporate linear authorizations and natural fuel breaks into fuel break design.

Where applicable, incorporate linear authorizations and natural fuel breaks into fuel break design.

Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

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Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

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Action: No Similar Action

Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species by planting perennial vegetation (e.g., green-strips) paralleling linear authorizations.

Same as Priority areas.

Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

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Action: No Similar Action

Minimize unnecessary cross-country vehicle travel during construction and operations and maintenance of authorizations in sage-grouse habitat.

Same as Priority areas.

Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.

Same as Priority areas.

Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Utilize existing roads, or realignments of existing routes to the extent possible.	Same as Priority areas.
Construct new roads to minimum design standards needed for production activities.	Same as Priority areas.
Micro-site linear facilities to reduce impacts to sage-grouse habitats.	Same as Priority areas.
Locate staging areas outside sage-grouse habitat areas.	Same as Priority areas.
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Wind energy development is excluded in priority areas.	Wind energy development project must comply with the 2012 U.S. Fish and Wildlife Service's Wind Energy Guidelines.

General procedure for requesting and granting exceptions to seasonal wildlife restrictions:

Same as Priority areas.

Even with conscientious planning up front, it is sometimes not possible to avoid impacts to wildlife. In such cases, temporary exceptions to wildlife seasonal restrictions may be allowed at times to accommodate certain activities, such as construction of energy development facilities, power transmission lines or other projects, if the activities can be done quickly and with little or no disturbance to the wildlife species of interest. The intent of allowing an exception is to eliminate a restriction when it has no applicability or is not needed to avoid impacts to wildlife. The discretion to allow an exception is limited to those situations where the degree of impacts to wildlife, as predicted in the NEPA analysis (e.g., as completed in the EA or EIS for the project in question), would be the same, with or without the restriction. An exception is a case-by-case, one time exemption from a seasonal restriction for a specified portion of the project, right-of-way or lease area.

## Alternative D - General Habitat Areas

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

OBJECTIVE: Conserve, enhance or restore general habitat areas to improve habitat condition and connectivity between priority and medial habitat areas.

Action: No Similar Action

Sub-objective: Same as Alternative B.

OBJECTIVE: Manage general habitats in a way that buffers adjoining priority and medial habitat from disturbances.

OBJECTIVE: Same as Priority.

OBJECTIVE: Reduce the extent of annual grassland adjacent to priority and medial habitat, improve conditions to reconnect priority and medial habitats.





Same as Medial Habitat.

New ROW and land use authorizations would be avoided whenever possible.

Same as priority areas.

Same as medial areas.

Same as medial areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as medial areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

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Action: No Similar Action



Same as priority areas.

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Action: No Similar Action

Same as priority areas.

Action: Lands shall be considered avoidance areas for wind and solar development.

Same as priority areas.

Action: No Similar Action

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Same as priority areas.

Same as priority areas.

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Same as priority areas.

Same as priority areas.

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Action: No Similar Action  
Same as priority areas.

Same as priority areas.



Same as priority areas.

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action

Same as priority areas.

Action: In general sage-grouse habitat, prioritize suppression of sage-grouse and threatened and endangered species habitat , immediately after life and property.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Same as Priority Areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: Lands are available for leasing subject to applicable timing restrictions (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Same as priority areas.

Action: No Similar Action

Require new 3809 notices and plans of operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044).reasonable and appropriate BMPs (see Appendix E of NTT Report) as a Condition of Approval of a 3809 Plan of Operations or Notice.

No new authorizations would be approved within xx miles of an occupied lek.  
Disposals would be subject to seasonal timing restrictions, as appropriate.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

Action: No Similar Action

Action: No Similar Action  
Not Applicable - no existing leases in  
general habitat.

Same as Medial Areas.

Covered in Action # 205  
Same as priority areas.

Action: No Similar Action

Same as priority areas.  
Action: No Similar Action  
Conservation Measure: If surface disturbing  
activities are proposed on a future lease,  
require a full reclamation bond specific to  
the site. Base the reclamation costs on the  
assumption that contractors for the BLM  
will perform the work.

Conservation Measure: When an APD is submitted for approval on a future lease, make applicable Best Management Practices (BMPs) mandatory as Conditions of Approval.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Where the federal government owns the mineral estate in general habitat and the surface is in non-federal ownership, apply stipulations, conservation measures and design features consistent with those applied to public lands in general habitat in the area.

Recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in general habitat. Note: This would be a realty action, as the mineral estate is not involved.

Same as priority areas.

Action: No Similar Action

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

Action: Prioritize restoration of linear disturbances (those routes not designated in a Travel Management Plan) after medial GSG habitat.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action  
Action: No Similar Action  
Same as priority areas.

Same as priority areas.



Action: Prioritize land health assessments (and FS assessments) and processing of grazing permits after medial areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

New water developments that divert surface water must be designed to maintain integrity and functionality of riparian or wetland vegetation and hydrology. New developments should also be sited in lower quality habitats or disturbed areas where possible (Adopted from Idaho State Plan page 4.64). Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as priority areas.

Action: No Similar Action

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).

Action: During project inspections, evaluate the design and location of existing structural range improvements and location of supplements (salt or protein blocks) with respect to their effect on sage-grouse habitat, including, but not limited to: potential for sage-grouse strikes, avian predation due to creation of roosting, perching or nesting sites, introduction of weeds, West Nile Virus and effects to vegetation structure or composition. Avoid building new fences within 2 km of occupied leks or winter concentration areas. If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates.

Action: No Similar Action

Action: No Similar Action

Same as priority areas.

Action: No Similar Action  
Action: No Similar Action  
Same as Priority Areas.

Same as Priority Areas.



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Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Refer to livestock grazing actions for guidance on water and rangeland developments for wild horse management

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No Similar Action.

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Action: No Similar Action

Same as priority areas.

Where physically feasible, bury distribution powerlines and communication lines

Action: No Similar Action

Same as priority areas.

Same as priority areas.

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Where applicable, incorporate linear authorizations and natural fuel breaks into fuel break design.

Same as priority areas.

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Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Same as Medial Areas.

Same as priority areas.

New GOA 1/28/2013	GOA 11/6/2012	Program Area	Sub Topic	Threat	Indicator	Review Comment s - Ralston
4	4	Adaptive Management	Best Management Prac	N/A	N/E	G - referen
5	5	Common to All Alternatives	Implementation	N/A	N/E	
6	6	Goal	SG Abundance and Dist	All	Acres of Habitat & pop	
7	7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Habitat	
7		Priority Setting	Implementation			
8	8	Common to All Alternatives		N/A	N/E	
9	9	Designation of Habitat	Designation of Habitat	All	Acres of PPH/PGH map	
10	9.1	Habitat Fragmentation		Infrastructu	Acres of PP	Need to de
11		Goal				
11	10	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sagebrush hak	
12	11	Habitat Fragmentation		Wildfire, In	N/E	
13		Designation of Habitat		All	Acres of PPH/PGH map	
13	11.1	Monitoring	group	N/A	N/E	Need to sp
14	12	Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of H <sub>2</sub>	Need to de
15	13	Objective	Distribution	All	Acres of Habitat	
15		Disease	West Nile Virus			
16	14	Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of H <sub>2</sub>	
17	15	Designation of Habitat	Connectivity	All	Acres of H <sub>2</sub>	May be duj
17		Desired Conditions				
18	16	Habitat Fragmentation	Connectivity	All	Acres of H <sub>2</sub>	May be sir
18		Monitoring				
19	17	Adaptive Management		All	N/E	
19		Habitat Fragmentation				
20	18	Objective	Rehabilitation	All	Acres of Habitat	
21		Designation of Habitat				
21	19	Objective	ACEC	All	N/E	
22	20	Common to All Alternatives	Process	All	N/E	
23	21	Designation of Habitat	Mapping	All	N/E	
24	22	Designation of Habitat	Populations	All	N/E	
25	23	Designation of Habitat	Mapping	All	N/E	
26	24	Priority Setting	Mapping	All	N/E	
27	25	Designation of Habitat	Mapping	All	N/E	
28	26	Designation of Habitat	Mapping	All	N/E	
30	28	Designation of Habitat	Mapping	All	N/E	
31	29	Designation of Habitat	Mapping	All	N/E	
32	30	Designation of Habitat	Mapping	All	N/E	
33	31	Designation of Habitat	Adaptive Management	All	N/E	
34	32	Designation of Habitat	Threats	All	N/E	
35	33	Designation of Habitat	Threats	All	N/E	
36	34	Designation of Habitat	Mapping	All	N/E	



37	35 Designation of Habitat	Mapping	All	N/E	
38	36 Designation of Habitat	Adaptive Management	All	N/E	
39	37 Designation of Habitat	Adaptive Management	All	N/E	
40	39 Wildfire	Priorities	Wildfire	Acres of Ha	
41	40 Implementation	Process	All	N/E	
42	41 Designation of Habitat	Uses	All		
43	42 Designation of Habitat	Indicators			
44	43 Desired Conditions	DFC	All	Acres of Ha	Need to inc
45	44 Desired Conditions	DFC	All	Acres of Ha	Include Tak
46	45 Implementation	Process	All	N/E	
47	46 Habitat Fragmentation	Resiliency	All	Acres of Ha	
48	47 Implementation	Adaptive Management	All	N/E	mapping u
49	48 Adaptive Management	Process	All	N/E	Governor -
50	49 Adaptive Management	Process	All	N/E	
51	50 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
52	51 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
53	52 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
54	53 Adaptive Management	Grazing	Grazing	Acres of Habitat	
55	54 Adaptive Management	Process	All	Population	
56	55 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
57	56 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
58	57 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
59	58 Adaptive Management	Process	All	N/E	
60	59 Adaptive Management	Process	All	N/E	
61	60 Designation of Habitat	Trigger	All	Acres of Designation	
62	61 Valid Existing Authorizations	Foundational	N/A	Acres of Ri	
63	62 Valid Existing Authorizations	Foundational	N/A	Acres of Rights	
64	63 Valid Existing Authorizations	Foundational	Minerals	Acres of valid existing i	
65	64 Valid Existing Authorizations	Foundational	Minerals	Acres of Mining	
66	65 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va	
67	66 Mitigation	Process	Infrastructu	Acres/mile:	
68	67 Mitigation	Process	All	Acres of ha	
69	68 Designation of Habitat	Restoration	All	Acres Treat	
70	69 Mitigation	Restoration	All	Acres Treat	
71	70 Monitoring	Process	Wildfire, In	Acres of wi Reference	
72	71 Monitoring	Process	Grazing	Acres of th	
73	72 Monitoring	Process	All		Outside BLI
74	73 Monitoring	Process	Wildfire	Acres of tre	
75	74 Monitoring	Process	All	Acres	
76	75 Monitoring	Process	All	Population	
77	77 Monitoring	process	grazing	acres in DF	
78	78 Monitoring	Process	Grazing	Acres in DF incorporate	
79	79 Habitat Fragmentation	Land Use Authorizations			IM Referen
80	80 Habitat Fragmentation	Land Use Authorizations			
81	81 Human Disturbance	Land Use Authorizations			
82	82 Habitat Fragmentation	Land Use Authorizations			rationale fc
83	83 Habitat Fragmentation	Land Use Authorizations			rationale fc

84	87	Habitat Fragmentation	Land Use Authorizations	
85	89	Habitat Fragmentation	Land Use Authorizations	Define lek ;
86	90	Human Disturbance	Land Use Authorizations	Apply to ne
87	92	Predation	Land Use Authorizations	Differences
88	94	Habitat Fragmentation	Land Use Authorizations	Differences
89	96	Human Disturbance	Land Use Authorizations	What are tl
90	98	Fuels		
91		ACEC		
91	99	Habitat Fragmentation	Land Use Authorizatio	Infrastructure Acres excluded, acres l
92	101	Habitat Fragmentation	Land Use Authorizatio	Infrastructure miles of lines buried
93	102	Habitat Fragmentation	Reclamation	Infrastructure miles of line reclaimed
94	105	Habitat Fragmentation	Relocation	Infrastructure miles of line relocated,
95		BMP		
95	117	Habitat Fragmentation	Avoidance	Infrastructure acres of avoidance
96	118	Habitat Fragmentation	Co-location	Infrastructure miles of lines; footprin
97	119	Habitat Fragmentation	Land Tenure	Urbanizatic acres retained; acres o
97		Habitat Fragmentation		
97		Implementation		
98	120	Common to All Alternatives	Implementation	
99		ACEC		
99	121	Habitat Fragmentation	Acquisition	Urbanizatic acres identified for acc
100	122	Habitat Fragmentation	Withdrawal	Mining acres withc Keep SR Di
101	123	Habitat Fragmentation	Withdrawal	Mining Acres closed/withdraw
102		ACEC		
102	124	Habitat Fragmentation	Corridors	Infrastructure Acres/miles of corridoi
103	125	Habitat Fragmentation	Land Tenure	Predation Acres
104	126	Habitat Fragmentation	Wind Energy	Infrastructure Acres avail;
105	127	Habitat Fragmentation	unauthorized uses	infrastructure acres
106	128	Habitat Fragmentation	siting	Infrastructure acres avail;
110	132	ACEC		
115	151	Restoration		
116	152	Restoration		Incorporat
117	153	Restoration		
118	156	Restoration		
119	162	Restoration		
120	163	Restoration		
121	164	Restoration		
122	165	Restoration		
123	166	Restoration		
125	168	Restoration		
126	169	Restoration		
129	172	Restoration		
132	175	Monitoring		
133		Fuels		
133		Fuels		

133	176 Suppression
134	177 Invasive Species
135	Restoration
135	178 Vegetation
136	179 Restoration
137	180 Restoration
138	181 Monitoring
139	182 Invasive Species
140	183 Invasive Species
141	184 Restoration
142	185 Restoration
143	186 Restoration
144	BMP
144	187 Invasive Species
145	188 Invasive Species
146	189 Monitoring
152	220 Fuels
155	223 Fuels
155	Restoration
155	Suppression
156	224 Suppression
157	225 Suppression
159	227 Fuels
159	Suppression
160	228 Fuels
162	Fuels
162	230 Suppression
163	231 Fuels
164	232 Suppression
165	233 Suppression
168	Fuels
168	236 Suppression
172	240 Suppression
173	246 Restoration
173	Suppression
174	249 Restoration
175	250 Restoration
177	252 Restoration
178	253 Restoration
179	254 Restoration
180	255 Restoration
181	256 Fuels
182	257 Suppression
183	258 Suppression
184	259 Suppression

Is there a n  
Is there a n

Incorporate

188	268 Non Energy Leasable Minerals	Identify kn
189	272 Non Energy Leasable Minerals	What abou
195	283 Locatable Minerals	
196	284 Locatable Minerals	Include BM
199	287 Locatable Minerals	
202	300 Saleable Minerals	
203	301 Saleable Minerals	
204	304 Saleable Minerals	
205	307 Unleased Federal Fluid Mineral	
206	308 Unleased Federal Fluid Mineral	
208	312 Unleased Federal Fluid Mineral	
209	313 Unleased Federal Fluid Mineral	
211	320 Leased Federal Fluid Mineral Est	
212	322 Leased Federal Fluid Mineral Est	
212	Unleased Federal Fluid Mineral Estate	
213	323 Leased Federal Fluid Mineral Est	
215	325 Leased Federal Fluid Mineral Est	
216	326 Leased Federal Fluid Mineral Est	
217	327 Leased Federal Fluid Mineral Est	
218	328 Habitat Fragmentation	
219	329 Leased Federal Fluid Mineral Est	
220	330 Leased Federal Fluid Mineral Est	
223	333 ACECs	
224	334 Leased Federal Fluid Mineral Est	
225	335 Leased Federal Fluid Mineral Est	
226	336 Leased Federal Fluid Mineral Est	
227	337 Mineral Split Estate	
228	338 Mineral Split Estate	Reference i
233	343 Travel Management	Incorporat
234	344 Travel Management	
235	345 Travel Management	
236	346 Travel Management	Move to fir
237	347 Travel Management	
238	348 Travel Management	
240	350 Travel Management	
241	351 Travel Management	
243	353 Travel Management	
246	356 Recreation and Visitor Services	Define nue
246	Travel Management	
247	357 Recreation and Visitor Services	What does
247	Travel Management	
248	358 Recreation and Visitor Services	Need to de
248	Travel Management	Need to de
249	359 Recreation and Visitor Services	Need to de
249	Travel Management	
250	360 Travel Management	
251	361 Travel Management	

260	374 Livestock Grazing		
261	376 Livestock Grazing		Need SG M
262	377 Livestock Grazing		Define inte
263	378 Livestock Grazing		Define mar
264	379 Livestock Grazing		
267	382 Livestock Grazing	Objectives	
268	383 Livestock Grazing	Objectives	
269	384 Livestock Grazing		
270	385 Livestock Grazing	Drought	
271	386 Livestock Grazing	Riparian	
273	388 Livestock Grazing	Riparian	
273	Livestock Grazing		
274	389 Livestock Grazing	Riparian	
274	Livestock Grazing		
278	393 Livestock Grazing	Riparian	
278	Livestock Grazing		
280	395 Livestock Grazing	Water Development	Reference 1
280	Livestock Grazing		
281	396 Livestock Grazing	Water Development	
281	Livestock Grazing		
284	Coordination		
284	399 Restoration		
285	400 Restoration		
288	Desired Conditions		
288	Invasive Species		
288	403 Livestock Grazing	Improvements	
288	Livestock Grazing	Improvements	
289	404 Livestock Grazing	Water Development	
289	Livestock Grazing		
290	405 Livestock Grazing	Improvements	Check buffi
291	406 Livestock Grazing	Improvements	
292	407 Invasive Species		
293	408 Livestock Grazing		
294	409 Livestock Grazing		Need to do
295	410 Monitoring		
298	413 Livestock Grazing	Trailing	
299	414 Fuels		
300	Livestock Grazing	Sheep	how are oc
300	415 Restoration		
301	416 Fuels		
318	433 Livestock Grazing	Improvements	
319	434 Livestock Grazing	Water Development	
320	435 Livestock Grazing	Water Development	
321	436 Livestock Grazing	Water Development	
322	437 Livestock Grazing	Water Development	
323	438 Livestock Grazing		
325	440 Restoration		

326	441 Adaptive Management		tie in refer
327	442 Livestock Grazing		
328	443 Livestock Grazing		
329	444 Livestock Grazing		
330	445 Livestock Grazing		
331	446 Livestock Grazing		
332	447 Coordination		
333	448 Livestock Grazing	Riparian	
334	449 Livestock Grazing		
334	Livestock Grazing	Drought	
335	450 Livestock Grazing	Improvements	
336	451 Livestock Grazing	Improvements	
337	452 Livestock Grazing	Improvements	
338	453 Livestock Grazing	Improvements	
339	454 Livestock Grazing	Improvements	
340	455 Livestock Grazing	Improvements	
341	456 Livestock Grazing	Improvements	
342	457 Wild Horses and Burros		
344	459 Wild Horses and Burros		
345	460 Wild Horses and Burros		
346	461 Wild Horses and Burros		
347	462 Wild Horses and Burros		
348	463 Implementation		
355	470 Wild Horses and Burros		
356	471 ACECs		
356	West Nile Virus		
357	472 West Nile Virus		
358	473 West Nile Virus		
359	474 West Nile Virus		
360	475 West Nile Virus		
361	476 West Nile Virus		
377	532 BMP	West Nile Virus	
378	533 BMP	West Nile Virus	
379	534 BMP	West Nile Virus	
380	535 BMP	West Nile Virus	
381	536 BMP	West Nile Virus	
382	537 BMP	West Nile Virus	
383	538 BMP	West Nile Virus	
384	539 BMP	Development	Need to loc
385	540 BMP	Development	
386	BMP	Development	
386	541 BMP	Roads	
387	BMP	Development	
387	542 BMP	Roads	
388	BMP	Development	
388	543 BMP	Roads	
389	544 BMP	Roads	

390	BMP	Development
390	545 BMP	Roads
391	BMP	Development
391	546 BMP	Roads
392	547 BMP	Roads
393	548 BMP	Roads
394	549 BMP	Roads
395	550 BMP	Roads
397	552 BMP	Development
398	553 BMP	Development
399	554 BMP	Development
400	555 BMP	Development
401	556 BMP	Development
402	557 BMP	Development
403	558 BMP	Roads
404	559 BMP	Development
405	560 BMP	Development
406	561 BMP	Development
407	562 BMP	Development
408	563 BMP	Development
409	564 BMP	Development
410	565 BMP	Development
411	566 BMP	Development
412	567 BMP	Development
413	568 BMP	Development
414	569 BMP	West Nile Virus
415	570 BMP	West Nile Virus
416	571 BMP	Development
417	572 BMP	Development
418	573 BMP	Development
419	574 BMP	Development
420	575 BMP	Development
421	576 BMP	Development
422	577 BMP	Development
424	579 BMP	Reclamation
424	BMP	Reclamation
425	580 BMP	Reclamation
426	581 BMP	Reclamation
427	582 BMP	Reclamation
428	583 BMP	Reclamation
464	619 BMP	Development
469	624 BMP	Development
480	635 BMP	Fuels
481	636 BMP	Fuels
482	637 BMP	Fuels
483	638 BMP	Fuels
484	639 BMP	Fuels

485	640 BMP	Fuels
486	641 BMP	Fuels
487	642 BMP	Fuels
488	643 BMP	Fuels
489	644 BMP	Fuels
490	645 BMP	Fuels
491	646 BMP	Fuels
492	647 BMP	Fuels
493	648 BMP	Fuels
494	649 BMP	Fuels
496	651 BMP	Suppression
497	652 BMP	Suppression
498	653 BMP	Suppression
499	654 BMP	Suppression
500	655 BMP	Suppression
501	656 BMP	Suppression
502	657 BMP	Suppression
503	BMP	Development
503	658 BMP	Suppression
504	659 BMP	Suppression
505	660 BMP	Suppression
506	661 BMP	Suppression
507	662 BMP	Roads
508	663 BMP	Roads
509	664 BMP	Development
510	665 BMP	Development
511	666 BMP	Development
512	667 BMP	Development
513	668 BMP	Development
514	669 BMP	Development
515	670 BMP	Development
516	671 Exemption Process	







Current DFO RMP - ap	Action: No	No Action	Action: No Sim	Removal/r	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Site new at	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	Guy wires \	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Design stru	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	New power	New power	Same as	medial areas.	
Current RMP Pg 64, A	Action: No	No Action	Action: No Sim	Adhere to	Same as Pr	Same as pr	priority areas	
Same as SR	Action: No	No Action	Action: No Sim	Linear ROV	Same as Pr	Same as pr	See Fire M	
				New corridors/	facilities	New transmission corridors, ROWs fo		
Action: No	Similar Act	Action: Ma	No Action	Action: New co	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ev	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Wf	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Planning D	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Ma	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Wf	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Acquisition Criteria - A	Action: Re	No Action	All public lands	Retain pub	Same as pr	Same as pr	priority areas	
				Action: Lands currently identified for retentio				
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
				Action: BLM and FS will strive to acquire important private la				
Action: No	Similar Act	Action: Wf	No Action	Action: Acquisi	Action: No	Action: No	Action: No	Similar Acti
Current RMP - Withdr	Action: Prc	No Action	Action: Same a	Action: No	Key Decisio	Action: No	Similar Acti	
Same as N.	Same as N.	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
				Action: Existing designated corridors in BLM ACECs and FS Sp				
Current RMP - Acquis	Action: No	No Action	Action: ROWs v	Action: No	Key Decisio	Action: No	Similar Acti	
Land Ownership Adju	Action: No	No Action	No action.	Key Decisio	Same as Pr	Same as pr	priority areas	
Appendix X pg 213 Is	Action: No	No Action	Action: No Sim	Solar and v	Action: Wi	Action: Lands shall be		
Same as sub -region	Action: No	No Action	Action: No simi	Action: Pro	Same as Pr	Same as pr	priority areas	
2. Use the 0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti	
4. Restrict 0	Action: No	No Action	Action: Industr	Action: No	Action: No	Action: No	Similar Acti	
Appendix X. pg 208 Is	Action: Pri	No Action	Action: Same a	Action: Pri	Same as Pr	Same as pr	priority areas	
See above	Action: Inc	No Action	Action: Same a	Action: De	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: No	No Action	Action: Compo	Action: No	Action: No	Action: No	Similar Acti
Rangeland Veg pg. 51	Action: Re	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	priority areas	
Same as NA - See resp	Action: De	No Action	Action: Same a	Action: Im	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: Co	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Re	No Action	Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Action: In	f	No Action	Action: Same a	Action: No	Action: San	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti
Livestock	Same as N.	Action: No	No Action	Action: No Sim	Action: Uti	Same as Pr	Same as pr	priority areas
				Use strateg	Same as Pr	Same as pr	priority areas	
				Strategicall	Same as Pr	Same as pr	priority areas	

				Same as Priority	
Appendix X pg.208	CO NOXIOUS \ DFO has a	Action: No Action	No Action	No action.	Action: Pro areas. Same as priority areas
See above 0	Same as NA - under cu	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Appendix E pg. 118	M WILDLIFE i DFO is also	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No similar action.	
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Uti Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Objective: No	Action	Objective: No s	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: Int	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No	No Action	No action.	Action: No Action: No Action: No Similar Acti
DFO ROD/RMP pg. 28	DFO ROD/ All prescri	Action: No	No Action	Action: No Sim	GOAL: In p Same as Pr Same as pr Utilize simi
Action: No	Similar Act	Action: No	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Action: No	Similar Act	Action: No	No Action	Action: Lands v	Action: Ma Same as Pr Same as priority areas
Action: No	Similar Act	Action: No	No Action	Action: Any fue	Action: Suppress wildland fires in sage-grouse
Action: No	Similar Act	Action: De	No Action	Action: Same a	Action: No No similar ; Action: No Similar Acti
Appendix X pg.208	C	Action: Du	No Action	Action: Same a	Action: No No similar ; Action: No Similar Acti
Action: No	Similar Act	Action: In	Action: In g	Action: Same a	Action: No No similar ; Action: No Similar Acti
N/A		Action: No	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
N/A		Action: No	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
Same NTT.		Action: Fol	No Action	Action: Same a	Action: No See BMPs Action: No Similar Acti
DFO RMP p All project:		Action: No	No Action	Action: No Sim	Delineate c Same as Pr Same as Priority Areas
Same as SR		Action: Pri	No Action	Action: Same a	Same as Al Same as Pr Same as priority areas
Fuels and F	Same as N.	Action: De	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Same as SF	Climate ch	Action: Co	No Action	Action: Same a	Action: To ; Same as Pr Same as priority areas
Action: No	0	Action: No	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No	No Action	Action: Mowing	Action: No Action: No Action: No Similar Acti
Same as N.	0	Action: No	No Action	Action: No Sim	Ensure fire Same as Pr Same as pr Revised sc
Same as N.	0	Action: No	No Action	Action: No Sim	Use knowle Same as Pr Same as pr Revised sc
Same as NA/SR - from		Action: No	No Action	Action: No Sim	Where app Same as Pr Same as pr Revised sli

Proposed RMP/Final E	Action: Clo	No Action	Action: Same a	Action: Lan	Action: Lan	Action: Lands	Lands are avail
Same as N. Appendix E	Action: For	No Action	Action: Same a	Action: For	Action: For	Action: For	existing un
Proposed F Appendix E	§ Action: I	No Action	Action: Same a	Lands woul	Same as Pr	Same as pr	priority areas
Action: No Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Proposed F This was cr	Action: No	No Action	No action.	Require ne	Require ne	Require ne	new 3809 not
Salable Mil also Apper	Action: Clo	No Action	Action: Same a	No new au	No new au	No new au	authorizations
Same as NA - Covered	Action: In	No Action	Action: Same a	Action: Res	Same as Pr	Same as pr	priority areas
Same as SR for PPH ar	Action: No	No Action	Action: No Sim	Reclamatio	Same as Pr	Same as pr	priority areas
Pg. 45 Acti No Lease v	Action (Alt	No Action	Action: No new	Action: Lar	Same as pr	Same as pr	priority areas
RMP Final DFO curre	Action (Alt	No Action	Action: Same a	Action: All	Action: Allc	Action: Allow	geophys
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SFO	1. Action: I	No Action	Action: Same a	Not Applic	Action: Cor	Not Applic	- no ex
Same as SFO	o Action: No	Action	Action: Same as	Alternative B.	Action: Wh	Action: Wh	Same as Medial Areas.
Stipulation Need to up	Conservati	No Action	Timing avoidan	Covered in	Covered in	Covered in	Action # 20
Same as SFO	Conservati	No Action	Conservation M	Conservati	Same as Pr	Same as pr	priority areas
Same as SR	Conservati	No Action	Conservation M	Conservati	Same as Pr	Action: No	Similar Acti
Same as SFO	Conservati	No Action	Conservation M	Same as Al	Same as pr	Same as pr	priority areas
Action: No Similar Act	Conservati	No Action	Conservation M	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Action: No Similar Act	Action: No	No Action	Action: Agencie	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: Include	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: No wait	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Objective: No	Action	Objective: Any	Action: No	Action: No	Action: No	Similar Acti
DFO ROD/RMP pg. 44	Action: Wf	No Action	Action: Same a	Action: Wh	Action: Wh	Action: Where the fed	
Same as SR	Action: Wf	No Action	Action: Same a	Where the	Where the	Recommend to the mi	
RMP pg. 60 Same as N.	Action: In	No Action	Action: Same a	Action: Lir	Same as Pr	Same as pr	Incorporat
Action: No Similar Act	Action: No	No Action	Action: Same a	Action: No	No similar	Action: No	Needs to fo
Pg. 61 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Tr	Same as Pr	Same as pr	Is this the s
Same as N. Same as N.	Action: Co	No Action	Action: Same a	Action: Pri	Action: Co	Same as pr	priority areas
Pg. 59 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Cor	Same as Pr	Same as pr	Combined
Action: No Similar Act	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Repeat of :
Appendix X Is this a Re	Action: In	No Action	Action: Same a	Action: Pric	Action: Pric	Action: Pric	Changed ic
Same as al Is this a Re	Action: Wf	No Action	Action: Same a	Action: Wf	Same as Pr	Same as pr	Use definit
Same as SFO Is this a Re	Action: No	No Action	No action.	Schedule r	Same as Pr	Same as pr	Added an a
Not really : SRP in sag	Action: On	No Action	Action: Same a	Action: SRI	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 215 R	Action: No	No Action	Action: Same a	Designate	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 214 R	Action: No	No Action	No action.	Incorporat	Same as Pr	Same as pr	Keep Idahc
fine restrictions - BMPs?							
Appendix X Same as N.	Action: No	No Action	Action: No Sim	Recreation	Same as Pr	Same as pr	No similar
Same as SFO Most of ou	Action: No	No Action	Action: No Sim	Limit snow	Same as Pr	Same as pr	Added an a
Action: No Similar Act	Action: No	No Action	Action: No Sim	Action: No Repeat	Action: No	Action: No	Similar Acti



Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	Do not incl	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	carry forwa	
Not applica	0	Action: Wi	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: For	No Action	Action: Same a	Action: Wl	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Co	No Action	Action: Same a	Utilize inte	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Wl	No Action	Action: Same a	Refer to liv	Refer to liv	Refer to liv	Recommen
N/A - NO V	0	Action: No	No Action	Action: No Sim	Do not exp	Action: An	Action: No	Similar Acti
Action: No	Similar Act	Action: No No Action	Action: Large A	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Appendix >	0	Increase tl	No Action	Action: No	Similar Action			Have repla
Action: No	0	Build steep	No Action	Action: No	Similar Action			Have repla
Action: No	0	Maintain tl	No Action	Action: No	Similar Action			Have repla
Action: No	0	Construct r	No Action	Action: No	Similar Action			Have repla
Action: No	0	Line the ch	No Action	Action: No	Similar Action			Have repla
Action: No	0	Line the ov	No Action	Action: No	Similar Action			Have repla
Action: No	0	Fence pon	No Action	Action: No	Similar Action			NTT Recon
Action: No	0	BMP Sectic	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE (pe
Action: No	0	Roads - PP	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - 3
Action: No	0	Design roa	Design roa	Action: No Sim	Design roa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate roa	No Action	Action: No Sim	Constructio	Same as Pr	Same as pr	priority areas
Action: No	0	Coordinate	Coordinate	Action: No Sim	Coordinate	Same as Pr	Same as pr	NTT Recon
Action: No	0	Construct i	Construct i	Action: No Sim	Construct r	Same as Pr	Same as pr	NTT Recon

Action: No	0	Establish s	Establish s	Action: No Sim	Establish s	Same as Pr	Same as pr	NTT Recon
Action: No	0	Establish t	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - To
Action: No	0	Do not issu	Do not issu	Action: No Sim	Action: No	Action: No	Action: No	DELETE - D
Action: No	0	Restrict ve	No Action	Action: No Sim	Restrict vel	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use dust a	Use dust al	Action: No Sim	Use dust al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Close and i	No Action	Action: No Sim	Close and r	Same as pr	Same as pr	NTT Recon
Action: No	0	Cluster dis	Cluster dis	Action: No Sim	Cluster dist	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use directi	Use directi	Action: No Sim	Use directi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place infra	No Action	Action: No Sim	Place infra	Same as Pr	Same as pr	NTT Recon
Action: No	0	Apply a ph	No Action	Action: No Sim	Apply a ph	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place liquic	No Action	Action: No Sim	Place liquic	Same as Pr	No Similar	NTT Recon
Action: No	0	Pipelines n	No Action	Action: No Sim	Consider pl	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use remot	Use remot	Action: No Sim	Develop a j	Same as Pr	Same as pr	NTT Recon
Action: No	0	Restrict th	Restrict th	Action: No Sim	Restrict th	Same as Pr	Same as pr	NTT Recon
Action: No	0	Site and/o	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Li
Action: No	0	Place new	No Action	Action: No Sim	Place new i	Same as Pr	Same as pr	NTT Recon
Action: No	0	Bury distri	No Action	Action: No Sim	Where phy	Where phy	Where phy	NTT Recon
Action: No	0	Collocate	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Design or s	No Action	Action: No Sim	Design or s	Same as Pr	Same as pr	NTT Recon
Action: No	0	Cover (e.g.	Cover (e.g.	Action: No Sim	Cover (e.g.,	Same as Pr	Same as pr	NTT Recon
Action: No	0	Equip tank	Equip tank	Action: No Sim	Equip tank	Same as Pr	Same as pr	NTT Recon
Action: No	0	Control th	Control th	Action: No Sim	Control the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use only cl	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Ir
Action: No	0	Restrict pit	Restrict pit	Action: No Sim	Restrict pit	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove or	No Action	Action: No Sim	Remove or	Same as Pr	Same as pr	NTT Recon
Action: No	0	Limit noise	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Require no	No Action	Action: No Sim	Require no	Same as Pr	Same as pr	NTT Recon
Action: No	0	Fit transmi	No Action	Action: No Sim	Fit transmi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Require sa	No Action	Action: No Sim	Require sa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate nev	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Clean up r	Clean up r	Action: No Sim	Clean up re	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate ma	No Action	Action: No Sim	Locate tem	Same as Pr	No Similar	NTT Recon
Action: No	0	Include ob	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
		Address post reclamation managemen			Same as Alternative B.			Same as priority areas
Action: No	0	Maximize t	No Action	Action: No Sim	When road	Same as pr	Same as pr	NTT Recon
Action: No	0	Restore di	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Irrigate int	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Utilize mul	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Bury powe	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
Action: No	0	Require sa	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
Action: No	0	Where app	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Provide tra	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Use fire pr	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Ensure pro	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Where app	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land



Action: No	0	Where app	No Action	Action: No Sim	Where app	Where app	Where app	NTT Recon
Action: No	0	Power-wa	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Design veg	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Give priori	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	As funding	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Emphasize	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Protect wil	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Reduce the	No Action	Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Strategical	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"
Action: No	0	Develop st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Provide loc	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Assign a sa	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	On critical	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	During per	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	To the ext	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Power-wa	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
					Minimize u	Same as Pr	Same as pr	priority areas
Action: No	0	Minimize u	No Action	Action: No Sim	Minimize u	Same as Pr	Same as pr	NTT Recon
Action: No	0	Minimize t	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Utilize reta	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	As safety a	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Action: No	No Action	Action: No Sim	Utilize exis	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Construct r	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Micro-site	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Locate stag	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - W
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Wind ener	Wind ener	Same as M	Used Gove
Action: No	Similar Act	Action: No	No Action	Action: No Sim	General pr	Same as Pr	Same as pr	This is the

Alternative E - Idaho - Common to All Areas	Alternative E - Idaho - Core Areas	Alternative E - Idaho - Important Areas	Alternative E - Idaho - General Areas	Alternative E - Idaho - Governor's Alternative Reference	Alternative E - Montana Areas	Alternative E - Utah Areas	Alternative F - Priority Areas	Alternative F - General Areas	Alternative F - Restoration Areas
Continuous Maintenance	Action: No	Action: No	Action: No	p. 45, pp. 1	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Conserve or enhance or restore general habitat areas to improve habitat condition and connectivity	Action: No	Action: No	Action: No	p. 46, pp. 2	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Focus on Activities	Action: No	Action: No	Action: No	p. 1, pp. 1, Same as Alternative A	GOAL: Maintain	GOAL: Maintain	GOAL: Maintain	Objective: No similar objective.	
Action: No Sub-objective	Action: No	Action: No	Action: No	p. 25, pp. 4	Same as Alternative A	Action: No	Similar Action	Objective: Design	Objective: Design
Action: No Conservation	Action: No	Action: No	Action: No	p. 1, pp. 3, Same as Alternative A	Priority.	Action: No	Similar Action	Objective: No similar objective.	
Action: No Conservation	Action: No	Action: No	Action: No	p. 3, pp. 1, Same as Alternative A	on	Action: No	Similar Action	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	Sub-objective: No similar sub-objective		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	minimize risk of West Nile Virus or other diseases.		
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 3, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 4, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 5, Same as Alternative A	Action: No	Similar Action	on	Objective: Restore and maintain	
Action: No Conservation	Action: No	Action: No	Action: No	Similar Act Same as Alternative A	Action: No	Similar Action	on	Objective: Establish a system of	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 5, Same as Alternative A	Action: No	Similar Action	on	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	on	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 5	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 6	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 7	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 25, pp. 2	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 1	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 2	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 3	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 4	Same as Alternative A	Action: No	Similar Action	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	on	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	on	Objective: No similar objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 6, pp. 2, Same as Alternative A	Action: No	Similar Action	on	Objective: No similar objective	



Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
or corridors (oil, gas, water/aquifer mining), and communication or other towers are prohibited in ACECs and oc  
Action: No Designate Designate Manage ne p. 26, pp. 3 Same as Alternative A Action: Priority sage-grouse habit  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B (W  
Action: No Prohibit th Authorize i Authorize i p. 33, pp. 5 Same as Alternative A Action: Same as Alternative B (W  
Action: No Prohibit th Action: No Action: No p. 34, pp. 1 Same as Alternative A Action: Same as Alternative B (W  
Action: No Apply best Action: No Action: No p. 34, pp. 2 Same as Alternative A  
on Action: No similar action.” “  
Infrastruct Action: No Action: No There are i p. 11, s. 4; Same as Alternative A Action: No similar action.  
. Action: Same as Alternative B, wi  
n within priority areas would be retained unless disposal of those lands would increase the extent or provide fo  
Modify, an Action: No Action: No Action: No p. 24, pp. 3 Same as Alternative A  
Conduct a Action: No Action: No Action: No p. 24, pp. 2 Same as Alternative A Action: No Similar Action  
nds in BLM-designated ACECs and FS Sage-Grouse Special Areas.  
Action: No New infras Action: No Action: No p. 26, pp. 6 Same as Alternative A Action: No similar action.  
Action: No Allow for e Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No In allowing Action: No Action: No p. 27, pp. 1 Same as Alternative A Action: Do not approve withdraw  
ecial Areas may be accessed for maintenance. (WWP)” “  
Action: No Maintain a Action: No Action: No p. 27, pp. 3 Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Do not site wind energy d  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Site wind energy develop  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Prioritize tl Prioritize tl Action: No p. 33, pp. 3 Same as Alternative A Action: Prioritize implementation  
Action: No Actively re Actively re Action: No p. 33, pp. 4 Same as Alternative A Action: Include sage-grouse habit  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Avoid sagebrush reductio  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In sage-grouse habitat, er  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Actively m Actively m Aggressive p. 26, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Control in Control co Action: No p. 32, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Emphasize Emphasize Action: No p. 32, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Reallocate Reallocate Action: No p. 32, pp. 4 Same as Alternative A Objective: Develop and implement  
Action: No Where the Where the Action: No p. 32, pp. 4 Same as Alternative A No action.  
Action: No Action: No Require be Action: No p. 39, pp. 4 Same as Alternative A

on Action: No Similar Action  
Action: No Action: No Eradicate c Eradicate c p. 39, pp. 5 Same as Alternative A No action.  
Action: No Action: No Monitor w Monitor w p. 39, pp. 6 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Design and implement fu

Action: No Reduce the Reduce the Reduce the p. 31, pp. 6 Same as Alternative A  
Action: No Prioritize p Prioritize p Emphasize p. 26, p. 1; Same as Alternative A Action: No similar action.  
Action: No Decrease v Decrease v Action: No p. 31, pp. 8 Same as Alternative A Action: No similar action.  
ation level objectives. Action: No similar action. (WEG)''

Action: No Develop a Develop a Action: No p. 32, pp. 1 Same as Alternative A  
Action: No Action: No Create and Create and p. 38, pp. 5 Same as Alternative A Action: No similar action. (WEG)''  
Action: No Action: No Prescribe c Prescribe c p. 38, pp. 1 Same as Alternative A  
e-grouse habitat, prioritize suppression of sage-grouse and threatened and enc Action: Same as Alternative B. (W  
Action: No Action: No Coordinate Action: No p. 38, pp. 1 Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Develop m Action: No p. 28, pp. 3 Same as Alternative A

on Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Same as Alternative B.

Action: No Prioritize fi Action: No Action: No p. 3, pp. 2, Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Establish and strengthen  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Post fire recovery must in  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Livestock grazing should b  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Where burned sage-grouse  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Oil and gas Oil and gas Action: No p. 34, pp. 3 Same as Alternative A 1. Action: Apply the following c  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Apply a s  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Sar Same a Priority Areas.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Prohibit new road constru  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Limit route construction t  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B usi  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: When reseeding closed rc  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
o language. Hard to demonstrate neutral and beneficial impacts. Incorporates : Action: Same as Alternative B.  
Action: No Prioritize t Prioritize t Same as Al p. 34, pp. 5 Same as Alternative A  
o language - no similar actions in region. Action: Seasonally prohibit campi  
Action: No Restrict ve Restrict ve Same as Al p. 34, pp. 6 Same as Alternative A  
o language recommend incorporation across region. No action.  
Action: No Designate Designate Action: No p. 35, pp. 1 Same as Alternative A  
action across region. Action: No Similar Action  
Action: No Re-route e Re-route e Action: No p. 35, pp. 2 Same as Alternative A  
Action: No Reduce act Reduce act Action: No p. 35, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Prioritize t Prioritize t Action: No p. 26, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action

Action: No Prioritize p Prioritize p Action: No p. 26, pp. 5 Same as Alternative A Action: Sar Action: Sar Action: Sar

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. “ “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Conduct ra Conduct ra Action: No p. 36, pp. 2 Same as Alternative A Action: No similar action.

Action: No Maintain e Maintain e Action: No p. 36, pp. 3 Same as Alternative A Action: Manage for vegetation co

Action: No Adjust graz Adjust graz Action: No p. 36, pp. 4 Same as Alternative A Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: During drought periods, p

Action: No Implement Implement Action: No p. 36, pp. 6 Same as Alternative A Action: Same as Alternative B.

nd dropping - this can be covered under riparian objectives/actions Same as Alternative B.

Consider g Action: No Action: No Action: No p. 12, pp. 6 Same as Alternative A

nd dropping Action: Same as Alternative B.

Consider a Altering gr Enhance gr Enhance gr p. 12, pp. 7 Same as Alternative A

nder 384 Action: No similar action.

Complete 1 Prioritize a Prioritize a Action: No p. p. 13, pp. Same as Alternative A

nd making an overarching statement regarding the priority of SG habitat relati Action: Authorize no new water c

Utilize a va Action: No Action: No Action: No p. 14, pp. 2 Same as Alternative A

anguage Action: Analyze springs, seeps and

Include me Action: No Action: No Action: No p. 14, pp. 5 Same as Alternative A

Inform anc Action: No Action: No Action: No p. 13, pp. 4 Same as Alternative A

er restoration section Action: Ensure that vegetation tre

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Evaluate the role of existi

Use sage-g Action: No Action: No Action: No p. 13, pp. 2 Same as Alternative A

nd modified wording Action: Avoid all new structural r

o wording Action: Same as Alternative B. (W

Maintain fl Action: No Action: No Action: No p. 13, pp. 3 Same as Alternative A

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: To reduce outright sage-g

Action: No Treat and r Treat and r Action: No p. 48, pp. 8 Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In each planning process,

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Encourage partners to

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Any vegetation treatment

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Avoid cons Avoid cons Action: No p. 48, pp. 2 Same as Alternative A Action: No Similar Action

Action: No Design nev Design nev Action: No p. 48, pp. 3 Same as Alternative A Action: No Similar Action

Action: No Install ram Install ram Action: No p. 48, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Place and c Place and c Action: No p. 48, pp. 5 Same as Alternative A Action: No Similar Action

Action: No Avoid instã Avoid instã Action: No p. 48, pp. 6 Same as Alternative A Action: No Similar Action

Action: No Establish s Establish s Action: No p. 48, pp. 7 Same as Alternative A Action: No Similar Action

Action: No Initiate veç Initiating v Action: No p. 48, pp. 9 Same as Alternative A Action: No Similar Action

Action: No Apply adaç Apply adaç Action: No p. 46, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Implement Implement Action: No p. 47, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Modify gra Action: No p. 47, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Graze exot Graze exot Action: No p. 47, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Modify aut Modify aut Action: No p. 47, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Maintain rı Maintain rı Action: No p. 47, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Inform per Inform per Action: No p. 47, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Manage gr Manage gr Action: No p. 47, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Same as Core Areas. Action: No p. 47, pp. 9 Same as Alternative A Action: No Similar Action  
Action: No Place salt ç Place salt ç Action: No p. 47, pp. 10 Same as Alternative A Action: No Similar Action  
Action: No Reduce thç Reduce thç Action: No p. 39, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Mark fence Mark fence Action: No p. 37, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Remove ur Remove ur Remove ur p. 37, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Consider ir Consider ir Action: No p. 37, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Construct ı Construct ı Action: No p. 37, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Place new, Place new, Action: No p. 37, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action. (WEG)  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
on Action: Designate Areas of Critical  
Action: No Construct ı Construct ı Action: No p. 35, pp. 8 Same as Alternative A  
Action: No Return waı Return waı Action: No p. 35, pp. 9 Same as Alternative A No action.  
Action: No Minimize ç Minimize ç Minimize t p. 35, pp. 3 Same as Alternative A No action.  
Action: No Permit anc Permit anc Permit anc p. 35, pp. 5 Same as Alternative A No action.  
Action: No Minimize t Minimize t Action: No p. 35, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Develop ar Develop ar Develop ar p. 35, pp. 7 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Evaluate ai Evaluate ai Action: No p. 44, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Limit surfa Limit surfa Action: No p. 44, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Apply no sı Apply no sı Action: No p. 44, pp. 9 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Limit activi Limit activi Action: No p. 44, pp. 10  
NTT Recommendation and Governor's BMP's have beer Same as Alternative A Same as Alternative B.  
Action: No Allow explı Allow explı Action: No p. 45, pp. 1 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Locate mai Locate mai Action: No p. 45, pp. 2 Same as Alternative A Same as Alternative B.







maintain and increase current sage-grouse abundance and distribution by conserving, enhancing or restoring

Designate Restoration sage-grouse habitat, based on its importance to sage-grouse and the likelihood of

effective.

effective.

effective.

effective.

effective.

sagebrush steppe to its ecological potential in occupied sage-grouse habitat.

sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.



cupied habitats. (WWP)

at areas shall be exclusion areas for new ROWs permits. Consider the following exceptions:" "Within de

EG)" "" "

EG)" "" "

EG)" "

thout exceptions for disposal to consolidate ownership that would be beneficial to sage-grouse.  
r connectivity of priority areas.

(EG)" "" "" "

ral proposals not associated with mineral activity unless the land management is consistent with sage-gr

development in priority sage-grouse habitat (Jones 2012). (WEG)

ment at least five miles from active sage-grouse leks. (WEG)

of restoration projects based on environmental variables that improve chances for project success in a  
at objectives parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State S:

(EG)

(EG)

n/treatments to increase livestock or big game forage in priority habitat and include plans to restore hig

ensure that soil cover and native herbaceous plants are at their ESD potential to help protect against inva:

nt methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants. (WEG)

els treatments with an emphasis on protecting existing sagebrush ecosystems. “Do not reduce sagebr

“

“

(EG)” “

(EG)” “

(EG)

networks with seed growers to assure availability of native seed for ES&R projects. “ “

include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recc  
be excluded from burned areas until woody and herbaceous plants achieve sage-grouse habitat objectivi  
se habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) shou

(EG) “

(EG) “

(EG) “

(EG) “

(EG) “

ation of existing leases, do not accept nominations/expressions of interest for parcels within priority ha  
ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc

ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc  
conservation measures as Conditions of Approval at the project and well permitting stages, and through  
Alternative B. “ “

seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting a  
Alternative B. (WEG)

Alternative B.

Alternative B. (WEG)

Alternative B. (WEG)

Alternative B. (WEG)

(EG) “

(EG) “

action within 4 miles of active sage-grouse leks, and avoid new road construction in priority sage-grouse  
“ “

o realignments of existing designated routes if that realignment has a minimal impact on sage-grouse h  
ng a 4-mile buffer from leks to determine road route.

oads, primitive roads and trails, use appropriate native seed mixes and require consider the use of transp

ing and other non-motorized recreation within 4 miles of active sage-grouse leks. (WEG)

ne as Alternative B.

composition and structure consistent with ecological site potential and within the reference state to achieve  
prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their biological

developments for diversion from spring or seep sources only when within priority sage-grouse habitat with  
d associated water developments pipelines to determine if modifications are necessary to maintain the

treatments Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse  
seedlings that are currently composed of primarily introduced perennial grasses in and adjacent to priority

range developments in priority sage-grouse habitat unless independent peer-reviewed studies show that

(WEG) “

“ “

sage-grouse strikes and mortality, rRemove, modify or mark fences in high risk areas of moderate or high risk

“ “

identify grazing allotments where permanent retirement of grazing privileges would be potentially beneficial  
monitor effects of retiring grazing permits in sage-grouse habitat. (WEG)

the plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures



(WEG)

Environmental Concern (ACECs) (BLM) and Sagebrush Conservation Areas (SCAs) (USFS), respectively, :





ing the sagebrush ecosystem.

f successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005c), as degraded



esignated ROW corridors encumbered by existing ROW authorizations: new ROWs may be co-located on

ouse conservation measures. (For example,, in a proposed withdrawal for a military training range buffe

reas most likely to benefit sage-grouse (Meinke et al. 2009).” ““Prioritize restoration in seasonal habit:  
age Grouse Conservation plans and appropriate local information in habitat restoration projects objectiv

gh-quality habitat in areas with invasive species. (Audubon)

sive plants. In areas without ESDs, reference sites would be utilized to identify appropriate vegetation c

ush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management

covery. (WEG)

es. (WEG)

ld be closed to grazing until recovered. (WEG)

abitat. (WEG)

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

i RMP implementation decisions and upon completion of the environmental record of review (43 CFR §

and brood-rearing season in all priority sage-grouse habitat during this period. This seasonal restriction s

habitat. (WEG)

abitat, eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any imj

planted sagebrush. (WEG)” “



ave sage-grouse habitat objectives.

ll needs for food and cover, as well as drought effects on ungrazed reference areas. Since there is a lag in

ould benefit from the development. This includes developing new water sources for livestock as part of  
continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modification

ouse. Only allow treatments that conserve, enhance, or restore sage-grouse habitat are demonstrated t  
riority sage-grouse habitat to determine if they should be restored to sagebrush or habitat of higher qua

: the range improvement structure benefits sage-grouse. Design any new structural range improvement:

of sage-grouse strikes within priority sage-grouse habitat based on proximity to lek, lek size, and topogr

eficial to sage-grouse. (WEG)

s, and include long-term monitoring where treated areas are monitored for at least three years before g

as sagebrush reserves to conserve sage-grouse and other sagebrush-dependent species. (WEG).





or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if



ly if the entire footprint of the proposed project (including construction and staging), can be completed

er area, manage the buffer area with sage-grouse conservation measures that have been demonstrated

ats that are thought to be limiting sage-grouse distribution and/or abundance and where factors causing  
res. Make meeting these objectives within priority sage-grouse habitat the highest restoration priority. (

ommunities and soil cover.

objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-ξ



able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r  
3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, amon;

hall also to apply to related activities that are disruptive to sage-grouse, including vehicle traffic and oth

pacts with methods that have been demonstrated to be effective to offset the loss of sage-grouse habit;

1 vegetation recovery following drought (Thurow and Taylor 1999; Cagney et al. 2010), ensure that post

an AMP/conservation plan to improve sage-grouse habitat. (WEG)

s where necessary, including dismantling water developments considering impacts to other water uses 1

o benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat object  
lity for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in c

s and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habi

aphy (Christiansen 2009; Stevens 2011). (WEG)

grazing returns. Continue monitoring for” “five years after livestock are returned to the area, and compa







restored to its potential natural community.



within the existing disturbance associated with the authorized ROWs.” “Subject to valid, existing rights:

to be effective.) (WEG)

degradation have already been addressed (e.g., changes in livestock management). (WEG)” “  
WEG)



grouse habitat and conserve habitat quality for the species. “Closely evaluate the benefits of the fuel t

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br  
g other things:" "Whether the conservation measure is "reasonable" (43 CFR § 3101.1-2) with the valid

er human presence. (WEG)

at. (WEG)

-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-gro

when such considerations are neutral or beneficial to sage-grouse. (WEG)

ives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve saq  
onserving or enhancing the rest of the priority sage-grouse habitats, then no restoration would be nece:

tat through an improved grazing management system relative to sage-grouse objectives. Structural rang

ire to treated, ungrazed exclosures, as well as untreated areas. (WEG)













where new ROWs associated with valid existing rights are required, co-locate new ROWs within existing

break against the additional loss of sagebrush cover in the EA process. “ “Apply appropriate seasonal res

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)” ““

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)  
existing rights; and” “Whether the action is in conformance with the approved RMP. (WEG)

use habitat areas based on sage-grouse habitat objectives. (WEG)

sage-grouse habitat). (WEG)

ssary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing

sage improvements developments, in this context, include but are not limited to cattleguards, fences, excl













3 ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as describe

trictions for implementing fuels management treatments according to the type of seasonal habitats pre

“SUB-ALTERNATIVE:” “Action: No new geophysical exploration permits will be issued.” “ “ “

system during the land health assessments (Davies et al. 2011). (WEG)” “

osures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including movea













d above, to access valid existing rights that are not yet developed. If valid existing rights cannot be acces

sent in a priority area.” “Allow no fuels treatments in known winter range unless the treatments are de:



ible tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developr













used via existing roads, then build any new road constructed to the absolute minimum standard necessa

signed to strategically reduce wildfire risk around or in the winter range and will maintain winter range f



ments. Potential for invasive species establishment or increase following construction must be considered.













ry, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exce

habitat quality. “Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyom



ed in the project planning process and monitored and treated post-construction. Consider the comparat













eds 3% for that area, then make additional effective mitigation

ing big sagebrush or other xeric sagebrush species; Conn





ive cost of changing grazing management instead of constructing additi

New GOA 1/28/2013	GOA 11/6/2012	Program Area	Sub Topic	Threat	Indicator	Review Comment s - Ralston
4	4	Adaptive Management	Best Management Prac	N/A	N/E	G - referen
5	5	Common to All Alternatives	Implementation	N/A	N/E	
6	6	Goal	SG Abundance and Dist	All	Acres of Habitat & pop	
7	7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Habitat	
7		Priority Setting	Implementation			
8	8	Common to All Alternatives		N/A	N/E	
9	9	Designation of Habitat	Designation of Habitat	All	Acres of PPH/PGH map	
10	9.1	Habitat Fragmentation		Infrastructu	Acres of PP	Need to de
11		Goal				
11	10	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sagebrush hak	
12	11	Habitat Fragmentation		Wildfire, In	N/E	
13		Designation of Habitat		All	Acres of PPH/PGH map	
13	11.1	Monitoring	group	N/A	N/E	Need to sp
14	12	Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of H <sub>2</sub>	Need to de
15	13	Objective	Distribution	All	Acres of Habitat	
15		Disease	West Nile Virus			
16	14	Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of H <sub>2</sub>	
17	15	Designation of Habitat	Connectivity	All	Acres of H <sub>2</sub>	May be duj
17		Desired Conditions				
18	16	Habitat Fragmentation	Connectivity	All	Acres of H <sub>2</sub>	May be sir
18		Monitoring				
19	17	Adaptive Management		All	N/E	
19		Habitat Fragmentation				
20	18	Objective	Rehabilitation	All	Acres of Habitat	
21		Designation of Habitat				
21	19	Objective	ACEC	All	N/E	
22	20	Common to All Alternatives	Process	All	N/E	
23	21	Designation of Habitat	Mapping	All	N/E	
24	22	Designation of Habitat	Populations	All	N/E	
25	23	Designation of Habitat	Mapping	All	N/E	
26	24	Priority Setting	Mapping	All	N/E	
27	25	Designation of Habitat	Mapping	All	N/E	
28	26	Designation of Habitat	Mapping	All	N/E	
30	28	Designation of Habitat	Mapping	All	N/E	
31	29	Designation of Habitat	Mapping	All	N/E	
32	30	Designation of Habitat	Mapping	All	N/E	
33	31	Designation of Habitat	Adaptive Management	All	N/E	
34	32	Designation of Habitat	Threats	All	N/E	
35	33	Designation of Habitat	Threats	All	N/E	
36	34	Designation of Habitat	Mapping	All	N/E	

37	35 Designation of Habitat	Mapping	All	N/E	
38	36 Designation of Habitat	Adaptive Management	All	N/E	
39	37 Designation of Habitat	Adaptive Management	All	N/E	
40	39 Wildfire	Priorities	Wildfire	Acres of Ha	
41	40 Implementation	Process	All	N/E	
42	41 Designation of Habitat	Uses	All		
43	42 Designation of Habitat	Indicators			
44	43 Desired Conditions	DFC	All	Acres of Ha	Need to inc
45	44 Desired Conditions	DFC	All	Acres of Ha	Include Tak
46	45 Implementation	Process	All	N/E	
47	46 Habitat Fragmentation	Resiliency	All	Acres of Ha	
48	47 Implementation	Adaptive Management	All	N/E	mapping u
49	48 Adaptive Management	Process	All	N/E	Governor -
50	49 Adaptive Management	Process	All	N/E	
51	50 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
52	51 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
53	52 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
54	53 Adaptive Management	Grazing	Grazing	Acres of Habitat	
55	54 Adaptive Management	Process	All	Population	
56	55 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
57	56 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
58	57 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
59	58 Adaptive Management	Process	All	N/E	
60	59 Adaptive Management	Process	All	N/E	
61	60 Designation of Habitat	Trigger	All	Acres of Designation	
62	61 Valid Existing Authorizations	Foundational	N/A	Acres of Ri	
63	62 Valid Existing Authorizations	Foundational	N/A	Acres of Rights	
64	63 Valid Existing Authorizations	Foundational	Minerals	Acres of valid existing i	
65	64 Valid Existing Authorizations	Foundational	Minerals	Acres of Mining	
66	65 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va	
67	66 Mitigation	Process	Infrastructu	Acres/mile:	
68	67 Mitigation	Process	All	Acres of ha	
69	68 Designation of Habitat	Restoration	All	Acres Treat	
70	69 Mitigation	Restoration	All	Acres Treat	
71	70 Monitoring	Process	Wildfire, In	Acres of wi Reference	
72	71 Monitoring	Process	Grazing	Acres of th	
73	72 Monitoring	Process	All		Outside BLI
74	73 Monitoring	Process	Wildfire	Acres of tre	
75	74 Monitoring	Process	All	Acres	
76	75 Monitoring	Process	All	Population	
77	77 Monitoring	process	grazing	acres in DF	
78	78 Monitoring	Process	Grazing	Acres in DF incorporate	
79	79 Habitat Fragmentation	Land Use Authorizations			IM Referen
80	80 Habitat Fragmentation	Land Use Authorizations			
81	81 Human Disturbance	Land Use Authorizations			
82	82 Habitat Fragmentation	Land Use Authorizations			rationale fc
83	83 Habitat Fragmentation	Land Use Authorizations			rationale fc

84	87 Habitat Fragmentation	Land Use Authorizations	
85	89 Habitat Fragmentation	Land Use Authorizations	Define lek ;
86	90 Human Disturbance	Land Use Authorizations	Apply to ne
87	92 Predation	Land Use Authorizations	Differences
88	94 Habitat Fragmentation	Land Use Authorizations	Differences
89	96 Human Disturbance	Land Use Authorizations	What are tl
90	98 Fuels		
91	ACEC		
91	99 Habitat Fragmentation	Land Use Authorizatio	Infrastructure Acres excluded, acres l
92	101 Habitat Fragmentation	Land Use Authorizatio	Infrastructure miles of lines buried
93	102 Habitat Fragmentation	Reclamation	Infrastructure miles of line reclaimed
94	105 Habitat Fragmentation	Relocation	Infrastructure miles of line relocated,
95	BMP		
95	117 Habitat Fragmentation	Avoidance	Infrastructure acres of avoidance
96	118 Habitat Fragmentation	Co-location	Infrastructure miles of lines; footprin
97	119 Habitat Fragmentation	Land Tenure	Urbanizatic acres retained; acres o
97	Habitat Fragmentation		
97	Implementation		
98	120 Common to All Alternatives	Implementation	
99	ACEC		
99	121 Habitat Fragmentation	Acquisition	Urbanizatic acres identified for acc
100	122 Habitat Fragmentation	Withdrawal	Mining acres withc Keep SR Di
101	123 Habitat Fragmentation	Withdrawal	Mining Acres closed/withdraw
102	ACEC		
102	124 Habitat Fragmentation	Corridors	Infrastructure Acres/miles of corridoi
103	125 Habitat Fragmentation	Land Tenure	Predation Acres
104	126 Habitat Fragmentation	Wind Energy	Infrastructure Acres avail;
105	127 Habitat Fragmentation	unauthorized uses	infrastructure acres
106	128 Habitat Fragmentation	siting	Infrastructure acres avail;
110	132 ACEC		
115	151 Restoration		
116	152 Restoration		Incorporat
117	153 Restoration		
118	156 Restoration		
119	162 Restoration		
120	163 Restoration		
121	164 Restoration		
122	165 Restoration		
123	166 Restoration		
125	168 Restoration		
126	169 Restoration		
129	172 Restoration		
132	175 Monitoring		
133	Fuels		
133	Fuels		

133	176 Suppression
134	177 Invasive Species
135	Restoration
135	178 Vegetation
136	179 Restoration
137	180 Restoration
138	181 Monitoring
139	182 Invasive Species
140	183 Invasive Species
141	184 Restoration
142	185 Restoration
143	186 Restoration
144	BMP
144	187 Invasive Species
145	188 Invasive Species
146	189 Monitoring
152	220 Fuels
155	223 Fuels
155	Restoration
155	Suppression
156	224 Suppression
157	225 Suppression
159	227 Fuels
159	Suppression
160	228 Fuels
162	Fuels
162	230 Suppression
163	231 Fuels
164	232 Suppression
165	233 Suppression
168	Fuels
168	236 Suppression
172	240 Suppression
173	246 Restoration
173	Suppression
174	249 Restoration
175	250 Restoration
177	252 Restoration
178	253 Restoration
179	254 Restoration
180	255 Restoration
181	256 Fuels
182	257 Suppression
183	258 Suppression
184	259 Suppression

Is there a n  
Is there a n

Incorporate

188	268 Non Energy Leasable Minerals	Identify kn
189	272 Non Energy Leasable Minerals	What abou
195	283 Locatable Minerals	
196	284 Locatable Minerals	Include BM
199	287 Locatable Minerals	
202	300 Saleable Minerals	
203	301 Saleable Minerals	
204	304 Saleable Minerals	
205	307 Unleased Federal Fluid Mineral	
206	308 Unleased Federal Fluid Mineral	
208	312 Unleased Federal Fluid Mineral	
209	313 Unleased Federal Fluid Mineral	
211	320 Leased Federal Fluid Mineral Est	
212	322 Leased Federal Fluid Mineral Est	
212	Unleased Federal Fluid Mineral Estate	
213	323 Leased Federal Fluid Mineral Est	
215	325 Leased Federal Fluid Mineral Est	
216	326 Leased Federal Fluid Mineral Est	
217	327 Leased Federal Fluid Mineral Est	
218	328 Habitat Fragmentation	
219	329 Leased Federal Fluid Mineral Est	
220	330 Leased Federal Fluid Mineral Est	
223	333 ACECs	
224	334 Leased Federal Fluid Mineral Est	
225	335 Leased Federal Fluid Mineral Est	
226	336 Leased Federal Fluid Mineral Est	
227	337 Mineral Split Estate	
228	338 Mineral Split Estate	Reference i
233	343 Travel Management	Incorporat
234	344 Travel Management	
235	345 Travel Management	
236	346 Travel Management	Move to fir
237	347 Travel Management	
238	348 Travel Management	
240	350 Travel Management	
241	351 Travel Management	
243	353 Travel Management	
246	356 Recreation and Visitor Services	Define nue
246	Travel Management	
247	357 Recreation and Visitor Services	What does
247	Travel Management	
248	358 Recreation and Visitor Services	Need to de
248	Travel Management	Need to de
249	359 Recreation and Visitor Services	Need to de
249	Travel Management	
250	360 Travel Management	
251	361 Travel Management	

260	374 Livestock Grazing		
261	376 Livestock Grazing		Need SG M
262	377 Livestock Grazing		Define inte
263	378 Livestock Grazing		Define mar
264	379 Livestock Grazing		
267	382 Livestock Grazing	Objectives	
268	383 Livestock Grazing	Objectives	
269	384 Livestock Grazing		
270	385 Livestock Grazing	Drought	
271	386 Livestock Grazing	Riparian	
273	388 Livestock Grazing	Riparian	
273	Livestock Grazing		
274	389 Livestock Grazing	Riparian	
274	Livestock Grazing		
278	393 Livestock Grazing	Riparian	
278	Livestock Grazing		
280	395 Livestock Grazing	Water Development	Reference 1
280	Livestock Grazing		
281	396 Livestock Grazing	Water Development	
281	Livestock Grazing		
284	Coordination		
284	399 Restoration		
285	400 Restoration		
288	Desired Conditions		
288	Invasive Species		
288	403 Livestock Grazing	Improvements	
288	Livestock Grazing	Improvements	
289	404 Livestock Grazing	Water Development	
289	Livestock Grazing		
290	405 Livestock Grazing	Improvements	Check buffi
291	406 Livestock Grazing	Improvements	
292	407 Invasive Species		
293	408 Livestock Grazing		
294	409 Livestock Grazing		Need to do
295	410 Monitoring		
298	413 Livestock Grazing	Trailing	
299	414 Fuels		
300	Livestock Grazing	Sheep	how are oc
300	415 Restoration		
301	416 Fuels		
318	433 Livestock Grazing	Improvements	
319	434 Livestock Grazing	Water Development	
320	435 Livestock Grazing	Water Development	
321	436 Livestock Grazing	Water Development	
322	437 Livestock Grazing	Water Development	
323	438 Livestock Grazing		
325	440 Restoration		

326	441 Adaptive Management		tie in refer
327	442 Livestock Grazing		
328	443 Livestock Grazing		
329	444 Livestock Grazing		
330	445 Livestock Grazing		
331	446 Livestock Grazing		
332	447 Coordination		
333	448 Livestock Grazing	Riparian	
334	449 Livestock Grazing		
334	Livestock Grazing	Drought	
335	450 Livestock Grazing	Improvements	
336	451 Livestock Grazing	Improvements	
337	452 Livestock Grazing	Improvements	
338	453 Livestock Grazing	Improvements	
339	454 Livestock Grazing	Improvements	
340	455 Livestock Grazing	Improvements	
341	456 Livestock Grazing	Improvements	
342	457 Wild Horses and Burros		
344	459 Wild Horses and Burros		
345	460 Wild Horses and Burros		
346	461 Wild Horses and Burros		
347	462 Wild Horses and Burros		
348	463 Implementation		
355	470 Wild Horses and Burros		
356	471 ACECs		
356	West Nile Virus		
357	472 West Nile Virus		
358	473 West Nile Virus		
359	474 West Nile Virus		
360	475 West Nile Virus		
361	476 West Nile Virus		
377	532 BMP	West Nile Virus	
378	533 BMP	West Nile Virus	
379	534 BMP	West Nile Virus	
380	535 BMP	West Nile Virus	
381	536 BMP	West Nile Virus	
382	537 BMP	West Nile Virus	
383	538 BMP	West Nile Virus	
384	539 BMP	Development	Need to loc
385	540 BMP	Development	
386	BMP	Development	
386	541 BMP	Roads	
387	BMP	Development	
387	542 BMP	Roads	
388	BMP	Development	
388	543 BMP	Roads	
389	544 BMP	Roads	



390	BMP	Development
390	545 BMP	Roads
391	BMP	Development
391	546 BMP	Roads
392	547 BMP	Roads
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394	549 BMP	Roads
395	550 BMP	Roads
397	552 BMP	Development
398	553 BMP	Development
399	554 BMP	Development
400	555 BMP	Development
401	556 BMP	Development
402	557 BMP	Development
403	558 BMP	Roads
404	559 BMP	Development
405	560 BMP	Development
406	561 BMP	Development
407	562 BMP	Development
408	563 BMP	Development
409	564 BMP	Development
410	565 BMP	Development
411	566 BMP	Development
412	567 BMP	Development
413	568 BMP	Development
414	569 BMP	West Nile Virus
415	570 BMP	West Nile Virus
416	571 BMP	Development
417	572 BMP	Development
418	573 BMP	Development
419	574 BMP	Development
420	575 BMP	Development
421	576 BMP	Development
422	577 BMP	Development
424	579 BMP	Reclamation
424	BMP	Reclamation
425	580 BMP	Reclamation
426	581 BMP	Reclamation
427	582 BMP	Reclamation
428	583 BMP	Reclamation
464	619 BMP	Development
469	624 BMP	Development
480	635 BMP	Fuels
481	636 BMP	Fuels
482	637 BMP	Fuels
483	638 BMP	Fuels
484	639 BMP	Fuels

485	640 BMP	Fuels
486	641 BMP	Fuels
487	642 BMP	Fuels
488	643 BMP	Fuels
489	644 BMP	Fuels
490	645 BMP	Fuels
491	646 BMP	Fuels
492	647 BMP	Fuels
493	648 BMP	Fuels
494	649 BMP	Fuels
496	651 BMP	Suppression
497	652 BMP	Suppression
498	653 BMP	Suppression
499	654 BMP	Suppression
500	655 BMP	Suppression
501	656 BMP	Suppression
502	657 BMP	Suppression
503	BMP	Development
503	658 BMP	Suppression
504	659 BMP	Suppression
505	660 BMP	Suppression
506	661 BMP	Suppression
507	662 BMP	Roads
508	663 BMP	Roads
509	664 BMP	Development
510	665 BMP	Development
511	666 BMP	Development
512	667 BMP	Development
513	668 BMP	Development
514	669 BMP	Development
515	670 BMP	Development
516	671 Exemption Process	





Current DFO RMP - ap	Action: No	No Action	Action: No Sim	Removal/r	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Site new at	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	Guy wires \	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Design stru	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	New power	New power	Same as	medial areas.	
Current RMP Pg 64, A	Action: No	No Action	Action: No Sim	Adhere to	Same as Pr	Same as pr	priority areas	
Same as SR	Action: No	No Action	Action: No Sim	Linear ROV	Same as Pr	Same as pr	See Fire M	
				New corridors/	facilities	New transmission corridors, ROWs fo		
Action: No	Similar Act	Action: Ma	No Action	Action: New co	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ev	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Wf	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Planning D	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Ma	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Wf	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Acquisition Criteria - A	Action: Re	No Action	All public lands	Retain pub	Same as pr	Same as pr	priority areas	
				Action: Lands currently identified for retentio				
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
				Action: BLM and FS will strive to acquire important private la				
Action: No	Similar Act	Action: Wf	No Action	Action: Acquisi	Action: No	Action: No	Action: No	Similar Acti
Current RMP - Withdr	Action: Prc	No Action	Action: Same a	Action: No	Key Decisio	Action: No	Similar Acti	
Same as N.	Same as N.	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
				Action: Existing designated corridors in BLM ACECs and FS Sp				
Current RMP - Acquis	Action: No	No Action	Action: ROWs v	Action: No	Key Decisio	Action: No	Similar Acti	
Land Ownership Adjus	Action: No	No Action	No action.	Key Decisio	Same as Pr	Same as pr	priority areas	
Appendix X pg 213 Is	Action: No	No Action	Action: No Sim	Solar and v	Action: Wi	Action: Lands shall be		
Same as sub -region	Action: No	No Action	Action: No simi	Action: Pro	Same as Pr	Same as pr	priority areas	
2. Use the 0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti	
4. Restrict 0	Action: No	No Action	Action: Industr	Action: No	Action: No	Action: No	Similar Acti	
Appendix X. pg 208 Is	Action: Pri	No Action	Action: Same a	Action: Pri	Same as Pr	Same as pr	priority areas	
See above	Action: Inc	No Action	Action: Same a	Action: De	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: No	No Action	Action: Compo	Action: No	Action: No	Action: No	Similar Acti
Rangeland Veg pg. 51	Action: Re	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	priority areas	
Same as NA - See resp	Action: De	No Action	Action: Same a	Action: Im	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: Co	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Re	No Action	Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Action: In	f	No Action	Action: Same a	Action: No	Action: San	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti
Livestock	Same as N.	Action: No	No Action	Action: No Sim	Action: Uti	Same as Pr	Same as pr	priority areas
				Use strateg	Same as Pr	Same as pr	priority areas	
				Strategicall	Same as Pr	Same as pr	priority areas	

				Same as Priority	
Appendix X pg.208	CO NOXIOUS \ DFO has a	Action: No Action	No Action	No action.	Action: Pro areas. Same as priority areas
See above 0	Same as NA - under cu	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Appendix E pg. 118	M WILDLIFE i DFO is also	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No similar action.	
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Uti Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Objective: No Action	No Action	Objective: No s	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: Int	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
DFO ROD/RMP pg. 28	DFO ROD/ All prescri	Action: No Action	No Action	Action: No Sim	GOAL: In p Same as Pr Same as pr Utilize simi
Action: No	Similar Act	Action: No Action	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No	Action: Ma Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: Lands v	Action: Suppress wildland fires in sage-grouse
Action: No	Similar Act	Action: No Action	No Action	Action: Any fue	Action: No No similar ; Action: No Similar Acti
Action: No	Similar Act	Action: De	No Action	Action: Same a	Action: No No similar ; Action: No Implement
Appendix X pg.208	C	Action: Du	No Action	Action: Same a	Action: Dur Same as pr Same as priority areas
Action: No	Similar Act	Action: In	Action: In g	Action: Same a	Same as Al Same as Pr Action: In general sage
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
Same NTT.		Action: Fol	No Action	Action: Same a	Action: No See BMPs Action: No Similar Acti
DFO RMP p All project		Action: No Action	No Action	Action: No Sim	Delineate c Same as Pr Same as Priority Areas
Same as SR		Action: Pri	No Action	Action: Same a	Same as Al Same as Pr Same as priority areas
Fuels and F	Same as N.	Action: De	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Same as SF	Climate ch	Action: Co	No Action	Action: Same a	Action: To ; Same as Pr Same as priority areas
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: Mowing	Action: No Action: No Action: No Similar Acti
Same as N.	0	Action: No Action	No Action	Action: No Sim	Ensure fire Same as Pr Same as pr Revised sc
Same as N.	0	Action: No Action	No Action	Action: No Sim	Use knowle Same as Pr Same as pr Revised sc
Same as NA/SR - from		Action: No Action	No Action	Action: No Sim	Where app Same as Pr Same as pr Revised sli

Proposed RMP/Final E	Action: Clo	No Action	Action: Same a	Action: Lan	Action: Lan	Action: Lands	Lands are avail
Same as N. Appendix E	Action: For	No Action	Action: Same a	Action: For	Action: For	Action: For	existing un
Proposed F Appendix E	§ Action: I	No Action	Action: Same a	Lands woul	Same as Pr	Same as pr	priority areas
Action: No Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Proposed F This was cr	Action: No	No Action	No action.	Require ne	Require ne	Require ne	new 3809 not
Salable Mil also Apper	Action: Clo	No Action	Action: Same a	No new au	No new au	No new au	authorizations
Same as NA - Covered	Action: In	No Action	Action: Same a	Action: Res	Same as Pr	Same as pr	priority areas
Same as SR for PPH ar	Action: No	No Action	Action: No Sim	Reclamatio	Same as Pr	Same as pr	priority areas
Pg. 45 Acti No Lease v	Action (Alt	No Action	Action: No new	Action: Lar	Same as pr	Same as pr	priority areas
RMP Final DFO curre	Action (Alt	No Action	Action: Same a	Action: All	Action: Allc	Action: Allow	geophys
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SFO	1. Action: I	No Action	Action: Same a	Not Applic	Action: Cor	Not Applic	- no ex
Same as SFO	o Action: No	Action	Action: Same as	Alternative B.			
				Action: Wh	Action: Wh	Same as	Medial Areas.
Stipulation Need to up	Conservati	No Action	Timing avoidan	Covered in	Covered in	Covered in	Action # 20
Same as SFO	Conservati	No Action	Conservation M	Conservati	Same as Pr	Same as pr	priority areas
Same as SR	Conservati	No Action	Conservation M	Conservati	Same as Pr	Action: No	Similar Acti
Same as SFO	Conservati	No Action	Conservation M	Same as Al	Same as pr	Same as pr	priority areas
Action: No Similar Act	Conservati	No Action	Conservation M	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Action: No Similar Act	Action: No	No Action	Action: Agencie	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: Include	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: No wait	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Objective: No	Action	Objective: Any	Action: No	Action: No	Action: No	Similar Acti
DFO ROD/RMP pg. 44	Action: Wf	No Action	Action: Same a	Action: Wh	Action: Wh	Action: Where the fed	
Same as SR	Action: Wf	No Action	Action: Same a	Where the	Where the	Recommend to the mi	
RMP pg. 60 Same as N.	Action: In	No Action	Action: Same a	Action: Lir	Same as Pr	Same as pr	Incorporat
Action: No Similar Act	Action: No	No Action	Action: Same a	Action: No	No similar	Action: No	Needs to fo
Pg. 61 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Tr	Same as Pr	Same as pr	Is this the s
Same as N. Same as N.	Action: Co	No Action	Action: Same a	Action: Pri	Action: Co	Same as pr	priority areas
Pg. 59 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Cor	Same as Pr	Same as pr	Combined
Action: No Similar Act	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Repeat of :
Appendix X Is this a Re	Action: In	No Action	Action: Same a	Action: Pric	Action: Pric	Action: Pric	Changed ic
Same as al Is this a Re	Action: Wf	No Action	Action: Same a	Action: Wf	Same as Pr	Same as pr	Use definit
Same as SFO Is this a Re	Action: No	No Action	No action.	Schedule r	Same as Pr	Same as pr	Added an a
Not really : SRP in sag	Action: On	No Action	Action: Same a	Action: SRI	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 215 R	Action: No	No Action	Action: Same a	Designate	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 214 R	Action: No	No Action	No action.	Incorporat	Same as Pr	Same as pr	Keep Idahc
fine restrictions - BMPs?							
Appendix X Same as N.	Action: No	No Action	Action: No Sim	Recreation	Same as Pr	Same as pr	No similar
Same as SFO Most of ou	Action: No	No Action	Action: No Sim	Limit snow	Same as Pr	Same as pr	Added an a
Action: No Similar Act	Action: No	No Action	Action: No Sim	Action: No Repeat	Action: No	Similar Acti	





Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
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Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
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Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	Do not incl	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	carry forwa	
Not applica	0	Action: Wi	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: For	No Action	Action: Same a	Action: Wl	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Co	No Action	Action: Same a	Utilize inte	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Wl	No Action	Action: Same a	Refer to liv	Refer to liv	Refer to liv	Recommen
N/A - NO V	0	Action: No	No Action	Action: No Sim	Do not exp	Action: An	Action: No	Similar Acti
Action: No	Similar Act	Action: No No Action	Action: Large A	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
Appendix >	0	Increase tl	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Build steep	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Maintain tl	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Construct r	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Line the ch	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Line the ov	No Action	Action: No	Similar Action		Have repla	
Action: No	0	Fence pon	No Action	Action: No	Similar Action		NTT Recon	
Action: No	0	BMP Sectic	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE (pe
Action: No	0	Roads - PP	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - 3
Action: No	0	Design roa	Design roa	Action: No Sim	Design roa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate roa	No Action	Action: No Sim	Constructio	Same as Pr	Same as pr	priority areas
Action: No	0	Coordinate	Coordinate	Action: No Sim	Coordinate	Same as Pr	Same as pr	NTT Recon
Action: No	0	Construct i	Construct i	Action: No Sim	Construct r	Same as Pr	Same as pr	NTT Recon

Action: No	0	Establish s	Establish s	Action: No Sim	Establish s	Same as Pr	Same as pr	NTT Recon
Action: No	0	Establish t	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - To
Action: No	0	Do not issu	Do not issu	Action: No Sim	Action: No	Action: No	Action: No	DELETE - D
Action: No	0	Restrict ve	No Action	Action: No Sim	Restrict vel	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use dust a	Use dust al	Action: No Sim	Use dust al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Close and i	No Action	Action: No Sim	Close and r	Same as pr	Same as pr	NTT Recon
Action: No	0	Cluster dis	Cluster dis	Action: No Sim	Cluster dist	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use directi	Use directi	Action: No Sim	Use directi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place infra	No Action	Action: No Sim	Place infra	Same as Pr	Same as pr	NTT Recon
Action: No	0	Apply a ph	No Action	Action: No Sim	Apply a ph	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place liquic	No Action	Action: No Sim	Place liquic	Same as Pr	No Similar	NTT Recon
Action: No	0	Pipelines n	No Action	Action: No Sim	Consider pl	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use remot	Use remot	Action: No Sim	Develop a j	Same as Pr	Same as pr	NTT Recon
Action: No	0	Restrict th	Restrict th	Action: No Sim	Restrict th	Same as Pr	Same as pr	NTT Recon
Action: No	0	Site and/o	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Li
Action: No	0	Place new	No Action	Action: No Sim	Place new i	Same as Pr	Same as pr	NTT Recon
Action: No	0	Bury distri	No Action	Action: No Sim	Where phy	Where phy	Where phy	NTT Recon
Action: No	0	Collocate	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Design or s	No Action	Action: No Sim	Design or s	Same as Pr	Same as pr	NTT Recon
Action: No	0	Cover (e.g.	Cover (e.g.	Action: No Sim	Cover (e.g.,	Same as Pr	Same as pr	NTT Recon
Action: No	0	Equip tank	Equip tank	Action: No Sim	Equip tank	Same as Pr	Same as pr	NTT Recon
Action: No	0	Control th	Control th	Action: No Sim	Control the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use only cl	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Ir
Action: No	0	Restrict pit	Restrict pit	Action: No Sim	Restrict pit	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove or	No Action	Action: No Sim	Remove or	Same as Pr	Same as pr	NTT Recon
Action: No	0	Limit noise	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Require no	No Action	Action: No Sim	Require no	Same as Pr	Same as pr	NTT Recon
Action: No	0	Fit transmi	No Action	Action: No Sim	Fit transmi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Require sa	No Action	Action: No Sim	Require sa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate nev	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Clean up r	Clean up r	Action: No Sim	Clean up re	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate ma	No Action	Action: No Sim	Locate tem	Same as Pr	No Similar	NTT Recon
Action: No	0	Include ob	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
		Address post reclamation managemen			Same as Alternative B.			Same as priority areas
Action: No	0	Maximize t	No Action	Action: No Sim	When road	Same as pr	Same as pr	NTT Recon
Action: No	0	Restore di	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Irrigate int	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Utilize mul	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Bury powe	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
Action: No	0	Require sa	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
Action: No	0	Where app	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Provide tra	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Use fire pr	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Ensure pro	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
Action: No	0	Where app	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land

Action: No	0	Where app	No Action	Action: No Sim	Where app	Where app	Where app	NTT Recon
Action: No	0	Power-wa	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Design veg	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Give priori	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	As funding	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Emphasize	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Protect wil	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Reduce the	No Action	Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Strategical	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"
Action: No	0	Develop st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Provide loc	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Assign a sa	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	On critical	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	During per	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	To the ext	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Power-wa	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
					Minimize u	Same as Pr	Same as pr	priority areas
Action: No	0	Minimize u	No Action	Action: No Sim	Minimize u	Same as Pr	Same as pr	NTT Recon
Action: No	0	Minimize t	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Utilize reta	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	As safety a	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Action: No	No Action	Action: No Sim	Utilize exis	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Construct r	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Micro-site	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Locate stag	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - W
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Wind ener	Wind ener	Same as M	Used Gove
Action: No	Similar Act	Action: No	No Action	Action: No Sim	General pr	Same as Pr	Same as pr	This is the

Alternative E - Idaho - Common to All Areas	Alternative E - Idaho - Core Areas	Alternative E - Idaho - Important Areas	Alternative E - Idaho - General Areas	Alternative E - Idaho - Governor's Alternative Reference	Alternative E - Montana Areas	Alternative E - Utah Areas	Alternative F - Priority Areas	Alternative F - General Areas	Alternative F - Restoration Areas
Continuous Maintenance	Action: No	Action: No	Action: No	p. 45, pp. 1	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Conserve or enhance or restore general habitat areas to improve habitat condition and cover	Action: No	Action: No	Action: No	p. 46, pp. 2	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Focus on Activities	Action: No	Action: No	Action: No	p. 1, pp. 1, Same as Alternative A	GOAL: Maintain	GOAL: Maintain	GOAL: Maintain	Objective: No similar objective.	
Action: No Sub-objective	Action: No	Action: No	Action: No	p. 25, pp. 4	Same as Alternative A	Action: No	Similar Action	Objective: Design	Objective: Design
Action: No Conservation	Action: No	Action: No	Action: No	p. 1, pp. 3, Same as Alternative A	Priority.	Action: No	Similar Action	Objective: No similar objective.	
Action: No Conservation	Action: No	Action: No	Action: No	p. 3, pp. 1, Same as Alternative A	on	Action: No	Similar Action	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	Sub-objective: No similar sub-objective		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	minimize risk of West Nile Virus or other diseases.		
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	on	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 3, Same as Alternative A	Action: No	Similar Action	Objective 2	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 4, Same as Alternative A	Action: No	Similar Action	Objective 2	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 5, Same as Alternative A	Action: No	Similar Action	Delineate 3	Objective: Restore and maintain 3	
Action: No Conservation	Action: No	Action: No	Action: No	Similar Act Same as Alternative A	Action: No	Similar Action	on	Objective: Establish a system of 3	
Analyze impacts	Action: No	Action: No	Action: No	Similar Act Same as Alternative A	Action: No	Similar Action	The Conservation		
The Conservation	Action: No	Action: No	Action: No	p. 5, pp. 5, Same as Alternative A	Action: No	Similar Action	CHZ and IHZ		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	CHZ included		
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 5	Same as Alternative A	Action: No	The CHZ or The IHZ or The GHZ or		
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 6	Same as Alternative A	Action: No	Prioritize 6		
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 7	Same as Alternative A	Action: No	Areas desired		
Action: No Conservation	Action: No	Action: No	Action: No	p. 25, pp. 2	Same as Alternative A	Action: No	Depending on		
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 1	Same as Alternative A	Action: No	Designate 6		
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 2	Same as Alternative A	Action: No	Classify the 6		
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 3	Same as Alternative A	Action: No	Establish the 6		
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 4	Same as Alternative A	Action: No	Maintain, the 6		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	Wildfire or		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	Sage-grouse		
The Conservation	Action: No	Action: No	Action: No	p. 6, pp. 2, Same as Alternative A	Action: No	Similar Action			





Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In sage-grouse habitat, er  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Actively m Actively m Aggressive p. 26, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Control in Control co Action: No p. 32, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Emphasize Emphasize Action: No p. 32, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Reallocate Reallocate Action: No p. 32, pp. 4 Same as Alternative A Objective: Develop and implement  
Action: No Where the Where the Action: No p. 32, pp. 4 Same as Alternative A No action.  
Action: No Action: No Require be Action: No p. 39, pp. 4 Same as Alternative A

on Action: No Similar Action  
Action: No Action: No Eradicate c Eradicate c p. 39, pp. 5 Same as Alternative A No action.  
Action: No Action: No Monitor w Monitor w p. 39, pp. 6 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Design and implement fu

Action: No Reduce the Reduce the Reduce the p. 31, pp. 6 Same as Alternative A  
Action: No Prioritize p Prioritize p Emphasize p. 26, p. 1; Same as Alternative A Action: No similar action.  
Action: No Decrease v Decrease v Action: No p. 31, pp. 8 Same as Alternative A Action: No similar action.  
ation level objectives. Action: No similar action. (WEG)''

Action: No Develop a Develop a Action: No p. 32, pp. 1 Same as Alternative A  
Action: No Action: No Create and Create and p. 38, pp. 5 Same as Alternative A Action: No similar action. (WEG)''  
Action: No Action: No Prescribe c Prescribe c p. 38, pp. 1 Same as Alternative A  
e-grouse habitat, prioritize suppression of sage-grouse and threatened and enc Action: Same as Alternative B. (W  
Action: No Action: No Coordinate Action: No p. 38, pp. 1 Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Develop m Action: No p. 28, pp. 3 Same as Alternative A

on Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Same as Alternative B.

Action: No Prioritize fi Action: No Action: No p. 3, pp. 2, Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Establish and strengthen  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Post fire recovery must in  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Livestock grazing should b  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Where burned sage-grouse  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Upon expiration or termin  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Oil and gas Oil and gas Action: No p. 34, pp. 3 Same as Alternative A 1. Action: Apply the following c  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Apply a s  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Sar Same a Priority Areas.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Prohibit new road constru  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B." "  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Limit route construction t  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B usi  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: When reseeding closed rc  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
o language. Hard to demonstrate neutral and beneficial impacts. Incorporates : Action: Same as Alternative B.  
Action: No Prioritize t Prioritize t Same as Al p. 34, pp. 5 Same as Alternative A  
o language - no similar actions in region. Action: Seasonally prohibit campi  
Action: No Restrict ve Restrict ve Same as Al p. 34, pp. 6 Same as Alternative A  
o language recommend incorporation across region. No action.  
Action: No Designate Designate Action: No p. 35, pp. 1 Same as Alternative A  
action across region. Action: No Similar Action  
Action: No Re-route e Re-route e Action: No p. 35, pp. 2 Same as Alternative A  
Action: No Reduce act Reduce act Action: No p. 35, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Prioritize t Prioritize t Action: No p. 26, pp. 4 Same as Alternative A Action: No Similar Action



Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action

Action: No Prioritize p Prioritize p Action: No p. 26, pp. 5 Same as Alternative A Action: Sar Action: Sar Action: Sar

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. “ “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Conduct ra Conduct ra Action: No p. 36, pp. 2 Same as Alternative A Action: No similar action.

Action: No Maintain e Maintain e Action: No p. 36, pp. 3 Same as Alternative A Action: Manage for vegetation co

Action: No Adjust graz Adjust graz Action: No p. 36, pp. 4 Same as Alternative A Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: During drought periods, p

Action: No Implement Implement Action: No p. 36, pp. 6 Same as Alternative A Action: Same as Alternative B.

nd dropping - this can be covered under riparian objectives/actions Same as Alternative B.

Consider g Action: No Action: No Action: No p. 12, pp. 6 Same as Alternative A

nd dropping Action: Same as Alternative B.

Consider a Altering gr Enhance gr Enhance gr p. 12, pp. 7 Same as Alternative A

nder 384 Action: No similar action.

Complete 1 Prioritize a Prioritize a Action: No p. p. 13, pp. Same as Alternative A

nd making an overarching statement regarding the priority of SG habitat relati Action: Authorize no new water c

Utilize a va Action: No Action: No Action: No p. 14, pp. 2 Same as Alternative A

anguage Action: Analyze springs, seeps and

Include me Action: No Action: No Action: No p. 14, pp. 5 Same as Alternative A

Inform anc Action: No Action: No Action: No p. 13, pp. 4 Same as Alternative A

er restoration section Action: Ensure that vegetation tre

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Evaluate the role of existi

Use sage-g Action: No Action: No Action: No p. 13, pp. 2 Same as Alternative A

nd modified wording Action: Avoid all new structural r

o wording Action: Same as Alternative B. (W

Maintain fl Action: No Action: No Action: No p. 13, pp. 3 Same as Alternative A

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: To reduce outright sage-g

Action: No Treat and r Treat and r Action: No p. 48, pp. 8 Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In each planning process,

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Encourage partners to

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Any vegetation treatment

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Avoid cons Avoid cons Action: No p. 48, pp. 2 Same as Alternative A Action: No Similar Action

Action: No Design nev Design nev Action: No p. 48, pp. 3 Same as Alternative A Action: No Similar Action

Action: No Install ram Install ram Action: No p. 48, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Place and c Place and c Action: No p. 48, pp. 5 Same as Alternative A Action: No Similar Action

Action: No Avoid insta Avoid insta Action: No p. 48, pp. 6 Same as Alternative A Action: No Similar Action

Action: No Establish s Establish s Action: No p. 48, pp. 7 Same as Alternative A Action: No Similar Action

Action: No Initiate veg Initiating v Action: No p. 48, pp. 9 Same as Alternative A Action: No Similar Action

Action: No Apply adaç Apply adaç Action: No p. 46, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Implement Implement Action: No p. 47, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Modify gra Action: No p. 47, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Graze exot Graze exot Action: No p. 47, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Modify aut Modify aut Action: No p. 47, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Maintain rı Maintain rı Action: No p. 47, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Inform per Inform per Action: No p. 47, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Manage gr Manage gr Action: No p. 47, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Same as Core Areas. Action: No p. 47, pp. 9 Same as Alternative A Action: No Similar Action  
Action: No Place salt ç Place salt ç Action: No p. 47, pp. 10 Same as Alternative A Action: No Similar Action  
Action: No Reduce thç Reduce thç Action: No p. 39, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Mark fenceç Mark fenceç Action: No p. 37, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Remove ur Remove ur Remove ur p. 37, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Consider ir Consider ir Action: No p. 37, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Construct ı Construct ı Action: No p. 37, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Place new, Place new, Action: No p. 37, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action. (WEG)  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
on Action: Designate Areas of Critical Action: No Construct ı Construct ı Action: No p. 35, pp. 8 Same as Alternative A  
Action: No Return waı Return waı Action: No p. 35, pp. 9 Same as Alternative A No action.  
Action: No Minimize ç Minimize ç Minimize t p. 35, pp. 3 Same as Alternative A No action.  
Action: No Permit anc Permit anc Permit anc p. 35, pp. 5 Same as Alternative A No action.  
Action: No Minimize t Minimize t Action: No p. 35, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Develop ar Develop ar Develop ar p. 35, pp. 7 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Evaluate ai Evaluate ai Action: No p. 44, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Limit surfa Limit surfa Action: No p. 44, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Apply no sı Apply no sı Action: No p. 44, pp. 9 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Limit activi Limit activi Action: No p. 44, pp. 10  
NTT Recommendation and Governor's BMP's have beer Same as Alternative A Same as Alternative B.  
Action: No Allow explı Allow explı Action: No p. 45, pp. 1 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Locate mai Locate mai Action: No p. 45, pp. 2 Same as Alternative A Same as Alternative B.





maintain and increase current sage-grouse abundance and distribution by conserving, enhancing or restoring

Designate Restoration sage-grouse habitat, based on its importance to sage-grouse and the likelihood of

effective.

effective.

effective.

effective.

effective.

sagebrush steppe to its ecological potential in occupied sage-grouse habitat.

sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.



cupied habitats. (WWP)

at areas shall be exclusion areas for new ROWs permits. Consider the following exceptions:" "Within de

EG)" "" "

EG)" "" "

EG)" "

thout exceptions for disposal to consolidate ownership that would be beneficial to sage-grouse.  
r connectivity of priority areas.

(EG)" "" "" "

ral proposals not associated with mineral activity unless the land management is consistent with sage-gr

development in priority sage-grouse habitat (Jones 2012). (WEG)

ment at least five miles from active sage-grouse leks. (WEG)

of restoration projects based on environmental variables that improve chances for project success in a  
at objectives parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State S

(EG)

(EG)

n/treatments to increase livestock or big game forage in priority habitat and include plans to restore hig

ensure that soil cover and native herbaceous plants are at their ESD potential to help protect against inva:

nt methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants. (WEG)

els treatments with an emphasis on protecting existing sagebrush ecosystems. “ “Do not reduce sagebr

“

“

(EG)” “

(EG)” “

(EG)

networks with seed growers to assure availability of native seed for ES&R projects. “ “

include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recc  
be excluded from burned areas until woody and herbaceous plants achieve sage-grouse habitat objectivi  
se habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) shou



(EG) “

(EG) “

(EG) “

(EG) “

(EG) “

ation of existing leases, do not accept nominations/expressions of interest for parcels within priority ha  
ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc

ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc  
conservation measures as Conditions of Approval at the project and well permitting stages, and through  
Alternative B. “ “

seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting a  
Alternative B. (WEG)

Alternative B.

Alternative B. (WEG)

Alternative B. (WEG)

Alternative B. (WEG)

(EG) “

(EG) “

action within 4 miles of active sage-grouse leks, and avoid new road construction in priority sage-grouse  
“ “

o realignments of existing designated routes if that realignment has a minimal impact on sage-grouse h  
ng a 4-mile buffer from leks to determine road route.

oads, primitive roads and trails, use appropriate native seed mixes and require consider the use of transp

ing and other non-motorized recreation within 4 miles of active sage-grouse leks. (WEG)

ne as Alternative B.

composition and structure consistent with ecological site potential and within the reference state to achieve  
prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their biological

developments for diversion from spring or seep sources only when within priority sage-grouse habitat with  
d associated water developments pipelines to determine if modifications are necessary to maintain the

treatments Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse  
seedlings that are currently composed of primarily introduced perennial grasses in and adjacent to priority

range developments in priority sage-grouse habitat unless independent peer-reviewed studies show that

(WEG) “

“ “

sage-grouse strikes and mortality, rRemove, modify or mark fences in high risk areas of moderate or high risk

“ “

identify grazing allotments where permanent retirement of grazing privileges would be potentially beneficial  
monitor effects of retiring grazing permits in sage-grouse habitat. (WEG)

the plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures

(WEG)

Environmental Concern (ACECs) (BLM) and Sagebrush Conservation Areas (SCAs) (USFS), respectively, :





ing the sagebrush ecosystem.

f successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005c), as degraded



esignated ROW corridors encumbered by existing ROW authorizations: new ROWs may be co-located on

ouse conservation measures. (For example,, in a proposed withdrawal for a military training range buffe

reas most likely to benefit sage-grouse (Meinke et al. 2009).” ““Prioritize restoration in seasonal habit:  
age Grouse Conservation plans and appropriate local information in habitat restoration projects objectiv

gh-quality habitat in areas with invasive species. (Audubon)



sive plants. In areas without ESDs, reference sites would be utilized to identify appropriate vegetation c

ush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management c

covery. (WEG)

es. (WEG)

ld be closed to grazing until recovered. (WEG)

abitat. (WEG)

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

i RMP implementation decisions and upon completion of the environmental record of review (43 CFR §

and brood-rearing season in all priority sage-grouse habitat during this period. This seasonal restriction s

habitat. (WEG)

abitat, eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any imj

planted sagebrush. (WEG)” “

ave sage-grouse habitat objectives.

ll needs for food and cover, as well as drought effects on ungrazed reference areas. Since there is a lag in

ould benefit from the development. This includes developing new water sources for livestock as part of  
continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modification

ouse. Only allow treatments that conserve, enhance, or restore sage-grouse habitat are demonstrated t  
riority sage-grouse habitat to determine if they should be restored to sagebrush or habitat of higher qua

: the range improvement structure benefits sage-grouse. Design any new structural range improvement:

of sage-grouse strikes within priority sage-grouse habitat based on proximity to lek, lek size, and topogr

eficial to sage-grouse. (WEG)

s, and include long-term monitoring where treated areas are monitored for at least three years before g

as sagebrush reserves to conserve sage-grouse and other sagebrush-dependent species. (WEG).





or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if





ly if the entire footprint of the proposed project (including construction and staging), can be completed

er area, manage the buffer area with sage-grouse conservation measures that have been demonstrated

ats that are thought to be limiting sage-grouse distribution and/or abundance and where factors causing  
res. Make meeting these objectives within priority sage-grouse habitat the highest restoration priority. (

ommunities and soil cover.

objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-ξ

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r  
3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, amon;

hall also to apply to related activities that are disruptive to sage-grouse, including vehicle traffic and oth

pacts with methods that have been demonstrated to be effective to offset the loss of sage-grouse habit;

vegetation recovery following drought (Thurow and Taylor 1999; Cagney et al. 2010), ensure that post

an AMP/conservation plan to improve sage-grouse habitat. (WEG)

s where necessary, including dismantling water developments considering impacts to other water uses

o benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat object  
lity for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in c

s and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habi

aphy (Christiansen 2009; Stevens 2011). (WEG)

grazing returns. Continue monitoring for” “five years after livestock are returned to the area, and compa







restored to its potential natural community.





within the existing disturbance associated with the authorized ROWs.” “Subject to valid, existing rights:

to be effective.) (WEG)

3 degradation have already been addressed (e.g., changes in livestock management). (WEG)” “  
WEG)

grouse habitat and conserve habitat quality for the species. “Closely evaluate the benefits of the fuel t

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br  
g other things.” “Whether the conservation measure is “reasonable” (43 CFR § 3101.1-2) with the valid

er human presence. (WEG)

at. (WEG)

-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-gro

when such considerations are neutral or beneficial to sage-grouse. (WEG)

ives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve saq  
onserving or enhancing the rest of the priority sage-grouse habitats, then no restoration would be nece:

tat through an improved grazing management system relative to sage-grouse objectives. Structural rang

ire to treated, ungrazed exclosures, as well as untreated areas. (WEG)













where new ROWs associated with valid existing rights are required, co-locate new ROWs within existing

break against the additional loss of sagebrush cover in the EA process. “ “Apply appropriate seasonal res

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)” ““

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)  
existing rights; and” “Whether the action is in conformance with the approved RMP. (WEG)

use habitat areas based on sage-grouse habitat objectives. (WEG)

sage-grouse habitat). (WEG)

ssary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing

sage improvements developments, in this context, include but are not limited to cattleguards, fences, excl













3 ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as describe

trictions for implementing fuels management treatments according to the type of seasonal habitats pre

“SUB-ALTERNATIVE:” “Action: No new geophysical exploration permits will be issued. “ “ “ “

system during the land health assessments (Davies et al. 2011). (WEG)” “

osures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including movea













d above, to access valid existing rights that are not yet developed. If valid existing rights cannot be acces

sent in a priority area.” “Allow no fuels treatments in known winter range unless the treatments are de:



ible tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developr













used via existing roads, then build any new road constructed to the absolute minimum standard necessa

signed to strategically reduce wildfire risk around or in the winter range and will maintain winter range f





ments. Potential for invasive species establishment or increase following construction must be considered.











ry, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exce

habitat quality. “Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyom





ed in the project planning process and monitored and treated post-construction. Consider the comparat











reduces 3% for that area, then make additional effective mitigation



ing big sagebrush or other xeric sagebrush species; Conn



ive cost of changing grazing management instead of constructing additi

GOA Number for Draft EIS	GOA Program	New GOA 1/28/2013	GOA 11/6/2012	Program Area
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		1	5	5 Common to All Alternatives
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		2	98	120 Common to All Alternatives
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		3	22	20 Common to All Alternatives
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		4	8	8 Common to All Alternatives
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IDMT-GO-1		5	6	6 Goal
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		6	11	Goal
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		7	15	13 Objective
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		8	20	18 Objective
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		9	21	19 Objective
--	--	---	----	--------------

		10	7	Priority Setting
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		11	26	24 Priority Setting
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12      62      61 Valid Existing Authorizations

13      63      62 Valid Existing Authorizations

14      64      63 Valid Existing Authorizations

15      65      64 Valid Existing Authorizations

16      66      65 Valid Existing Authorizations

17      7      7 Designation of Habitat

18      9      9 Designation of Habitat

19      43      42 Designation of Habitat

20      23      21 Designation of Habitat

21      25      23 Designation of Habitat

22      27      25 Designation of Habitat

23      28      26 Designation of Habitat

24 30 28 Designation of Habitat

25 31 29 Designation of Habitat

26 32 30 Designation of Habitat

27 36 34 Designation of Habitat

28 37 35 Designation of Habitat

29 24 22 Designation of Habitat

30	69	68 Designation of Habitat
31	34	32 Designation of Habitat
32	35	33 Designation of Habitat
33	61	60 Designation of Habitat
34	42	41 Designation of Habitat
35	13	Designation of Habitat
36	21	Designation of Habitat
37	33	31 Designation of Habitat
38	38	36 Designation of Habitat



39	39	37 Designation of Habitat
40	17	15 Designation of Habitat
41	11	10 Desired Conditions

42	44	43 Desired Conditions
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43	45	44 Desired Conditions
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44	17	Desired Conditions
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45	288	Desired Conditions
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46	284	Coordination
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47	332	447 Coordination
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48	182	257 Suppression
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49	183	258 Suppression
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50	184	259 Suppression
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51	155	Suppression
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52	159	Suppression
53	164	232 Suppression
54	165	233 Suppression
55	172	240 Suppression
56	173	Suppression

57	40	39 Suppression
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58	133	176 Suppression
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59	156	224 Suppression
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60	157	225 Suppression
61	162	230 Suppression
62	168	236 Suppression
64	496	651 BMP
65	497	652 BMP
66	498	653 BMP
67	499	654 BMP
68	500	655 BMP
69	501	656 BMP
70	502	657 BMP
71	503	658 BMP
72	504	659 BMP
73	505	660 BMP
74	506	661 BMP
75	155	223 Fuels
76	159	227 Fuels

77	160	228 Fuels
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78	163	231 Fuels
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79	181	256 Fuels
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80	299	414 Fuels
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81	301	416 Fuels
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82	90	98 Fuels
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83	133	Fuels
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84	133	Fuels
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85	152	220 Fuels
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86	162	Fuels
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87	168	Fuels
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88	480	635 BMP
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89	481	636 BMP
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90	482	637 BMP
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91	483	638 BMP
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92	484	639 BMP
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93	485	640 BMP
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94	486	641 BMP
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95	487	642 BMP
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96	488	643 BMP
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97	489	644 BMP
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98	490	645 BMP
99	491	646 BMP
100	492	647 BMP
101	493	648 BMP
102	494	649 BMP
103	135	178 Vegetation
104	134	177 Invasive Species
105	139	182 Invasive Species
106	140	183 Invasive Species
107	144	187 Invasive Species
108	145	188 Invasive Species
109	292	407 Invasive Species
110	288	Invasive Species
111	115	151 Restoration

112	116	152 Restoration
113	117	153 Restoration
114	118	156 Restoration
115	119	162 Restoration
116	120	163 Restoration
117	121	164 Restoration
118	122	165 Restoration
119	123	166 Restoration
120	125	168 Restoration
121	126	169 Restoration
122	129	172 Restoration
123	136	179 Restoration
124	137	180 Restoration

125	141	184 Restoration
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126	142	185 Restoration
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127	143	186 Restoration
128	173	246 Restoration
129	174	249 Restoration
130	175	250 Restoration
131	177	252 Restoration
132	178	253 Restoration
133	179	254 Restoration
134	180	255 Restoration
135	285	400 Restoration
136	300	415 Restoration

137	325	440 Restoration
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138	135	Restoration
139	155	Restoration
140	284	399 Restoration
141	424	579 BMP
142	424	BMP
143	425	580 BMP
144	426	581 BMP
145	427	582 BMP
146	428	583 BMP
147	144	BMP
148	261	376 Livestock Grazing
149	262	377 Livestock Grazing
150	263	378 Livestock Grazing
151	264	379 Livestock Grazing
152	269	384 Livestock Grazing
153	293	408 Livestock Grazing
154	294	409 Livestock Grazing
155	323	438 Livestock Grazing
156	327	442 Livestock Grazing
157	328	443 Livestock Grazing

158 329 444 Livestock Grazing

159 330 445 Livestock Grazing

160 331 446 Livestock Grazing

161 334 449 Livestock Grazing

162 270 385 Livestock Grazing

163 334 Livestock Grazing

164 267 382 Livestock Grazing

165 268 383 Livestock Grazing



166	271	386 Livestock Grazing
167	273	388 Livestock Grazing
168	274	389 Livestock Grazing
169	278	393 Livestock Grazing

170	333	448 Livestock Grazing
171	300	Livestock Grazing
172	298	413 Livestock Grazing
173	260	374 Livestock Grazing

174	273	Livestock Grazing
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175	274	Livestock Grazing
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176	278	Livestock Grazing
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177 280 Livestock Grazing

178 281 Livestock Grazing

179 289 Livestock Grazing  
180 218 328 Habitat Fragmentation

181 99 121 Habitat Fragmentation  
182 95 117 Habitat Fragmentation

183	96	118 Habitat Fragmentation
184	18	16 Habitat Fragmentation

185	102	124 Habitat Fragmentation
186	14	12 Habitat Fragmentation

187	16	14 Habitat Fragmentation
188	97	119 Habitat Fragmentation
189	103	125 Habitat Fragmentation
190	79	79 Habitat Fragmentation
191	80	80 Habitat Fragmentation
192	82	82 Habitat Fragmentation
193	83	83 Habitat Fragmentation
194	84	87 Habitat Fragmentation
195	85	89 Habitat Fragmentation
196	88	94 Habitat Fragmentation

197	91	99 Habitat Fragmentation
198	92	101 Habitat Fragmentation

199

93

102 Habitat Fragmentation

200

94

105 Habitat Fragmentation

201	47	46 Habitat Fragmentation
202	106	128 Habitat Fragmentation
203	105	127 Habitat Fragmentation
204	104	126 Habitat Fragmentation

205	100	122 Habitat Fragmentation
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206	101	123 Habitat Fragmentation
207	10	9.1 Habitat Fragmentation
208	12	11 Habitat Fragmentation

209	19	Habitat Fragmentation
210	97	Habitat Fragmentation

211	211	320 Leased Federal Fluid Mineral Est
212	212	322 Leased Federal Fluid Mineral Est
213	213	323 Leased Federal Fluid Mineral Est
214	215	325 Leased Federal Fluid Mineral Est
215	216	326 Leased Federal Fluid Mineral Est
216	217	327 Leased Federal Fluid Mineral Est
217	219	329 Leased Federal Fluid Mineral Est
218	220	330 Leased Federal Fluid Mineral Est
219	224	334 Leased Federal Fluid Mineral Est
220	225	335 Leased Federal Fluid Mineral Est
221	226	336 Leased Federal Fluid Mineral Est
222	195	283 Locatable Minerals
223	196	284 Locatable Minerals
224	199	287 Locatable Minerals
225	227	337 Mineral Split Estate
226	228	338 Mineral Split Estate
227	188	268 Non Energy Leasable Minerals
228	189	272 Non Energy Leasable Minerals
229	202	300 Saleable Minerals
230	203	301 Saleable Minerals
231	204	304 Saleable Minerals
232	205	307 Unleased Federal Fluid Mineral
233	206	308 Unleased Federal Fluid Mineral
234	208	312 Unleased Federal Fluid Mineral
235	209	313 Unleased Federal Fluid Mineral
236	212	Unleased Federal Fluid Mineral I
237	233	343 Travel Management
238	234	344 Travel Management
239	235	345 Travel Management
240	236	346 Travel Management
241	237	347 Travel Management
242	238	348 Travel Management
243	240	350 Travel Management
244	241	351 Travel Management
245	243	353 Travel Management

246	250	360 Travel Management
247	251	361 Travel Management
248	246	Travel Management
249	247	Travel Management
250	248	Travel Management
251	249	Travel Management
252	288	403 Livestock Grazing
253	288	Livestock Grazing
254	290	405 Livestock Grazing
255	291	406 Livestock Grazing
256	318	433 Livestock Grazing
257	335	450 Livestock Grazing
258	336	451 Livestock Grazing

259	337	452 Livestock Grazing
260	338	453 Livestock Grazing

261	339	454 Livestock Grazing
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262	340	455 Livestock Grazing
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263	341	456 Livestock Grazing
264	280	395 Livestock Grazing
265	281	396 Livestock Grazing
266	289	404 Livestock Grazing

267	319	434 Livestock Grazing
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268	320	435 Livestock Grazing
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269	321	436 Livestock Grazing
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270	322	437 Livestock Grazing
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271 386 BMP

272 387 BMP

273 388 BMP

274 390 BMP

275 391 BMP

276 397 552 BMP

277 398 553 BMP

278 399 554 BMP

279 400 555 BMP

280 401 556 BMP

281 402 557 BMP

282 404 559 BMP

283 405 560 BMP

284 406 561 BMP

285 407 562 BMP

286 408 563 BMP

287 409 564 BMP

288 410 565 BMP

289 411 566 BMP

290 412 567 BMP

291 413 568 BMP

292 416 571 BMP

293 417 572 BMP

294 418 573 BMP

295 419 574 BMP

296 420 575 BMP

297	421	576 BMP
298	422	577 BMP
299	464	619 BMP
300	469	624 BMP
301	503	BMP

302	509	664 BMP
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303	510	665 BMP
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304	511	666 BMP
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305	512	667 BMP
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306	513	668 BMP
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307	514	669 BMP
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308	515	670 BMP
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309	384	539 BMP
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310	385	540 BMP
311	95	BMP
312	386	541 BMP
313	387	542 BMP
314	388	543 BMP
315	389	544 BMP
316	390	545 BMP
317	391	546 BMP
318	392	547 BMP
319	393	548 BMP
320	394	549 BMP
321	395	550 BMP
322	403	558 BMP
323	507	662 BMP
324	508	663 BMP
325	516	671 Exemption Process
326	81	81 Human Disturbance
327	86	90 Human Disturbance
328	89	96 Human Disturbance
329	110	132 ACEC
330	91	ACEC
331	99	ACEC
332	102	ACEC
333	223	333 ACECs
334	356	471 ACECs
335	246	356 Recreation and Visitor Services
336	247	357 Recreation and Visitor Services
337	248	358 Recreation and Visitor Services
338	249	359 Recreation and Visitor Services
339	342	457 Wild Horses and Burros
340	344	459 Wild Horses and Burros
341	345	460 Wild Horses and Burros
342	346	461 Wild Horses and Burros

343	347	462 Wild Horses and Burros
344	355	470 Wild Horses and Burros
345	15	Disease
346	357	472 West Nile Virus
347	358	473 West Nile Virus
348	359	474 West Nile Virus
349	360	475 West Nile Virus
350	361	476 West Nile Virus
351	356	West Nile Virus
352	377	532 BMP
353	378	533 BMP
354	379	534 BMP
355	380	535 BMP
356	381	536 BMP
357	382	537 BMP
358	383	538 BMP
359	414	569 BMP
360	415	570 BMP
361	326	441 Adaptive Management

362 4 4 Adaptive Management

363 54 53 Adaptive Management

364 49 48 Adaptive Management

365 50 49 Adaptive Management

366 55 54 Adaptive Management

367 59 58 Adaptive Management

368 60 59 Adaptive Management

369 52 51 Adaptive Management

370	53	52 Adaptive Management
371	56	55 Adaptive Management
372	57	56 Adaptive Management
373	51	50 Adaptive Management
374	58	57 Adaptive Management
375	19	17 Adaptive Management
376	67	66 Mitigation
377	68	67 Mitigation
378	70	69 Mitigation

379	132	175 Monitoring
380	138	181 Monitoring

381	146	189 Monitoring
382	295	410 Monitoring
383	13	11.1 Monitoring

384	71	70 Monitoring
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385	72	71 Monitoring
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386	73	72 Monitoring
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387	74	73 Monitoring
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388	75	74 Monitoring
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389	76	75 Monitoring
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390	77	77 Monitoring
391	78	78 Monitoring
392	18	Monitoring
393	348	463 Implementation
394	48	47 Implementation
395	41	40 Implementation
396	46	45 Implementation
397	97	Implementation
398	87	92 Predation

Sub Topic	Threat	Indicator	Review Comments - Ralston	Alternative A - Dillon RMP	Alternative A - Montana Area Comments	Alternative B - Priority Areas	Alternative B - General Areas
Implementation	N/A	N/E		Action: No	0	Action: No	No Action
Implementation				Action: No	Similar Act	Action: No	No Action
Process	All	N/E		Action: No	0	Action: No	No Action
	N/A	N/E		Action: No	Similar Act	Action: No	No Action
SG Abundance and Distribution	All	Acres of Habitat & population		Same as SF	0	GOAL: Maintain	GOAL: Same
Distribution	All	Acres of Habitat		Same as SF	0	OBJECTIVE	No Action
Rehabilitation	All	Acres of Habitat		Action: No	Similar Act	Objective: No	Action
ACEC	All	N/E		Action: No	0	Objective: No	Action
Implementation							
Mapping	All	N/E		Action: No	0	Action: No	No Action

Foundational N/A Acres of Riç Action: No 0 Action: No No Action

Foundational N/A Acres of Rights Action: No 0 Action: No No Action

Foundational Minerals Acres of valid existing i Action: No 0 Action: No No Action

Foundational Minerals Acres of Mining Action: No 0 Action: No No Action

Valid Existing Rights All Acres of Va Action: No 0 Action: No No Action  
Designation of Habitat Human Dis: Acres of Habitat Same as No 0 Objective: No Action

Designation of Habitat All Acres of PPH/PGH maç Same as Su 0 Sub-object Sub-object

Indicators Action: No 0 Action: No No Action

Mapping All N/E Montana s 0 Priority saç General sa

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Mapping

All

N/E

Action: No 0

Action: No No Action

Populations

All

N/E

nothing to 0

Action: No No Action

Restoration	All	Acres Treat	Action: No 0	Action: No No Action
Threats	All	N/E	Action: No 0	Action: No No Action
Threats	All	N/E	Action: No 0	Action: No No Action
Trigger	All	Acres of Designation	Action: No 0	Action: No No Action
Uses	All		Action: No 0	Action: No No Action
	All	Acres of PPH/PGH map of pph by alternative		
Adaptive Management	All	N/E	Action: No 0	Action: No No Action
Adaptive Management	All	N/E	Action: No 0	Action: No No Action

Adaptive Management	All	N/E	Action: No	0	Action: No	No Action
Connectivity	All	Acres of H <sub>2</sub> May be dup	Action: No	0	Action: No	Sub-object
Desired Conditions	Wildfire, In	Acres of sagebrush hak	Same as SF	0	Sub-object	No Action

DFC	All	Acres of H <sub>2</sub> Need to inc	Action: No	0	Action: No	No Action
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DFC	All	Acres of H <sub>2</sub> Include Tak	Action: No	0	Action: No	No Action
-----	-----	-------------------------------------	------------	---	------------	-----------

Action: No	Similar Act	Action: No	No Action
Same as N.	0	Action: No	No Action
Same as N.	0	Action: No	No Action
Same as NA/SR - from		Action: No	No Action







	Appendix X pg.208	Action: Du No Action
	Action: No 0	Action: No No Action
	Same as N.0	Action: No No Action
	Same as SF Not really	Action: No No Action
	Same as SR	Action: No No Action
	DFO ROD/RMP pg. 28	Action: No No Action
	Action: No 0	Where app No Action
	Action: No 0	Provide tra No Action
	Action: No 0	Use fire pr No Action
	Action: No 0	Ensure pro No Action
	Action: No 0	Where app No Action
	Action: No 0	Where app No Action
	Action: No 0	Power-wa No Action
	Action: No 0	Design veg No Action
	Action: No 0	Give priori No Action
	Action: No 0	As funding No Action

Fuels  
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Fuels  
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Fuels  
Fuels  
Fuels  
Fuels



Incorporate	See above	Action: Inc	No Action
	Action: No Similar Act	Action: No	No Action
	Rangeland Veg pg. 51	Action: Re	No Action
	Same as NA - See resp	Action: De	No Action
	Action: No Similar Act	Action: Co	No Action
	Action: No Similar Act	Action: Re	No Action
	Action: No Similar Act	Action: Ma	No Action
	Same as SR	Action: In f	No Action
	Action: No 0	Action: No	No Action
	Action: No 0	Action: No	No Action
	Action: No 0	Action: No	No Action
	Same as NA - under cl	Action: No	No Action
	Appendix E pg. 118	Action: No	No Action
	Action: No Similar Act	Action: No	No Action
	Action: No Similar Act	Objective: No	Action
	Action: No Similar Act	Action: No	No Action
	Same as SR	Action: Pri	No Action
	Fuels and F Same as N	Action: De	No Action
	Same as SF Climate ch	Action: Co	No Action
	Action: No 0	Action: No	No Action
	Action: No 0	Action: No	No Action
	Action: No 0	Action: No	No Action
	Action: No 0	Action: No	No Action
	Pg 51 Actio Same as N	Action: Ev	No Action
	Pg 43 Lives Same as N	Action: No	No Action
	Action: No Similar Act	Action: No	No Action

Reclamation  
Reclamation  
Reclamation  
Reclamation  
Reclamation  
Reclamation

Invasive Species

Action: No Similar Act Action: In j No Action  
Action: No 0 Include ob No Action  
Address post reclamat  
Action: No 0 Maximize 1 No Action  
Action: No 0 Restore di No Action  
Action: No 0 Irrigate int No Action  
Action: No 0 Utilize mul No Action

Need SG M Livestock C No Concer Action: Wi No Action  
Define inte Answered Same as N Action: In j No Action  
Define mar Livestock C Same as N Action: Pri No Action  
Same as N, Currently k Action: In j No Action

Same as N. This is all c Action: Imj No Action  
pg. 42 Allo If warrant Action: Ma No Action  
Need to do Action: No Similar Act Planning d No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

Drought

Drought

Objectives

Objectives

	Action: No Similar Act	Action: No No Action
	Action: No Similar Act	Action: No No Action
	Action: No Similar Act	Action: No No Action
	Action: No Similar Act	Action: No No Action
	Pg. 42 Acti Same as N	Action: Du No Action
	Same as N	Action: De' No Action
	Same as N, addressed	Action: In ı No Action

Riparian  
Riparian  
Riparian  
Riparian

Riparian Wetland Veg	Action: Ma	No Action	
Riparian	Action: No Similar Act	Action: Wi	Same as Pr
Riparian	Action: No Similar Act	Action: Wf	Same as Pr
Riparian	Action: No Similar Act	Action: Wi	No Action
Riparian	Action: No Similar Act	Action: No	No Action
Sheep	how are occupied bighorn sheep	habitats described?	
Trailing	Same as N. This is anal	Action: No	No Action
	Action: No Similar Act	Action: No	No Action





Co-location Connectivity	Infrastructure miles of lines; footprint All Acres of H <sub>2</sub> May be sim	Action: No Action: No	Similar Act 0	Action: No Action: No	Action: WH Sub-object
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Corridors DFC Thresholds	Infrastructure Acres/miles of corridor Infrastructure Acres of H <sub>2</sub> Need to de	Current RMP - Acquis Same as SF0		Action: No Sub-object	No Action No Action
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Disturbances sagebrush Land Tenure Land Tenure Land Use Authorizations Land Use Authorizations Land Use Authorizations Land Use Authorizations Land Use Authorizations Land Use Authorizations Land Use Authorizations	Human Dis Urbanizatic acres retained; acres o Predation Acres IM Referen rationale fo rationale fo rationale fo Define lek Differences	Acres of H <sub>2</sub> Acres of H <sub>2</sub> Acres Same as Sub Regional Same as SF DFO PPH same as sub Current RMP Pg. 64 A Current DFO RMP - ap Same as #90 above fro Same as SR PPH and P	Action: No 0 Acquisition Criteria - A Land Ownership Adjust Same as SF NEED TO D DFO PPH same as sub Current RMP Pg. 64 A Current DFO RMP - ap Same as #90 above fro Same as SR PPH and P	OBJECTIVE Action: Re Action: No Action: No Action: No Action: No Action: No Action: No Action: No Action: No	No Action No Action No Action No Action No Action No Action No Action No Action No Action
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Land Use Authorizati Land Use Authorizati	Infrastructure Acres excluded, acres Infrastructure miles of lines buried	Action: No Action: No	Similar Act Similar Act	Action: Ma Action: Ev	No Action No Action
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Reclamation

Infrastructure miles of line reclaimed, Action: No Similar Act Action: W/ No Action

Relocation

Infrastructure miles of line relocated, Action: No Similar Act Planning D No Action

Resiliency	All	Acres of Ha	Action: No 0	Action: No No Action
siting	Infrastruct	acres avail:	2. Use the 0	Action: No No Action
unauthorized uses	infrastruct	acres	Same as sub -region	Action: No No Action
Wind Energy	Infrastruct	Acres avail:	Appendix X pg 213 Iss	Action: No No Action

Withdrawal	Mining	acres withc	Keep SR Di	Current RMP - Withdr	Action: Prc No Action
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Withdrawal	Mining	Acres closed/withdraw	Same as N.	Same as N.	Action: In ; No Action
	Infrastruct	Acres of PP Need to de	Same as N.	0	Action: No No Action
	Wildfire, In N/E		Same as N.	0	Action: No No Action

	Same as SF0	1. Action: I	No Action
	Same as SF0	o Action: No	Action
	Stipulation Need to up	Conservati	No Action
	Same as SF0	Conservati	No Action
	Same as SR	Conservati	No Action
	Same as SF0	Conservati	No Action
	Same as SR	Conservati	No Action
	Same as SR	Conservati	No Action
	Action: No Similar Act	Action: No	No Action
	Action: No Similar Act	Action: No	No Action
	Action: No Similar Act	Objective: No	Action
	Proposed f Appendix E §	Action: I	No Action
Include BM	Action: No Similar Act	Action: Ma	No Action
	Proposed f This was cc	Action: No	No Action
	DFO ROD/RMP pg. 44	Action: Wf	No Action
Reference f	Same as SR	Action: Wf	No Action
Identify kno	Proposed RMP/Final E	Action: Clo	No Action
What about	Same as N, Appendix E	Action: For	No Action
	Salable Mii also Apper	Action: Clo	No Action
	Same as NA - Covered	Action: In f	No Action
	Same as SR for PPH ar	Action: No	No Action
	Pg. 45 Acti No Lease v	Action (Alt	No Action
	RMP Final DFO curre	Action (Alt	No Action
	Action: No Similar Act	Action (Alt	No Action
	Action: No Similar Act	Action (Alt	No Action
Incorporate	RMP pg. 6( Same as N,	Action: In f	No Action
	Action: No Similar Act	Action: No	No Action
	Pg. 61 Acti Same as N,	Action: In f	No Action
Move to fir	Same as N, Same as N,	Action: Co	No Action
	Pg. 59 Acti Same as N,	Action: In f	No Action
	Action: No Similar Act	Action: In f	No Action
	Appendix > Is this a Re	Action: In f	No Action
	Same as at Is this a Re	Action: Wf	No Action
	Same as SF Is this a Re	Action: No	No Action

Estate

Same as SF Most of ou Action: No No Action

Action: No Similar Act Action: No No Action

Need to define restrictions - BMPs?

Improvements  
Improvements  
Improvements  
Improvements

Pg 69 Actio Same as N Action: In p No Action

Check buffe Pg 69 Actio These are ; Action: In p No Action  
Action: No Similar Act Action: To No Action

Improvements

Action: No Similar Act Action: No No Action

Improvements

Action: No Similar Act Action: No No Action

Improvements

Action: No Similar Act Action: No No Action

Improvements  
Improvements

Action: No Similar Act Action: No No Action  
Action: No Similar Act Action: No No Action

Improvements

Action: No Similar Act Action: No No Action

Improvements

Action: No Similar Act Action: No No Action

Improvements  
Water Development  
Water Development  
Water Development

Reference Pg 69, Acti Same as N Action: Au Same as Pr  
Pg 69 Actions 7, 8, 9, Action: An No Action  
Same as SF West Nile Action: Wf No Action

Water Development

Action: No Similar Act Action: No No Action

Water Development

Action: No Similar Act Action: No No Action

Water Development

Action: No Similar Act Action: No No Action

Water Development

Action: No Similar Act Action: No No Action



Development  
Development  
Development  
Development  
Development

Action: No 0  
Action: No 0  
Action: No 0  
Action: No 0

Clean up re Clean up re  
Locate ma No Action  
Bury powe No Action  
Require sa No Action

Development  
Development  
Development

Action: No 0  
Action: No 0  
Action: No 0

Action: No No Action  
Action: No No Action  
Action: No No Action

Development

Action: No 0

Action: No No Action

Development

Action: No 0

Action: No No Action

Development

Action: No Similar Act

Action: No No Action

Development

Action: No Similar Act

Action: No No Action

Development

Need to loc Action: No 0

BMP Sectir No Action



Development

Action: No 0

Roads - PP No Action

Development

Roads

Action: No 0

Design roa Design roa

Roads

Action: No 0

Locate roa No Action

Roads

Action: No 0

Coordinate Coordinate

Roads

Action: No 0

Construct i Construct i

Roads

Action: No 0

Establish s| Establish s|

Roads

Action: No 0

Establish t| No Action

Roads

Action: No 0

Do not issu Do not issu

Roads

Action: No 0

Restrict ve No Action

Roads

Action: No 0

Use dust a Use dust a

Roads

Action: No 0

Close and i No Action

Roads

Action: No 0

Use remot Use remot

Roads

Action: No 0

Action: No No Action

Roads

Action: No 0

Action: No No Action

Land Use Authorizations

Action: No Similar Act  
Same as Sub Regional

Action: No No Action

Land Use Authorizations

Apply to ne Same as SR PPH and P

Action: No No Action

Land Use Authorizations

What are tl Current RMP Pg 64, A

Action: No No Action

4. Restrict 0

Action: No No Action

Action: No Similar Act

Action: No No Action

Action: No Similar Act

Action: No No Action

Define nue Not really ; SRP in sag

Action: On No Action

What does Appendix X pp. 215 R

Action: No No Action

Need to de Appendix X pp. 214 R

Action: No No Action

Need to de Appendix X Same as N

Action: No No Action

Action: No Similar Act

Objective: No Action

Action: No Similar Act

Objective: No Action

Not applic: 0

Action: Wi No Action

N/A - NO VO

Action: For No Action

West Nile Virus

N/A - NO V0  
N/A - NO V0

Action: Co  
Action: No No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

Action: No Similar Act Action: No No Action

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

West Nile Virus

Appendix >0

Increase tr No Action

Action: No 0

Build steep No Action

Action: No 0

Maintain tl No Action

Action: No 0

Construct ( No Action

Action: No 0

Line the ch No Action

Action: No 0

Line the ov No Action

Action: No 0

Fence pon No Action

Action: No 0

Restrict pit Restrict pit

Action: No 0

Remove or No Action

tie in refer Action: No Similar Act Action: No No Action

Best Management Prac N/A N/E G - referen Action: No 0 Action: No No Action

Grazing Grazing Acres of Habitat Action: No 0 Action: No No Action

Process All N/E Governor - Action: No 0 Action: No No Action

Process All N/E Action: No 0 Action: No No Action

Process

All

Population

Action: No 0

Action: No No Action

Process

All

N/E

Action: No 0

Action: No No Action

Process

All

N/E

Action: No 0

Action: No No Action

Trigger

Wildfire

Acres of Habitat

Action: No 0

Action: No No Action

Trigger	Wildfire	Acres of Habitat	Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat	Action: No 0	Action: No No Action
Trigger	Wildfire	Acres of Habitat	Action: No 0	Action: No No Action
Wildfire	Wildfire	Acres of Habitat	Action: No 0	Action: No No Action
Wildfire	Wildfire All	Acres of Habitat N/E	Action: No 0 Action: No 0	Action: No No Action Action: No Sub-o
Process	Infrastruct	Acres/mile:	Action: No 0	Action: No No Action
Process	All	Acres of ha	Action: No 0	Action: No No Action
Restoration	All	Acres Treat	Action: No 0	Action: No No Action

				Livestock (WILDLIFE i	Same as N DFO is also	Action: No Action	No Action
group	N/A	N/E	Need to sp	Action: No Action: No Action: No	Similar Act Similar Act 0	Action: No No Similar No Sub-object	No Action No Action No Action
Process			Wildfire, In Acres of wi Reference	Action: No 0		Action: No No	No Action
Process	Grazing	Acres of thi		Action: No 0		Action: No No	No Action
Process	All		Outside BLI	Action: No 0		Action: No No	No Action
Process	Wildfire	Acres of tre		Action: No 0		Action: No No	No Action
Process	All	Acres		Action: No 0		Action: No No	No Action
Process	All	Population		Action: No 0		Action: No No	No Action

process	grazing	acres in DF	Action: No Similar Act	Action: No No Action
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Process	Grazing	Acres in DF incorporate	Action: No Similar Act	Action: No No Action
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			N/A - NO VO	Action: Wf No Action
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Adaptive Management All	N/E	mapping up	Action: No 0	Action: No No Action
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Process	All	N/E	Action: No 0	Action: No No Action
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Process	All	N/E	Action: No 0	Action: No No Action
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Land Use Authorizations		Differences	Same as #90 above fr	Action: No No Action
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Alternative C – Priority Areas	Alternati ve D - Priority Habitat Areas	Alternati ve D - Medial Habitat Areas	Alternati ve D - General Habitat Areas	Alternati ve D - Commen ts
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
GOAL: Same as	GOAL: Sam	GOAL: Sam	GOAL: Same as Altern	
Action: No Similar Action				
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti



Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim Objective: Sam	Action: No OBJECTIVE:	Action: No OBJECTIVE:	Action: No OBJECTIVE:	Similar Acti Conserve,
Designate all p	Sub-objecti	Sub-objecti	Sub-objective: Same a	
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Priority sag	Medial sag	General sage-grouse h	

Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti





Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	OBJECTIVE:	OBJECTIVE:	OBJECTIVE:	Same as P
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Ensure fire	Same as Pr	Same as pr	Revised sc
Action: No Sim	Use knowle	Same as Pr	Same as pr	Revised sc
Action: No Sim	Where app	Same as Pr	Same as pr	Revised sli

Action: Suppress wildland fires in sage-grouse

Action: No Similar Action: No Standard p Action: No Similar Acti  
Action: No Similar Action: No Standard p Action: No Similar Acti  
Action: No Similar Delineate c Same as Pr Same as Priority Areas

Action: No Similar Action: No Action: No Action: No Similar Acti  
Same as  
Priority

No action. Action: Pro areas. Same as priority areas

Action: Lands v Action: No No similar ; Action: No Similar Acti

Action: Any fue Action: No No similar ; Action: No Similar Acti  
Action: Same a Same as Al Same as Pr Action: In general sage  
Action: Same a Action: No See BMPs Action: No Similar Acti  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No DELETED - A  
Action: No Sim Minimize u Same as Pr Same as pr NTT Recon  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: No Sim Action: No Action: No Action: No NA to Lanc  
Action: Same a Action: Des Same as Pr Same as priority areas.  
Action: Same a Action: No No similar ; Action: No Implement

Action: Same a	Action: Dur	Same as pr	Same as priority areas	
Action: Mowing; No action.” “ No action.	Action: No Where opp Grazing to	Action: No Same as Pr	Action: No Same as Pr	Similar Acti HAVE FUEL HAVE FUEL
Action: No Sim	Linear ROV Use strateg Strategicall	Same as Pr	Same as pr	See Fire M priority areas. priority areas.
Action: No Sim	GOAL: In p	Same as Pr	Same as pr	Utilize simi
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Where app	Where app	Where app	NTT Recon
Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc



Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon
Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"
Action: No similar action.				
No action.	Action: Im	Same as Pr	Same as pr	priority areas
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
No action.	Action: No	Action: No	Action: No	Similar Acti
Action: No simi	Action: No	Action: No	Action: No	Recommen
	Consider th	Same as Pr	Same as pr	priority areas.
Action: Same a	Action: Pri	Same as Pr	Same as pr	priority areas

Action: Same a	Action: Dev	Same as Pr	Same as priority areas	
Action: Compo	Action: No	Action: No	Action: No	Similar Acti
Action: Same a	Same as Al	Same as Pr	Same as priority areas	
Action: Same a	Action: Im	Same as Pr	Same as priority areas	
Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti
Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: Same a	Action: No	Action: San	Action: No	Similar Acti
Active restorat	Action: No	Action: No	Action: No	Similar Acti
Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No simi	Action: No	Action: No	Action: No	Similar Acti
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**Alternative E - Idaho - Common to All Areas**

**Alternative E - Idaho - Core Areas**

Maintain existing requirements regarding site-specific environmental analysis, public involvement, consultation with Tribes and other agencies, or compliance with applicable laws without waiver.

Action: No Similar Action

Conduct appropriate, site-specific analysis as described in the National Environmental Policy Act and any requisite site-specific decision-making (i.e. 43 CFR Subpart 4160 or 36 CFR Part 251) prior to approving proposed management actions.

Action: No Similar Action

Analyze impacts to other sagebrush steppe species and impacts to State endowment trust lands managed by the Idaho Department of Lands during site-specific project NEPA analysis.

Action: No Similar Action

Activities not specifically addressed by the Alternative are still subject to the allowances and restrictions of the applicable resource management plans.

Action: No Similar Action

Conserve the Greater sage-grouse (*Centrocercus urophasianus*) ("sage-grouse") and its habitat to avoid a listing under the Endangered Species Act ("ESA") (see BLM 2011a).

Same as Common to All Areas.

Conserve sage-grouse and its habitat while maintaining predictable levels of land use.

Action: No Similar Action

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Action: No Similar Action

Focus management by Federal and State agencies on the maintenance and enhancement of habitats, populations and connectivity in areas within this management zone.

Action: No Similar Action

Prioritize conservation efforts and policies to address the primary threats to the species, such as wildfire, as described in the USFWS's 2010 listing determination.

Maintain all existing permits, contracts, or other legal instruments authorizing the occupancy and use of Federal lands without revocation, suspension or modification, unless or until any statutory or regulatory decision-making process to revoke, suspend, or modify such permit, contract or legal instrument is completed.	Action: No Similar Action
Maintain any project or activity decision completed prior to the issuance of a final decision regarding this land use plan amendment process without revocation, suspension or modification.	Action: No Similar Action
Maintain existing mineral leases, contracts, permits, and associated activities without additional restrictions.	Action: No Similar Action
Maintain existing mining activities conducted pursuant to the General Mining Law of 1872 without additional restrictions.	Action: No Similar Action
All existing land uses and landowner activities would continue to occur and regulatory mechanisms are subject to all valid existing rights.	Action: No Similar Action
enhance or restore general habitat areas to improve Action: No Similar Action	habitat condition and connectivity between priority a Sub-objective: Designate core sage-grouse habitats within the State of Idaho that ???
Action: No Similar Action	CHZ and IHZ, in combination, focus on protecting each of the two key meta-populations in the State. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of sage-grouse that have the highest likelihood of long-term persistence. One meta-population is located north of the Snake River and includes the Mountain Valley and Desert Conservation Areas; the other is located south of the Snake River and includes the West Owyhee and Southern Conservation Areas.
The Conservation Areas (Mountain Valleys, Desert, West Owyhee and Southern) are divided into Core, Important, and General Habitat Zones (“HZs”).	CHZ and IHZ (Map 3 Gov Final Alt p. 22) total approximately 9.770 million acres, account for ninety percent (90%) of the known leks or breeding display areas in Idaho, and are believed to harbor the vast majority of the State’s sage-grouse populations.

Action: No Similar Action

The CHZ encompasses approximately 5.68 million acres and supports the highest breeding densities of sage-grouse in Idaho. These areas include approximately sixty-five percent (65%) of the known active leks and are occupied by approximately seventy-three percent (73%) of male sage-grouse counted at leks throughout the SGMA. This management theme represents, and generally exceeds, the State's base population objective for the species. The CHZ represents strongholds for sage-grouse populations in Idaho and supports the largest populations.

Action: No Similar Action

Areas designated within the CHZ were mapped based on the following key data sets: Twenty-five (25%) and fifty (50%) breeding bird density classes, which represent the top fifty (50%) of all leks in terms of male attendance, buffered at times by portions of the seventy-five (75%) class, depending on location, and the top two categories of the BLM's connectivity and persistence model (Makela and Major).<sup>3</sup> The lek connectivity model estimates the likelihood that those leks or population are likely to persist through time (Knick and Hanser 2011).

Action: No Similar Action

Depending on location, additional lands beyond the 25% and 50% thresholds have been included in the CHZ to consolidate key breeding areas, to include wilderness areas and lands within national monuments, and to foster population connectivity with neighboring states. The State recognizes that these are fluid boundaries because the habitat is not static, and as new information regarding the species becomes available, it may be necessary to adjust the boundaries for the three management zones.



Designate all National Forest System and BLM lands within the area containing the entire known sage-grouse population in the State of Idaho as described in Map 3 (Gov Alt) as the Sage-Grouse Management Area. Do not alter this designation, with the exception of technical corrections, for five (5) years without substantial and compelling evidence. Action: No Similar Action

Classify the following habitat zones within the Sage-Grouse Management Area: Core Habitat Zone (“CHZ”), Important Habitat Zone (“IHZ”) and General Habitat Zone (“GHZ”). Action: No Similar Action

Establish the following Conservation Areas within the Sage-Grouse Management Area: West Owyhee Conservation Area; Southern Conservation Area; Desert Conservation Area; and Mountain Valleys Conservation Area. Action: No Similar Action

The Conservation Areas North of the Snake River are defined as: Mountain Valleys CA— Starting at Rexburg and extending west, sage-grouse habitat north and west of Highway 33 to Howe, Highway 33/22 to Arco, Highway 26/20/93 to Carey, Highway 20 west to Mountain Home, south from Mountain Home on Highway 51 to the Snake River. West-Central is included in this area. Desert CA—South of the Mountain Valleys CA and north of the Snake River with a similar east-west extent.. Action: No Similar Action

The Conservation Areas South of the Snake River are defined as: West Owyhee CA— South of the Snake River and west of the Jarbidge River. Southern CA—South of the Snake River and east of the Jarbidge River, including East Idaho uplands and Bear Lake Plateau. Action: No Similar Action

Action: No Similar Action

CHZ includes approximately 3 million acres in the Mountain Valleys and Desert Cas, and includes approximately 2.7 million acres in the West Owyhee and Southern CAs.

<p>Areas not meeting the general biological standard of 25-50% breeding bird density (as described below) are included within CHZ to recognize the importance of targeted restoration efforts to ensure these areas would still retain high restoration potential.</p>	<p>Focus mitigation efforts on increasing the resiliency and productivity of sage-grouse populations and habitats.</p>
<p>Wildfire and invasive species are a greater threat to sage-grouse in the Desert and West Owyhee CAs than in the Mountain Valleys or Southern CAs.</p>	<p>Action: No Similar Action</p>
<p>Sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented.</p>	<p>Action: No Similar Action</p>
<p>Correction or modification of designations may occur through: administrative corrections, adaptive regulatory triggers, curtailment of adaptive regulatory triggers, and the emergency wildfire clause.</p>	<p>Action: No Similar Action</p>
<p>Action: No Similar Action</p>	<p>Generally Suitable Uses and Activities: Fire Management, Invasive Species management, recreation, livestock grazing.</p>
<p>Action: No Similar Action</p>	<p>Core Habitat Zones apply a relatively restrictive approach aimed at providing a high level of protection to the species.</p>
<p>Delineate a Sage-Grouse Management Area subdivided into three distinct management zones - Core Habitat Zone (CHZ), Important Habitat Zone (IHZ) and General Habitat Zone (GHZ).</p>	<p>Action: No Similar Action</p>
<p>Maintain, through coordination between the Idaho BLM State Director and the Director of the Idaho Department of Fish and Wildlife, a map of the Sage-Grouse Management Area and make available to the public a map of the SGMA, including records regarding any corrections or modifications. Maps.</p>	<p>Action: No Similar Action</p>
<p>Habitats depicted on the map of sage-grouse management zones and habitat types are not static and adjustments or updates of the map would be appropriate as a result of updates to the data set upon which the map is based.</p>	<p>Action: No Similar Action</p>

The map of sage-grouse management zones and habitat types provided does not equate to verified boundary locations or on-the-ground habitat types, and is intended to provide a general idea of where certain types of habitat and conservation priorities are spatially located as of the date of the map.

Action: No Similar Action

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riority.

Manage sage-grouse habitats to achieve the conditions described in Tables 3, 4 & 5 of the Governors Alternative, where appropriate, recognizing these conditions may not be achievable in all areas due to the existing ecological condition, ecological potential or the existing vegetation; or to causal events unrelated to existing livestock grazing.

Manage sage-grouse habitats to achieve the conditions described in Tables 3, 4 & 5 of the Governors Alternative, where appropriate, recognizing these conditions may not be achievable in all areas due to the existing ecological condition, ecological potential or the existing vegetation; or to causal events unrelated to existing livestock grazing.

Manage summer habitats to achieve the conditions described in Table 3 (#43); manage winter habitats to achieve the conditions described in Table 4 (#43); and manage breeding habitats to achieve the conditions described in Table 5 (#43).

Action: No Similar Action

Action: No Similar Action

Objective 1: Provide a level of protection sufficient to conserve at least 65% of the current known leks occurring in the State within CHZ through implementation of regulatory mechanisms.

Use sage-grouse habitat characteristics, including guidelines for managing sage-grouse habitats and populations such as those published in Connelly et al. 2000 and Hagen et al. 2007, as tools for assessing habitats, coupled with local resource knowledge and conditions to guide management actions.

Action: No Similar Action

Inform and educate affected permittees regarding sage-grouse habitat needs and conservation measures.

Action: No Similar Action

Action: No Similar Action

Inform permittees of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.

Action: No Similar Action

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Reduce the number and size of wildfires in sage-grouse habitat through incorporation of the BLM Washington Office Instruction Memorandum - IM 2011-138.

Action: No Similar Action

Develop a consistent wildfire suppression plan that improves on the wildfire suppression baseline by twenty-five percent (25%) through:

- a. Ensuring close coordination with Federal and State firefighters, local fire departments and local expertise to create the best possible network of strategic fuel breaks and road access to minimize and reduce the size of a wildfire following ignition;
- b. Developing consistent fire response plans and mutual aid agreements necessary to achieves a 25% improvement in the fire suppression baseline;
- c. Requesting and placing additional firefighting resources and establish new Incident Attack Centers, with particular emphasis in the West Owyhee Conservation Area;
- d. Creating and maintaining effective fuel breaks in strategic locations that will modify fire behavior and increase fire suppression effectiveness according to the following criteria:
  - Targeting establishment of fuel breaks along existing roads or other disturbances.
  - Identifying and targeting higher-risk roads for fuel break construction and maintenance based on fire history maps.
  - Implementing a strategic approach to using these roads for rapid fire response.
  - Analyzing the benefits of the fuel break against

Action: No Similar Action

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Prioritize funding for fire suppression.

Reduce the number and size of wildfires, especially in the West Owyhee Conservation Area, by marshalling existing and targeting future Federal resources.

Utilize and employ more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into the CHZ on Federal lands.

Action: No Similar Action

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Action: No Similar Action

Prioritize protection of sage-grouse habitat after human safety and structure protection.

Action: No Similar Action

Decrease wildfire response time by twenty-five percent (25%) through: a. Prioritizing, maintaining and improving a high initial attack success rate in suppression response and staging decisions; b. Utilizing available Sage-Grouse Management Area maps and spatial data depicting sage-grouse habitats within this zone in accordance with action # 31; c. Redeploying firefighting resources not being fully utilized outside the SGMA to the extent such redeployment will not cause harm to human safety and structure protection; and d. Requesting the necessary federal appropriations to achieve this objective.

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Actively manage exotic undesirable species sufficiently to limit presence and prevent invasion.

Action: No Similar Action

Control invasive vegetation within post-wildfire treatment areas for at least three years post treatment.

on

Action: No Similar Action

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Action: No Similar Action

Treat and monitor invasive species associated with, existing range improvements.

Action: No Similar Action

Prioritize the removal of conifers through methods appropriate for the terrain and most likely to facilitate expeditious sage-grouse population and habitat recovery. To the extent possible, utilize removal methods creating the least amount of disturbance.

- a. Efforts should focus on areas with highest restoration potential typically evidenced by low canopy cover, existing sagebrush understory, and adjacent current populations.
- b. Refrain from using prescribed fire and conducting removal projects in juniper stands older than one hundred years.
- c. Maximize the use of Natural Resource Conservation Service funding through permittee grants under the Environmental Quality Incentives Program (EQUIP) and Wildlife Habitat Improvement (WHIP) programs.

Action: No Similar Action

Actively restore sagebrush canopy cover and the ecological functions in perennial grasslands. Utilize native understory to the extent practicable.  
a. Prioritize areas for restoration with lower risks of wildfire and exotic species invasion.

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Emphasize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success.

Action: No Similar Action

Reallocate native plant seeds for Emergency Stabilization and Rehabilitation (ES&R) from outside the SGMA and the GHZ to this management zone if necessary.

Action: No Similar Action

Where the probability of obtaining sufficient native seed is low, non-native seeds may be used provided sage-grouse habitat objectives are met.

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Initiate vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth only where the project can be achieved without negatively impacting the sage-grouse.



er restoration section

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Prioritize permit renewal and land health assessment processes for allotments with declining sage-grouse populations.

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Action: No Similar Action

Adjust grazing permits during the renewal process to include measures (including but not limited to measures described in Gov Alt section J) to achieve desired habitat conditions, if through the assessment process, livestock grazing is found to be limiting the achievement of the habitat characteristics (Gov Alt Tables 3-5 and #43). Measures must be tailored to address the specific management issues.

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas when feasible.

Action: No Similar Action

Implement grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.

Action: No Similar Action

Modify grazing management through appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) when use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat.

Action: No Similar Action	Graze exotic perennial grass seedings and/or annual grasslands to avoid grazing during breeding season in occupied sage-grouse habitat if available and feasible.
Action: No Similar Action	Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse.
Action: No Similar Action	Maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season consistent with conditions described in Table 5 (#43 and Gov Alt).
Action: No Similar Action	Modify grazing management to meet seasonal sage-grouse habitat requirements (#43). Provide flexibility in grazing management through scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives.
Action: No Similar Action	Action: No Similar Action Prioritize evaluation of the CHZ during drought periods relative to sage-grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.
Action: No Similar Action	Conduct rangeland health assessments utilizing published characteristics of sage-grouse habitat and the Ecological Site Descriptions, and Gov Alt Tables 3-5 (#43), and where available and applicable, rangeland health determinations made in accordance with 43 C.F.R. 418.2(c).
Action: No Similar Action	Maintain existing grazing management absent substantial and compelling information, if, based on the assessment, the current grazing system achieves the habitat characteristics (Gov Alt Tables 3-5, & #43).

Action: No Similar Action

Implement grazing management adjustments, where management changes are determined necessary (#384), that are narrowly tailored to address the specific habitat objective applied at the allotment and/or activity plan level, including but not limited to the actions outlined in (Gov Alt Section J).

and dropping - this can be covered under riparian objectives/actions

and dropping

under 384

Action: No Similar Action

Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Consider grazing options within the landscape and site-specific contexts; and manipulate vegetative conditions through the timing and intensity of grazing practices, based on factors including, but not limited to, elevation, weather, and plant growth.

Action: No Similar Action

Consider additional options for scheduled grazing based on the three habitat zones in light of unintended consequences of altering grazing use, such as a possible increased risk of wildfire, before adjusting management.

Altering grazing schemes in allotments within the CHZ, where needed and appropriate, through enhanced grazing opportunities utilizing introduced seedings or areas with lower value to sage-grouse (e.g., GHZ).

Complete the allotment assessment process in conjunction with scheduled term grazing permit renewals (i.e., every ten years), giving priority to areas that have the potential to provide the greatest benefit to sage-grouse.

Prioritize and concentrate allocation of resources for assessment and permit renewal on allotments within the CHZ that have declining sage-grouse populations, with secondary priority given to stable or increasing populations within the CHZ.

Utilize a variety of information sources, when available, in the allotment assessment process, including: published characteristics of sage-grouse habitat; Ecological Site Descriptions; existing vegetation; habitat inventories/assessments (Stiver et al. 2010); and state and transition models that describe vegetation and other physical attributes for sage-grouse. Include discussion of whether the allotment (or any pasture/significant area therein) has the existing vegetation and/or existing ecological condition (seral state) to provide sage-grouse habitat (Category 1); or whether the allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat (Category 2).

Action: No Similar Action

Include measures tailored to address specific management issues (see J. Governors Alt - Adaptive Measure for Livestock Grazing), when livestock grazing is limiting achievement of the habitat characteristics (Tables 3-5 # 43), within renewed permits.

Action: No Similar Action

Maintain flexibility in grazing management and the opportunity to schedule and adjust intensity, timing, duration, and frequency of grazing use over time in a manner that maintains rangeland health and habitat quality.

Action: No Similar Action

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Action: No Similar Action  
New infrastructure development is prohibited unless conducted pursuant to valid existing rights or as part of an incremental upgrade to existing facilities.

on

Infrastructure, for the purposes of this alternative, is defined as discrete, large-scale anthropogenic features, including , but not limited to highways, high voltage transmission lines, commercial wind projects, energy development (e.g., oil and gas development, geothermal wells), airports, mines, cell phone towers, landfills, residential and commercial subdivisions, etc. This does not include infrastructure related to small-scale ranch, home and farm businesses (e.g., stock ponds, fences, range improvements).

Action: No Similar Action

on

Action: No Similar Action

Maintain and improve sage-grouse populations within the CHZ, while allowing, and mitigating, for new infrastructure development identified by the Implementation Commission as high value.

Action: No Similar Action

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Action: No Similar Action

Objective 1: Implement the regulatory mechanisms to maintain and enhance sage-grouse habitats, populations and connectivity in areas within the CHZ, buffered by strategic areas within IHZ, dominated by sagebrush.

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Designate CHZs as ROW avoidance areas with limited exemptions permissible.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Prohibit the development development of infrastructure, except if developed pursuant to valid existing rights or incremental upgrade and/or capacity increase of existing development (authorized prior to the record of decision) subject to best management practices in Gov. Alt Section G.

- a. Limit impacts of proposed actions to the existing authorized footprint with no more than a fifty percent (50%), depending on industry practice, increase in footprint size and associated impacts; and
- b. Include compensatory mitigation if new significant and unavoidable impacts are demonstrated to be associated with the project.

Action: No Similar Action

Prohibit the development of infrastructure except where infrastructure development:

- a. Cannot be reasonably accomplished outside of the CHZ; and
- b. Demonstrates the population trend for the species within the relevant Conservation Area is stable or increasing over a three-year period; and
- c. Demonstrates the individual or cumulative exceptions under this provision must best reduce habitat fragmentation ensuring the impacts will not accelerate and/or cause a population decline of the species within the relevant Conservation Area; and
- d. Co-locate with existing infrastructure to the maximum extent practicable; and
- e. Shall mitigate unavoidable impacts through an appropriate compensatory mitigation plan.

Action: No Similar Action

Increase resiliency of the habitat to disturbances, such as wildfire, and limit habitat fragmentation and loss only to projects pursuant to valid existing rights or incremental upgrades and/or that demonstrate, among other things, a significant high value benefit to the State of Idaho as well as provide compensatory mitigation consistent with the guiding principles in coordination with Federal, State and local partners.

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Allow for exemptions to new infrastructure development where a project proponent can satisfy all of the stringent criteria identified in the regulatory language and provide compensatory mitigation.

Action: No Similar Action

In allowing for new infrastructure development exemptions the project proponent must demonstrate the project would provide a high-value benefit to meet critical existing needs and/or important societal objectives to the State of Idaho. Coordinate exemptions with the State Implementation Commission.

Action: No Similar Action

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Action: No Similar Action

Objective 2: Limit habitat loss in the CHZ and IHZ during the first three-year period of implementation (2014-2017) to no more than 10% loss due to fire and/or infrastructure development resulting in a proportionate reduction of males counted on leks within a particular Conservation Area.

n within priority areas would be retained unless disposal of those lands would increase the extent or provi

Action: No Similar Action

Oil and gas development may be authorized only under the following circumstances:

- a. Exploration activities utilizing temporary roads are permissible provided site disturbance is minimized.
- b. There shall be no surface use or occupancy unless the surface development, based on site-specific analysis, will not accelerate and/or cause declines in sage-grouse populations within the relevant Conservation Area based on the application of the criteria in # 105 and the best management practices in Gov Alt Section G.

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Action: No Similar Action

Reduce activities displacing nesting birds. Apply seasonal and time-based use restrictions where existing routes are impacting occupied leks.

Action: No Similar Action

Prioritize the completion of comprehensive travel planning.

Action: No Similar Action

Prioritize the completion of Comprehensive Transportation Management Travel Plans (“CTMTPs”) to minimize disturbance to sage-grouse populations and reduce the risk of wildfire and other habitat disturbances associated with cross-country travel.

Action: No Similar Action

Restrict vehicle use to existing routes until completion of Comprehensive Travel Management Plans.

Action: No Similar Action

Designate routes during subsequent travel management planning as appropriate to the extent such designation does not interfere with administrative use.

Action: No Similar Action

Re-route existing routes during travel management planning, where appropriate , to reduce impacts to sage-grouse.

and modified wording

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Avoid constructing new fences within 2 km of occupied leks. Place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors based on careful consideration of local conditions near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.

Action: No Similar Action

Place salt or mineral supplements to improve management of livestock in existing disturbed sites (areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites) to reduce impacts to sage-grouse breeding habitat.

Action: No Similar Action

Reduce the impacts of fences and livestock management facilities on sage-grouse, to the extent practicable.

Action: No Similar Action

Mark fences on flat to gently rolling terrain in areas of moderate to high fence densities (i.e., more than one kilometer of fence per square kilometer) located within two kilometers of occupied leks with permanent flagging or other suitable device to reduce sage-grouse collisions .

Action: No Similar Action

Remove unnecessary fences.

Action: No Similar Action

Consider impacts to sage-grouse when placing new fences and livestock management facilities, including corrals, loading facilities, water tanks and windmills.

Action: No Similar Action

Construct new fences further than one kilometer (0.6 miles) from occupied leks.

Action: No Similar Action

Place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, at least one kilometer from occupied leks, to the extent practicable.

and making an overarching statement regarding the priority of SG habitat relative to listed species?

language

wording

Action: No Similar Action

Design new spring developments in sage-grouse habitat to maintain or enhance the free-flowing characteristics of springs and wet meadows. Modify developed springs, seeps and associated pipelines to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat where necessary.

Action: No Similar Action

Install ramps in new and existing livestock troughs and open water storage tanks to facilitate the use of and escape from troughs by sage-grouse and other wildlife.

Action: No Similar Action

Place and design new water developments in sage-grouse breeding habitat that provide the greatest enhancement for sage-grouse and sage-grouse habitat.

Action: No Similar Action

Avoid installation of new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.



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Micro-site linear facilities to reduce impacts to sage-grouse habitats, to the extent possible.

Action: No Similar Action

Locate staging areas outside the CHZ to the extent possible.

Action: No Similar Action

Co-locate linear facilities within one kilometer of existing linear facilities, to the extent possible.

Action: No Similar Action

Co-location of new transmission lines occurs when construction falls between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within one kilometer either side of existing 115-kilovolt (kV) or larger transmission lines to create a corridor no wider than two kilometers.

Action: No Similar Action

Construct of new transmission lines, excluding essential public services, outside of the two kilometer corridor only where that the activity will not cause declines in sage-grouse populations or if the activity reduces cumulative impacts and/or avoids other important natural, cultural or societal resources.

Action: No Similar Action

Site essential public services, including but not limited to, distribution lines, domestic water lines and gas lines, at least one kilometer from active sage-grouse leks. In instances where location of essential public services is not possible outside the one kilometer area then construction activities will occur outside the March 15 to June 30 window.

Action: No Similar Action

Wind energy development projects must comply with all infrastructure development best management practices (# 662-669) and the 2012 U.S. Fish and Wildlife Service's Wind Energy Guidelines.

Action: No Similar Action

Evaluate areas affected by fluid mineral development in accordance with the process outlined in the State of Wyoming's Executive Order 2011-5.

Action: No Similar Action Limit surface disturbance development within the CHZ to three percent of suitable habitat per an average of 640 acres.

Action: No Similar Action Apply best management practices described in Gov alt. Section G to any proposed development.

Recommendation used for Core, PPH and PGH. Language was not changed. (per Land and Realty/Minerals Team NTT Recommendation and Governor's BMP's have been incorporated in Core, PPH and PGH. Decible and I

Recommendation used for Core, PPH and PGH. Language was not changed. (per Land and Realty/Minerals Team

Action: No Similar Action Locate main roads used to transport production and/or waste products >1.5 kilometers from the perimeter of occupied sage-grouse leks. Locate other roads used to provide facility site access and maintenance >1.5 kilometers from the perimeter of occupied sage-grouse leks. Construct roads to minimum design standards needed for production activities.

Recommendation used for Core, PPH and PGH. Language was not changed. (per Land and Realty/Minerals Team to be consistent with Line 558.

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Action: No Similar Action Utilize existing roads, or realignments of existing routes to the extent possible.

Action: No Similar Action Construct new roads to minimum design standards needed for production activities.

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or corridors (oil, gas, water/aquifer mining), and communication or other towers are prohibited in ACECs and lands in BLM-designated ACECs and FS Sage-Grouse Special Areas.

Special Areas may be accessed for maintenance. (WWP)" "

Action: No Similar Action Action: No Similar Action

on

o language. Hard to demonstrate neutral and beneficial impacts. Incorporates #357

o language - no similar actions in region.

o language recommend incorporation across region.

action across region.

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minimize risk of West Nile Virus or other diseases.  
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Return water to the original water source, to the extent practicable, to reduce suitable habitat for mosquitoes.

Minimize creation of breeding habitat for mosquitoes in sage-grouse habitat to reduce the risk of transmission of West Nile virus to sage-grouse.

Permit and design new ponds or reservoirs to reduce the potential impacts of West Nile Virus transmission.

Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.

Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide high quality water that minimizes the development of habitat for mosquitoes.

Construct water return features and maintain functioning float valves to prohibit water from being spilled on the ground surrounding the trough and/or tank.

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Apply adaptive management measures for livestock grazing (#433-440, #442-450) singly, or in combination where appropriate, in the development and implementation of grazing management, based upon the assessment process, the ecological conditions, the ecological potential and the status of sage-grouse populations. Maintain flexibility in administering grazing programs and providing offsetting grazing options over relatively large landscapes to successfully implement these measures.

Continuously evaluate the applicability and inclusion of best management practices (Gov Alt Section G and actions #539-546, #662-670) and other protective stipulations described with regard to new science, information and data emerge regarding the habitats and behaviors of the species.

Action: No Similar Action

Action: No Similar Action

Implement adaptive management changes to existing grazing permits where improper grazing is determined to be the casual factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over time with appropriate spatial variability.

Adaptive Regulatory Triggers apply where two out of the following three criteria are demonstrated within a Conservation Area, excluding areas within the GHZ, apply management actions (#7, #43, #53, #77-78, #102, #105, #117, #151-152, #182-186, #223-225, # 227, # 320, #356-360, #376, #382-384, #386, #451-456 & #471-476) for CHZ to IHZ areas containing wintering or breeding habitat in the relevant Conservation Area:

Action: No Similar Action

- i. Finite rate of change ( $\lambda$ ) over three years starting with the baseline years 2009- 2011 is significantly less than 1.0. This is a moving average for rate of change (i.e. 2011-2013, 2012-2014, 2013-2015, etc.) when compared to 1.0 (indicating a stable population).
- ii. Number of males on lek routes declines by >20% over a three-year period compared to 2011 values.
- iii. A 30% or greater loss of sagebrush habitat is documented within defined breeding or winter habitat during a three-year period.

Curtailment of Adaptive Regulatory Triggers apply where the core population data within the relevant Conservation Area meets or exceeds the 2011 values over a three-year period, areas within the IHZ are no longer subject to the CHZ management provisions.

Action: No Similar Action

Objective 2: Initiate a management review of the regulatory approach to assess causal factors for declines if a 10% loss of habitat loss occurs within the first three years of implementation. IDFG would lead the review in coordination with the Governor's Office of Species Conservation and other relevant State and Federal agencies. The review would include a determination of whether the loss is based on a population-related decline (e.g., West Nile virus, drought) or is driven by habitat loss. If the loss is habitat-driven, the review team will assess the effectiveness of current best management practices, funding levels and restoration efforts in order to preclude the triggering of the adaptive regulatory triggers.

Action: No Similar Action

Action: No Similar Action

Apply adaptive regulatory triggers when two of the follow criteria are demonstrated: i. Maximum number of males on lek routes declines by >20% over a three-year period compared to 2011 values. ii. A 30% or greater loss of sagebrush habitat is documented within defined breeding or winter habitat during a three-year period. iii. The finite rate of change ( $\lambda$ ) over 3 years starting with the baseline years 2009- 2011 is significantly less than 1.0.

Action: No Similar Action

Apply CHZ best management practices (Section V of Gov Alt) to IHZ areas within the same Conservation Area when the adaptive regulatory trigger is operative and when the problem is habitat related as determined by a review of the population data and associated habitats.

Apply CHZ regulatory mechanisms to IHZ areas within the same Conservation Area where a wildfire burns 200,000 acres or more of CHZ habitat, and at least 50% of the burned acres contained important breeding or wintering habitat.

Action: No Similar Action

This alternative includes adaptive regulatory triggers and an emergency wildfire clause to ensure the populations and habitats within the CHZ maintained and enhanced.



Action: No Similar Action

The adaptive regulatory triggers are intended to provide a regulatory backstop for navigating unanticipated and deleterious impacts to the species.

Provide a regulatory backstop through the implementation of adaptive regulatory triggers, when a significant and unanticipated loss of sage-grouse habitats and populations occurs apply the conservation benefits of the CHZ to the IHZ within the relevant Conservation Area.

Action: No Similar Action

Action: No Similar Action

Apply adaptive management triggers when a significant loss of population or habitat has been demonstrated to occur over time or unexpectedly to provide a regulatory mechanism to stabilize habitats and populations and prevent further loss in the CHZ and IHZ.

Emergency Wildfire Clause applies where a wildfire burns 200,000 acres or more of the CHZ, and at least fifty percent of the burned acres contained important breeding or wintering habitat, apply management actions (#7, #43, #53, #77-78, #102, #105, #117, #151-152, #182-186, #223-225, # 227, # 320, #356-360, #376, #382-384, #386, #451-456 & #471-476) for CHZ to IHZ areas within the appropriate Conservation Area.

Action: No Similar Action

Apply immediate response following a significant loss of sage-grouse habitat due to catastrophic wildfire as described in the Emergency Wildfire Clause.

Action: No Similar Action

on

Plan, select, implement and monitor required compensatory mitigation projects according to the Idaho Sage-Grouse Mitigation Framework (ISAC 2011).

Action: No Similar Action

Utilize a science-based statewide strategy to guide the selection of compensatory mitigation actions that will receive funding based on the benefits to sage-grouse populations.

Action: No Similar Action

The State will establish a mitigation bank of sage-grouse habitation restoration projects that future development projects would repay through compensatory mitigation requirements.

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Objective 1: Assess the effectiveness of this objective (1) every three years with respect to the primary threats of wildfire, invasive species and infrastructure.

Action: No Similar Action

Objective 1: Evaluate secondary threats addressed in this Alternative according the various schedules contained in the regulatory language.

Action: No Similar Action

Objective 1: IDFG will lead assessments in coordination with the Governor's Office of Species Conservation and relevant Federal agencies.

Action: No Similar Action

Objective 2: Regularly analyze the effectiveness of the regulatory mechanisms to determine the effectiveness of active conservation and restoration efforts, including conifer control, wildfire suppression, and more passive habitat protection techniques such as establishment and maintenance of fuel breaks.

Action: No Similar Action

Action: No Similar Action

Objective 2: Evaluate progress achieving this objective by using areas within the CHZ, IHZ (to a lesser extent) as the baseline for comparison.

Action: No Similar Action

Objective 2: Use three primary indicators to evaluate progress toward achieving objective 2 to provide a baseline for population status: 1) Maximum number of males counted on lek routes in 2011 within CHZ. 2) Number of active leks counted in 2011 within CHZ. 3) Average rate of population change. The evaluation will use the average value for  $\lambda$  (finite rate of change) for 2009-2011 within CHZ to determine statistical significance and compare population growth calculations ( $\lambda$ ) to a value of 1.0 which indicates a stable population.

Conduct fine and site scale-habitat assessments to help inform grazing management based on habitat characteristics described in # 43.

Conduct fine and site scale-habitat assessments to help inform grazing management based on habitat characteristics described in # 43.

Conduct a determination of factors causing any failure to achieve the habitat characteristics (Tables 3, 4 and 5 # 43) at a resolution sufficient to document the habitat condition, including consideration of local spatial and inter-annual variability. Determination must utilize data from multiple years or multiple locations within an allotment.

Conduct assessments at a resolution sufficient to document the habitat condition, including local spatial and inter-annual variability. Conduct determinations relative to the habitat characteristics (Gov Alt Tables 3-5 and #43) based upon existing ecological condition, ecological potential, and existing vegetation information to ensure the assessment recognizes whether or not these habitat characteristics are achievable.

Objective 2: Monitor the stability of habitat and population trends over time to examine the effectiveness of the regulatory mechanisms.

Action: No Similar Action

Action: No Similar Action

Administrative Corrections apply to the lands identified in Map 3 (Gov Alt) include, but are not limited to, adjustments that remedy clerical errors, typographical errors, mapping errors, or improvements in mapping technology. Administrative Corrections become effective after a 30-day public notice.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Coordinate with Idaho landowners and sage-grouse local working groups as management actions are implemented.

Coordinate with the Governor's Implementation Task Force (establish by Executive Order) to ensure the intent of the State's Alternative is properly implemented. Coordinate examination of situations where project proponents attempt to develop new infrastructure in the CHZ using the exemption process and when proposed projects comply with the criteria outlined in the IHZ.

Action: No Similar Action

Modify, amend or abandon proposed project, or project components, that do not comply with the plan requirements.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

**Alternative E - Idaho - Important Areas**

**Alternative E - Idaho - General Areas**

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as Common to All Areas.

Same as Common to All Areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Focus management by Federal and State agencies on areas within this zone that have the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. Provide management flexibility to permit high-value infrastructure projects.

Focus management by Federal agencies, to the extent practicable, on facilitating multiple-use management and activities consistent with local resource management plans in order to avoid siting conflicts in the other management zones.

Action: No Similar Action

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nd medial habitat areas.

Sub-objective: Designate important sage-grouse habitats within the State of Idaho that ???

Sub-objective: Designate general sage-grouse habitats within the State of Idaho that ???

CHZ and IHZ, in combination, focus on protecting each of the two key meta-populations in the State. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of sage-grouse that have the highest likelihood of long-term persistence. One meta-population is located north of the Snake River and includes the Mountain Valley and Desert Conservation Areas; the other is located south of the Snake River and includes the West Owyhee and Southern Conservation Areas.

Action: No Similar Action

CHZ and IHZ (Map 3 Gov Final Alt p. 22) total approximately 9.770 million acres, account for ninety percent (90%) of the known leks or breeding display areas in Idaho, and are believed to harbor the vast majority of the State's sage-grouse populations.

GHZ (Map 3 Gov Final Alt p. 22) encompasses approximately 5.45 million acres, on which are found ten percent (10%) of the known leks and five percent (5%) of the male sage-grouse attending leks. GHZ is the lowest priority for conservation or restoration efforts.

The IHZ encompasses approximately 4.09 million acres. These areas include approximately twenty-five percent (25%) of the known active leks and are occupied by an estimated twenty-two percent (22%) of sage-grouse males. This management zone generally captures high-quality habitat and populations necessary for providing a management buffer for the CHZ, connecting patches of the CHZ, and supporting important populations and habitat independent of the CHZ.

The IHZ is primarily defined by the seventy-five (75%) breeding bird density areas. Given the migratory life history of many sage-grouse populations, a portion of the birds breeding in CHZ may make seasonal use of areas within the IHZ. The IHZ also includes areas of value for migration corridors, connectivity among breeding areas, and long-term persistence of each of the two key meta-populations of sage-grouse in Idaho.

Action: No Similar Action

The GHZ encompasses approximately 5.45 million acres. This management zone generally includes few active leks, and fragmented or marginal habitat. The GHZ also includes habitat for two isolated populations of sage-grouse in the East Idaho Uplands and West Central Idaho. While these two areas generally represent better habitat than the remainder of the GHZ, the isolated nature of these populations make it unlikely that they will contribute to the long-term persistence of the two key meta-populations in the State of Idaho. Thus, local working group efforts will be key in these areas.

Action: No Similar Action

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Action: No Similar Action

Focus mitigation efforts on increasing the resiliency and productivity of sage-grouse populations and habitats.

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Generally Suitable Uses and Activities: Fire Management, invasive species management, infrastructure development, recreation, livestock grazing.  
Important Habitat Zones apply greater flexibility than in the CHZ, the overall quality and ecological importance of the habitat within this zone is more closely aligned with the habitat in the CHZ than in the GHZ.

Generally Suitable Uses and Activities: Fire management, invasive species management, infrastructure development, recreation, livestock grazing.  
General Habitat Zones apply a relatively flexible approach allowing for more multiple-use activities.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Action: No Similar Action

Action: No Similar Action

Manage sage-grouse habitats to achieve the conditions described in Tables 3, 4 & 5 of the Governors Alternative, where appropriate, recognizing these conditions may not be achievable in all areas due to the existing ecological condition, ecological potential or the existing vegetation; or to causal events unrelated to existing livestock grazing.

Same as Alternative A - Grazing permits are subject to the grazing regulations (43 C.F.R. Part 4100, including Fundamentals of Rangeland Health, 43 C.F.R. Subpart 4160.

Action: No Similar Action

Action: No Similar Action

Objective 1: Provide a population buffer to CHZ to minimize the risk of habitat loss from wildfire, invasive species while providing the opportunity to consider limited high-value infrastructure development.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Inform permittees of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Reduce the number and size of wildfires in sage-grouse habitat through incorporation of the BLM WO IM 2011-138.

Reduce the number and size of wildfires in sage-grouse habitat through incorporation of the BLM WO IM 2011-138.

Develop a wildfire suppression plan that improves on the fire suppression baseline by fifteen percent (15%) through: a. Ensuring close coordination with Federal and State firefighters, local fire departments and local expertise (i.e., livestock grazing permittees and road maintenance personnel) to create the best possible network of strategic fuel breaks and road access to minimize and reduce the size of a wildfire following ignition; b. Developing consistent fire response plans and mutual aid agreements necessary to achieve a 15% improvement in the fire suppression baseline; and c. Requesting the necessary federal appropriations to achieve this objective.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Utilize and employ more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into the CHZ/IHZ.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action





Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Actively manage exotic undesirable species to limit presence and prevent invasion in the CHZ without impairing sage-grouse populations.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Aggressively manage exotic undesirable species in conjunction with coordinated weed management areas to limit presence and prevent invasion into other management zones.

Control control invasive vegetation within post-wildfire treatment areas for at least three years post treatment.

Action: No Similar Action

Eradicate or control noxious weeds and/or invasive species posing a risk to sage-grouse habitats using a variety of chemical, mechanical and other appropriate means in coordination with the local Cooperative Weed Management Area (CWMA).

Eradicate or control noxious weeds and/or invasive species posing a risk to sage-grouse habitats using a variety of chemical, mechanical and other appropriate means in coordination with the local Cooperative Weed Management Area (CWMA).

Treat and monitor invasive species associated with, existing range improvements.

Action: No Similar Action

Prioritize the removal of conifers through methods appropriate for the terrain and most likely to facilitate expeditious sage-grouse habitat recovery. Especially prioritize and target removal treatments adjacent to the CHZ. To the extent possible, utilize methods creating the least amount of disturbance.

Action: No Similar Action

a. Areas with highest restoration potential will typically have low canopy cover, existing sagebrush understory, and adjacent current populations.  
b. Refrain from using prescribed fire and conducting removal projects in juniper stands older than one-hundred years.

c. Maximize the use of Natural Resource Conservation Service funding through permittee grants under the Environmental Quality Incentives Program (EQUIP) and Wildlife Habitat Improvement (WHIP) programs.

Actively restore sagebrush canopy cover and the ecological functions in perennial grasslands. Utilize native understory to the extent practicable.

Action: No Similar Action

a. Prioritize areas for restoration with lower risks of wildfire and exotic species invasion, especially in areas adjacent to the CHZ.

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Emphasize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success.

Action: No Similar Action

Reallocate native plant seeds for Emergency Stabilization and Rehabilitation (ES&R) from outside the SGMA and the GHZ to this management zone if necessary.

Action: No Similar Action

Where the probability of obtaining sufficient native seed is low, non-native seeds may be used provided sage-grouse habitat objectives are met.

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth only where the project can be achieved without negatively impacting the sage-grouse.

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Require best management practices for construction projects to prevent invasion.

Action: No Similar Action

Prioritize permit renewal and land health assessment processes for allotments with declining sage-grouse populations.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Adjust grazing permits during the renewal process to include measures (including but not limited to measures described in Gov Alt section J) to achieve desired habitat conditions, if through the assessment process, livestock grazing is found to be limiting the achievement of the habitat characteristics (Gov Alt Tables 3-5 and #43). Measures must be tailored to address the specific management issues.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas when feasible.

Action: No Similar Action

Implement grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.

Action: No Similar Action

Modify grazing management through appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) when use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat.

Action: No Similar Action

Graze exotic perennial grass seedings and/or annual grasslands to avoid grazing during breeding season in occupied sage-grouse habitat if available and feasible. Action: No Similar Action

Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse. Action: No Similar Action

Maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season consistent with conditions described in Table 5 (#43 and Gov Alt). Action: No Similar Action

Same as Core Areas. Action: No Similar Action

Action: No Similar Action  
Same as Core Areas. Action: No Similar Action

Conduct rangeland health assessments utilizing published characteristics of sage-grouse habitat and the Ecological Site Descriptions, and Gov Alt Tables 3-5 (#43), and where available and applicable, rangeland health determinations made in accordance with 43 C.F.R. 418.2(c). Action: No Similar Action

Maintain existing grazing management absent substantial and compelling information, if, based on the assessment, the current grazing system achieves the habitat characteristics (Gov Alt Tables 3-5, & #43). Action: No Similar Action



Implement grazing management adjustments, where management changes are determined necessary (#384), that are narrowly tailored to address the specific habitat objective applied at the allotment and/or activity plan level, including but not limited to the actions outlined in (Gov Alt Section J).

Action: No Similar Action

Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Enhance grazing opportunities through utilization of areas with introduced seedings or areas with lower value to sage-grouse.

Enhance grazing opportunities through utilization of areas with introduced seedings or areas with lower value to sage-grouse.

Prioritize allotments within the IHZ containing breeding habitats that have decreasing lek counts after permits within the CHZ. Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the assessment process.

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

There are no special conservation measures for sage-grouse in addition to those measures contained within existing land use plans regarding infrastructure development within the GHZ.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Objective 1: Provide strategic buffers in areas dominated by sagebrush to CHZ where regulatory mechanisms maintain and enhance sage-grouse habitats, populations and connectivity in areas within the CHZ.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Designate IHZs as ROW avoidance areas where new ROWs and infrastructure are permissible subject to certain criteria. Mitigate unavoidable impacts.

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Manage new ROWs consistent with local resource management plans.

Action: No Similar Action

Action: No Similar Action

Authorize new infrastructure development where the following circumstances exist.

- a. The project cannot reasonably be achieved, technically or economically, outside of this management zone; and
- b. The project is co-located within the footprint for existing infrastructure, to the extent practicable. In the event co-location is not practicable, the siting should best reduce cumulative impacts and/or impacts to other high value natural, cultural, or societal resources; and
- c. The project does not result in unnecessary and undue habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area; and
- d. The project design mitigates unavoidable impacts through an appropriate compensatory mitigation plan; and
- e. The project complies with the applicable best management practices in Gov. alt Section G.

Action: No Similar Action

Authorize infrastructure construction consistent with the relevant land management components as provided for in Gov Alt. Section H Scope and Applicability.

Action: No Similar Action

Increase resiliency of the habitat to disturbances, such as wildfire, and limit unnecessary and undue habitat fragmentation to projects that demonstrate a high value benefit to the State of Idaho in coordination with Federal, State and local partners.

Maintain populations where applicable based on efforts of local working groups.

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
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Action: No Similar Action  
Action: No Similar Action  
Objective 2: Limit habitat loss in the CHZ and IHZ during the first three-year period of implementation (2014-2017) to no more than 10% loss due to fire and/or infrastructure development resulting in a proportionate reduction of males counted on leks within a particular Conservation Area.

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action

de for connectivity of priority areas.

Oil and gas leases may be authorized with the following stipulations: exploration activities utilizing temporary roads shall be allowed, provided site disturbance is minimized; surface use or occupancy is permissible if projects can demonstrate, based on site-specific analysis, that such activities will not cause declines in sage-grouse populations through implementation of the best management practices in Gov Alt Section G. Projects authorized under must mitigate unavoidable impacts through an appropriate compensatory mitigation plan.

Action: No Similar Action

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Action: No Similar Action

Reduce activities displacing nesting birds. Apply seasonal and time-based use restrictions where existing routes are impacting occupied leks.	Action: No Similar Action
Prioritize the completion of comprehensive travel planning.	Action: No Similar Action
Prioritize the completion of Comprehensive Transportation Management Travel Plans (“CTMTPs”) to minimize disturbance to sage-grouse and reduce the risk of wildfire and other habitat disturbances associated with cross-country travel.	Same as Alternative A - No Action
Restrict vehicle use to existing routes until completion of Comprehensive Travel Management Plans.	Same as Alternative A - No Action
Designate routes during subsequent travel management planning as appropriate to the extent such designation does not interfere with administrative use.	Action: No Similar Action
Re-route existing routes during travel management planning, where appropriate , to reduce impacts to sage-grouse.	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Avoid constructing new fences within 2 km of occupied leks. Place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors based on careful consideration of local conditions near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.	Action: No Similar Action
Place salt or mineral supplements to improve management of livestock in existing disturbed sites (areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites) to reduce impacts to sage-grouse breeding habitat.	Action: No Similar Action
Reduce the impacts of fences and livestock management facilities on sage-grouse, to the extent practicable.	Action: No Similar Action

Mark fences on flat to gently rolling terrain in areas of moderate to high fence densities (i.e., more than one kilometer of fence per square kilometer) located within two kilometers of occupied leks with permanent flagging or other suitable device to reduce sage-grouse collisions .

Action: No Similar Action

Remove unnecessary fences.  
Consider impacts to sage-grouse when placing new fences and livestock management facilities, including corrals, loading facilities, water tanks and windmills.

Remove unnecessary fences.

Action: No Similar Action

Construct new fences further than one kilometer (0.6 miles) from occupied leks.

Action: No Similar Action

Place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, at least one kilometer from occupied leks, to the extent practicable.

Action: No Similar Action

Design new spring developments in sage-grouse habitat to maintain or enhance the free-flowing characteristics of springs and wet meadows. Modify developed springs, seeps and associated pipelines to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat where necessary.

Action: No Similar Action

Install ramps in new and existing livestock troughs and open water storage tanks to facilitate the use of and escape from troughs by sage-grouse and other wildlife.

Action: No Similar Action

Place and design new water developments in sage-grouse breeding habitat that provide the greatest enhancement for sage-grouse and sage-grouse habitat.

Action: No Similar Action

Avoid installation of new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.

Action: No Similar Action





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Action: No Similar Action  
Action: No Similar Action

Micro-site linear facilities to reduce impacts to sage-grouse habitats, to the extent possible. Action: No Similar Action

Action: No Similar Action Action: No Similar Action

Same as Core Areas. Action: No Similar Action

Same as Core Areas. Action: No Similar Action

Same as Core Areas. Action: No Similar Action

Same as Core Areas. Action: No Similar Action

Wind energy development projects must comply with all infrastructure development best management practices (# 662-669) and the 2012 U.S. Fish and Wildlife Service's Wind Energy Guidelines. Action: No Similar Action

Evaluate areas affected by fluid mineral development in accordance with the process outlined in the State of Wyoming's Executive Order 2011-5. Action: No Similar Action

Limit surface disturbance development within the IHZ to five percent of suitable habitat per an average of 640 acres.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

n)

Distance values are adopted from Patricelli, 2012 (0.7-0.8 miles) and the Governor's alternative (1.5 km) St

n)

Locate main roads used to transport production and/or waste products >1.5 kilometers from the perimeter of occupied sage-grouse leks. Locate other roads used to provide facility site access and maintenance >1.5 kilometers from the perimeter of occupied sage-grouse leks. Construct roads to minimum design standards needed for production activities.

Action: No Similar Action

n)

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Utilize existing roads, or realignments of existing routes to the extent possible.

Action: No Similar Action

Same as Core Areas.

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and occupied habitats. (WWP)

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Action: No Similar Action

Return water to the original water source, to the extent practicable, to reduce suitable habitat for mosquitoes.

Minimize creation of breeding habitat for mosquitoes in sage-grouse habitat to reduce the risk of transmission of West Nile virus to sage-grouse.

Permit and design new ponds or reservoirs to reduce the potential impacts of West Nile Virus transmission.

Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.

Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide high quality water that minimizes the development of habitat for mosquitoes.

Construct water return features and maintain functioning float valves to prohibit water from being spilled on the ground surrounding the trough and/or tank.

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action

Apply adaptive management measures for livestock grazing (#433-440, #442-450) singly, or in combination where appropriate, in the development and implementation of grazing management, based upon the assessment process, the ecological conditions, the ecological potential and the status of sage-grouse populations. Maintain flexibility in administering grazing programs and providing offsetting grazing options over relatively large landscapes to successfully implement these measures.

Action: No Similar Action  
Action: No Similar Action

Action: No Similar Action

Minimize the creation of breeding habitat for mosquitoes in sage-grouse habitat.

Permit and design new ponds or reservoirs to reduce the potential impacts of West Nile Virus transmission.

Action: No Similar Action

Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide high quality water that minimizes the development of habitat for mosquitoes.

Action: No Similar Action

Action: No Similar Action  
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Action: No Similar Action

Implement adaptive management changes to existing grazing permits where improper grazing is determined to be the casual factor in not meeting habitat characteristics, specific to site capability, based upon monitoring over time with appropriate spatial variability.

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action

Apply CHZ best management practices (Section V of Gov Alt) to IHZ areas within the same Conservation Area when the adaptive regulatory trigger is operative and when the problem is habitat related as determined by a review of the population data and associated habitats. Action: No Similar Action

Apply CHZ regulatory mechanisms to IHZ areas within the same Conservation Area where a wildfire burns 200,000 acres or more of CHZ habitat, and at least 50% of the burned acres contained important breeding or wintering habitat.

This alternative includes adaptive regulatory triggers and an emergency wildfire clause to ensure the populations and habitats within the IHZ are maintained and enhanced albeit to a lesser extent than within CHZ. Action: No Similar Action

The adaptive regulatory triggers are intended to provide a regulatory backstop for navigating unanticipated and deleterious impacts to the species.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Apply adaptive management triggers when a significant loss of population or habitat has been demonstrated to occur over time or unexpectedly to provide a regulatory mechanism to stabilize habitats and populations and prevent further loss in the CHZ and IHZ.

Action: No Similar Action

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Action: No Similar Action

Monitor weed eradication program to evaluate the success of weed control efforts in conjunction with the CWMA's.

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Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Monitor weed eradication program to evaluate the success of weed control efforts in conjunction with the CWMA's.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Objective 2: Evaluate progress achieving this objective by using areas within the CHZ, IHZ (to a lesser extent) as the baseline for comparison.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Conduct fine and site scale-habitat assessments to help inform grazing management based on habitat characteristics described in # 43.

Action: No Similar Action

Conduct assessments at a resolution sufficient to document the habitat condition, including local spatial and inter-annual variability. Conduct determinations relative to the habitat characteristics (Gov Alt Tables 3-5 and #43) based upon existing ecological condition, ecological potential, and existing vegetation information to ensure the assessment recognizes whether or not these habitat characteristics are achievable.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Afford project proponents greater flexibility than in the CHZ with the understanding that the project still must demonstrate a high value benefit to the State.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

**Alternative E - Idaho Governors Alt Reference**

**Alternative E - Montana Areas**

p. 46, pp. 2

Same as Alternative A

p. 24, pp. 2, s. 2

Same as Alternative A

Same as Alternative A

Same as Alternative A

p. 1, pp. 1, s. 3; p. 4, pp. 4, s. 3

Same as Alternative A

p. 1, pp. 3, s. 2; p. 5, pp. 4, s. 1

Same as Alternative A

p. 5, pp. 2, s. 2

Same as Alternative A

p. 5, pp. 5, s. 1

Same as Alternative A

p. 25, pp. 4; p. 28, pp. 2, s. 1; p. 29, pp. 2; p. 31, pp. 5; p. 37, pp. 6; p. pp. 4

Same as Alternative A

p. 24, pp. 6, s. 2

Same as Alternative A

p. 45, pp. 5

Same as Alternative A

p. 45, pp. 6

Same as Alternative A

p. 45, pp. 7

Same as Alternative A

p. 45, pp. 8

Same as Alternative A

p. 11, pp. 1

Same as Alternative A

Same as Alternative A

p. 23, pp. 3, s. 2, 3; p. 24, pp. 1, s. 1, 2

Same as Alternative A

p. 5, pp. 5, s. 2; p. 23, pp. 1, s. 1, 3

Same as Alternative A

p. 24, pp. 5; p. 24, p6, s. 1; p. 27, pp. 4; p. 28, pp. 4 Same as Alternative A

p. 24, pp. 7, s.1; p. 25, pp. 1; p. 27, pp. 5 Same as Alternative A

p. 25, pp. 2 Same as Alternative A

p. 31, pp. 1

Same as Alternative A

p. 31, pp. 2

Same as Alternative A

p. 31, pp. 3

Same as Alternative A

p. 6, pp. 2, s. 1-3

Same as Alternative A

p. 6, pp. 3, s. 1-3

Same as Alternative A

p. 5, pp. 6, s. 3

Same as Alternative A

p. 12, pp. 1, s. 2; p. 12, pp.2, s.1

Same as Alternative A

p. 5, pp. 6, s. 1

Same as Alternative A

p. 5, pp. 6, s. 2

Same as Alternative A

p. 46, pp. 3

Same as Alternative A

p. 26, pp. 1; p. 28, pp. 3; p. 29, pp. 3

Same as Alternative A

p. 3, pp. 1, s. 2-3

Same as Alternative A

Same as Alternative A

p. 31, pp. 4

Same as Alternative A

p. 11, p. 3

Same as Alternative A

p. 11, pp. 2

Same as Alternative A

p. 13, pp. 4, s. 3; p. 35, pp. 10; p. 41, pp. 9; p. 43, pp. 8  
8

p. 14, pp. 2, s. 1

Same as Alternative A

p. 7, pp. 1, s. 2, 3

Same as Alternative A

p. 13, pp. 2-3

Same as Alternative A

p. 13, pp. 4, s. 2

Same as Alternative A

p. 47, pp. 7

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

p. 31, pp. 6; p. p. 37, pp. 7; p. 42, pp. 5

Same as Alternative A

p. 32, pp. 1; p. 38, pp. 1

Same as Alternative A

p. 3, pp. 2, s. 3

p. 25, pp. 5; p. 28, pp. 2, s. 2, p. 29, pp. 2, s. 2

Same as Alternative A

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p. 26, pp. 2; p. 28, pp. 4; p. 29, pp. 4, p. 32. pp 2; p. 38, pp. 5; p. 42, 9

Same as Alternative A

p. 32, pp. 3; p. 38, pp. 6

Same as Alternative A

p. 39, pp. 5; p. 42, pp. 14

Same as Alternative A

p. 48, pp. 8

Same as Alternative A

p. 33, pp. 3; p. 39, pp. 5

Same as Alternative A

p. 33, pp. 4; p. 39, pp 6

Same as Alternative A

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p. 32, pp. 4; p. 39, pp. 1

p. 32, pp. 4; p. 39, pp. 1

Same as Alternative A

p. 32, pp. 4; p. 39, pp. 1

Same as Alternative A

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p. 48, pp. 9

Same as Alternative A

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Same as Alternative A

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Same as Alternative A

p. 39, pp. 4

p. 26, pp. 5; p. 28, pp. 7; p. 29, pp. 7; p. 35, pp. 11 Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

p. 36, pp 4, p. 41, pp9

Same as Alternative A

Same as Alternative A

Same as Alternative A

p. 48, pp. 7

Same as Alternative A

p. 47, pp. 2

Same as Alternative A

p. 47, pp. 3

p. 47, pp. 4

Same as Alternative A

p. 47, pp. 5

Same as Alternative A

p. 47, pp. 6

Same as Alternative A

p. 47, pp. 9

Same as Alternative A

Same as Alternative A

p. 36, pp. 2; p. 41, pp. 9

Same as Alternative A

p. 36, pp. 3; p. 41, pp. 9

Same as Alternative A

p. 36, pp. 6; p. 41, pp. 9

Same as Alternative A

p. 47, pp. 8

Same as Alternative A

p. 12, pp. 6

Same as Alternative A  
Same as Alternative A  
Same as Alternative A

p. 12, pp. 7, s. 1-2; p. 13, pp. 1, s. 1-2

Same as Alternative A

p. p. 13, pp. 6; p. 14, pp. 1, s. 1-2

Same as Alternative A

p. 14, pp. 2-4

Same as Alternative A

p. 14, pp. 5

Same as Alternative A

p. 13, pp. 3, s. 1

Same as Alternative A

p. 26, pp. 6, s. 1

Same as Alternative A  
Same as Alternative A



p. 11, s. 4; p. 24, pp. 3, s. 2, p. 30., pp. 4

Same as Alternative A

p. 27, pp. 3

Same as Alternative A

p. 5, pp. 2, s. 1

Same as Alternative A

p. 7, pp. 1, s. 1, p. 30, pp. 5, s. 1

Same as Alternative A

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p. 26, pp. 3; p. 28, pp. 5; p. 29, pp. 5

Same as Alternative A

p. 33, pp. 5; p. 40, pp. 1; p. 43, pp. 3

Same as Alternative A

p. 34, pp. 1

Same as Alternative A

p. 25, pp. 3; p. 27, pp. 6; p. 29, pp. 1

Same as Alternative A

Same as Alternative A  
Same as Alternative A  
Same as Alternative A  
Same as Alternative A

p. 27, pp. 1, s. 1; p. 27, pp. 2, s. 2

Same as Alternative A

p. 7, pp. 4, s. 1; p. 30, pp. 5, s. 2

Same as Alternative A  
Same as Alternative A  
Same as Alternative A



p. 35, pp. 3; p. 41, pp. 2

Same as Alternative A

p. 26, pp. 4; p. 28, pp. 6; p. 29, pp. 6

Same as Alternative A

p. 34, pp. 5; p. 40, pp. 4; p. 43, pp. 4

Same as Alternative A

p. 34, pp. 6; p. 40, pp. 5

Same as Alternative A

p. 35, pp. 1; p. 41, pp. 5

Same as Alternative A

p. 35, pp. 2; p. 41, pp. 1

Same as Alternative A

p. 48, pp. 2

Same as Alternative A  
Same as Alternative A  
Same as Alternative A

p. 47, pp. 10; p. 48, pp. 1

Same as Alternative A

p. 39, pp. 7; p. 41, pp. 10

Same as Alternative A

p. 37, pp. 1; p. 41, pp. 11

Same as Alternative A

p. 37, pp. 2; p.41, pp. 12; p. 43, pp. 9  
p. 37, pp. 3; p. 41-42, pp. 13, pp. 1

Same as Alternative A  
Same as Alternative A

p. 37, pp. 4; p. 42, pp. 2

Same as Alternative A

p. 37, pp. 5; p. 42, pp 3

Same as Alternative A

p. 48, pp. 3

Same as Alternative A

p. 48, pp. 4

Same as Alternative A

p. 48, pp. 5

Same as Alternative A

p. 48, pp. 6

Same as Alternative A



Same as Alternative A  
Same as Alternative A  
Same as Alternative A  
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p. 43, pp. 12

Same as Alternative A

p. 44, pp. 1

Same as Alternative A

p. 44, pp. 2

Same as Alternative A

p. 44, pp. 3

Same as Alternative A

p. 44, pp. 4

Same as Alternative A

p. 44, pp. 5

Same as Alternative A

p. 44, pp. 6

Same as Alternative A

p. 44, pp. 7

Same as Alternative A



p. 44, pp. 8

Same as Alternative A

p. 34, pp. 2

Same as Alternative A

Il need a winter timeframe. (Land and Realty/Mineral Same as Alternative A

p. 45, pp. 2

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A

p. 43, pp. 10

p. 43, pp. 11

Same as Alternative A

Same as Alternative A

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Same as Alternative A

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Same as Alternative A

Same as Alternative A

Same as Alternative A

Same as Alternative A  
Same as Alternative A

p. 35, pp. 9; p. 41, pp. 8

Same as Alternative A

p. 35, pp. 3; p. 41, pp 3; p. 43, pp. 5

Same as Alternative A

p. 35, pp. 5; p. 41, pp. 4; p. 43, pp. 6

Same as Alternative A

p. 35. pp. 6; p. 41. pp 5

Same as Alternative A

p. 35, pp. 7; p. 41., pp. 6; p. 43, pp. 7

Same as Alternative A

p. 35, pp. 8; p. 41, pp. 7

Same as Alternative A

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Same as Alternative A  
Same as Alternative A  
Same as Alternative A

p. 46, pp. 8, p. 47; p. 47, pp. 1

p. 45, pp. 10

Same as Alternative A

p. 14, pp. 6, p. 36, pp. 5, p. 41, pp. 9

Same as Alternative A

p. 46, pp. 5

Same as Alternative A

p. 46, pp. 6

Same as Alternative A

p. 7, pp 5; p. 8, pp. 1

Same as Alternative A

Same as Alternative A

p. 10, pp. 2-3

Same as Alternative A

p. 5, pp. 3, s. 2

Same as Alternative A

p. 5, pp. 3, s. 3

Same as Alternative A

p. 30, pp. 3

Same as Alternative A

p. 9, pp. 1, s. 1-2

Same as Alternative A

p. 46, pp. 7

Same as Alternative A

p. 9, pp. 1, s. 3

Same as Alternative A

p. 11, pp. 6. s. 1

Same as Alternative A

p. 11, p.6, s. 2-3; p. 12, pp. 1, s. 1

Same as Alternative A

p. 12, pp. 2, s. 2-3

Same as Alternative A

p. 39, pp. 6; p. 43, pp. 2  
Same as Alternative A  
Same as Alternative A  
Same as Alternative A

p. 7, pp. 2, s. 1  
Same as Alternative A  
Same as Alternative A

p. 7, pp. 2, s. 2  
Same as Alternative A

p. 7, pp. 2, s. 3  
Same as Alternative A

p. 7, pp. 3, s. 2  
Same as Alternative A

p. 7, pp. 3, s. 3  
Same as Alternative A

p. 8, pp. 2, 3  
Same as Alternative A

p. 13, pp. 5, s. 1; p. 36, pp. 1, s. 1; p. 41, pp. 9      Same as Alternative A

p. 13, pp. 6, s. 2-4; p. 36, pp. 1, s. 2-3; p. 41, pp. 9      Same as Alternative A

p. 7, pp. 3, s. 1      Same as Alternative A

p. 46, pp. 4      Same as Alternative A  
Same as Alternative A

p. 25, pp. 6, p. 28, pp. 2, s. 3      Same as Alternative A

p. 19, pp. 1, s. 2-4      Same as Alternative A

p. 24, pp. 3, s. 6      Same as Alternative A

Same as Alternative A

**Alternative E - Utah Areas**

**Alternati  
ve F –  
Priority  
Areas**   **Alternati  
ve F –  
General  
Areas**   **Alternati  
ve F –  
Restorati  
on Areas**

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

GOAL: Mai GOAL: Mai GOAL: Maintain and increase curr

Action: No Similar Action

Objective: Restore and maintain sagebrush steppe to its

Objective: Establish a system of sagebrush reserves to ai

Action: No Similar Action



Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Objective: No similar objective.

Objective: Objective: Objective: Designate Restoration :

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Sub-objective: No similar sub-objective.  
Objective: No similar objective.

Action: No Similar Action

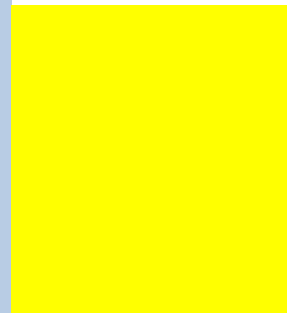
Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action

Action: No Similar Action

No action.

Action: No similar action.

Action: No similar action.

Action: Same as Alternative B. (WEG)” “

Action: Same as Alternative B. (WEG)” “

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Action: Design and implement fuels treatments with an

Action: No similar action. (WEG)” “

Action: No similar action. (WEG)" "

Action: No similar action.

No action." "

No action.

Action: No Similar Action

Action: No Similar Action

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.



Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Same as Alternative B.

Action: In sage-grouse habitat, ensure that soil cover and

No action.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

No action.

Action: Same as Alternative B.

Action: Prioritize implementation of restoration projects

Action: Include sage-grouse habitat objectives parameters

Action: No similar action.

Action: Same as Alternative B.” “

Action: Same as Alternative B.

Action: Same as Alternative B. (WEG)

Action: No similar action.

Action: No similar action.

Action: Same as Alternative B. (WEG)

Action: No Similar Action

Action: No Similar Action

Action: Avoid sagebrush reduction/treatments to increase

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Objective: Develop and implement methods for prioritizing

No action.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B. (WEG)

Action: Establish and strengthen networks with seed groups

Action: Post fire recovery must include establishing adequate

Action: Livestock grazing should be excluded from burned areas

Action: Where burned sage-grouse habitat cannot be fully restored

Action: Evaluate the role of existing seedlings that are currently

Action: Any vegetation treatment plan must include pre-treatment

Action: No Similar Action

Action: Ensure that vegetation treatments Restore nativ  
Same as Alternative B.

Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Action: Sar Action: Sar Action: Same as Alternative B.  
Action: Same as Alternative B.  
Action: Same as Alternative B. “ “  
Action: Same as Alternative B.

Same as Alternative B.  
Action: Same as Alternative B.” “ “ “  
Action: In each planning process, identify grazing allotme

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: During drought periods, prioritize evaluating effe

Action: No similar action.

Action: Manage for vegetation composition and structur

Action: Same as Alternative B.  
Same as Alternative B.  
Action: Same as Alternative B.  
Action: No similar action.

Action: No Similar Action

No action.  
Action: No Similar Action

Conservation Measure: Same as Alternative B. (WEG)

Action: No similar action.

Action: No similar action.” “

Action: No similar action.  
Sub-objective: No similar sub-objective.

Action: No similar action.  
Sub-objective: No similar sub-objective.

Action: No Similar Action  
Action: Same as Alternative B, without exceptions for dis  
No action.  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action

Action: Priority sage-grouse habitat areas shall be exclus  
Action: Same as Alternative B (WEG)” “ “ “

Action: Same as Alternative B (WEG)” ““ “

Action: Same as Alternative B (WEG)” “



Action: No Similar Action  
Action: Site wind energy development at least five miles  
Action: Do not site wind energy development in priority  
Action: No Similar Action

Action: Same as Alternative B. (WEG) “ “ “ “ “

Action: Do not approve withdrawal proposals not associ  
Action: No Similar Action  
Action: No Similar Action

1. Action: Apply the following conservation measures  
Conservation Measure: Same as Alternative B. “ “  
Conservation Measure: Apply a seasonal restriction on e  
Conservation Measure: Same as Alternative B. (WEG)  
Same as Alternative B.  
Conservation Measure: Same as Alternative B.  
Conservation Measure: Same as Alternative B. (WEG)  
Conservation Measure: Same as Alternative B. (WEG)  
Action: No similar action.  
Action: No similar action.  
Action: No similar action.  
Action: Same as Alternative B.  
Action: Same as Alternative B. (WEG)” “  
No action.  
Action: Same as Alternative B. (WEG)” “  
Action: Same as Alternative B. (WEG)” “  
Action: Same as Alternative B. (WEG)” “  
Action: Same as Alternative B. (WEG)” “  
Action: Same as Alternative B. (WEG)” “  
Action: Same as Alternative B. (WEG)” “  
Action: No Similar Action  
Action: Upon expiration or termination of existing leases  
Action: Allow geophysical exploration within priority sag  
Same as Alternative B.  
Action: Allow geophysical exploration within priority sag  
  
Action: Sar Same a Priority Areas.  
Action: Prohibit new road construction within 4 miles of  
Action: Same as Alternative B.” “ “ “  
Action: Same as Alternative B.  
Action: Limit route construction to realignments of exist  
Action: Same as Alternative B using a 4-mile buffer from  
Action: Same as Alternative B.  
Action: When reseeding closed roads, primitive roads an  
No action.

Action: No Similar Action

Action: No Similar Action

Action: Avoid all new structural range developments in p

Action: Same as Alternative B.” ““ “

Action: To reduce outright sage-grouse strikes and mort:

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Action: Authorize no new water developments for divers:  
Action: Analyze springs, seeps and associated water dev  
Action: Same as Alternative B. (WEG)” “

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Action: No Similar Action

Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No Similar Action  
Action: No similar action.

Action: No similar action.  
Action: Designate Areas of Critical Environmental Concern  
Action: Same as Alternative B.  
Action: Seasonally prohibit camping and other non-motorized activities.  
No action.  
Action: No Similar Action  
Objective: Same as Alternative B.  
Objective: Same as Alternative B. (WEG)  
Action: Same as Alternative B.  
Action: No similar action. (WEG)

Action: Same as Alternative B.  
Action: No Similar Action

No action.

No action.

No action.

Action: No Similar Action

No action.

Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Action: No Similar Action



Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Sub-objective: No similar sub-objective.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action  
Action: No Similar Action

No action.

Objective: Encourage partners to monitor effects of reti

Sub-objective: No similar sub-objective.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Same as Alternative B.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



ent sage-grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosys

ecological potential in occupied sage-grouse habitat.

nchor recovery efforts by protecting the highest quality habitats.

sage-grouse habitat, based on its importance to sage-grouse and the likelihood of successfully restoring













emphasis on protecting existing sagebrush ecosystems. “Do not reduce sagebrush canopy cover to les



d native herbaceous plants are at their ESD potential to help protect against invasive plants. In areas wit

; based on environmental variables that improve chances for project success in areas most likely to bene

ers as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State Sage Grouse Conservatio

se livestock or big game forage in priority habitat and include plans to restore high-quality habitat in are

ing and restoring sagebrush steppe invaded by nonnative plants. (WEG)

owers to assure availability of native seed for ES&R projects. “ “

quately sized exclosures (free of livestock grazing) that can be used to assess recovery. (WEG)

ed areas until woody and herbaceous plants achieve sage-grouse habitat objectives. (WEG)

anced from other unburned habitat, the entire area (e.g., allotment/pasture) should be closed to grazing

rently composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habi  
treatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-terr



e (or desirable) plants and create landscape patterns which most benefit sage-grouse. Only allow treatm

ents where permanent retirement of grazing privileges would be potentially beneficial to sage-grouse. (1

ffects of the drought in priority sage-grouse habitat areas relative to their biological needs for food and co

re consistent with ecological site potential and within the reference state to achieve sage-grouse habitat





sposal to consolidate ownership that would be beneficial to sage-grouse.

ion areas for new ROWs permits. Consider the following exceptions:" "Within designated ROW corridor



from active sage-grouse leks. (WEG)  
sage-grouse habitat (Jones 2012). (WEG)

ated with mineral activity unless the land management is consistent with sage-grouse conservation mea

as Conditions of Approval at the project and well permitting stages, and through RMP implementation  
exploratory drilling that prohibits surface-disturbing activities during the nesting and brood-rearing season.

do not accept nominations/expressions of interest for parcels within priority habitat. (WEG)  
sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sa  
sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sa

active sage-grouse leks, and avoid new road construction in priority sage-grouse habitat. (WEG)

ing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates the need  
for leks to determine road route.

road trails, use appropriate native seed mixes and require consider the use of transplanted sagebrush. (WEG)



priority sage-grouse habitat unless independent peer-reviewed studies show that the range improvement

ality, rRemove, modify or mark fences in high risk areas of moderate or high risk of sage-grouse strikes v

sion from spring or seep sources only when within priority sage-grouse habitat would benefit from the developments pipelines to determine if modifications are necessary to maintain the continuity of the prede





rn (ACECs) (BLM) and Sagebrush Conservation Areas (SCAs) (USFS), respectively, as sagebrush reserves t  
orized recreation within 4 miles of active sage-grouse leks. (WEG)











ring grazing permits in sage-grouse habitat. (WEG)





stem.

sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005c), as degraded or fragmented habitat 1













is than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management objective requires addit



hout ESDs, reference sites would be utilized to identify appropriate vegetation communities and soil co

enefit sage-grouse (Meinke et al. 2009).” ““Prioritize restoration in seasonal habitats that are thought to

in plans and appropriate local information in habitat restoration projects objectives. Make meeting the

as with invasive species. (Audubon)

until recovered. (WEG)

tat to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If t  
n monitoring where treated areas are monitored for at least three years before grazing returns. Continu

ments that conserve, enhance, or restore sage-grouse habitat are demonstrated to benefit sage-grouse a

WEG)

over, as well as drought effects on ungrazed reference areas. Since there is a lag in vegetation recovery fi

: objectives.







s encumbered by existing ROW authorizations: new ROWs may be co-located only if the entire footprint



asures. (For example;, in a proposed withdrawal for a military training range buffer area, manage the bu

decisions and upon completion of the environmental record of review (43 CFR § 3162.5), including approval in all priority sage-grouse habitat during this period. This seasonal restriction shall also apply to re-

sage-grouse habitat areas. Only allow geophysical operations by helicopter-portable drilling methods in sage-grouse habitat areas. Only allow geophysical operations by helicopter-portable drilling methods in

need to construct a new road, or is necessary for motorist safety. Mitigate any impacts with methods that

(G) "

It structure benefits sage-grouse. Design any new structural range improvements and location of supplies within priority sage-grouse habitat based on proximity to lek, lek size, and topography (Christiansen 2008)

development. This includes developing new water sources for livestock as part of an AMP/conservation |  
development riparian area within priority sage-grouse habitats. Make modifications where necessary, incl







o conserve sage-grouse and other sagebrush-dependent species. (WEG).

















that is currently unoccupied by sage-grouse, but might be useful to the species if restored to its potential













tional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and cons



ver.

be limiting sage-grouse distribution and/or abundance and where factors causing degradation have alre

the objectives within priority sage-grouse habitat the highest restoration priority. (WEG)

These seedings are part of an AMP/Conservation Plan or if they provide value in conserving or enhancing  
the monitoring for "five years after livestock are returned to the area, and compare to treated, ungrazed

and retain sagebrush height and cover consistent with sage-grouse habitat objectives (this includes treat

ollowing drought (Thurow and Taylor 1999; Cagney et al. 2010), ensure that post-drought management







t of the proposed project (including construction and staging), can be completed within the existing dist



ffer area with sage-grouse conservation measures that have been demonstrated to be effective.) (WEG)

opriate documentation of compliance with NEPA. In this process evaluate, among other things:” “Whetl  
ated activities that are disruptive to sage-grouse, including vehicle traffic and other human presence. (W

rd in accordance with seasonal timing restrictions and/or other restrictions that may apply. Geophysical

rd in accordance with seasonal timing restrictions and/or other restrictions that may apply. Geophysical

it have been demonstrated to be effective to offset the loss of sage-grouse habitat. (WEG)

plements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habitat through an improve

9; Stevens 2011). (WEG)

plan to improve sage-grouse habitat. (WEG)

uding dismantling water developments considering impacts to other water uses when such consideratic

























al natural community.











serve habitat quality for the species. “Closely evaluate the benefits of the fuel break against the additi





ady been addressed (e.g., changes in livestock management). (WEG)” “

; the rest of the priority sage-grouse habitats, then no restoration would be necessary. Assess the compa  
d enclosures, as well as untreated areas. (WEG)

ments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat). (WE

allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas base





urbance associated with the authorized ROWs." "Subject to valid, existing rights: where new ROWs asso







her the conservation measure is “reasonable” (43 CFR § 3101.1-2) with the valid existing rights; and” “W  
/EG)

exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood  
exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood

and grazing management system relative to sage-grouse objectives. Structural range improvements devel

ns are neutral or beneficial to sage-grouse. (WEG)





































onal loss of sagebrush cover in the EA process. “Apply appropriate seasonal restrictions for implement





atibility of these seedings for sage-grouse habitat or as a component of a grazing system during the land



G)

d on sage-grouse habitat objectives. (WEG)





ociated with valid existing rights are required, co-locate new ROWs within existing ROWs or where it bes





Whether the action is in conformance with the approved RMP. (WEG)

rearing and winter habitats during their season of use by sage-grouse. (WEG) "" "SUB-ALTERNATIVE:" "

rearing and winter habitats during their season of use by sage-grouse. (WEG)



opments, in this context, include but are not limited to cattleguards, fences, exclosures, corrals or other







































:ing fuels management treatments according to the type of seasonal habitats present in a priority area.”





health assessments (Davies et al. 2011). (WEG)” “











t minimizes sage-grouse impacts. Use existing roads, or realignments as described above, to access valic





Action: No new geophysical exploration permits will be issued. " "" "

· livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livest









































“Allow no fuels treatments in known winter range unless the treatments are designed to strategically r

















l existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads,







ock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for inv







































reduce wildfire risk around or in the winter range and will maintain winter range habitat quality. “Do not

















then build any new road constructed to the absolute minimum standard necessary, and add the surface









asive species establishment or increase following construction must be considered in the project planni







































Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or ot

















disturbance to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, t









ng process and monitored and treated post-construction. Consider the comparative cost of changing gra







































her xeric sagebrush species; Conn

















then make additional effective mitigation







izing management instead of constructing additi

	New	GOA	Program Area	Sub	Threa	Indica	Revie	Altern	Altern	Altern	Altern
Incorporat	1	1	Purpose	Found	N/A	N/E	DELE	Action	0	Action	No
Incorporat	2	2	Scope	Found	N/A	N/E	DELE	Action	0	Action	No
Incorporat	3	3	Purpose	Found	N/A	N/E	DELE	Action	0	Action	No
	4	4	Best	Proces	N/A	N/E	G -	Action	0	Action	No
	5	5	Scope and	Proces	N/A	N/E		Action	0	Action	No
	6	6	Goal	SG	All	Acres	Citizer	Same	0	GOAL	No
	7	7	Objective	Habita	Huma	Acres	Object	Same	0	Object	No
	8	8	Scope	Found	N/A	N/E	Should	Action		Action	No
	9	9	Objective	Design	All	Acres		Same	0	Sub-	No
	10	9.1	Objective	Design	All	Acres	Citize	Same	0	Action	No
	11	10	Objective	DFC	All	Acres	Gover	Same	0	Sub-	No
	12	11	Objective	group	N/A	N/E		Same	0	Action	No
	13	11.1	Objective	group	N/A	N/E	Need	Action	0	Sub-	No
	14	12	Objective	DFC	Infrast	Acres	Split	Same	0		No
	15	13	Objective	Distrib	All	Acres	Gover	Same	0	OBJE	No
	16	14	Objective	Distur	Huma	Acres		Action	0	OBJE	No
	17	15	Objective	Conne	All	Acres	Gover	Action	0	Action	Sub-
	18	16	Objective	Conne	All	Acres	Gover	Action	0	Action	Sub-
	19	17	Objective	Data	All	N/E	Gover	Action	0	Action	
	20	18	Objective	Rehabi	All	Acres	Citize	Action		Object	No
	21	19	Objective	ACEC	All	N/E	Gover	Action	0	Object	No
	22	20	Scope	Proces	All	N/E	Should	Action	0	Action	No
	23	21	Mapping	Mappi	All	N/E	Citize	Monta	0	Priorit	Gener
	24	22	Mapping	Popula	All	N/E		nothin	0	Action	No
	25	23	Mapping	Mappi	All	N/E	Combi	Action	0	Action	No
	26	24	Mapping	Mappi	All	N/E	combi	Action	0	Action	No
	27	25	Mapping	Mappi	All	N/E	Como	Action	0	Action	No
	28	26	Mapping	Mappi	All	N/E	combi	Action	0	Action	No
	29	27	Mapping	Mappi	All	N/E	See #	Action	0	Action	No
	30	28	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	31	29	Mapping	Mappi	All	N/E	Combi	Action	0	Action	No
	32	30	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	33	31	Mapping	Proces	All	N/E		Action	0	Action	No
	34	32	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	35	33	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	36	34	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	37	35	Mapping	Mappi	All	N/E	see #	Action	0	Action	No
	38	36	Mapping	Proces	All	N/E		Action	0	Action	No
	39	37	Mapping	Proces	All	N/E	combi	Action	0	Action	No
	40	39	Management	Prioriti	Wildfi	Acres		Action	0	Action	No
	41	40	Management	Proces	All	N/E		Action	0	Action	No
	42	41	Management	Uses	All			Action	0	Action	No



43	42	Indicators	Proces			Delete	Action 0	Action No
44	43	Desired Future	DFC	All	Acres		Action 0	Action No
45	44	Desired Future	DFC	All	Acres	combi	Action 0	Action No
46	45	Implementation	Policy	All	N/E	Outsid	Action 0	Action No
47	46	Collaboration	Resilie	All	Acres		Action 0	Action No
48	47	Adaptive	Proces	All	N/E	mappi	Action 0	Action No
49	48	Adaptive	Proces	All	N/E	Gover	Action 0	Action No
50	49	Adaptive	Proces	All	N/E	See #	Action 0	Action No
51	50	Adaptive	Wildfi	Wildfi	Acres	Gover	Action 0	Action No
52	51	Adaptive	Trigge	Wildfi	Acres	Gover	Action 0	Action No
53	52	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
54	53	Adaptive	Grazin	Grazin	Acres	Relian	Action 0	Action No
55	54	Adaptive	Proces	All	Popula		Action 0	Action No
56	55	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
57	56	Adaptive	Trigge	Wildfi	Acres	Combi	Action 0	Action No
58	57	Adaptive	Wildfi	Wildfi	Acres	Combi	Action 0	Action No
59	58	Adaptive	Proces	All	N/E	ii is	Action 0	Action No
60	59	Adaptive	Proces	All	N/E	Combi	Action 0	Action No
61	60	Adaptive	Trigge	All	Acres	What	Action 0	Action No
62	61	Valid Existing	Found	N/A	Acres		Action 0	Action No
63	62	Valid Existing	Found	N/A	Acres	Combi	Action 0	Action No
64	63	Valid Existing	Found	Miner	Acres	Combi	Action 0	Action No
65	64	Valid Existing	Found	Miner	Acres	Combi	Action 0	Action No
66	65	Valid Existing	Valid	All	Acres		Action 0	Action No
67	66	Mitigation	Proces	Infrast	Acres/		Action 0	Action No
68	67	Mitigation	Proces	All	Acres		Action 0	Action No
69	68	Mitigation	Restor	All	Acres		Action 0	Action No
70	69	Mitigation	Restor	All	Acres		Action 0	Action No
71	70	Monitoring	Proces	Wildfi	Acres		Action 0	Action No
72	71	Monitoring	Proces	Grazin	Acres		Action 0	Action No
73	72	Monitoring	Proces	All		Outsid	Action 0	Action No
74	73	Monitoring	Proces	Wildfi	Acres		Action 0	Action No
75	74	Monitoring	Proces	All	Acres		Action 0	Action No
76	75	Monitoring	Proces	All	Popula		Action 0	Action No
77	77	Monitoring	proces	grazin	acres		Action	Action No
78	78	Monitoring	Proces	Grazin	Acres	incorp	Action	Action No
79	79	Land Use	Land				Same	Action No
80	80	Land Use	Land				Same NEED	Action No
81	81	Land Use	Land				Same	Action No
82	82	Land Use	Land				DFO	Action No
83	83	Land Use	Land				Curren	Action No
84	87	Land Use					Curren	Action No
85	89	Land Use					Same	Action No

86	90	Land Use					Same		Action	No
87	92	Land Use					Same		Action	No
88	94	Land Use					Same		Action	No
89	96	Land Use					Curren		Action	No
90	98	Land Use					Same		Action	No
91	99	Land Use	Exclus	Infrast	Acres	Citize	Action		Action	No
92	101	Land Use	Under	Infrast	miles	Gover	Action		Action	No
93	102	Land Use	Recla	Infrast	miles	Gover	Action		Action	No
94	105	Land Use	Reloca	Infrast	miles	Gover	Action		Planni	No
95	117	Land Use	Avoid	Infrast	acres	Gover	Action		Action	Action
96	118	Land Use	Co-	Infrast	miles	Gover	Action		Action	Action
97	119	Land Use	Land	Urbani	acres	Gover	Acquis		Action	No
98	120	Land Use					Action		Action	No
99	121	Land Use	Acquis	Urbani	acres	Citize	Action		Action	No
100	122	Land Use	Withdr	Minin	acres	Gover	Curren		Action	No
101	123	Land Use	Withdr	Minin	Acres	Gover	Same	Same	Action	No
102	124	Land Use	Corrid	Infrast	Acres/	Citize	Curren		Action	No
103	125	Land Use	BMPs	Predati	Acres	Subreg	Land		Action	No
104	126	Land Use	Wind	Infrast	Acres		Appen		Action	No
105	127	Land Use	unauth	infrast	acres		Same		Action	No
106	128	Wind Energy	siting	Infrast	acres		2. Use	0	Action	No
107	129	Wind Energy	siting	Infrast	Acres		a)	0	Action	No
108	130	Wind Energy	Siting	Infrast	acres		b) site	0	Action	No
109	131	Wind Energy	siting	Infrast	acres		3.	0	Action	No
110	132	Wind Energy					4.	0	Action	No
111	133	Industrial Solar					a)	0	Action	No
112	134	Industrial Solar					b)		Action	No
113	135	All Renewable					5.		Action	No
114	136	All Renewable					6.		Action	No
115	151	Habitat					Appen		Action	No
116	152	Habitat					See		Action	No
117	153	Habitat					Action		Action	No
118	156	Habitat					Rangel		Action	No
119	162	Habitat					Same		Action	No
120	163	Habitat					Action		Action	No
121	164	Habitat					Action		Action	No
122	165	Habitat					Action		Action	No
123	166	Habitat					Same		Action	No
124	167	Habitat					Action	0	Action	No
125	168	Habitat					Action	0	Action	No
126	169	Habitat					Action	0	Action	No
127	170	Habitat					Action	0	Action	No
128	171	Habitat					Action	0	Action	No

129	172	Habitat	Action	0	Action	No
130	173	Habitat	Action	0	Action	No
131	174	Habitat	Action	0	Action	No
132	175	Habitat		Same	Action	No
133	176	Habitat	Appen		Action	No
134	177	Habitat	NOXI	DFO	Action	No
135	178	Habitat	See	0	Action	No
136	179	Habitat	Same		Action	No
137	180	Habitat	Appen		Action	No
138	181	Habitat	WILD	DFO	Action	No
139	182	Integrated	Action		Action	No
140	183	Invasive	Action		Action	No
141	184	Invasive	Action		Action	No
142	185	Invasive	Action		Object	No
143	186	Invasive	Action		Action	No
144	187	Invasive	Action		Action	No
145	188	Invasive	Action		Action	No
146	189	Invasive	Action		Action	No
147	190	Invasive	Action		Action	No
148	193	Invasive	Action		Action	No
149	217	Fire	Action		Action	No
150	218	Fire	Action		Action	No
151	219	Fire	Action		Action	No
152	220	Fire	DFO		Action	No
153	221	Fire	Action		Action	No
154	222	Fire	Action		Action	No
155	223	Fire	DFO	All	o	No
156	224	Fire	Action		Action:	No
157	225	Fire	Action		Action	No
158	226	Fire	Action		Action	No
159	227	Fire	Action		Action	No
160	228	Fire	Appen		Action	No
161	229	Fire	Action		Action	No
162	230	Fire	Action		Action	No
163	231	Fire	Appen		Action	Action
164	232	Fire	N/A		Action	No
165	233	Fire	N/A		Action	No
166	234	Fire	N/A		Action	No
167	235	Fire	N/A		Action	No
168	236	Fire	Same		Action	No
169	237	Fire	N/A		Action	No
170	238	Fire	N/A		Action	No
171	239	Fire	N/A		Action	No

172	240	Fire	DFO	All	Action	No
173	246	Fire	Same		Action	No
174	249	Fire	Fuels	Same	Action	No
175	250	Fire	Same	Climat	Action	No
176	251	Fire	Action	0	Action	No
177	252	Fire	Action	0	Action	No
178	253	Fire	Action	0	Action	No
179	254	Fire	Action	0	Action	No
180	255	Fire	Action	0	Action	No
181	256	Fire	Action	0	Action	No
182	257	Fire	Same	0	Action	No
183	258	Fire	Same	0	Action	No
184	259	Fire	Same		Action	No
185	260	Fire	Action		Action	No
186	261	Fire	Appen	Same	Action	No
187	263	Fire	Appen	Also	Action	No
188	268	Non Energy	Propos		Action	No
189	272	Non Energy	Same	Appen	Action	No
190	273	Solid Minerals -	Propos	No	Action	No
191	274	Solid Minerals -	Action		Action	No
192	277	Solid Minerals -	Action		Action	No
193	278	Solid Minerals -	Action		Action	Action
194	279	Solid Minerals -	Action		Action	No
195	283	Locatable	Propos	Appen §	No	No
196	284	Locatable	Action		Action	No
197	285	Locatable	Action		Action	No
198	286	Locatable	Action		Action	No
199	287	Locatable	Propos	This	Action	No
200	288	Non Locatable	Action		Action	No
201	289	Non Locatable	Action		Action	No
202	300	Saleable	Salabl	also	Action	No
203	301	Saleable	Same		Action	No
204	304	Saleable	Same		Action	No
205	307	Unleased	Pg. 45	No	Action	No
206	308	Unleased	RMP	DFO	Action	No
207	310	Unleased	Appen	↑Refer	Action	No
208	312	Unleased	Action		Action	No
209	313	Unleased	Action		Action	No
210	314	Unleased	Action		Action	No
211	320	Leased Federal	Same	0	1.	No
212	322	Leased Federal	Same	0	o	No
213	323	Leased Federal	Stipula	Need	Conser	No
214	324	Leased Federal	Same	0	Conser	No

215	325	Leased Federal	Same	0	Conser	No
216	326	Leased Federal	Same		§	No
217	327	Leased Federal	Same	0	Conser	No
218	328	Leased Federal	Action		Conser	No
219	329	Leased Federal	Same		Conser	No
220	330	Leased Federal	Same		Conser	No
221	331	Leased Federal	Action		Action	No
222	332	Leased Federal	Action		Action	No
223	333	Leased Federal	Action		Action	No
224	334	Leased Federal	Action		Action	No
225	335	Leased Federal	Action		Action	No
226	336	Leased Federal	Action		Object	No
227	337	Mineral Split	DFO		Action	No
228	338	Mineral Split	Same		Action	No
229	339	Mineral Split	Action		Action	No
230	340	Mineral Split	Action		Action	No
231	341	Mineral Split	Action		Action	No
232	342	Mineral Split	Action		Action	No
233	343	Travel	RMP	Same	Action	No
234	344	Travel	Action		Action	No
235	345	Travel	Pg. 61	Same	Action	No
236	346	Travel	Same	Same	Action	No
237	347	Travel	Pg. 59	Same	Action	No
238	348	Travel	Action		Action	No
239	349	Travel	Appen	Same	Action	No
240	350	Travel	Appen	Is this	Action	No
241	351	Travel	Same	Is this	Action	No
242	352	Travel	Action	0	Action	No
243	353	Travel	Same	Is this	Action	No
244	354	Travel	Action		Action	No
245	355	Recreation and	Action		Action	No
246	356	Recreation and	Not	SRP	Action	No
247	357	Recreation and	Appen		Action	No
248	358	Recreation and	Appen		Action	No
249	359	Recreation and	Appen	Same	Action	No
250	360	Recreation and	Same	Most	Action	No
251	361	Recreation and	Action		Action	No
252	362	Recreation and	Action		Action	No
253	363	Recreation and	Action		Action	No
254	364	Recreation and	Action		Action	No
255	365	Recreation and	Action		Action	No
256	366	Recreation and	Action		Action	No
257	367	Recreation and	Action		Action	No

258	368	Recreation and	Action	Action	No
259	369	Recreation and	Action	Action	No
260	374	Recreation and	Action	Action	No
261	376	Livestock	Livest	No	Action No
262	377	Livestock	Answer	Same	Action No
263	378	Livestock	Livest	Same	Action No
264	379	Livestock	Same	Current	Action No
265	380	Livestock	Action		Action No
266	381	Livestock	Action		Action No
267	382	Livestock	Same	Sams	Action No
268	383	Livestock	Same	address	Action No
269	384	Livestock	Same	This is	Action No
270	385	Livestock	Pg. 42	Same	Action No
271	386	Livestock	Ripari		Action No
272	387	Livestock	Action		Action No
273	388	Livestock	Action		Action No
274	389	Livestock	Action		Action No
275	390	Livestock	Action		Action No
276	391	Livestock	Action		Action No
277	392	Livestock	Action		Action No
278	393	Livestock	Action		Action No
279	394	Livestock	Action		Action No
280	395	Livestock	Pg 69,	Same	Action No
281	396	Livestock	Pg 69		Action No
282	397	Livestock	Action		Action No
283	398	Livestock	Action		Action No
284	399	Livestock	Action		Action No
285	400	Livestock	Pg 51	Same	Action No
286	401	Livestock	Action		Action No
287	402	Livestock	Action		Action No
288	403	Livestock	Pg 69	Same	Action No
289	404	Livestock	Same	West	Action No
290	405	Livestock	Pg 69	These	Action No
291	406	Livestock	Action		Action No
292	407	Livestock	Action		Action No
293	408	Livestock	pg. 42	If	Action No
294	409	Livestock	Action		<i>Planni</i> No
295	410	Livestock	Action		<i>No</i> No
296	411	Livestock	Action		Action No
297	412	Livestock	Action		Action No
298	413	Livestock	Same	This is	Action No
299	414	Livestock	Same	0	Action No
300	415	Livestock	Pg 43	Same	Action No

301	416	Livestock	Same	Not	Action	No
302	417	Livestock	Action		Action	No
303	418	Livestock	Action		Action	No
304	419	Livestock	Action		Action	No
305	420	Livestock	Action		Action	No
306	421	Livestock	Action		Action	No
307	422	Livestock	Action		Action	No
308	423	Livestock	Action		Action	No
309	424	Livestock	Action		Action	No
310	425	Livestock	Action		Action	No
311	426	Livestock	Action		Action	No
312	427	Livestock	Action		Action	No
313	428	Livestock	Action		Action	No
314	429	Livestock	Action		Action	No
315	430	Livestock	Action		Action	No
316	431	Livestock	Action		Action	No
317	432	Livestock	Action		Action	No
318	433	Grazing	Action		Action	No
319	434	Grazing	Action		Action	No
320	435	Grazing	Action		Action	No
321	436	grazing	Action		Action	No
322	437	Grazing	Action		Action	No
323	438	Grazing	Action		Action	No
324	439	Grazing	Action		Action	No
325	440	Grazing	Action		Action	No
326	441	Grazing	Action		Action	No
327	442	Grazing	Action		Action	No
328	443	Grazing	Action		Action	No
329	444	Grazing	Action		Action	No
330	445	Grazing	Action		Action	No
331	446	Grazing	Action		Action	No
332	447	Grazing	Action		Action	No
333	448	grazing	Action		Action	No
334	449	Grazing	Action		Action	No
335	450	Grazing	Action		Action	No
336	451	Livestock	Action		Action	No
337	452	Livestock	Action		Action	No
338	453	Livestock	Action		Action	No
339	454	Livestock	Action		Action	No
340	455	Livestock	Action		Action	No
341	456	Livestock	Action		Action	No
342	457	Wild Horses	Action		Object	No
343	458	Wild Horses	Action		Action	No

344	459	Wild Horses	Action	Object	No
345	460	Wild Horses	Not 0	Action	No
346	461	Wild Horses	N/A - 0	Action	No
347	462	Wild Horses	N/A - 0	Action	No
348	463	Wild Horses	N/A - 0	Action	No
349	464	Wild Horses	Action	Action	No
350	465	Wild Horses	Action	Action	No
351	466	Wild Horses	Action	Action	No
352	467	Wild Horses	Action	Action	No
353	468	Wild Horses	Action	Action	No
354	469	Wild Horses	Action	Action	No
355	470	Wild Horses	N/A - 0	Action	No
356	471	West Nile	Action	Action	No
357	472	West Nile	Action	Action	No
358	473	West Nile	Action	Action	No
359	474	West Nile	Action	Action	No
360	475	West Nile	Action	Action	No
361	476	West Nile	Action	Action	No
362	477	Areas of	Action	Action	No
363	478	Areas of	Action	Action	No
364	479	Areas of	Action	Action	No
365	480	Areas of	Action	Action	No
366	481	Areas of	Action	Action	No
367	482	Areas of	Action	Action	No
368	484	Cultural	Action	Action	No
369	485	Cultural	Action	Action	No
370	486	Hazardous	Action	Action	No
371	487	Hazardous	Action	Action	No
372	488	Soils	Action	Action	No
373	489	Habitat	Action	Action	No
374	490	Habitat	Action	Action	No
375	491	Visual	Action	Action	No
376	531	BMP West Nile	Action	BMP	No
377	532	BMP West Nile	Appen 0	Increas	No
378	533	BMP West Nile	Action 0	Build	No
379	534	BMP West Nile	Action 0	Mainta	No
380	535	BMP West Nile	Action 0	Constr	No
381	536	BMP West Nile	Action 0	Line	No
382	537	BMP West Nile	Action 0	Line	No
383	538	BMP West Nile	Action 0	Fence	No
384	539	BMP Fluid	Action 0	<i>BMP</i>	No
385	540	BMP Fluid	Action 0	<i>Roads</i>	No
386	541	BMP Fluid	Action 0	Design	No



387	542	BMP Fluid	Action 0	Locate No
388	543	BMP Fluid	Action 0	Coordi No
389	544	BMP Fluid	Action 0	Constr No
390	545	BMP Fluid	Action 0	Establi No
391	546	BMP Fluid	Action 0	Establi No
392	547	BMP Fluid	Action 0	Do not No
393	548	BMP Fluid	Action 0	Restrict No
394	549	BMP Fluid	Action 0	Use No
395	550	BMP Fluid	Action 0	Close No
396	551	BMP Fluid	Action 0	<i>Opera</i> No
397	552	BMP Fluid	Action 0	Cluste No
398	553	BMP Fluid	Action 0	Use No
399	554	BMP Fluid	Action 0	Place No
400	555	BMP Fluid	Action 0	Apply No
401	556	BMP Fluid	Action 0	Place No
402	557	BMP Fluid	Action 0	Pipelin No
403	558	BMP Fluid	Action 0	Use No
404	559	BMP Fluid	Action 0	Restrict No
405	560	BMP Fluid	Action 0	Site No
406	561	BMP Fluid	Action 0	Place No
407	562	BMP Fluid	Action 0	Bury No
408	563	BMP Fluid	Action 0	Colloc No
409	564	BMP Fluid	Action 0	Design No
410	565	BMP Fluid	Action 0	Cover No
411	566	BMP Fluid	Action 0	Equip No
412	567	BMP Fluid	Action 0	Contro No
413	568	BMP Fluid	Action 0	Use No
414	569	BMP Fluid	Action 0	Restrict No
415	570	BMP Fluid	Action 0	Remov No
416	571	BMP Fluid	Action 0	Limit No
417	572	BMP Fluid	Action 0	Requir No
418	573	BMP Fluid	Action 0	Fit No
419	574	BMP Fluid	Action 0	Requir No
420	575	BMP Fluid	Action 0	Locate No
421	576	BMP Fluid	Action 0	Clean No
422	577	BMP Fluid	Action 0	Locate No
423	578	BMP Fluid	Action 0	<i>Recla</i> No
424	579	BMP Fluid	Action 0	Includ No
425	580	BMP Fluid	Action 0	Maxim No
426	581	BMP Fluid	Action 0	Restor No
427	582	BMP Fluid	Action 0	Irrigat No
428	583	BMP Fluid	Action 0	Utilize No
429	584	BMP Fluid	Action 0	<i>Roads</i> No

430	585	BMP Fluid	Action 0	Design No
431	586	BMP Fluid	Action 0	Do not No
432	587	BMP Fluid	Action 0	Establi No
433	588	BMP Fluid	Action 0	Coordi No
434	589	BMP Fluid	Action 0	Constr No
435	590	BMP Fluid	Action 0	Use No
436	591	BMP Fluid	Action 0	Close No
437	592	BMP Fluid	Action 0	<i>Opera</i> No
438	593	BMP Fluid	Action 0	Cluste No
439	594	BMP Fluid	Action 0	Use No
440	595	BMP Fluid	Action 0	Clean No
441	596	BMP Fluid	Action 0	Restrict No
442	597	BMP Fluid	Action 0	Cover No
443	598	BMP Fluid	Action 0	Equip No
444	599	BMP Fluid	Action 0	Use No
445	600	BMP Fluid	Action 0	Contro No
446	601	BMP Fluid	Action 0	Restrict No
447	602	BMP Locatable	Action 0	<i>BMP</i> No
448	603	BMP Locatable	Action 0	<i>Roads</i> No
449	604	BMP Locatable	Action 0	Design No
450	605	BMP Locatable	Action 0	Locate No
451	606	BMP Locatable	Action 0	Coordi No
452	607	BMP Locatable	Action 0	Constr No
453	608	BMP Locatable	Action 0	Establi No
454	609	BMP Locatable	Action 0	Do not No
455	610	BMP Locatable	Action 0	Restrict No
456	611	BMP Locatable	Action 0	Use No
457	612	BMP Locatable	Action 0	Close No
458	613	BMP Locatable	Action 0	<i>Opera</i> No
459	614	BMP Locatable	Action 0	Cluste No
460	615	BMP Locatable	Action 0	Place No
461	616	BMP Locatable	Action 0	Restrict No
462	617	BMP Locatable	Action 0	Site No
463	618	BMP Locatable	Action 0	Place No
464	619	BMP Locatable	Action 0	Bury No
465	620	BMP Locatable	Action 0	Cover No
466	621	BMP Locatable	Action 0	Equip No
467	622	BMP Locatable	Action 0	Contro No
468	623	BMP Locatable	Action 0	Restrict No
469	624	BMP Locatable	Action 0	Requir No
470	625	BMP Locatable	Action 0	Clean No
471	626	BMP Locatable	Action 0	Locate No
472	627	BMP Locatable	Action 0	<i>Recla</i> No

473	628	BMP Locatable	Action 0	Includ	No
474	629	BMP Locatable	Action 0	Addre	No
475	630	BMP Locatable	Action 0	Maxim	No
476	631	BMP Locatable	Action 0	Restor	No
477	632	BMP Locatable	Action 0	Irrigat	No
478	633	BMP Fuels	Action 0	<i>BMP</i>	No
479	634	BMP Fuels	Action 0	<i>Fuels</i>	No
480	635	BMP Fuels	Action 0	Where	No
481	636	BMP Fuels	Action 0	Provid	No
482	637	BMP Fuels	Action 0	Use	No
483	638	BMP Fuels	Action 0	Ensure	No
484	639	BMP Fuels	Action 0	Where	No
485	640	BMP Fuels	Action 0	Where	No
486	641	BMP Fuels	Action 0	Power-	No
487	642	BMP Fuels	Action 0	Design	No
488	643	BMP Fuels	Action 0	Give	No
489	644	BMP Fuels	Action 0	As	No
490	645	BMP Fuels	Action 0	Empha	No
491	646	BMP Fuels	Action 0	Remov	No
492	647	BMP Fuels	Action 0	Protect	No
493	648	BMP Fuels	Action 0	Reduc	No
494	649	BMP Fuels	Action 0	Strateg	No
495	650	BMP Fire	Action 0	<i>Fire</i>	No
496	651	BMP Fire	Action 0	Develo	No
497	652	BMP Fire	Action 0	Provid	No
498	653	BMP Fire	Action 0	Assign	No
499	654	BMP Fire	Action 0	On	No
500	655	BMP Fire	Action 0	During	No
501	656	BMP Fire	Action 0	To the	No
502	657	BMP Fire	Action 0	Power-	No
503	658	BMP Fire	Action 0	Minim	No
504	659	BMP Fire	Action 0	Minim	No
505	660	BMP Fire	Action 0	Utilize	No
506	661	BMP Fire	Action 0	As	No
507	662	BMP	Action 0	Action	No
508	663	BMP	Action 0	Action	No
509	664	BMP	Action 0	Action	No
510	665	BMP	Action 0	Action	No
511	666	BMP	Action 0	Action	No
512	667	BMP	Action 0	Action	No
513	668	BMP	Action 0	Action	No
514	669	BMP	Action	Action	No
515	670	BMP	Action	Action	No







Action	Guy wires will be avoided were	Guy wires will be avoided were
Action	Design structures and facilities to	Design structures and facilities to
Action	New power and communication	New power and communication
Action	Adhere to seasonal restrictions	Adhere to seasonal restrictions
Action	Linear ROWs may be considered as	Linear ROWs may be considered as
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
All	Action: No Similar Action	Key Decision: Lands for Retention
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	Key Decision: Identify Proposed
Action	Action: No Similar Action	See Above.
Action	Action: No Similar Action	Key Decision: Lands for Acquisition
No	Action: No Similar Action	Key Decision: Lands for Exchange
Action	Action: No Similar Action	Key Decision: Identify existing and
Action	Action: No Similar Action	Action: Identify and process
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	8 Action: Prioritize implementation
Action	Action: No Similar Action	6 Action: Develop objectives for
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	9 Action: Same as Alternative B.
Action	Action: No Similar Action	10 Action: Implement management
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	None Developed
Action	Action: No Similar Action	14 Action: Same as Alternative B.
No	Action: No Similar Action	Action: No Similar Action
-	Action: No Similar Action	Action: No Similar Action
Active	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action

Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	None Developed
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	1 Action: Utilize existing rangeland
No	Action: No Similar Action	2 Action: Proactively protect
No	Action: No Similar Action	3 Action: Implement integrated
Action	Action: No Similar Action	4 Action: implement rehabilitation
Action	Action: No Similar Action	5 Action: Utilize cooperative
Action	Action: No Similar Action	7 Action: Consider design features
Action	Action: No Similar Action	17 Action: Conduct monitoring of
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Object	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	See #176
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	GOAL: In priority habitat, design
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	See # 193
Action	Same as priority	Action: In priority habitat, design
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action.
Action	Same as priority	Action: During fuels management
Action	Action: No Similar Action	See #176
Action	Action: No Similar Action	Priorities discussed under a separate
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Addressed under fire fighter safety -
Action	Action: No Similar Action	Policy not an RMP decision.
Action	Action: No Similar Action	See BMPs
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	Standard procedures described in
Action	Action: No Similar Action	No similar action.



Action	Action: No Similar Action	Delineate conifer encroachment
Action	Action: No Similar Action	Same as Alternative B.
Action	Action: No Similar Action	Action: Design post fuel,
Action	Action: No Similar Action	Action: To address potential climate
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Ensure firefighter personnel receive
Action	Action: No Similar Action	Use knowledgeable resource
Action	Action: No Similar Action	Where appropriate, stage initial
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Protect sage-grouse habitat during
Action	Action: No Similar Action	Proactively protect sage-grouse
Action	Action: Lands are available for	Action: Lands are available for
Action	Action: For existing undeveloped	Action: For existing undeveloped
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
Action	Not Applicable	Not Applicable
No	Not Applicable	Not Applicable
Action	Lands would remain open to	Lands in Priority Habitat would
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Require new 3809 notices and Plans	Require new 3809 notices and Plans
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	No new authorizations would be	No new authorizations would be
Action	Action: In core habitat, restore	Action: In priority habitat, restore
Action	Reclamation bonding will be	Reclamation bonding will be
Action	Action: Lands are available for	Action: Lands are available for
Action	Action: Allow geophysical	Action: Allow geophysical
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Not Applicable - there are no	Action: Continue to only allow
Action	Action: When a surface disturbing	Action: In NEPA documents
Timin	Covered in Action #205	Covered in Action # 205
Conser	Not Applicable	Not Applicable

Conser	Conservation Measure: For future	Conservation Measure: For future
Conser	Conservation Measure: When	Conservation Measure: When
Conser	Conservation Measure: If a field is	Conservation Measure: If a field is
Conser	Action: No Similar Action	Action: No Similar Action
Conser	Conservation Measure: If surface	Conservation Measure: If surface
Conser	Conservation Measure: When an	Conservation Measure: When an
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Object	Action: No Similar Action	Action: No Similar Action
Action	Action: Where the federal	Action: Where the federal
Action	Where the federal government owns	Where the federal government owns
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: Action: In priority habitat,	Action: Action: In priority habitat,
Action	Action: No Similar Action	No similar action.
Action	Same as Priority	CTTM 2: Management Action: In
Action	Same as Priority	CTTM 3: Management Action:
Action	Action: No Similar Action	Action: Design and designate a
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: Design and designate a
Action	Action: No Similar Action	Action: Prioritize restoration of
Action	Action: No Similar Action	Action: When rehabilitating linear
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Schedule road maintenance to avoid
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: SRPs would be analyzed on
Action	Same as Priority	Designate or design developed
No	Same as Priority	Incorporate seasonal restrictions for
Action	Same as Priority	Recreation activities and developed
Action	Action: No Similar Action	Limit snow machine travel to
Action	Action: No Similar Action	Repeat
Action	Action: No Similar Action	See # 358
Action	Action: No Similar Action	See # 359
Action	Action: No Similar Action	No similar action.
Action	Action: No Similar Action	No similar action. See SRP
Action	Action: No Similar Action	No similar action. - Refer to
Action	Action: No Similar Action	See action #358

Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	See action #359.
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: Within grazing allotments
Action	Same as Priority	Where opportunities exist, work
Action	Action: Core areas are the highest	Action: Prioritize land health
Action	Same as Priority	Action: During the land health
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: Use monitoring information
Action	Same as Priority	Action: Manage for vegetation
Action	Same as Priority	Action: Where livestock
Action	Same as Priority	Action: In priority sage-grouse
Action	Manage livestock grazing in priority	Manage livestock grazing in priority
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: Limit authorization of new	Action: Limit authorization of new
Action	Action: During project inspections,	Action: During project inspections,
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: Assess the compatibility of	Action: Assess the compatibility of
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: In priority habitat, design	Action: In priority habitat, design
Action	Action: When developing or	Action: When developing or
Action	Action: During project inspections,	Action: During project inspections,
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Same as Priority	Action: When grazing privileges are
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: Incorporate Terms and	Action: Incorporate Terms and
No	Where opportunities exist, consider	Where opportunities exist, consider
Action	Outside of occupied or potential	Outside of occupied or potential



Object	Action: No Similar Action	Action: No Similar Action
Action	Action: Within priority habitat,	Action: Within priority habitat,
Action	Action: When evaluating AML on	Action: When evaluating AML on
Action	Utilize interdisciplinary land health	Utilize interdisciplinary land health
Action	Refer to livestock grazing actions	Refer to livestock grazing actions
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	6. Action: Analysis of proposed
Action	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
No	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Fence whole or portion of pond site	Fence whole or portion of pond site
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Design roads to an appropriate	Design roads to an appropriate

Action	Construction, operations and	Construction, operations and
Action	Coordinate road construction and	Coordinate road construction and
Action	Construct road crossings at right	Construct road crossings at right
Action	Establish speed limits on BLM and	Establish speed limits on BLM and
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Restrict vehicle traffic to only	Restrict vehicle traffic to only
Action	Use dust abatement on roads and	Use dust abatement on roads and
Action	Close and rehabilitate duplicate	Close and rehabilitate duplicate
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible	To the maximum extent possible
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Place liquid gathering facilities	Place liquid gathering facilities
Action	Consider placing pipelines under or	Consider placing pipelines under or
Action	Develop a plan to reduce the	Develop a plan to reduce the
Action	Restrict the construction of tall	Restrict the construction of tall
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Where physically feasible, bury	Where physically feasible, bury
Action	Action: No Similar Action	Action: No Similar Action
Action	To the maximum extent possible,	To the maximum extent possible,
Action	To the maximum extent possible	To the maximum extent possible
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Control the spread and effects of	Control the spread and effects of
Action	Action: No Similar Action	Action: No Similar Action
Action	Restrict pit and impoundment	Restrict pit and impoundment
Action	Remove or re-inject produced water	Remove or re-inject produced water
Action	Action: No Similar Action	Action: No Similar Action
Action	Require noise shields when drilling	Require noise shields when drilling
Action	To the maximum extent possible, fit	To the maximum extent possible, fit
Action	Require sage-grouse-safe fences: use	Require sage-grouse-safe fences: use
Action	Action: No Similar Action	Action: No Similar Action
Action	Clean up refuse (Bui et al. 2011).	Clean up refuse (Bui et al. 2011).
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Action: No Similar Action	Action: No Similar Action
Action	Include objectives for ensuring	Include objectives for ensuring
Action	When road and well pad is no longer	When road and well pad is no longer
Action	Restore disturbed areas at final	Restore disturbed areas at final
Action	Irrigate interim reclamation if	Irrigate interim reclamation if
Action	To the maximum extent possible,	To the maximum extent possible,
Action	Action: No Similar Action	Action: No Similar Action

Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
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Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Design roads to an appropriate	Design roads to an appropriate
Action	Locate roads to avoid important	Locate roads to avoid important
Action	Coordinate road construction and	Coordinate road construction and
Action	Construct road crossing at right	Construct road crossing at right
Action	Establish speed limits on BLM and	Establish speed limits on BLM and
Action	Action: No Similar Action	Action: No Similar Action
Action	Restrict vehicle traffic to only	Restrict vehicle traffic to only
Action	Use dust abatement practices on	Use dust abatement practices on
Action	Close and reclaim mining and	Close and reclaim mining and
<i>Action</i>	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
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Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
<i>Action</i>	Action: No Similar Action	Action: No Similar Action

Action	Action: No Similar Action	Action: No Similar Action
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Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Where applicable, incorporate linear	Where applicable, incorporate linear
Action	Power-wash all vehicles and	Power-wash all vehicles and
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Emphasize the use of native plant	Emphasize the use of native plant
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Reduce the risk of vehicle or human-	Reduce the risk of vehicle or human-
Action	Strategically place and maintain pre-	Strategically place and maintain pre-
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Minimize unnecessary cross-country	Minimize unnecessary cross-country
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Utilize existing roads, or	Utilize existing roads, or
Action	Construct new roads to minimum	Construct new roads to minimum
Action	To the extent possible, micro-site	To the extent possible, micro-site
Action	Locate staging areas outside the core	Locate staging areas outside the core
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Action: No Similar Action	Action: No Similar Action
Action	Wind energy development project	Wind energy development project





Alternative D - General Habitat	Altern	Altern	Altern	Altern	Altern	Altern	Altern	Altern	Altern
Action: No Similar Action	Provid	Action	Action	Action	p. 30,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 10,	Same		Action	
Action: No Similar Action	Replac	Action	Action	Action	p. 45,	Same		Action	
Action: No Similar Action	Contin	Action	Action	Action	p. 45,	Same		Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 46,	Same		Action	
GOAL: Maintain and/or increase	Conser	Action	Action	Action	p. 1,	Same		GOAL	
OBJECTIVE: Conserve, enhance or	Action	Focus	Focus	Focus	p. 25,	Same		Object	
Action: No Similar Action	Activit	Action	Action	Action		Same		Action	
Action: No Similar Action	Action	Action	Action	Action		Same		Object	
OBJECTIVE: Manage general	Action	Action	Action	Action		Same		Action	
Action: No Similar Action	Conser	Action	Action	Action	p. 1,	Same		Object	
Action: No Similar Action	Action	Action	Action	Action		Same		Action	
Action: No Similar Action	Action	Core	Import	Gener	p. 3,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Action	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Sub-	
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same		Sub-	
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same		Sub-	
Action: No Similar Action	This	Action	Action	Action	p. 5,	Same		Object	
Action: No Similar Action	Deline	Action	Action	Action		Same		Object	
Action: No Similar Action	Analyz	Action	Action	Action		Same		Action	
General sage-grouse habitat is	The	CHZ	CHZ	GHZ	p. 5,	Same		Unless	
Action: No Similar Action	Action	CHZ	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Action	The	The	The	p. 24,	Same		Action	
Action: No Similar Action	Action	Prioriti	Action	Action	p. 24,	Same		Action	
Action: No Similar Action	Action	Areas	The	Action	p. 24,	Same		Action	
Action: No Similar Action	Action	Depen	Action	Action	p. 25,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 30,	Same		Action	
Action: No Similar Action	Design	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Classif	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Establi	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Mainta	Action	Action	Action	p. 31,	Same		Action	
Action: No Similar Action	Wildfi	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	Sage-	Action	Action	Action	p. 5,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 6,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 6,	Same		Action	
Action: No Similar Action	Habita	Action	Action	Action	p. 11,	Same		Action	
Action: No Similar Action	The	Action	Action	Action	p. 11,	Same		Action	
Action: No Similar Action	Reduc	Utilize	Utilize	Action	p. 25,	Same		Action	
Action: No Similar Action	Action	Coordi	Afford	Action	p. 25,	Same		Action	
Action: No Similar Action	Action	Gener	Gener	Gener	p. 26,	Same		Action	

Action: No Similar Action	Action	CHZ	CHZ	Action	p. 23,	Same	Action
Action: No Similar Action	Manag	Manag	Manag	Manag	Same	p. 13,	Same
Action: No Similar Action	Manag	Action	Action	Action	p. 14,	Same	Action
Action: No Similar Action	Coordi	Action	Action	Action	p. 19,	Same	Action
Action: No Similar Action	Action	Increas	Increas	Mainta	p. 25,	Same	Action
Action: No Similar Action	Admin	Action	Action	Action	p. 46,	Same	Action
Action: No Similar Action	Adapti	Action	Action	Action	p. 46,	Same	Action
Action: No Similar Action	Curtail	Action	Action	Action	p. 46,	Same	Action
Action: No Similar Action	Emerg	Action	Action	Action	p. 46,	Same	Action
Action: No Similar Action	Action	This	This	Action	p. 5,	Same	Action
Action: No Similar Action	Action	The	The	Action	p. 5,	Same	Action
Action: No Similar Action	Action	Imple	Imple	Action	p. 14,	Same	Action
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action
Action: No Similar Action	Provid	Action	Action	Action	p. 30,	Same	Action
Action: No Similar Action	Action	Apply	Apply	Action	p. 9,	Same	Action
Action: No Similar Action	Apply	Action	Action	Action	p. 9,	Same	Action
Action: No Similar Action	Action	Apply	Action	Action		Same	Action
Action: No Similar Action	Action	Apply	Apply	Action	p. 10,	Same	Action
Action: No Similar Action	Correc	Action	Action	Action	p. 46,	Same	Action
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action
Action: No Similar Action	Mainta	Action	Action	Action	p. 45,	Same	Action
Action: No Similar Action	All	Action	Action	Action	p. 11,	Same	Action
Action: No Similar Action	Plan,	Action	Action	Action	p. 11,	Same	Action
Action: No Similar Action	Utilize	Action	Action	Action	p. 11,	Same	Action
Action: No Similar Action	Areas	Focus	Focus	Action	p. 12,	Same	Action
Action: No Similar Action	The	Action	Action	Action	p. 12,	Same	Action
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action
Action: No Similar Action	Object	Action	Action	Action	p. 7,	Same	Action
Action: No Similar Action	Action	Object	Object	Action	p. 7,	Same	Action
Action: No Similar Action	Action	Object	Action	Action	p. 8,	Same	Action
Action: No Similar Action	Condu	Condu	Condu	Action	p. 13,	Same	Action
Action: No Similar Action	Condu	Condu	Condu	Action	p. 13,	Same	Action
Designate General areas as ROW	Action	Action	Action	Action		Same	Action
ROW and land use authorizations	Action	Action	Action	Action		Same	Action
Not applicable	Action	Action	Action	Action		Same	Action
New authorizations and	Action	Action	Action	Action		Same	Action
New authorizations or modifications	Action	Action	Action	Action		Same	Action
Removal/relocation/ or burial	Action	Action	Action	Action		Same	Action
Site new authorizations or facilities	Action	Action	Action	Action		Same	Action

Guy wires will be avoided were	Action	Action	Action	Action	Same	Action
Design structures and facilities to	Action	Action	Action	Action	Same	Action
New power and communication	Action	Action	Action	Action	Same	Action
Adhere to seasonal restrictions	Action	Action	Action	Action	Same	Action
Linear ROWs may be considered as See	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Design	Design	Manag	p. 26,	Same
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Prohib	Author	Author	p. 33,	Same
Action: No Similar Action	Action	Prohib	Action	Action	p. 34,	Same
Action: No Similar Action	Action	Apply	Action	Action	p. 34,	Same
Action: No Similar Action	Infrast	Action	Action	There	p. 11,	Same
Action: No Similar Action	Modif	Action	Action	Action	p. 24,	Same
Action: No Similar Action	Condu	Action	Action	Action	p. 24,	Same
Action: No Similar Action	Action	New	Action	Action	p. 26,	Same
Action: No Similar Action	Action	Allow	Action	Action	Same	Action
Action: No Similar Action	Action	In	Action	Action	p. 27,	Same
Action: No Similar Action	Action	Mainta	Action	Action	p. 27,	Same
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Prioriti	Prioriti	Action	p. 33,	Same
Action: No Similar Action	Action	Active	Active	Action	p. 33,	Same
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Action	Action	Action	Action	Same	No
Action: No Similar Action	Action	Action	Action	Action	Same	No

Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Active	Active	Aggres p. 26,	Same	Action
Action: No Similar Action		Action	Contro	Contro	Action p. 32,	Same	Action
Action: No Similar Action		Action	Empha	Empha	Action p. 32,	Same	Action
Action: No Similar Action		Action	Reallo	Reallo	Action p. 32,	Same	Object
Action: No Similar Action		Action	Where	Where	Action p. 32,	Same	No
Action: No Similar Action		Action	Action	Requir	Action p. 39,	Same	Action
Action: No Similar Action		Action	Action	Eradic	Eradic p. 39,	Same	No
Action: No Similar Action		Action	Action	Monit	Monit p. 39,	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Is this	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Utilize	Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Same as priority		Action	Reduc	Reduc	Reduc p. 31,	Same	Action
Action: No Similar Action		Action	Prioriti	Prioriti	Empha p. 26,	Same	Action
Action: No Similar Action		Action	Decrea	Decrea	Action p. 31,	Same	Action
Action: No Similar Action	Refer	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Imple	Action	Develo	Develo	Action p. 32,	Same	Action
Same as priority		Action	Action	Create	Create p. 38,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Prescri	Prescri p. 38,	Same	Action
Action: In general sage-grouse		Action	Action	Coordi	Action p. 38,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Develo	Action p. 28,	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	No	Action	Action	Action	Action	Same	Action

Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Prioriti	Action	Action	p. 3, Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Revis	Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: Lands are available for		Action	Action	Action	Action	Same	Action
Action: For existing undeveloped		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	Action
Not Applicable		Action	Action	Action	Action	Same	No
Lands in General Habitat would		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Require new 3809 notices and plans		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
No new authorizations would be		Action	Action	Action	Action	Same	Action
Action: In general habitat, restore		Action	Action	Action	Action	Same	Action
Reclamation bonding will be		Action	Action	Action	Action	Same	Action
Action: Lands are open to leasing,		Action	Action	Action	Action	Same	Action
Action: Allow geophysical		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Not Applicable - no existing leases		Action	Oil	Oil	Action	p. 34, Same	1.
Action: When a surface disturbing		Action	Action	Action	Action	Same	Conser
Covered in Action # 205		Action	Action	Action	Action	Same	Conser
Not Applicable		Action	Action	Action	Action	Same	Conser



Action: No Similar Action	No	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Keep	Action	Action	Action	Action		Same	Action
Action: No Similar Action		Action	Action	Action	Action		Same	Action
Same as Priority	Our is	Action	Prioriti	Prioriti	Action	p. 26,	Same	Action
Same as Priority	Keep	Action	Action	Action	Action		Same	Action
lower priority	Keep	Action	Action	Action	Action		Same	Action
Same as Priority	Keep	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Do not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Idaho	Action	Action	Action	Action		Same	Action
Same as Priority	Keep	Action	Condu	Condu	Action	p. 36,	Same	Action
Same as Priority	Keep	Action	Mainta	Mainta	Action	p. 36,	Same	Action
Same as Priority	Langu	Action	Adjust	Adjust	Action	p. 36,	Same	Action
Same as Priority	Recom	Action	Action	Action	Action		Same	Action
Manage livestock grazing in priority	Recom	Action	Imple	Imple	Action	p. 36,	Same	Action
Action: No Similar Action	Tried	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Recom	Consid	Action	Action	Action	p. 12,	Same	Action
Action: No Similar Action	Recom	Consid	Alterin	Enhan	Enhan	p. 12,	Same	Action
Action: No Similar Action	Not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Not	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Compl	Prioriti	Prioriti	Action	p. p.	Same	Action
Action: No Similar Action	Most	Action	Action	Action	Action		Same	No
New water developments that divert	Recom	Utilize	Action	Action	Action	p. 14,	Same	Action
Action: During project inspections,	Keep	Includ	Action	Action	Action	p. 14,	Same	Action
Action: No Similar Action	Added	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Added	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Cover	Inform	Action	Action	Action	p. 13,	Same	Action
Action: Assess the compatibility of	Recom	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: In priority habitat, design	Recom	Use	Action	Action	Action	p. 13,	Same	Action
Action: When developing or	Keep	Mainta	Action	Action	Action	p. 13,	Same	Action
Action: During project inspections,	REVIS	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Covere	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Recom	Action	Action	Action	Action		Same	Action
Same as Priority	Revisit	Action	Action	Action	Action		Same	Action
Action: No Similar Action	We	Action	Action	Action	Action		Same	Action
Action: No Similar Action	Check	Action	Action	Action	Action		Same	Object
Action: No Similar Action	We	Action	Action	Action	Action		Same	No
Action: No Similar Action	Sugges	Action	Action	Action	Action		Same	No
Action: Incorporate Terms and	Recom	Action	Action	Action	Action		Same	No
Where opportunities exist, consider	HAVE	Action	Action	Action	Action		Same	No
Outside of occupied or potential	Recom	Action	Action	Action	Action		Same	Action



Grazing to achieve fuels	HAVE	Action	Action	Action	Action	Same	No
Action: No Similar Action	This is	Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Avoid	Avoid	Action p. 48,	Same	Action
Action: No Similar Action		Action	Design	Design	Action p. 48,	Same	Action
Action: No Similar Action		Action	Install	Install	Action p. 48,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 48,	Same	Action
Action: No Similar Action		Action	Avoid	Avoid	Action p. 48,	Same	Action
Action: No Similar Action		Action	Establi	Establi	Action p. 48,	Same	Action
Action: No Similar Action		Action	Treat	Treat	Action p. 48,	Same	Action
Action: No Similar Action		Action	Initiati	Initiati	Action p. 48,	Same	Action
Action: No Similar Action		Action	Apply	Apply	Action p. 46,	Same	Action
Action: No Similar Action		Action	Imple	Imple	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Graze	Graze	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Mainta	Mainta	Action p. 47,	Same	Action
Action: No Similar Action		Action	Inform	Inform	Action p. 47,	Same	Action
Action: No Similar Action		Action	Manag	Manag	Action p. 47,	Same	Action
Action: No Similar Action		Action	Modif	Modif	Action p. 47,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 47,	Same	Action
Action: No Similar Action		Action	Reduc	Reduc	Action p. 39,	Same	Action
Action: No Similar Action		Action	Mark	Mark	Action p. 37,	Same	Action
Action: No Similar Action		Action	Remov	Remov	Remov p. 37,	Same	Action
Action: No Similar Action		Action	Consid	Consid	Action p. 37,	Same	Action
Action: No Similar Action		Action	Constr	Constr	Action p. 37,	Same	Action
Action: No Similar Action		Action	Place	Place	Action p. 37,	Same	Action
Action: No Similar Action	Do not	Action	Action	Action	Action	Same	Object
Action: No Similar Action	Do not	Action	Action	Action	Action	Same	Action

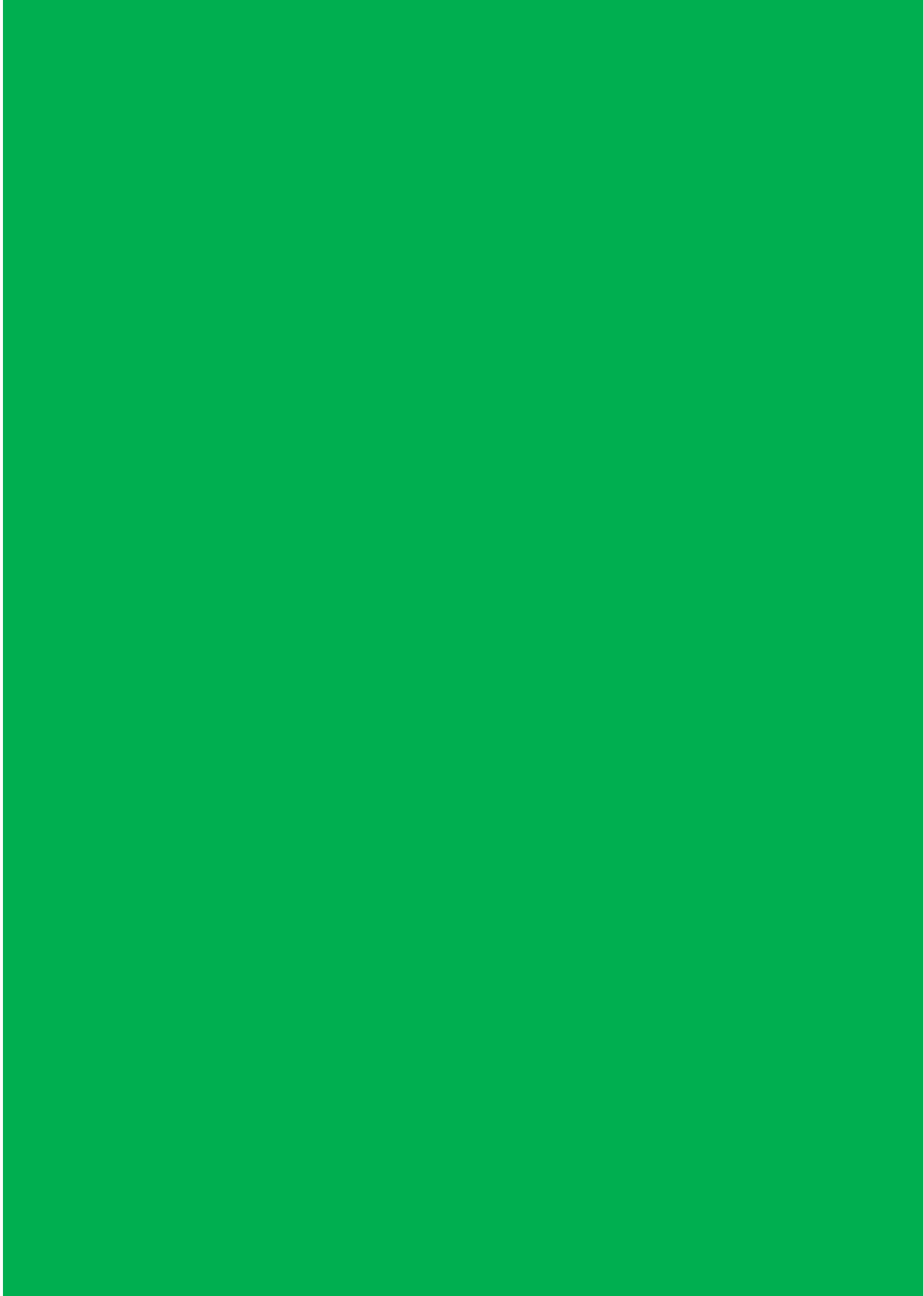
Action: No Similar Action	carry	Action	Action	Action	Action	Same	Object
Action: Within priority habitat,	Recom	Action	Action	Action	Action	Same	Action
Action: When evaluating AML on	Recom	Action	Action	Action	Action	Same	Action
Utilize interdisciplinary land health	Recom	Action	Action	Action	Action	Same	Action
Refer to livestock grazing actions	Recom	Action	Action	Action	Action	Same	Action
Action: No Similar Action	Requir	Action	Action	Action	Action	Same	No
Action: No Similar Action	Recom	Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Constr	Constr	Action p. 35,	Same	Action
Action: No Similar Action		Action	Return	Return	Action p. 35,	Same	No
Action: No Similar Action		Action	Minim	Minim	Minim p. 35,	Same	No
Action: No Similar Action		Action	Permit	Permit	Permit p. 35,	Same	No
Action: No Similar Action		Action	Minim	Minim	Action p. 35.	Same	Action
Action: No Similar Action		Action	Develo	Develo	Develo p. 35,	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	No
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action		Action	Action	Action	Action	Same	Action
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Remove or re-inject produced water	Have	Action	Action	Action	Action	Same	Same
Fence whole or portion of pond site	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Evalua	Evalua	Action p. 44.	Same	Action
Action: No Similar Action	DELE	Action	Limit	Limit	Action p. 44,	Same	Action
Design roads to an appropriate	NTT	Action	Apply	Apply	Action p. 44,	Same	Same

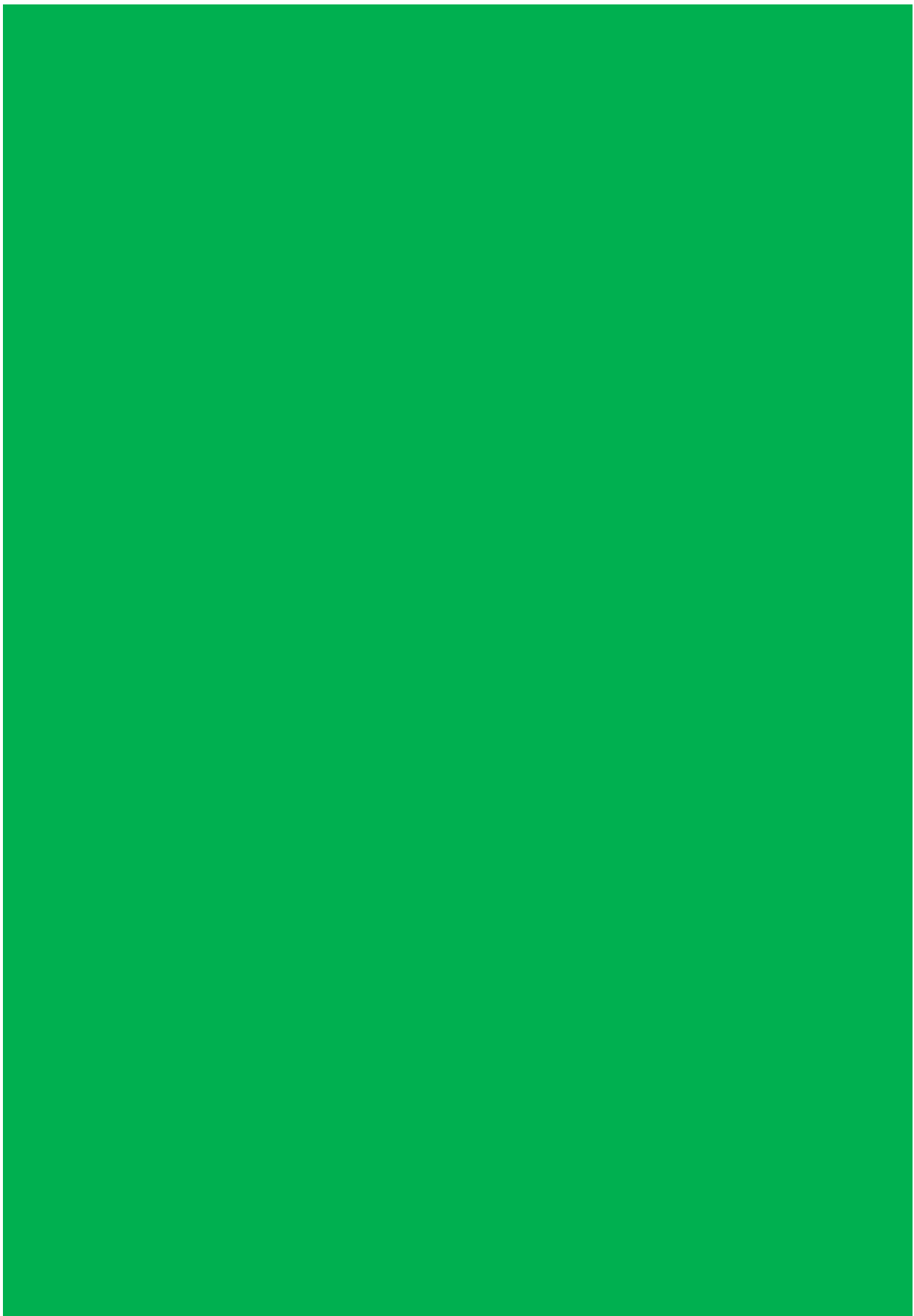
Construction, operations and	Aspect	Action	Limit	Limit	Action	p. 44,	Same	Same
Coordinate road construction and	NTT	Action	Allow	Allow	Action	p. 45.	Same	Same
Construct road crossings at right	NTT	Action	Locate	Locate	Action	p. 45,	Same	Same
Establish speed limits on BLM and	NTT	Action	Limit	Limit	Action	p. 45,	Same	Same
Action: No Similar Action	DELE	Action	Limit	Limit	Action	p. 45,	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Restrict vehicle traffic to only	NTT	Action	Action	Action	Action		Same	Same
Use dust abatement on roads and	NTT	Action	Action	Action	Action		Same	Same
Close and rehabilitate duplicate	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action
To the maximum extent possible	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Place liquid gathering facilities	NTT	Action	Action	Action	Action		Same	Same
Consider placing pipelines under or	NTT	Action	Action	Action	Action		Same	Same
Develop a plan to reduce the	NTT	Action	Action	Action	Action		Same	Same
Restrict the construction of tall	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Where physically feasible, bury	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Control the spread and effects of	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Restrict pit and impoundment	NTT	Action	Action	Action	Action		Same	Same
Remove or re-inject produced water	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Require noise shields when drilling	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible, fit	NTT	Action	Action	Action	Action		Same	Same
Require sage-grouse-safe fences: use	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Same
Clean up refuse (Bui et al. 2011).	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action
Include objectives for ensuring	NTT	Action	Action	Action	Action		Same	Same
When road and well pad is no longer	NTT	Action	Action	Action	Action		Same	Same
Restore disturbed areas at final	NTT	Action	Action	Action	Action		Same	Same
Irrigate interim reclamation if	NTT	Action	Action	Action	Action		Same	Same
To the maximum extent possible,	NTT	Action	Action	Action	Action		Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action		Same	Action



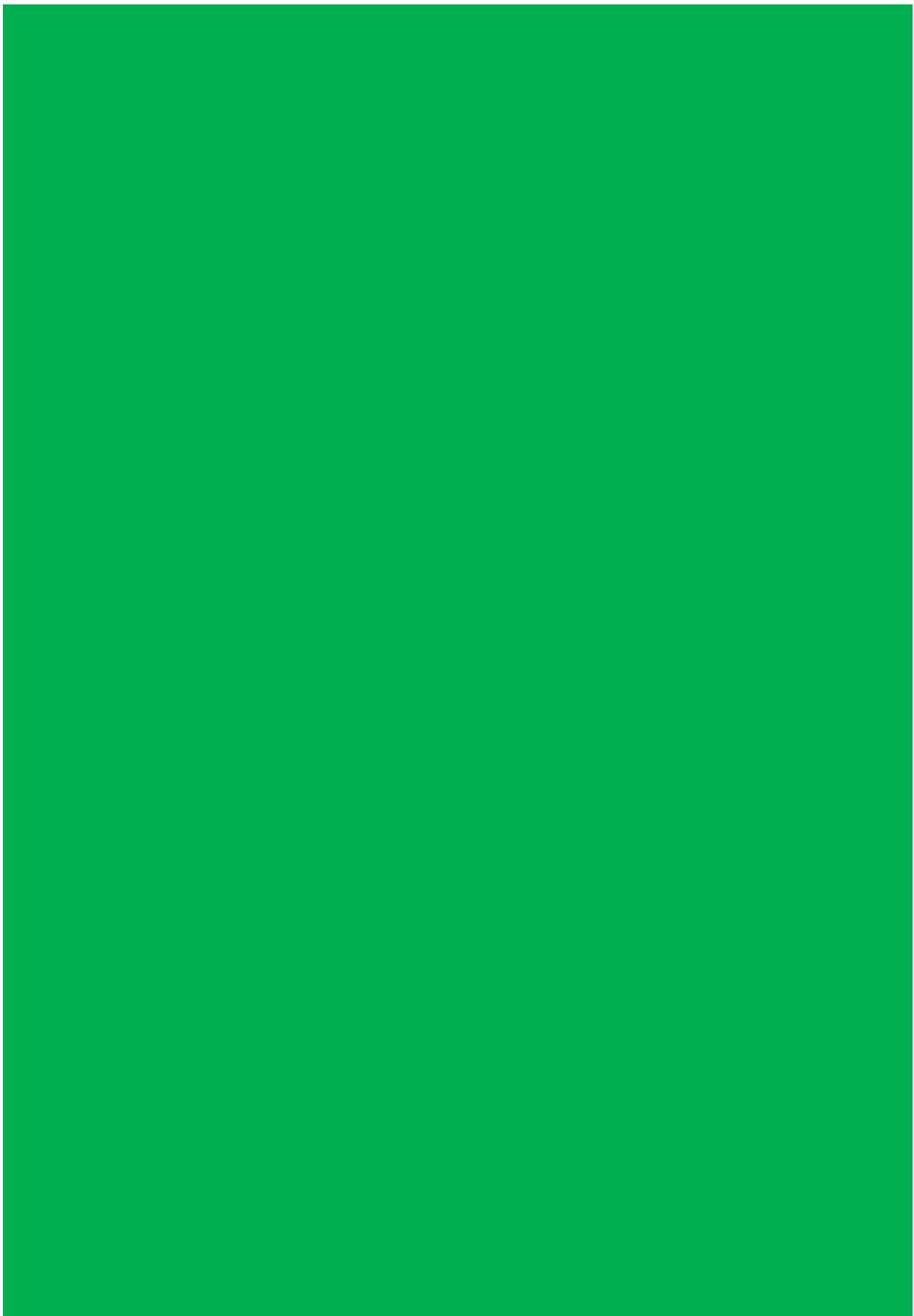
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	These	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Where applicable, incorporate linear	NTT	Action	Action	Action	Action	Same	Same
Power-wash all vehicles and	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Emphasize the use of native plant	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Reduce the risk of vehicle or human-	NTT	Action	Action	Action	Action	Same	Same
Strategically place and maintain pre-	Correc	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Action
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	DELE	Action	Action	Action	Action	Same	Same
Minimize unnecessary cross-country	NTT	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Action: No Similar Action	NA to	Action	Action	Action	Action	Same	Same
Utilize existing roads, or	Used	Action	Utilize	Utilize	Action p. 43,	Same	Action
Construct new roads to minimum	Used	Action	Constr	Constr	Action p. 43,	Same	Action
To the extent possible, micro-site	Used	Action	Micro-	Micro-	Action p. 43,	Same	Action
Locate staging areas outside the core	Used	Action	Locate	Action	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Co-	Co-	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Co-	Co-	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Constr	Constr	Action p. 44,	Same	Action
Action: No Similar Action	DELE	Action	Site	Site	Action p. 44,	Same	Action
Wind energy development project	Used	Action	Wind	Wind	Action p. 44,	Same	Action

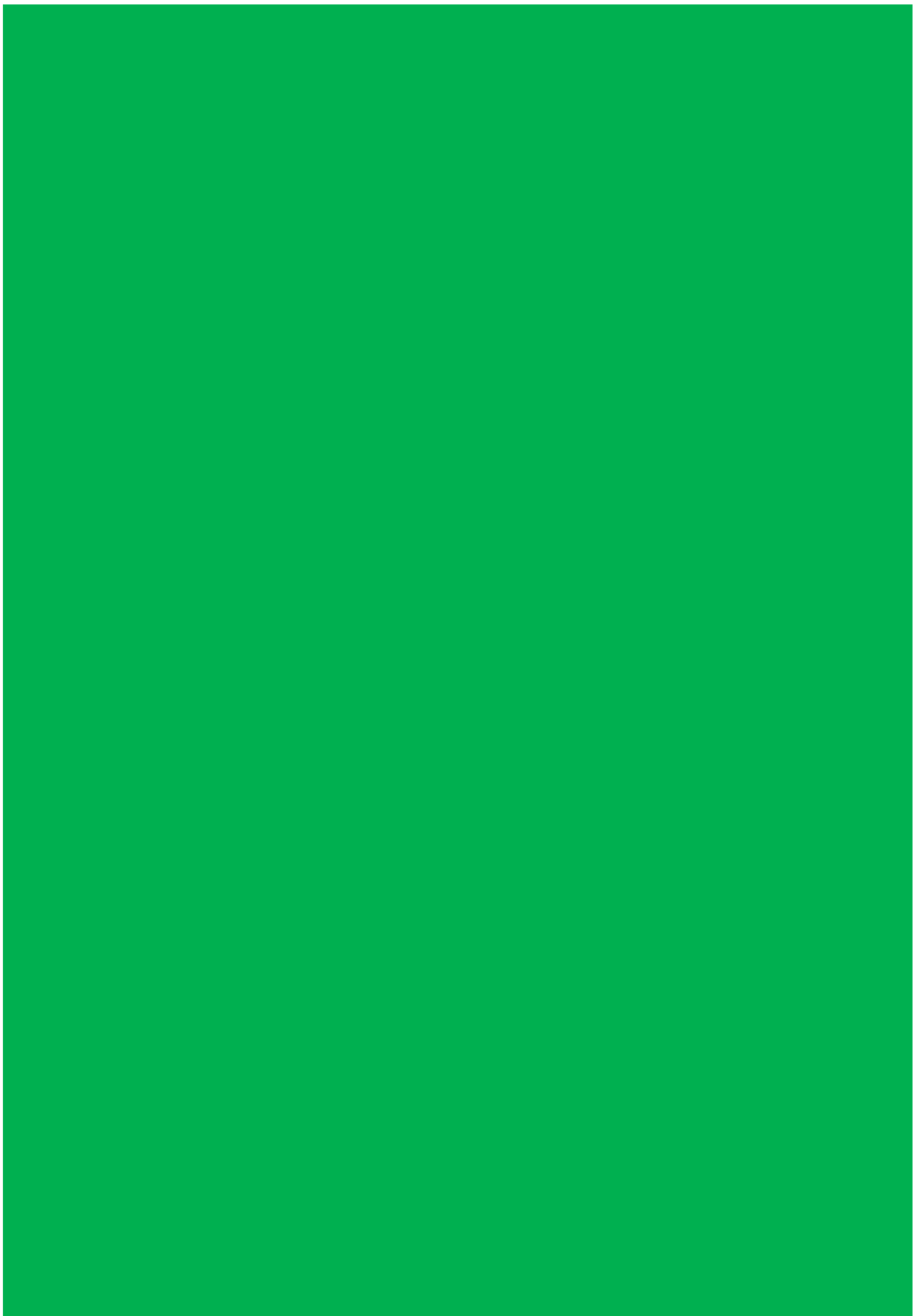
General procedure for requesting    This is Action Action Action Action    Same    Action

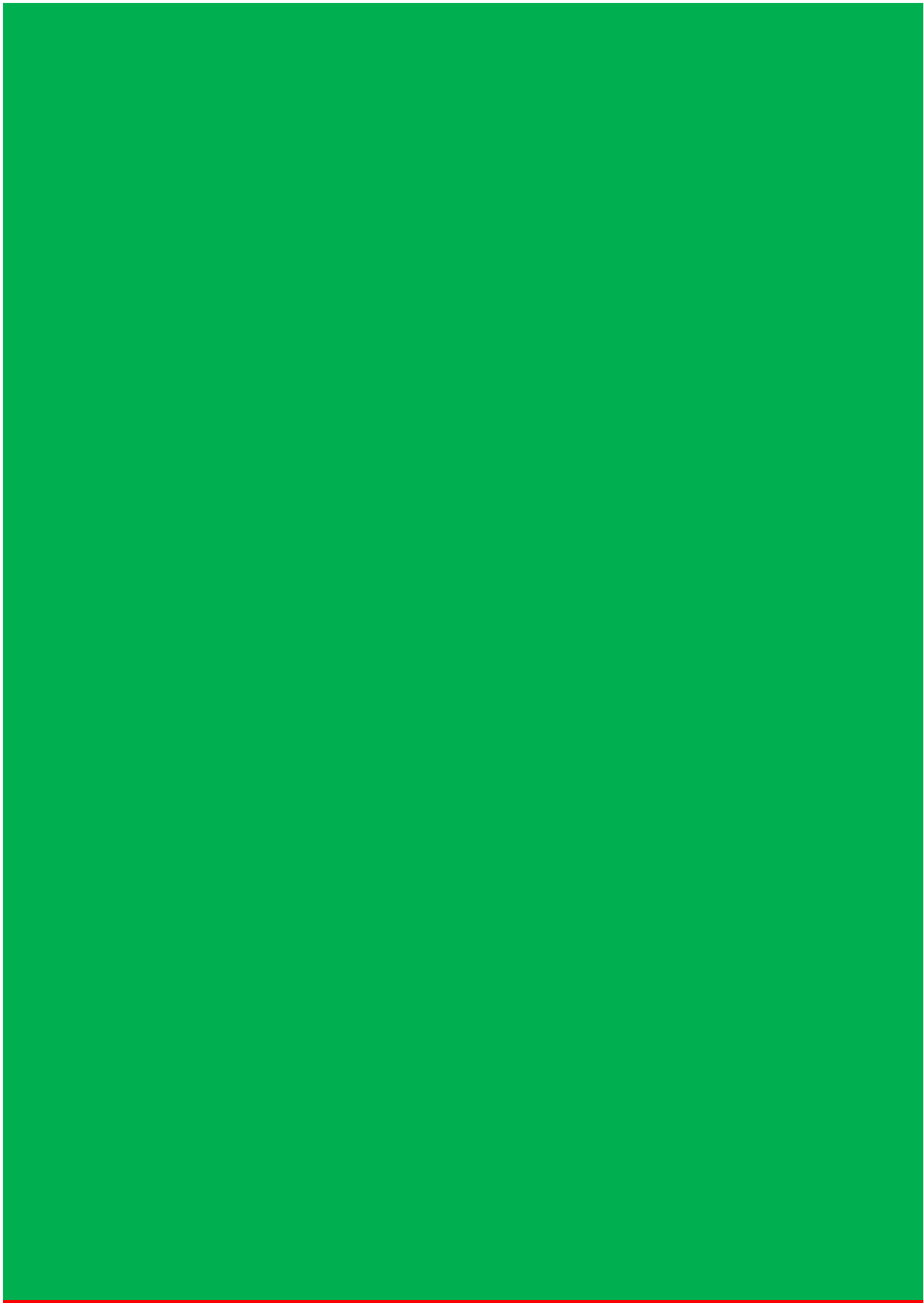






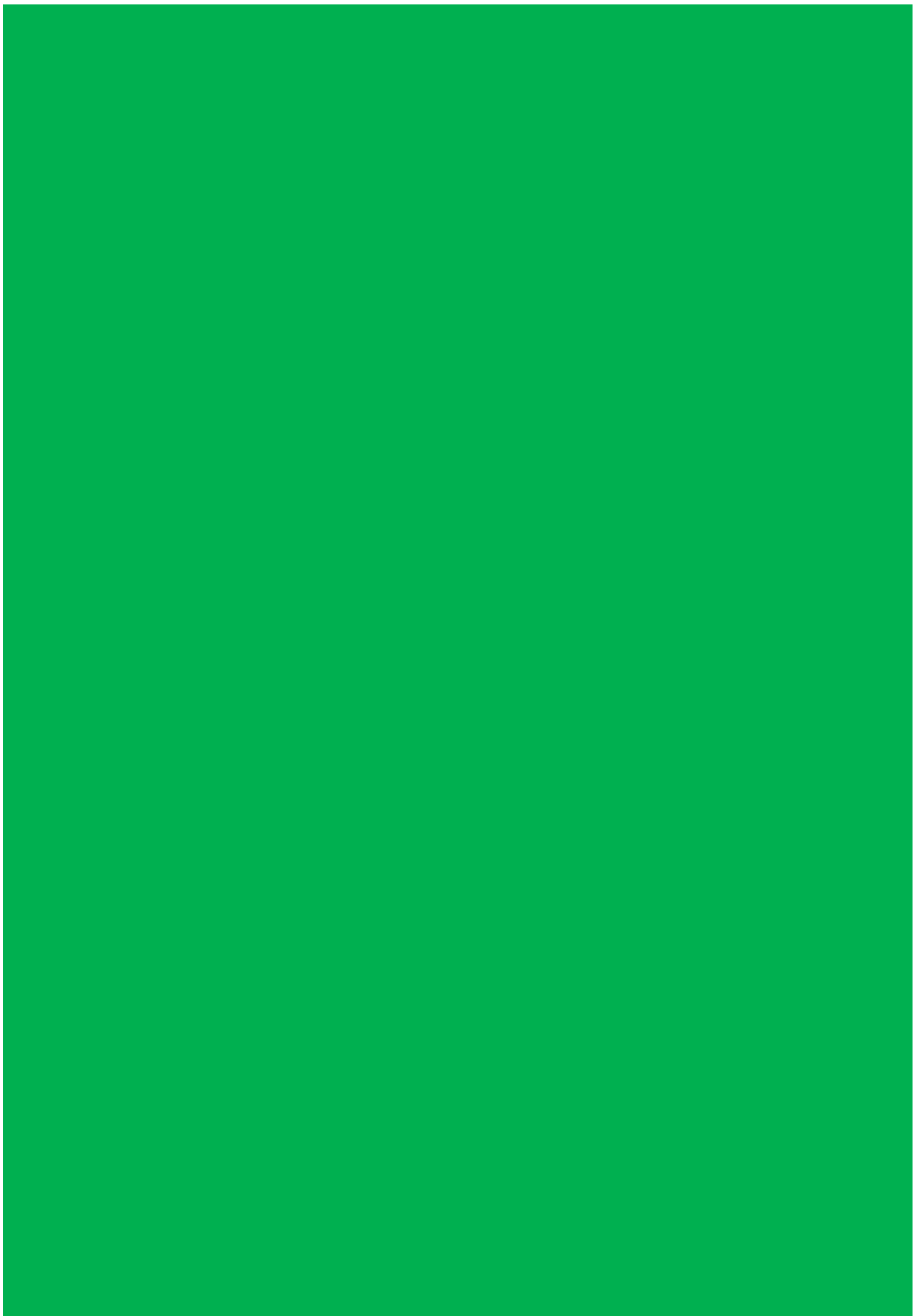




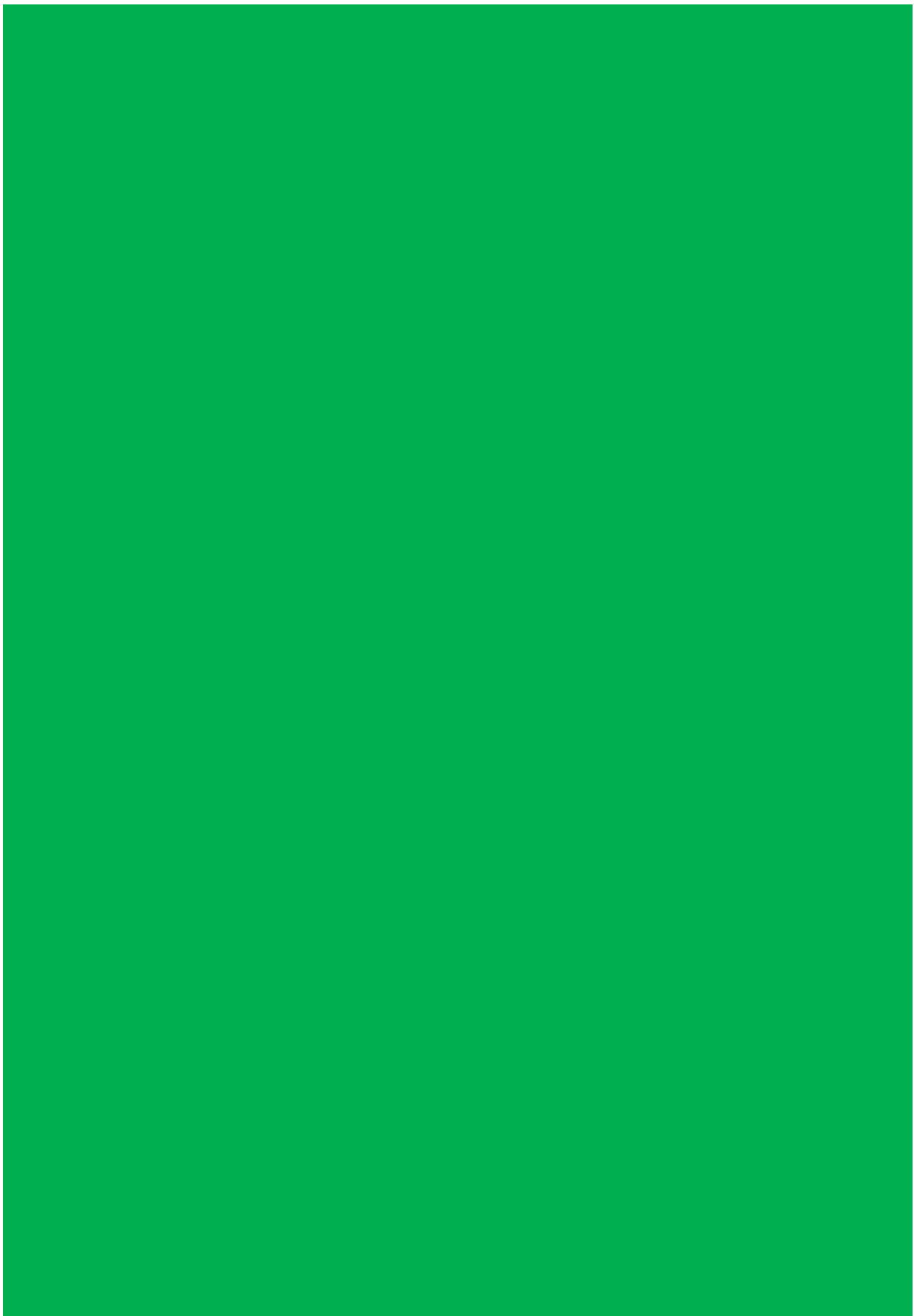


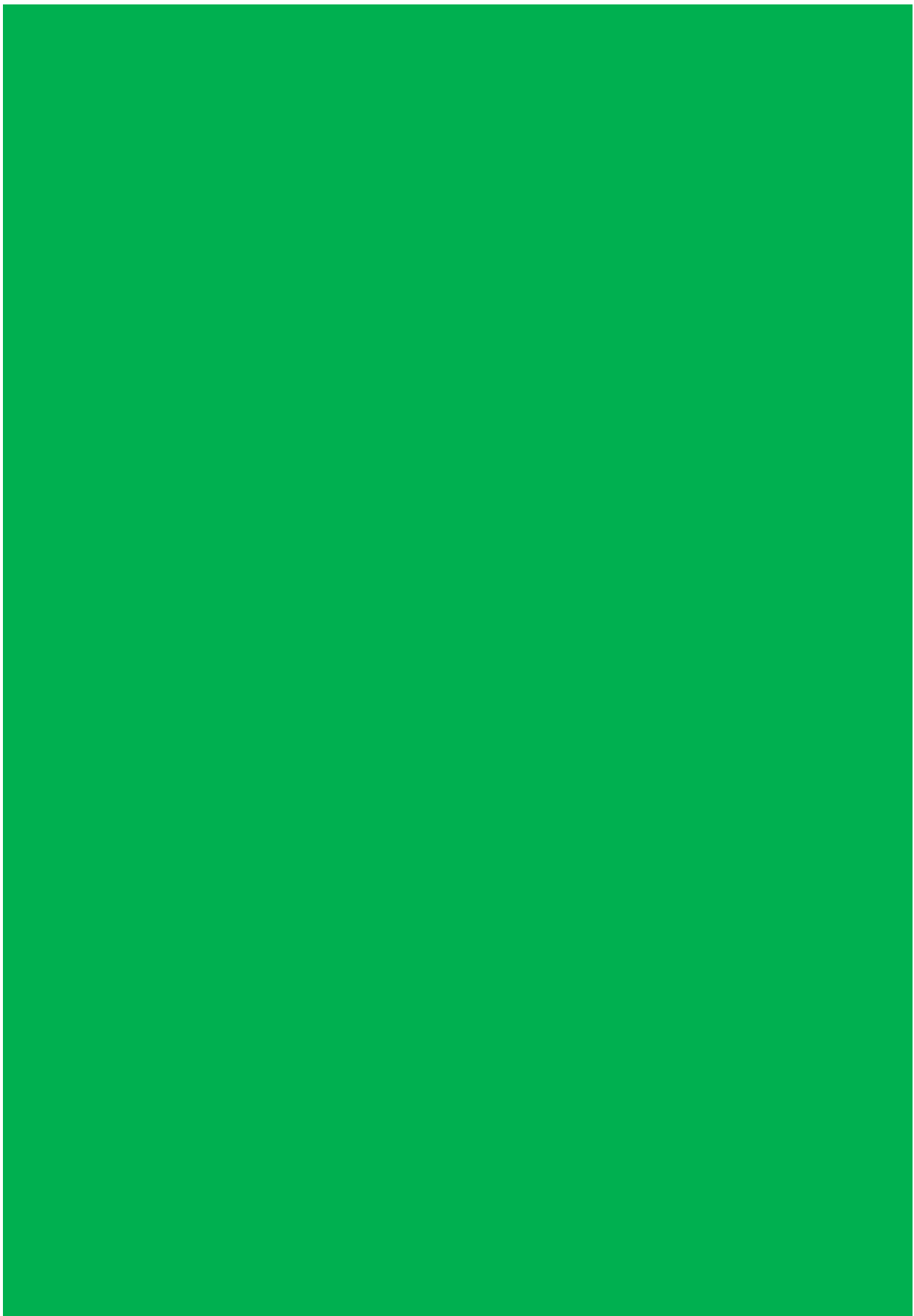
Does not apply to Sub region because no full field development or EISs that have addressed cumulative

Coal not

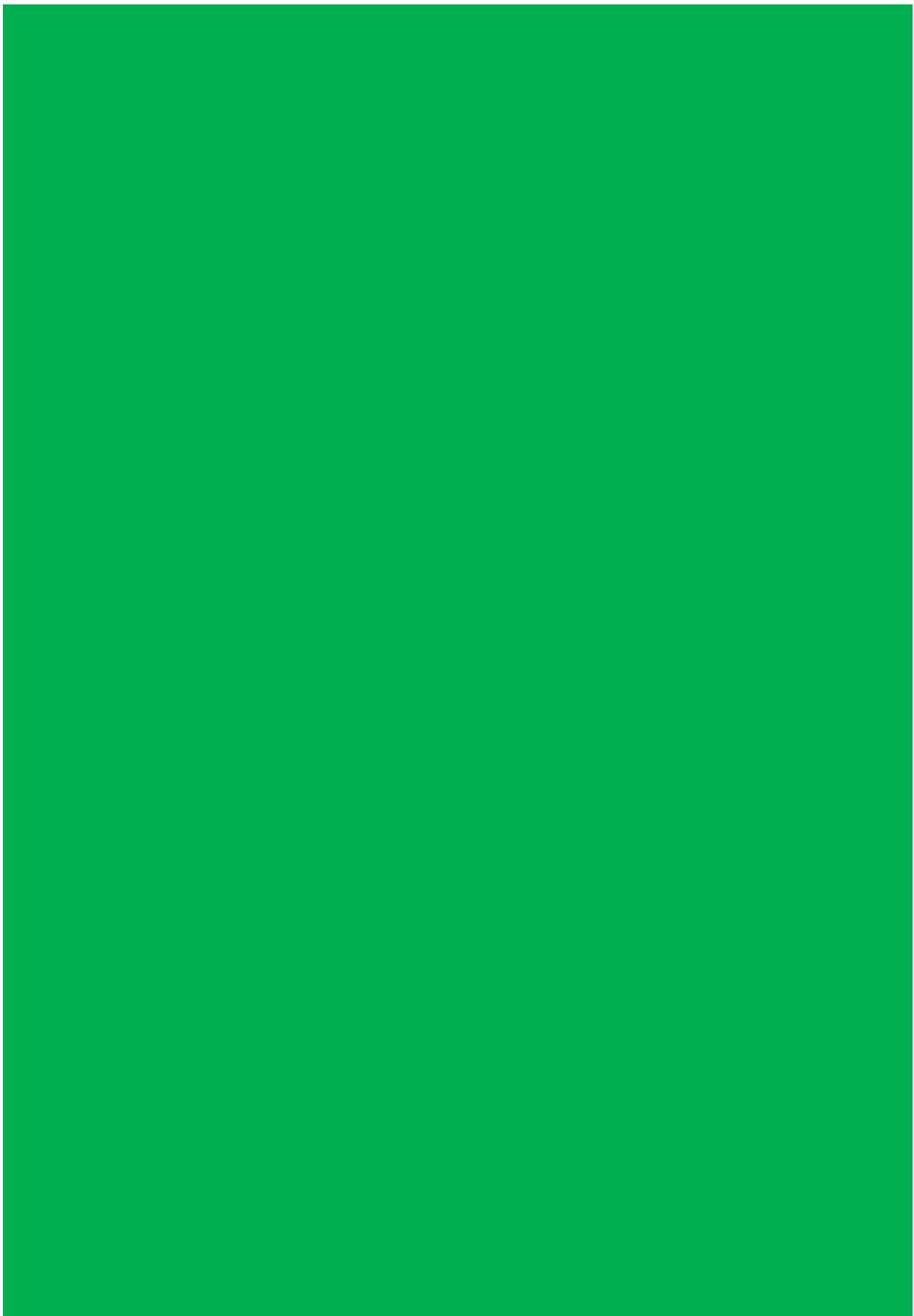


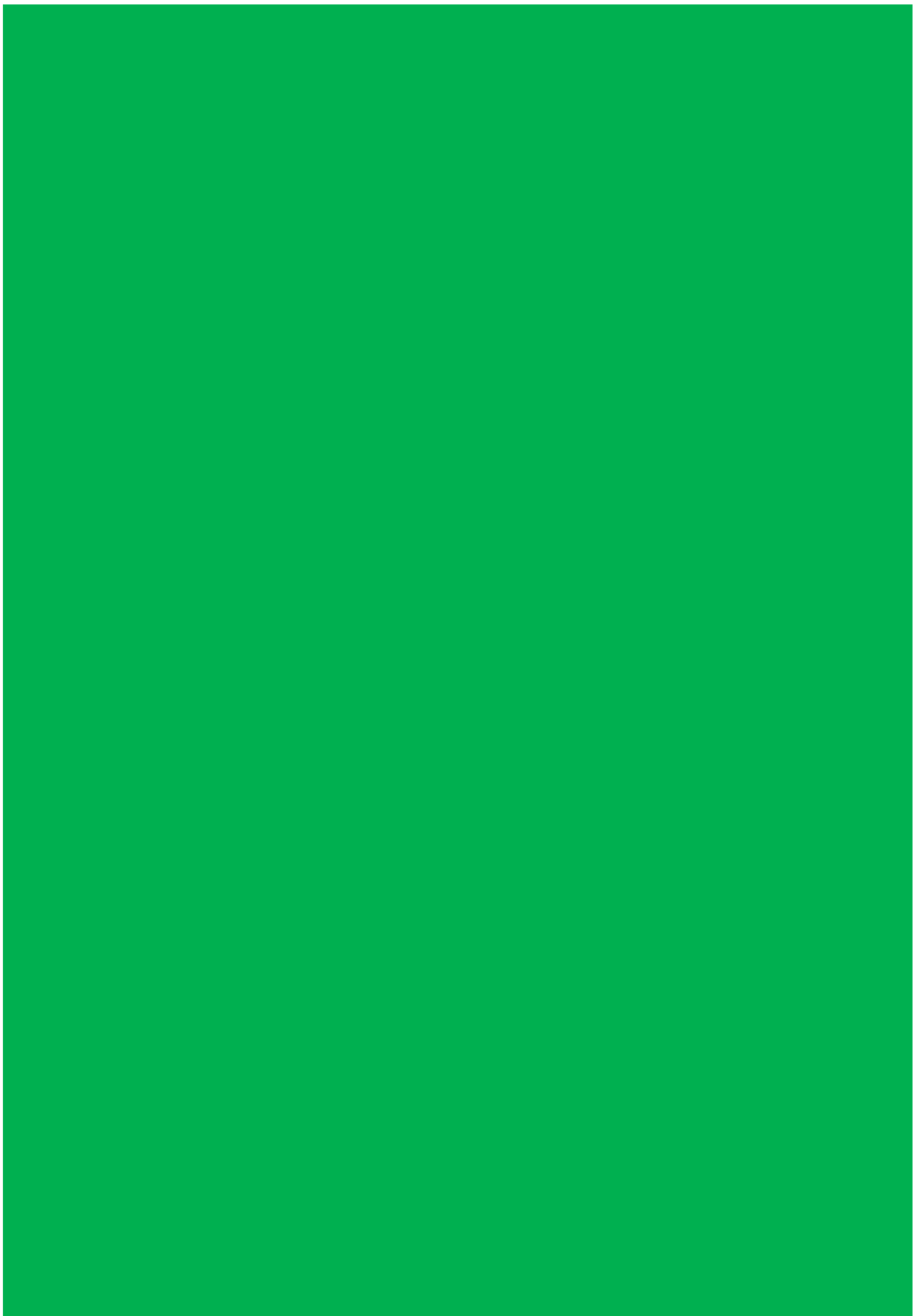
Combined with action 292



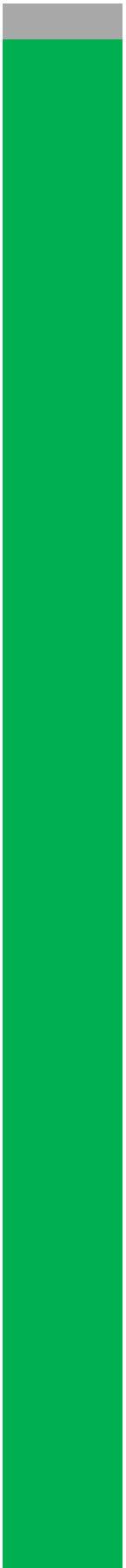


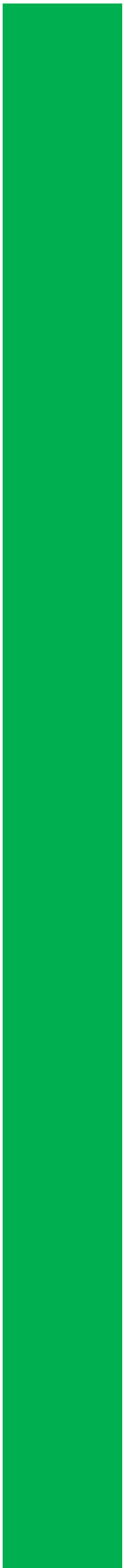


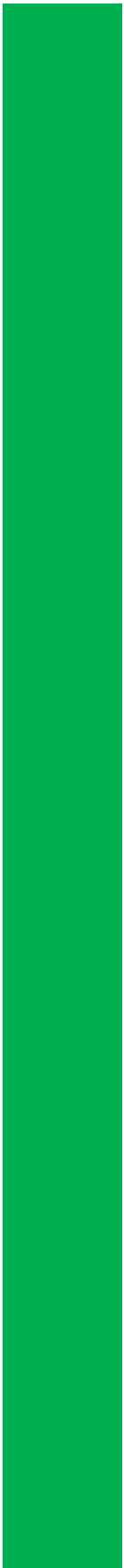


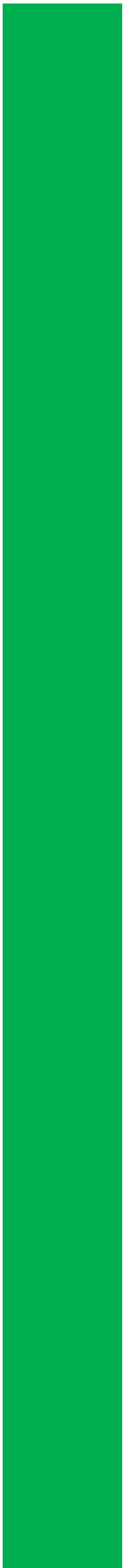












impacts.



New GOA 1/28/2013	Program Area	Sub Topic	Threat
4	Adaptive Management	Best Management Prac	N/A
5	Common to All Alternatives	Implementation	N/A
6	Goal	SG Abundance and Dist	All
7	Designation of Habitat	Designation of Habitat	Human Disturbance
7	Priority Setting	Implementation	
8	Common to All Alternatives		N/A
9	Designation of Habitat	Designation of Habitat	All
10	Habitat Fragmentation		Infrastructure
11	Goal		
11	Desired Conditions	Desired Conditions	Wildfire, Invasive Species
12	Habitat Fragmentation		Wildfire, Invasive Species
13	Designation of Habitat		All
13	Monitoring	group	N/A
14	Habitat Fragmentation	DFC Thresholds	Infrastructure Human Disturbance
15	Objective	Distribution	All
15	Disease	West Nile Virus	
16	Habitat Fragmentation	Disturbances sagebrush	Human Disturbance
17	Designation of Habitat	Connectivity	All
17	Desired Conditions		
18	Habitat Fragmentation	Connectivity	All
18	Monitoring		
19	Adaptive Management		All
19	Habitat Fragmentation		
20	Objective	Rehabilitation	All
21	Designation of Habitat		
21	Objective	ACEC	All
22	Common to All Alternatives	Process	All
23	Designation of Habitat	Mapping	All
24	Designation of Habitat	Populations	All
25	Designation of Habitat	Mapping	All
26	Priority Setting	Mapping	All
27	Designation of Habitat	Mapping	All
28	Designation of Habitat	Mapping	All
30	Designation of Habitat	Mapping	All
31	Designation of Habitat	Mapping	All
32	Designation of Habitat	Mapping	All
33	Designation of Habitat	Adaptive Management	All
34	Designation of Habitat	Threats	All
35	Designation of Habitat	Threats	All
36	Designation of Habitat	Mapping	All

37	Designation of Habitat	Mapping	All
38	Designation of Habitat	Adaptive Management	All
39	Designation of Habitat	Adaptive Management	All
40	Wildfire	Priorities	Wildfire
41	Implementation	Process	All
42	Designation of Habitat	Uses	All
43	Designation of Habitat	Indicators	
44	Desired Conditions	DFC	All
45	Desired Conditions	DFC	All
46	Implementation	Process	All
47	Habitat Fragmentation	Resiliency	All
48	Implementation	Adaptive Management	All
49	Adaptive Management	Process	All
50	Adaptive Management	Process	All
51	Adaptive Management	Wildfire	Wildfire
52	Adaptive Management	Trigger	Wildfire
53	Adaptive Management	Trigger	Wildfire
54	Adaptive Management	Grazing	Grazing
55	Adaptive Management	Process	All
56	Adaptive Management	Trigger	Wildfire
57	Adaptive Management	Trigger	Wildfire
58	Adaptive Management	Wildfire	Wildfire
59	Adaptive Management	Process	All
60	Adaptive Management	Process	All
61	Designation of Habitat	Trigger	All
62	Valid Existing Authorizations	Foundational	N/A
63	Valid Existing Authorizations	Foundational	N/A
64	Valid Existing Authorizations	Foundational	Minerals
65	Valid Existing Authorizations	Foundational	Minerals
66	Valid Existing Authorizations	Valid Existing Rights	All
67	Mitigation	Process	Infrastructure
68	Mitigation	Process	All
69	Designation of Habitat	Restoration	All
70	Mitigation	Restoration	All
71	Monitoring	Process	Wildfire, Invasives, Infrastructure
72	Monitoring	Process	Grazing
73	Monitoring	Process	All
74	Monitoring	Process	Wildfire
75	Monitoring	Process	All
76	Monitoring	Process	All
77	Monitoring	process	grazing
78	Monitoring	Process	Grazing
79	Habitat Fragmentation	Land Use Authorizations	

80 Habitat Fragmentation

Land Use Authorizations

81 Human Disturbance

Land Use Authorizations

82 Habitat Fragmentation

Land Use Authorizations

83 Habitat Fragmentation

Land Use Authorizations

84 Habitat Fragmentation	Land Use Authorizations
85 Habitat Fragmentation	Land Use Authorizations
86 Human Disturbance	Land Use Authorizations
87 Predation	Land Use Authorizations
88 Habitat Fragmentation	Land Use Authorizations

89 Human Disturbance	Land Use Authorizations	
90 Fuels		
91 ACEC		
91 Habitat Fragmentation	Land Use Authorizator	Infrastructure
92 Habitat Fragmentation	Land Use Authorizator	Infrastructure
93 Habitat Fragmentation	Reclamation	Infrastructure
94 Habitat Fragmentation	Relocation	Infrastructure
95 BMP		
95 Habitat Fragmentation	Avoidance	Infrastructure
96 Habitat Fragmentation	Co-location	Infrastructure

97 Habitat Fragmentation	Land Tenure	Urbanization/Conversion
97 Habitat Fragmentation		
97 Implementation		
98 Common to All Alternatives	Implementation	
99 ACEC		
99 Habitat Fragmentation	Acquisition	Urbanization/Conversion

100 Habitat Fragmentation

Withdrawal

Mining

101 Habitat Fragmentation  
102 ACEC

Withdrawal

Mining

102 Habitat Fragmentation

Corridors

Infrastructure

103 Habitat Fragmentation

Land Tenure

Predation

104 Habitat Fragmentation  
105 Habitat Fragmentation  
106 Habitat Fragmentation

Wind Energy  
unauthorized uses  
siting

Infrastructure  
infrastructure  
Infrastructure

110 ACEC



115 Restoration

116 Restoration  
117 Restoration

118 Restoration

119 Restoration  
120 Restoration  
121 Restoration  
122 Restoration  
123 Restoration

125 Restoration  
126 Restoration  
129 Restoration

132 Monitoring  
133 Fuels  
133 Fuels

133 Suppression

134 Invasive Species  
135 Restoration

135 Vegetation

136 Restoration

137 Restoration

138 Monitoring  
139 Invasive Species  
140 Invasive Species  
141 Restoration  
142 Restoration  
143 Restoration  
144 BMP  
144 Invasive Species  
145 Invasive Species  
146 Monitoring



152 Fuels

155 Fuels  
155 Restoration  
155 Suppression  
156 Suppression  
157 Suppression  
159 Fuels  
159 Suppression

160 Fuels  
162 Fuels  
162 Suppression  
163 Fuels  
164 Suppression  
165 Suppression  
168 Fuels  
168 Suppression

172 Suppression  
173 Restoration  
173 Suppression

174 Restoration

175 Restoration

177 Restoration

178 Restoration

179 Restoration

180 Restoration

181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals  
196 Locatable Minerals

199 Locatable Minerals



202 Saleable Minerals  
203 Saleable Minerals  
204 Saleable Minerals

205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral  
208 Unleased Federal Fluid Mineral  
209 Unleased Federal Fluid Mineral  
211 Leased Federal Fluid Mineral Est  
212 Leased Federal Fluid Mineral Est  
212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est  
215 Leased Federal Fluid Mineral Est  
216 Leased Federal Fluid Mineral Est  
217 Leased Federal Fluid Mineral Est  
218 Habitat Fragmentation  
219 Leased Federal Fluid Mineral Est  
220 Leased Federal Fluid Mineral Est  
223 ACECs  
224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est  
226 Leased Federal Fluid Mineral Est

227 Mineral Split Estate  
228 Mineral Split Estate

233 Travel Management  
234 Travel Management

235 Travel Management  
236 Travel Management

237 Travel Management  
238 Travel Management

240 Travel Management

241 Travel Management

243 Travel Management

246 Recreation and Visitor Services

246 Travel Management

247 Recreation and Visitor Services

247 Travel Management

248 Recreation and Visitor Services

248 Travel Management

249 Recreation and Visitor Services  
249 Travel Management

250 Travel Management  
251 Travel Management  
260 Livestock Grazing



261 Livestock Grazing

262 Livestock Grazing

263 Livestock Grazing

264 Livestock Grazing

267 Livestock Grazing

Objectives

268 Livestock Grazing

Objectives

269 Livestock Grazing

270 Livestock Grazing

Drought

271 Livestock Grazing	Riparian
273 Livestock Grazing	Riparian
273 Livestock Grazing	
274 Livestock Grazing	Riparian
274 Livestock Grazing	
278 Livestock Grazing	Riparian
278 Livestock Grazing	

280 Livestock Grazing  
280 Livestock Grazing

Water Development

281 Livestock Grazing  
281 Livestock Grazing  
284 Coordination  
284 Restoration

Water Development

285 Restoration  
288 Desired Conditions  
288 Invasive Species



288 Livestock Grazing  
288 Livestock Grazing

Improvements  
Improvements

289 Livestock Grazing  
289 Livestock Grazing

Water Development

290 Livestock Grazing  
291 Livestock Grazing  
292 Invasive Species

Improvements  
Improvements

293 Livestock Grazing

294 Livestock Grazing

295 Monitoring

298 Livestock Grazing

Trailing

299 Fuels

300 Livestock Grazing

Sheep

300 Restoration

301 Fuels

318 Livestock Grazing	Improvements
319 Livestock Grazing	Water Development
320 Livestock Grazing	Water Development
321 Livestock Grazing	Water Development
322 Livestock Grazing	Water Development
323 Livestock Grazing	
325 Restoration	
326 Adaptive Management	
327 Livestock Grazing	
328 Livestock Grazing	
329 Livestock Grazing	
330 Livestock Grazing	
331 Livestock Grazing	
332 Coordination	
333 Livestock Grazing	Riparian
334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements
336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements

341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	
346 Wild Horses and Burros	
347 Wild Horses and Burros	
348 Implementation	
355 Wild Horses and Burros	
356 ACECs	
356 West Nile Virus	
357 West Nile Virus	
358 West Nile Virus	
359 West Nile Virus	
360 West Nile Virus	
361 West Nile Virus	

377 BMP	West Nile Virus
378 BMP	West Nile Virus
379 BMP	West Nile Virus
380 BMP	West Nile Virus
381 BMP	West Nile Virus
382 BMP	West Nile Virus
383 BMP	West Nile Virus
384 BMP	Development
385 BMP	Development
386 BMP	Development
386 BMP	Roads
387 BMP	Development
387 BMP	Roads
388 BMP	Development
388 BMP	Roads
389 BMP	Roads
390 BMP	Development
390 BMP	Roads
391 BMP	Development
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392 BMP	Roads
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395 BMP	Roads
397 BMP	Development

398 BMP	Development
399 BMP	Development
400 BMP	Development
401 BMP	Development
402 BMP	Development
403 BMP	Roads
404 BMP	Development
405 BMP	Development
406 BMP	Development
407 BMP	Development
408 BMP	Development
409 BMP	Development
410 BMP	Development
411 BMP	Development
412 BMP	Development
413 BMP	Development
414 BMP	West Nile Virus
415 BMP	West Nile Virus
416 BMP	Development
417 BMP	Development
418 BMP	Development
419 BMP	Development
420 BMP	Development
421 BMP	Development
422 BMP	Development
424 BMP	Reclamation
424 BMP	Reclamation
425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels
485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels
493 BMP	Fuels

494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression
503 BMP	Development
503 BMP	Suppression
504 BMP	Suppression
505 BMP	Suppression
506 BMP	Suppression
507 BMP	Roads
508 BMP	Roads
509 BMP	Development
510 BMP	Development
511 BMP	Development
512 BMP	Development
513 BMP	Development
514 BMP	Development
515 BMP	Development
516 Exemption Process	

Indicator	Alternative A - Dillon RMP
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat & population number	Same as No Action - NA (Current DFO RMP guidance)
Acres of Habitat	Same as No Action - Covered in Various Resource Programs
N/E	Action: No Similar Action
Acres of PPH/PGH map of pph by alternative	Same as Sub-Region (SR) PPH and PGH
Acres of PPH/PGH map of pph by alternative	Same as No Action
Acres of sagebrush habitat	Same as SR PPH and PGH
N/E	Same as No Action
Acres of PPH/PGH map of pph by alternative	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Same as SR PPH and PGH
Acres of Habitat	Same as SR PPH and PGH, May not be an issue in the DFO.
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Montana specific discussion on original Core, PPH, PGH
N/E	nothing to add same as sub-region
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action



N/E	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat, Acres of Habitat Bu	Action: No Similar Action
N/E	Action: No Similar Action
	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Population	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
Acres of Habitat	Action: No Similar Action
N/E	Action: No Similar Action
N/E	Action: No Similar Action
Acres of Designation	Action: No Similar Action
Acres of Rights	Action: No Similar Action
Acres of Rights	Action: No Similar Action
Acres of valid existing rights	Action: No Similar Action
Acres of Mining	Action: No Similar Action
Acres of Valid Existing Rights	Action: No Similar Action
Acres/miles of infrastructure	Action: No Similar Action
Acres of habitat treated	Action: No Similar Action
Acres Treated	Action: No Similar Action
Acres Treated	Action: No Similar Action
Acres of wildfire, invasives, infrastruc	Action: No Similar Action
Acres of threat	Action: No Similar Action
	Action: No Similar Action
Acres of treatment	Action: No Similar Action
Acres	Action: No Similar Action
Population numbers	Action: No Similar Action
acres in DFC	Action: No Similar Action
Acres in DFC	Action: No Similar Action
	Same as Sub Regional PPH and PGH

Same as SR minus 3% threshold. NEED TO DETERMINE HOW TO ADDRESS THE 3% DISTURBANCE THRESHOLD. If the 3% disturbance is analyzed under the NTT alternative, does it have to be here?

Same as Sub Regional PPH and PGH  
DFO PPH same as sub-region Core and DFO PGH same as SR PGH

Current RMP Pg. 64 Actions 2,3,7 and 8 Note:  
Actions described under the lands and realty section and not repeated here still apply to utility and communications corridors and related authorizations.

2. Analyze requests for land use authorizations on a case-by-case basis and apply mitigation measures as necessary in compliance with the NEPA process.
3. Locate new right-of-way facilities within or adjacent to existing rights-of-way, to the extent practical, in order to minimize adverse environmental impacts and the proliferation of separate rights-of-way.
7. Where avoidance areas and designated corridors overlap (e.g. the Lewis and Clark Trail and the designated corridor through the Beaverhead River Canyon), issuance of new right-of-way and upgrade/expansion of existing rights-of-way will be allowed if mitigated measures can reduce impacts to resources of concern to an appropriate level.
8. Provide access across public lands to and along right-of-way corridors and use areas necessary to construct new facilities, except in avoidance areas where access would be considered on a case-by-case basis.

Current DFO RMP - appendix X pg. 213 Powerlines and Generation Facilities Issue: Existing power lines near a lek, brood-rearing habitat, or winter habitat increases the risk of predation on sage grouse by raptors. 1. Document the segment(s) of line causing problems. 2. Determine by cooperative action-agencies, utilities, and landowners- whether or not modification of poles to limit perching will prevent electrocution of raptors and decrease predation on sage grouse. 3. Emphasize the following if perch prevention modifications do not work to protect sage grouse and sage-brush habitat: a) reroute the line using distance, topography, or vegetative cover; or b) bury the line. 4. Explore opportunities for technical assistance and funding. 5. Remove power line when use is completed. Issue: Existing power line is causing consistent or significant collision mortality on sage grouse. 1. Document the segment(s) of line causing consistent or biologically significant mortality- with agencies, utilities, and landowners cooperating in the effort. 2. Initiate collision prevention measures using guidelines (Avian Power Line Action Committee 1994) on identified segments. Measures are subject to restriction or modification for wind and ice loading or other engineering concerns, or updated collision prevention information. 3. Remove power lines that traverse

Same as #90 above from Current DFO RMP - appendix X pg. 213

Same as SR PPH and PGH

Same as #90 above from Current DFO RMP - appendix X pg. 213 RMP also referenced to use Avian Powerline Action Committee guidelines (1994) which were updated in 2006, also Avian Protection Plan Guidelines published by APLIC and USFWS 2005 is available.

Same as SR PPH and PGH also refer to Appendix E pg. 118 NATURAL REVEGETATION

Current RMP Pg 64, Action 2. Analyze requests for land use authorizations on a case-by-case basis and apply mitigation measures as necessary in compliance with the NEPA process. Appendix X. pg 213 Issue: New power lines proposed in areas that provide sage grouse habitat can pose threat to sage grouse. # 6. Restrict construction to prevent disturbance during critical periods: a)breeding - March 15-May 15 b)winter - Dec 1 - March 15.

Same as SR

Acres excluded, acres below 3%, acres  
miles of lines buried Action: No Similar Action  
miles of line reclaimed Action: No Similar Action  
miles of line relocated, acres excluded Action: No Similar Action

acres of avoidance Action: No Similar Action  
miles of lines; footprint area Action: No Similar Action

Acquisition Criteria - Appendix H pg.129 Lands would be considered for acquisition if one of more of the following criteria is met and acquisition would:

- Facilitate access to public lands and resources
- Maintain or enhance the manageability of public lands and resources
- Maintain or enhance important public values and uses, especially
  - o Special Status Species plant, animal and fish habitats

acres retained; acres of habitat Action: No Similar Action

acres identified for acquisition Action: No Similar Action

Current RMP - Withdrawals Pg 41 Actions 1,2,3,5  
1. Review existing withdrawals on a case-by-case basis prior to the end of the withdrawal period or as other-wise required by law to determine whether the withdrawals should be extended, revoked, or modified. Withdrawals no longer needed, in whole or in part, for the purpose for which they were withdrawn will be revoked or modified. Appendix J describes the existing withdrawals in the planning area as shown on Map 16 (oversized). 2. Consider other agency requests for withdrawal relinquishments, extensions or modifications on a case-by- case basis. 3. Consider new withdrawal proposals on a case-by-case basis where the public land would transfer from one federal agency to another or where resource values or agency investments are best protected by withdrawal. Lands proposed to be withdrawn should be the minimum area required for the intended use and where applicable alternative prescriptions such as the use of rights-of-way, leases, permits, or cooperative agreements are inadequate to protect the resource values. 5. Review any additional existing land classifications on a case-by-case basis to determine if they should be continued or terminated.

acres withdrawn

Same as NA?

Acres closed/withdrawn

Current RMP - Acquisition Criteria - Appendix H pg.129 Lands would be considered for acquisition if one of more of the following criteria is met and acquisition would:

- Facilitate access to public lands and resources
- Maintain or enhance the manageability of public lands and resources
- Maintain or enhance important public values and uses, especially
  - o Special Status Species plant, animal and fish habitats

Acres/miles of corridors

Land Ownership Adjustment Pg. 38 In considering whether an exchange is in the public interest, consideration is given to the opportunity to:

- achieve better management of Federal lands,
- meet the needs of state and local residents and their economies,
- secure important objectives, including but not limited to, protection of fish and wildlife habitats, cultural re-sources, watersheds, wilderness and aesthetic values; enhancement of recreation opportunities and public access; consolidation of lands and/or interests in lands; consolidation of split estate; expansion of communities; accommodation of land use authorizations; pro-motion of multiple-use values; and fulfillment of public needs.

Goal 2 pg. 39 Retain public lands with high resource values in public ownership. Adjust land ownership to consolidate public land holdings, acquire lands with high public resource values, and meet public and community needs.

Acres

Appendix X pg 213 Issue: Wind generation may impact sage grouse and sage grouse habitat. 1. Consult with USFWS Ecological Services for site selection evaluation information.

2. Use the best available information to:
  - a) identify important sage grouse breeding, brood-rearing , and winter habitat in an appropriate vicinity of a proposed facility and associated infra-structure; and
  - b) site wind generation facilities – with agencies, utilities, and landowners cooperating – using topography, vegetative cover, site distance, etc. to effectively protect identified sage grouse habitat.
3. Identify and avoid both local (daily)and seasonal migration routes.
4. Restrict timing of construction to minimize disturbance during critical periods:
  - a) breeding – March 15 – May 15
  - b) winter – December 1 – March 15
5. Take appropriate measures to prevent introduction or dispersal of noxious weeds during construction, main-tenance, and operation as required by federal and state laws.
6. Develop offsite mitigation strategies in situations in which fragmentation or degradation of sage grouse habi-tat is unavoidable.

Acres available for renewable  
acres  
acres available for wind

Same as sub -region

2. Use the best available information to:
4. Restrict timing of construction to minimize disturbance during critical periods:

Appendix X. pg 208 Issue: Some sagebrush communities may have been significantly altered by past grazing management practices. 1. Implement appropriate grazing management strategies and range management practices where soil conditions and ecological processes will support sage grouse and desired commodities and societal values. 2. Establish suitable goals for sagebrush communities that have deteriorated to such an extent that livestock management alone may not contribute to habitat objectives. 3. Offer private landowners incentives when and where appropriate to achieve sage grouse objectives. Rangeland Veg pg. 51 Action 14 14. Improve existing seedings that are not meeting rangeland health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. also refer to Appendix E pg. 118

NATURAL REVEGETATION



See above↑ - WAFWA guidelines are incorporated in Appendix X and include restoration guidelines, also refer to Appendix E pg. 118 NATURAL

REVEGETATION Rangeland Veg pg. 51 Action 14  
14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Sagebrush Steppe Wildlife Habitats Pg. 73 Actions 42, 43, 44

42. Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43. Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.

Action: No Similar Action

Rangeland Veg pg. 51 Action 14 14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. also refer to Appendix E pg. 118 NATURAL REVEGETATION

Same as NA - See responses above and conservation measures in Appendix X. Also covered under various other resources

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as SR

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Livestock Grazing Pg. 42 Actions 1,2 and 4

1. Authorize an average of between 101,183 and 113,219 Animal Unit Months (AUMs) on about 425 allotments, subject to lands meeting the Western Montana Standards for Rangeland Health and make adjustments to allotments for management efficiency.
2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.

Appendix X pg.208 Conservations measures for Fire Management Issue: Reduction of sagebrush by wildfire.

1. Schedule annual coordination meetings – with appropriate resource staff including fire specialists, wildlife biologists, and range ecologists – to incorporate new sage grouse habitat and other wildlife habitat information needed to set wildfire suppression priorities related to resources. Distribute updates to fire dispatchers for initial attack planning.
2. Identify the location of known sage grouse habitat and other wildlife habitats of concern, such as latitude and longitude with a polygon and radius, to avoid disturbance or degradation by temporary facilities, such as fire camps, staging areas, and helibases.
3. Incorporate known sage grouse habitat information into each Wildfire Situation Analysis to help determine appropriate suppression plans and prioritize multiple fires.
4. Retain unburned areas of sage grouse habitat, such as interior islands and patches between roads and fire perimeter, unless compelling safety, resource protection, or control objectives are at risk.

NOXIOUS WEEDS, INVASIVE AND NON-NATIVE SPECIES pg 49 Actions:

- 1 Manage Montana State designated noxious weeds according to the principles of integrated pest management found in Partners Against Weeds: An Action Plan for the Bureau of Land Management (USDI-BLM 1996b), the Montana Weed Management Plan (Duncan 2001), and the Montana Noxious Weed Act.
- 2 Participate in education and awareness programs for staff, cooperators, and the public.
- 3 Continue inventory of public lands for noxious weeds.
- 4 Monitor treatment areas
- 5 Continue cooperative agreements with Beaverhead and Madison counties for Integrated Weed Management.
- 6 Encourage development of Cooperative Weed Management Areas where all the landowners are cooperatively working to contain or eradicate noxious weeds within designated areas.
- 7 Control noxious weeds by various methods that include chemical, cultural, physical, mechanical, and biological treatments or other land practices.
- 8 Evaluate treatment and control of invasive species such as cheatgrass in site-specific projects associated with the watershed analysis.
- 9 Reestablish perennial vegetation in a timely manner

See above↑ - WAFWA guidelines are incorporated in Appendix X and include restoration guidelines, also refer to Appendix E pg. 118 NATURAL

REVEGETATION Rangeland Veg pg. 51 Action 14  
14. Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Sagebrush Steppe Wildlife Habitats Pg. 73 Actions 42, 43, 44

42. Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43. Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.

Same as NA - under current management public is involved in planning during watershed assessments and MTFWP is consulted on all projects and BLM is actively involved in the local sage grouse working group and has a local Resource Advisory Council (RAC), consisting of landowners and other local interests.

Appendix E pg. 118 NATURAL REVEGETATION In many cases, successful reestablishment of native species occurs if the perennial plant species are not killed as a result of the fire, or if viable and desirable seed or root mass is present. Generally, in these areas it would be necessary to rest the burned area from livestock grazing for at least two growing seasons. In some situations, the area may be closed to vehicles by issuing a temporary emergency closure. The only rehabilitation that may be necessary is repairing damaged fencing and/or construction of temporary fencing around the burned area until the native vegetation is successfully re-established. Seeding guidelines:

- Native species will be utilized over nonnative species as appropriate and based on seed availability.
- A project inspector will monitor all phases of implementation.
- The area to be seeded will be rested from grazing for at least two growing seasons or until vegetation is successfully established. Livestock will be excluded by using fencing, closing specific pastures, or closing en-tire allotments.
- Only native species will be seeded in WSAs.
- Monitoring will determine the effectiveness of seeding and to indicate when grazing will resume.
- Use only certified weed-free sources and collect seed samples for an All States Noxious Weed Test. Seed nonnatives only in areas of the burn where high

WILDLIFE including SPECIAL STATUS BIRDS AND MAMMALS - pg 73 Monitoring Support and assist FWP in monitoring wildlife habitat and population goals through the Montana Comprehensive Fish and Wildlife Conservation Strategy. Assess changes in sagebrush, coniferous forest and riparian/wetland habitat distribution, canopy, composition and condition on a landscape and watershed basis during watershed evaluations (see Map 20 for watershed areas). Where vegetation treatments have been implemented, or natural events have occurred, monitor changes in species composition and structure compared to pre-treatment conditions. Continue to monitor known populations of special status species, in conjunction with Federal, state and private agencies or organizations (bald eagle, peregrine falcon, sage grouse, pygmy rabbit, trumpeter swan, raptors). Monitoring may use intensive research projects or periodic population/habitat inventories to determine habitat extent or population status. This monitoring may be accomplished through contracts and/or with the aid of partnership funding sources in support of individual species conservation strategies. Participate in Intermountain Joint Venture efforts for all-bird monitoring at mid- and fine-scale.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

DFO ROD/RMP pg. 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners. Appendix X pg.207 Conservations measures for Fire Management Issue: Reduction of sagebrush by prescribed fire. 1. Sites should not be burned unless: a) biological and physical limitations of the site and impact on sage grouse are identified and considered, b) management objectives for the site, including those for wildlife, are clearly defined, c) potential for weed invasion and successional trends are well understood, and d) capability exists to



DFO ROD/RMP pg. 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners. Appendix X pg.207 Conservations measures for Fire Management Issue: Reduction of sagebrush by prescribed fire. 1. Sites should not be burned unless: a) biological and physical limitations of the site and impact on sage grouse are identified and considered, b) management objectives for the site, including those for wildlife, are clearly defined, c) potential for weed invasion and successional trends are well understood, and d) capability exists to

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Appendix X pg.208 Conservations measures for Fire Management Issue: Reduction of sagebrush by wildfire. 1. Schedule annual coordination meetings – with appropriate resource staff including fie specialists, wildlife biologists, and range ecologists – to incorporate new sage grouse habitat and other wildlife habitat information needed to set wildfire suppression priorities related to resources. Distribute updates to fire dispatchers for initial attack planning. 2. Identify the location of know sage grouse habitat and other wildlife habitats of concern, such as latitude and longitude with a polygon and radius, to avoid disturbance or degradation by temporary facilities, such as fire camps, staging areas, and helibases. 3. Incorporate known sage grouse habitat information into each Wildfire Situation Analysis to help determine appropriate suppression plans and prioritize multiple fires. 4. Retain unburned areas of sage grouse habitat, such as interior islands and patches between roads and fire perimeter, unless compelling safety, resource protection, or control objectives are at risk.

Action: No Similar Action

N/A

N/A

Same NTT.

DFO RMP pg 28 Goal 2 Restore and maintain desired ecological conditions and fuel loadings through use of prescribed fire, wildland fire use, and other treatment methods. Actions 1,2 and 5: 1. Place priority on fuels reduction in wildland urban interface areas. Prioritize treatments by comparing historical fire regimes and current fire severity. Focus management on maintaining fire dependent ecosystems and restoring those outside their natural balance through mechanical, chemical, and prescribed fire treatments. 2. Use both prescribed fire and mechanical treatments to treat conifer encroachment in the non-forest habitat types, for aspen restoration and as a post-harvest treatment in timber harvest areas. See the Rangeland Vegetation and Forest and Woodland Vegetation sections for treatment proposals and acres. 5. Coordinate all vegetation treatment projects using pre-scribed fire with FWP and adjacent landowners.

Same as SR

Fuels and Fire Management pg 29, Goal 3 Use rehabilitation to mitigate the adverse effects of fire on the soil, vegetation, and water resources in a cost effective manner. Actions 1. Consider if emergency fire rehabilitation is necessary following a wildland fire, depending on the situation. 2. If necessary, pursue funding and follow the process outlined in BLM's Emergency Fire Rehabilitation Handbook (H-1742-1) and Appendix E. Separate environmental analysis will only be completed for emergency fire rehabilitation projects that are outside the scope of activities described in Appendix E. Appendix E. pg. 118 Seeding guidelines:

- Native species will be utilized over nonnative species as appropriate and based on seed availability.
- A project inspector will monitor all phases of implementation.
- The area to be seeded will be rested from grazing for at least two growing seasons or until vegetation is successfully established. Livestock will be excluded by using fencing, closing specific pastures, or closing en-tire allotments.
- Only native species will be seeded in WSAs.
- Monitoring will determine the effectiveness of seeding and to indicate when grazing will resume.
- Use only certified weed-free sources and collect seed samples for an All States Noxious Weed Test. Seed nonnatives only in areas of the burn where high

Same as SR

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as NA/SR - from IM 2011-138

Same as NA/SR - from IM 2011-138

Same as NA/SR - from IM 2011-138

Proposed RMP/Final EIS Ch 2 pg. 55 Coal and Oil Shale Management Common to All Alternatives

Under all alternatives, BLM would consider proposals for coal and oil shale leasing on a case-by-case basis for mineral resources under the administration of the federal government. To date, no areas have been identified with economic reserves to support future leasing analysis. Site-specific environmental analysis and a plan amendment would be required to lease for coal or oil shale. There are currently no regulations governing the leasing of oil shale. Any leases issued would be issued under the authority of 30 U.S.C. Chapter 3A, Subchapter V, Sec. 241 which authorizes the Secretary of the Interior to lease deposits of oil shale. Unsuitability criteria described in 43 CFR 3461 would be applied to coal lands determined to have development potential on a case-by-case.

ROD/RMP pg45 - Action 9 Consider proposals for coal and oil shale leasing on a case-by-case basis. A plan amendment would be necessary to lease, along with the appropriate level of environmental analysis.

- Issue any oil shale leases under the authority of 30 U.S.C. Chapter 3A, Subchapter V, Sec. 241 which authorizes the Secretary of the Interior to lease deposits of oil shale
- Apply unsuitability criteria described in 43 CFR Part 3461 to coal lands determined to have development potential on a case-

Same as NA

Proposed RMP/Final EIS Ch 2 pg. 57- LOCATABLE MINERALS Goal – Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation. Management Common to All Alternatives Standard management practices in the public land administration of locatable minerals would continue across all alternatives. BLM would coordinate with MT DEQ during the review, approval, inspection and reclamation of mining operations. At a minimum, conduct annual compliance inspections on each active notice. Requirements of all state and federal laws would be met in the management of mining operations. Administration of locatable minerals on public lands would continue as required by law and regulation (43 CFR 3809) by taking the following steps: Review and process notices to ensure the proposed action does not create unnecessary or undue degradation of the environment. Review and process plans of operation to ensure the proposed action does not create unnecessary or undue degradation of the environment. Conduct at a minimum annual compliance inspections on each active notice and plan of operation. Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.

Action: No Similar Action

Proposed RMP/Final EIS Ch 2 pg. 57- LOCATABLE MINERALS Goal – Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation. Management Common to All Alternatives Standard management practices in the public land administration of locatable minerals would continue across all alternatives. BLM would coordinate with MT DEQ during the review, approval, inspection and reclamation of mining operations. At a minimum, conduct annual compliance inspections on each active notice. Requirements of all state and federal laws would be met in the management of mining operations. Administration of locatable minerals on public lands would continue as required by law and regulation (43 CFR 3809) by taking the following steps: Review and process notices to ensure the proposed action does not create unnecessary or undue degradation of the environment. Review and process plans of operation to ensure the proposed action does not create unnecessary or undue degradation of the environment. Conduct at a minimum annual compliance inspections on each active notice and plan of operation. Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.

Salable Minerals (Mineral Materials) pg 49. Goal: Provide for the extraction of mineral materials to meet public demand, while minimizing adverse impacts to other resource values.

#### Allocations

Manage 136,226 acres as closed to mineral material disposal in the following areas (see Map 22):

- Bear Trap Wilderness
- All nine Wilderness Study Areas
- Centennial Sandhills
- Christnot Mill
- Developed recreation sites
- Lewis's Lookout
- Sheep Creek Common Use Area
- Lands within one-quarter mile either side of the Big Sheep Creek Road, except in sections 26 and 35 in T14S, R10W and section 2 in T15S, R10W

Manage the remainder of the planning area as open to mineral material disposal, subject to the provisions described in the Action section below.

#### Actions:

1 Maintain current mineral material sites (see Map 22) until material is exhausted or other circumstances warrant closure.

2 Encourage extraction of mineral materials from previously disturbed sites rather than opening new sites.

Same as NA - Covered in Appendix N pg 169

Same as SR for PPH and PGH



Pg. 45 Action 3 Manage oil and gas leases existing prior to the Record of Decision for the Dillon RMP according to the existing lease stipulations. When the lease expires, manage those lands according to the oil and gas decisions and required stipulations outlined in the ROD/Approved Plan. All stipulations for fluid mineral development apply to geophysical explorations as well. All leased parcels have stipulations applied consistent with DFO RMP as outlined in Table 5 on pg 44 of RMP. (Did not attempt to paste table in here for formatting reasons)

RMP Final EIS Alt. C Pg. 53 Table 6 lists stipulations that were analyzed. Winter/Spring habitat – NL  
Leks – NL ½ mile buffer Breeding habitat – NSO NL  
= no lease NSO = no surface occupancy Under Alternative C, 80 percent (1,086,596 acres) of the planning area would not be available for oil and gas leasing. This includes all the lands identified in Alternative B, plus lands in these additional locations:

- Sage Grouse Winter/Spring Range
- Lands within 1/2 mile of Sage Grouse Strutting Grounds (leks)

DFO RMP Appendix M pg. 156, pp 5 The BLM planning process is the mechanism used to evaluate and determine where and how federal oil and gas resources will be made available for leasing. In areas where oil and gas development may conflict with other resources, the areas may be closed to leasing.

RMP Final EIS Alt. C Pg. 53 Table 6 lists stipulations that were analyzed. Winter/Spring habitat – NL  
Leks – NL ½ mile buffer Breeding habitat – NSO NL  
= no lease NSO = no surface occupancy Under Alternative C, 80 percent (1,086,596 acres) of the planning area would not be available for oil and gas leasing. This includes all the lands identified in Alternative B, plus lands in these additional locations:

- Sage Grouse Winter/Spring Range
- Lands within 1/2 mile of Sage Grouse Strutting Grounds (leks)

Final RMP Pg. 46 Goal 2 Allow environmentally responsible geophysical exploration for energy resources in the Dillon Field Office on lands administered by the BLM. Actions: 1 Review Notices of Intent to Conduct Geophysical Exploration (NOI) in the planning area and develop appropriate mitigation measures so as not to create undue and unnecessary degradation. 2 Prepare a site-specific environmental analysis for each NOI filed. Develop mitigation measures using the oil and gas lease stipulations approved in this plan as the starting point. • The transient nature of geophysical exploration and the short-term impacts of the exploration may provide an opportunity for operations to occur in seasonal wildlife areas during the time of closure under lease stipulations without creating detrimental effects on wild-life. As such the proposed exploration will be

Action: No Similar Action

Action: No Similar Action

Same as SR?

Same as SR?

Stipulations already apply in DFO - Appendix K. Oil and Gas Stipulations and Lease Notices

Same as SR

Same as SR

Same as SR

Action: No Similar Action

Same as SR

Same as SR

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

DFO ROD/RMP pg. 44 Allocations Make the remainder of federal mineral estate in the planning area (approximately 1,209,278 acres) available for leasing, subject to the stipulations specified in Table 5 or under Standard Lease Terms. • Approximately 433,797 acres are available for oil and gas leasing, subject to No Surface Occupancy stipulations. • Approximately 632,061 acres are available for oil and gas leasing, subject to Timing Limitations and/ or Controlled Surface Use stipulations. • Approximately 143,420 acres are available and subject to standard lease terms (and to the CSUs listed on Table 5 that apply to the entire planning area) Appendix M - Split Estate, pg. 167 On split estate lands where the surface ownership is private, the BLM places necessary restrictions and requirements on its leases and permit approvals and works in cooperation with the surface owner. BLM has established policies for the management of federal oil and gas resources in accordance with federal laws and regulations. The BLM does not have the legal authority to regulate how private surface is managed. BLM does have the statutory authority to require measures by lessees to avoid or minimize adverse impacts that may result from federally authorized mineral lease activities. These measures, in the form of lease stipulations or permit

Same as SR

RMP pg. 60 Wheeled Motorized Use/Non-Motorized Use Manage no areas as "open" under the regulations at 43 CFR Part 8340-8342. Manage 826,876 acres as "limited" to designated routes for OHV use under the regulations at 43 CFR Part 8340-8342. • Designate approximately 1,342 miles of road on BLM lands as open to public travel as shown on Maps 26 and 27 (oversized). • Make 159 miles of the 1,342 miles of road subject to seasonal restrictions Appendix X pg. 214 Roads and Motorized Vehicles Issue: Roads may increase sage grouse mortality through collisions with vehicles, displacement because of human disturbance, or other factors. 1. Identify, map, quantify, and evaluate impacts of existing roads, including 2-tracks, in relation to known lek locations and sage grouse winter ranges. 2. Consider impacts to sage grouse when designing new roads and modifying existing roads. 3. Consider seasonal use restrictions or signing to avoid disturbance of critical times, such as winter and nesting periods.

Action: No Similar Action

Pg. 61 Action 9 9. Evaluate "new roads" on a case-by-case basis through an environmental assessment process to determine whether they will be open to public travel. "New roads" means roads that do not presently exist but are necessary for access to timber sales, mining activities, to provide general access, or to facilitate other authorized uses of public lands. Designate routes determined to enhance public access opportunities that do not conflict with management of other resources as open and add them to the travel management map through routine plan maintenance.

Same as NA- Travel Management plan is complete for DFO

Pg. 59 Action 1 TRANSPORTATION AND FACILITIES MAINTENANCE Goal 1 Manage facilities, including roads and trails, to provide for public access or administrative needs, while maintaining or protecting resource values and in coordination with other federal agencies, state and local governments, and private landowners. Actions 1 Inventory and maintain transportation system roads and trails under BLM jurisdiction in accordance with assigned maintenance levels as outlined in Appendix O to meet public health and safety requirements, but also in consideration of resource issues including but not limited to proliferation of weeds and disturbance of cultural resources. Appendix O pg. 171 Transportation system roads and trails are classified by maintenance levels specified in BLM Manual Handbook H-9113- 2. Any changes or updates to maintenance levels will be incorporated into this planning guidance.

Action: No Similar Action

Appendix X pg 215 Issue: Roads and their associated disturbances and cumulative effects contribute to the loss of habitat and declining sage grouse populations.

1. Develop a transportation management plan across ownership boundaries in critical sage grouse habitats.
2. Participate in travel planning efforts and educate the general public about the impacts of roads on sage grouse and critical habitat.
3. Consider buffers, removal, realignment, or seasonal closures where appropriate to avoid degradation of habitat.
4. Re-vegetate closed roads with plant species beneficial to sage grouse.

Same as above ↑ also covered in Appendix X under Vegetation pg 215 and Rangeland Vegetation, Invasive Species, Travel management and any other place re-vegetation is discussed

Same as SR

Not really a Concern, but can use same wording as SR.

Appendix X pp. 215 Roads and Motorized Vehicles

Issue: Roads and their associated disturbances and cumulative effects contribute to the loss of habitat and declining sage grouse populations. Action 3. Consider buffers, removal, realignment, or seasonal closures where appropriate to avoid degradation of habitat. Action 5. Issue special use permits for certain activities with distance and timing restrictions to maintain the integrity of breeding habitat.

Appendix X pp. 214 Roads and Motorized Vehicles

Issue: Roads may increase sage grouse mortality through collisions with vehicles, displacement because of human disturbance or other factors. 1. Identify, map, quantify, and evaluate impacts of existing roads, including 2-tracks, in relation to known lek locations and sage grouse winter ranges. 2. Consider impacts to sage grouse when designing new roads and modifying existing roads. 3. Consider seasonal use restrictions or signing to avoid disturbance of critical times, such as winter and nesting periods. 4. Consider the use of speed bumps where appropriate to reduce vehicle speeds near leks, such as during oil and gas development. 5. Manage on-road travel and OHV use in key grouse areas to avoid disturbance during critical times such as winter and nesting periods. 6. Plan or permit organized events to avoid increased traffic and impacts to sage grouse

RMP pg. 60 Wheeled Motorized Use/Non-Motorized Use Manage no areas as "open" under the regulations at 43 CFR Part 8340-8342. Manage 826,876 acres as "limited" to designated routes for OHV use under the regulations at 43 CFR Part 8340-8342. • Designate approximately 1,342 miles of road on BLM lands as open to public travel as shown

Appendix X pp. 214 Recreational Disturbance of Sage Grouse Issue: Management of lek viewing may be necessary.

1. Establish viewing guidelines, i.e., distance, timing, approach methods, signage, parking areas, and area closures.
2. Consider sage grouse needs when developing roads and OHV management plans.
3. Develop and provide educational materials to the public describing effects of concentrated recreational activities and the importance of seasonal ranges to sage grouse.
4. Encourage recreationists to avoid continuous or concentrated use within 1.5 miles of leks from March 15 to May 15.
5. Issue special use permits for certain activities with distance and timing restrictions to maintain the integrity of breeding habitat.
6. Discourage concentration of hunters on critical seasonal habitats, such as during late big game seasons, when sage grouse are present.

Same as SR?

Action: No Similar Action

Action: No Similar Action

Livestock Grazing Pg. 42 Actions 2, 3, 4, 5, 6, and 8

2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.
5. Continue to implement existing Allotment Management Plans (AMPs), including the associated range improvement projects.
6. Develop and implement new Allotment Management Plans to direct site-specific management of livestock grazing after completion of rangeland health assessments conducted on a watershed basis.
8. Establish allowable use levels for grazing allotments during the watershed evaluation process. Make any adjustments to livestock numbers, including increases or decreases, following watershed evaluations, standards for rangeland health

Answered above ↑ Appendix X pg. 208 action 3  
Grazing Management Issue: Conflicting priorities for land uses, species, and habitats.

3. Offer private landowners incentives when and where appropriated to achieve sage grouse objectives.



Livestock Grazing Pg. 42 Actions 2, 3, 4, 5, 6, and 8

2. Use watershed evaluations (see Map 20 for watershed areas) when authorizing livestock grazing to assess whether the Western Montana Standards for Rangeland Health (Appendix A) are being met or if changes in livestock grazing are necessary.
3. Incorporate the Guidelines for Livestock Grazing as described in Appendix A into livestock grazing permits, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable.
4. Follow the procedures outlined in the Rangeland Health Standards Handbook (H-4180) for areas that do not meet the Western Montana Standards for Rangeland Health due to livestock grazing.
5. Continue to implement existing Allotment Management Plans (AMPs), including the associated range improvement projects.
6. Develop and implement new Allotment Management Plans to direct site-specific management of livestock grazing after completion of rangeland health assessments conducted on a watershed basis.
8. Establish allowable use levels for grazing allotments during the watershed evaluation process. Make any adjustments to livestock numbers, including increases or decreases, following watershed evaluations, standards for rangeland health

Same as NA - Wildlife and SSS Pg 72 Actions 42-48 sagebrush steppe wildlife habitats 42 Use the National and Montana sage grouse conservation strategies (see Appendix X) as the basis to address habitat management in the watershed planning process and in project level analysis.

43 Manage sagebrush habitats so that mid-scale level shrub cover includes a mix of height classes with herbaceous understory adequate for meeting seasonal habitat requirements for sage grouse and other wildlife species that use sagebrush habitat including wintering antelope and mule deer.

- In habitats with predominately mountain big sagebrush, manage sites with the potential to support sagebrush in a manner that maintains > 70 percent of those areas in canopy closure of 5 to 25 percent.
- In habitats that include predominately Wyoming big sagebrush, manage sites with ecological potential to maintain sagebrush over at least 60 percent of those areas in a canopy closure of 5 to 25 percent.
- Maintain an herbaceous understory emphasizing multiple species of native forbs and grasses, recognizing that herbaceous productivity decreases at >10-15 percent canopy cover.
- Emphasize restoration and rehabilitation of sagebrush in areas that are capable of supporting sagebrush and contribute to the distribution and con-

Same as NA - All actions listed above Appendix B - Montana BMP's for grazing pg. 105 Appendix X Sage Grouse Management incorporates WAFWA guidelines

Same as NA - All actions listed above, also see Pg 72 Actions - sagebrush steppe wildlife habitat also guidance in Appendix A pg 97, Appendix B pg. 105- Montana BMP's for grazing Appendix X pg 207 Sage Grouse Management - also incorporates WAFWA guidelines

Same as NA - Appendix B pg. 105 - Montana BMP's for grazing incorporated by reference.

Appendix X pg 208

Issue: Improper grazing or lack of grazing can change the composition and/or structure of the native plant community and thereby reduce or eliminate food and cover for sage grouse.

1. Monitor the response of forbs (kinds, vigor, and production), and the compositional diversity of native species with respect to livestock grazing, evaluate the data, and make necessary adjustments.
2. Identify reasons for lack of grass and forb cover in sage-brush communities and recommend practices to increase the native herbaceous understory.
3. Identify critical sage grouse areas, and adjust grazing to minimize conflict among the production of commodities and protection of societal values.
4. Use monitoring methods that are best suited to the type of grazing management being incorporated at a site.
5. Adjust stocking levels (up or down) within the carrying capacity of the pasture or range. Adjustments should be based on monitoring program evaluating plant and soil response with respect to actual livestock use, weather, wildlife use, insects, and other environmental factors.

Pg. 42 Action 7. Modify grazing schedules and livestock management practices as necessary during drought conditions. Appendix X, pg 208 Issue: Drought may result in the degradation of native plant communities, and reduces forage production and sage grouse habitat.

1. Livestock managers should have drought management strategies or plans, e.g. water facilities; forage sources formulated for implementation during periods of drought.

Riparian Wetland Veg pg. 55 Objectives (Desired Future Condition after 20- 50 years of management)

Riparian and wetland vegetation supports the biological, hydrologic, and physical components of streams and wetlands based on site-specific capabilities. Deciduous woody and coniferous communities are present with diverse composition, density, and age structure within site potential. Herbaceous plant communities are dominated by deep-rooted native species that support streambank and shore-line stability, floodplain development, and nutrient cycling. Stream channels display the dimensions, pattern, and profile that are representative of site potential (Rosgen).

Emphasize maintenance of riparian communities on approximately 415 miles of stream dominated by a tall deciduous shrub or aspen/cottonwood habitat types and on approximately 500 miles of stream dominated by herbaceous and coniferous habitat types (based on 2002 inventory summary).

Action: 3 Implement the Western Montana Standards for Range-land Health (see Appendix A) to achieve proper functioning condition in riparian and wetland habitats. Incorporate the Guidelines for Livestock Grazing, as well as strategies outlined in Best Management Practices for Grazing (MT DNRC 1999), when applicable. Appendix X pg 208 Issue: Riparian

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Pg 69, Action 7. Install functional wildlife access ramps on all water tanks on public lands. Pg. 56

Action 13 Analyze water developments on a case-by-case basis, considering the following:

- Available water flow. In general, no water developments that remove more than 50% of average summer daily flows from a water source will be constructed unless systems can be designed for return flows back into the drainage within a 1/4 mile of the diversion.
- Protection of source water riparian and wet-land habitat. Where isolated springs are developed, associated riparian habitat will be protected, usually through fencing.
- Protection of other resource values from direct and indirect impacts from construction and use of the water source. Measures to protect riparian habitats and other resource values including but not limited to sensitive plant species and cultural resources will be implemented based on site-specific needs. Only off- stream water developments and/or armored water gaps will be considered on streams where fencing has excluded the riparian area to prevent impacts to various resources.
- Location of water tanks in relation to other resource values. Measures to protect resource values in proximity to tank locations will be implemented based on site-specific needs. In general, water tanks will be placed at least 1/4 mile from

Pg 69 Actions 7, 8, 9, 16 7. Install functional wildlife access ramps on all water tanks on public lands. 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. 16. Coordinate when new roads are proposed for construction and/or when changes are proposed regarding travel restrictions on existing roads to determine if concerns with wildlife displacement and/or habitat fragmentation exist. See the Travel Management section for additional details.

Pg. 73 Action 44 44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards. Also see fencing below

Action: No Similar Action

Pg 51 Action 14 Improve existing seedings that are not meeting range-land health standards for plant vigor and density by implementing grazing management systems or re-seeding with appropriate species of natives or cultivars. Focus restoration of any existing seedings on areas containing high resource values and/or priority habitats and species. Allow the use of all available tools. Appendix X pg. 215 Issue: The age distribution of sagebrush may have been altered by management, such as a young stand recovering from disturbance or a mature stand with poor regeneration. 1. Map and inventory areas believed to be deficient in quality of habitat or exhibiting poor health. 2. Evaluate the site potential and desired condition, and develop specific objectives accordingly within specific landscapes. 3. If sagebrush is lacking: a) develop and implement grazing practices that influence sagebrush growth, b) inter-seed historical breeding and winter habitats with the appropriate sagebrush species, c) identify and promote seed sources for habitat restoration efforts, d) encourage the voluntary use of sagebrush in habitat incentive programs, such as the Conservation Reserve Program, and work to develop additional funding sources for such programs, e) reclaim and/or re-seed areas disturbed by treatments when necessary, and f) promote sage plantings,

Pg 69 Actions 8 and 9 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. Appendix X pg 209 Issue: Potential for sage grouse to be disturbed or displaced by concentrations of livestock near leks or winter habitat. 1. Discourage concentration of livestock on leks or other key sage grouse habitats. • Avoid placement of salt or mineral supplements near leks during the breeding season (March-June), and • Avoid supplemental winter feeding of livestock, where practical, on sage grouse winter habitat and around leks Issue: Existing fences near breeding, brood-rearing, or winter habitats can increase the risk of collision mortalities and /or predation on sage grouse by hawks, eagles, and ravens by providing perches. 1. If portions of existing fences are found to pose a significant threat to sage grouse as strike sties or raptor perches, mitigate through moving or modifying posts, implementation of predator control programs, etc. Actions may include increasing the visibility of the fences by flagging or by designing "take-down" fences. 2. Offer private landowners incentives when and where appropriate to achieve sage grouse objectives. Appendix X Pg 211- 212 Noxious Weed Mgmnt Issue: Weed infestations

Same as SR? Adapt the BMP's



Pg 69 Actions 7, 8, 9, 16 7. Install functional wildlife access ramps on all water tanks on public lands. 8. Modify existing fences on public land identified as barriers to wildlife movement to accommodate wildlife passage. 9. Follow "wildlife friendly" fence specifications in BLM Manual H1741-1 for new fences. 16. Coordinate when new roads are proposed for construction and/or when changes are proposed regarding travel restrictions on existing roads to determine if concerns with wildlife displacement and/or habitat fragmentation exist. See the Travel Management section for additional details.

Pg. 73 Action 44 44. When making project decisions located in sage grouse habitats, objectives for sage grouse habitats and relevant information about sage grouse seasonal habitat will be considered when determining the desired resource condition. If specific issues regarding sage grouse are identified, applicable conservation actions or guidelines will be reviewed by interdisciplinary teams and considered in the decision-making process. None of the conservation actions or guidelines in the Management Plan and Conservation Strategies for Sage Grouse in Montana will be construed as mandatory or standards.

Action: No Similar Action

Action: No Similar Action

pg. 42 Allocations Manage approximately 47,837 acres of public land as un-available for livestock grazing (see Map 19, oversized). No term grazing permits or leases would be issued for these areas. These areas could be grazed with livestock on a temporary nonrenewable basis to meet resource objectives of the area. Lands that are not available include: • Unalloted areas • Blue Lake • Eli Springs area Maintain the Cross and Exchange Allotments as Resource Reserve Allotments. (A Resource Reserve Allotment is a unit of public land that will not have term grazing permits issued. Such an allotment will only be grazed on a temporary nonrenewable basis. The use of these allotments will be to provide temporary grazing to rest other areas following wildfire, habitat treatments, or to allow for more rapid attainment of rangeland health. The allotment must be of sufficient size to be managed as a discrete unit. Resource Reserve Allotments should be distributed throughout the planning area). Designate Resource Reserve Allotments on a case-by-case basis following watershed evaluations as described in Livestock - Maintain all current riparian exclosures as un-leased for livestock grazing.

Pg. 43 Grazing Actions 20, 21, and 22. 20. Evaluate currently unleased/unpermitted lands during the watershed assessment process to determine if they

Action: No Similar Action  
Action: No Similar Action  
Same as NA - See Above↑  
Same as NA - This is analyzed during our watershed assesments by working with our fuels specialists.

Pg 43 Livestock Grazing Actions 12, 18 and 19.

12. Implement the "Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitats" when allowing grazing in bighorn sheep habitat. 18. Maintain cattle as the primary class of livestock on mountain mahogany habitat. Sheep grazing on mountain mahogany habitat will be mitigated through site specific management treatments, changed to cattle use, or eliminated where monitoring data indicates it is necessary. 19. Authorize no new domestic sheep permits or conversion of cattle permits to sheep within areas depicted on Map 33 that contain suitable grizzly bear and wolf habitat (also known as the wildlife dispersal/migration corridors in the Centennial Mountains, Snowcrest Mountains, Gravelly Range, Greenhorn Mountains, Axolotl Lakes area, and along the Continental Divide from Monida to Lemhi Pass).

Same as SR with reference to the "Western Montana S and G for Livestock Grazing" rather than ID

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Not applicable Addressed in RMP on pg. 67

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

N/A - NO Wild horse and Burros herd in DFO

Action: No Similar Action

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Action: No Similar Action

Action: No Similar Action

Appendix X pg. 211 Issue: Water discharge and impoundments can degrade or inundate breeding, nesting, and winter habitat. 1. Design impoundments and manage discharge so as not to degrade or inundate leks, nesting sites, and wintering sites. 2. Protect natural springs from any source of disturbance or degradation from energy-related activities.

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NEED TO DETERMINE HOW TO ADDRESS THE 3%  
DISTURBANCE THRESHOLD. Are we still waiting on  
guidance from the NTT or RMT?





Same as NA? Need more discussion for subregion, not sure what "see above " is in reference to.





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Same as NA. Dillon utilizes Watersheds Assessments and has a sage-grouse assessment process in place. All allotments in the DFO have been assessed in the last 10 years.



DFO has a very aggressive noxious weeds program





DFO is also monitoring sage grouse habitat following guidelines set forth in the Management Plan and Conservation Strategies for Sage Grouse in Montana.



All prescribed fire units are designed to improve habitat conditions and discussed with local FWP biologists to reduce conflicts with wildlife use, Did not paste it here, but also refer to Rangeland Vegetation pg. 51 Actions 4,5,6,7,8,9,12,13 All identify habitat considerations for fire management.





All projects are coordinated with FWP biologists to meet wildlife habitat needs.

Same as NA - Also addressed in grazing management, habitat restoration and noxious weeds

Climate change is not currently considered for re-seeding under current RMP guidelines

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Appendix E BMP's could be amended to the DFO RMP  
– MOST if not all are already used when site specific  
NEPA is done.

Appendix E BMP's could be amended to the DFO RMP  
– MOST if not all are already used when site specific  
NEPA is done.

This was common to all alternatives and therefore incorporated into the Final RMP on pg 46 and 47 under Locatable minerals. Also refer to Appendix N Standard operating procedures for Mineral material sites in DFO ROD/RMP pg. 169. I MAY JUST RECOMMEND USING WORDING FROM SUB-REGION ALTERNATIVE.

also Appendix N pg 169 of DFO RMP has SOP for Mineral Material Sites

No Lease was analyzed under alt C in draft RMP. See below for Final Decision I feel this is adequate as we have no active drilling/wells and no APD's in DFO Online link to BMP's for Fluid Minerals located in Appendix B Also see Washington Office IM No. 2004-194. Also refer to Appendix M Procedures in oil and gas recovery. In DFO ROD/RMP Any geophysical exploration would require site specific NEPA.



DFO currently does not have any level of development. Last geophysical exploration was in 2008. Nothing has been developed on those leases  
May need plan amendment to update the ¼ mile NSO currently in DFO RMP to 4m NSO if warranted.  
Can add Appendix D BMP's from NTT  
←← See scenario analyzed in RMP for full field development. max of ten wells could be drilled over the life of the RMP RMP plan amendment would be needed to exceed this over the life of the plan.

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Need to update NSO distance around active leks.

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Same as NA, All motorized travel in DFO is limited to designated routes. All of these actions listed under travel require an EA to be completed if we make any changes to the TMP.

Same as NA Would require an EA anyway Should this be under Travel Management?

Same as NA - Should this be under Travel Management?

Same as NA - Should this be under Travel  
Management?

Is this a Recreation/travel issue or Mineral Split  
Estate??

Is this a Recreation/travel issue or Mineral Split  
Estate??

Is this a Recreation/travel issue or Mineral Split  
Estate??

SRP in sage grouse habitat are not specifically addressed in RMP, however most if not all our SRP are outfitter /guides for fishing or big game hunting, not likely to impact sage grouse.

Same as NA

Most of our winter snow machine travel is not in gsg winter habitat. Do we even need to address this?

No Concern All allotments in DFO have had health assessments completed and ESD were used to determine Function. Changes have been made to improve sage grouse habitat conditions where standards were not met.

Same as NA - DFO is active in Local gsg working group, and works with landowners during permit renewal to benefit all wildlife species.

Same as NA, All allotments in DFO have been assessed in the past ten years and changes have been made where not meeting the standards or sagebrush habitat requirements.



Currently being done during Watershed Assesments.

Sams as NA - Not going to paste the whole thing here.  
No Concern. Monitoring and habitat objectives are outlined in WA EA's

addressed in multiple locations in RMP, and already pasted into multiple actions in this matrix.

This is all considered during Watershed assessments when AMP's are renewed.

Same as NA - Reductions were made during drought periods around 2003-2004 and post drought management was allotted for. We are currently talking to Permittees regarding possible reductions for 2013.



Same as NA - new water developments are analyzed during watershed assessments.



Same as NA - Currently evaluated during watershed analysis process, most historic seedings have converted back to sagebrush habitat.

Same as NA - the DFO has been modifying fences, marking fences around leks and has has an aggressive weeds management program for the past 10 years.

West nile has not been identified as an issue in DFO possibly due to elevation and the species of mosquito that is a carrier does not survive here.

These are all analyzed during Watershed assessments.  
The DFO has been actively removing, modifying and marking fences around leks.



If warranted no grazing is analyzed on specific parcels or pastures/allotments during Watershed assessments.

This is analyzed under Watershed Assesments.  
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Same as NA - This is analyzed during our watershed assessments

Not really an issue in MT to reduce threat of fire in annual grasslands.

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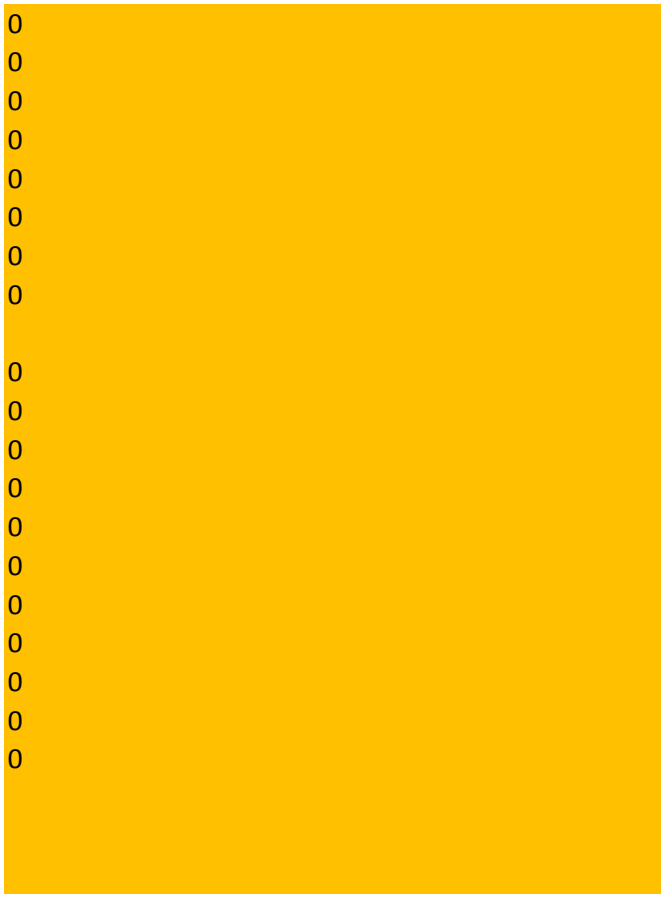
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<b>New GOA 1/28/2013</b>	<b>Program Area</b>	<b>Sub Topic</b>	<b>Threat</b>	<b>Indicator</b>
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195 Locatable Minerals

211 Leased Federal Fluid Mineral Est

206 Unleased Federal Fluid Mineral

205 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

281 Livestock Grazing

Water Development

280 Livestock Grazing

Water Development

202 Saleable Minerals

188 Non Energy Leasable Minerals

236 Travel Management

175 Restoration

120 Restoration

347 Wild Horses and Burros

159 Fuels

174 Restoration



119 Restoration

267 Livestock Grazing

Objectives

270 Livestock Grazing

Drought

160 Fuels

92 Habitat Fragmentation

Land Use Authorizati  
Infrastructure miles of lin

285 Restoration

168 Suppression

346 Wild Horses and Burros

189 Non Energy Leasable Minerals

269 Livestock Grazing

123 Restoration

264 Livestock Grazing

240 Travel Management

288 Livestock Grazing

Improvements

101 Habitat Fragmentation

Withdrawal

Mining

Acres close

290 Livestock Grazing                      Improvements

233 Travel Management

237 Travel Management

268 Livestock Grazing                      Objectives

292 Invasive Species

284 Restoration

203 Saleable Minerals

235 Travel Management

238 Travel Management

262 Livestock Grazing

162 Suppression

116 Restoration

144 Invasive Species

293 Livestock Grazing

196 Locatable Minerals

91 Habitat Fragmentation      Land Use Authorizati      Infrastructu      Acres exclu

122 Restoration

271 Livestock Grazing      Riparian  
4 Adaptive Management      Best Management Prac      N/A      N/E  
5 Common to All Alternatives      Implementation      N/A      N/E  
8 Common to All Alternatives      N/A      N/E  
10 Habitat Fragmentation      Infrastructu      Acres of PP  
12 Habitat Fragmentation      Wildfire, In      N/E

17 Designation of Habitat      Connectivity      All      Acres of Ha

18	Habitat Fragmentation	Connectivity	All	Acres of Ha
19	Adaptive Management		All	N/E
22	Common to All Alternatives	Process	All	N/E
26	Priority Setting	Mapping	All	N/E
27	Designation of Habitat	Mapping	All	N/E
28	Designation of Habitat	Mapping	All	N/E
30	Designation of Habitat	Mapping	All	N/E
31	Designation of Habitat	Mapping	All	N/E
32	Designation of Habitat	Mapping	All	N/E
33	Designation of Habitat	Adaptive Management	All	N/E
34	Designation of Habitat	Threats	All	N/E
35	Designation of Habitat	Threats	All	N/E
36	Designation of Habitat	Mapping	All	N/E
37	Designation of Habitat	Mapping	All	N/E
38	Designation of Habitat	Adaptive Management	All	N/E
39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E
42	Designation of Habitat	Uses	All	
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha

57 Adaptive Management	Trigger	Wildfire	Acres of Ha
58 Adaptive Management	Wildfire	Wildfire	Acres of Ha
59 Adaptive Management	Process	All	N/E
60 Adaptive Management	Process	All	N/E
61 Designation of Habitat	Trigger	All	Acres of De
63 Valid Existing Authorizations	Foundational	N/A	Acres of Rig
64 Valid Existing Authorizations	Foundational	Minerals	Acres of va
65 Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
68 Mitigation	Process	All	Acres of ha
69 Designation of Habitat	Restoration	All	Acres Treat
70 Mitigation	Restoration	All	Acres Treat
71 Monitoring	Process	Wildfire, In	Acres of wi
72 Monitoring	Process	Grazing	Acres of th
73 Monitoring	Process	All	
74 Monitoring	Process	Wildfire	Acres of tre
75 Monitoring	Process	All	Acres
76 Monitoring	Process	All	Population
77 Monitoring	process	grazing	acres in DF
78 Monitoring	Process	Grazing	Acres in DF
79 Habitat Fragmentation	Land Use Authorizations		
80 Habitat Fragmentation	Land Use Authorizations		
81 Human Disturbance	Land Use Authorizations		
82 Habitat Fragmentation	Land Use Authorizations		
83 Habitat Fragmentation	Land Use Authorizations		
84 Habitat Fragmentation	Land Use Authorizations		
85 Habitat Fragmentation	Land Use Authorizations		
86 Human Disturbance	Land Use Authorizations		
87 Predation	Land Use Authorizations		
88 Habitat Fragmentation	Land Use Authorizations		
89 Human Disturbance	Land Use Authorizations		
90 Fuels			
95 Habitat Fragmentation	Avoidance	Infrastructu	acres of avi
96 Habitat Fragmentation	Co-location	Infrastructu	miles of lin
98 Common to All Alternatives	Implementation		
102 Habitat Fragmentation	Corridors	Infrastructu	Acres/mile:
103 Habitat Fragmentation	Land Tenure	Predation	Acres
104 Habitat Fragmentation	Wind Energy	Infrastructu	Acres avail:
105 Habitat Fragmentation	unauthorized uses	infrastructu	acres
106 Habitat Fragmentation	siting	Infrastructu	acres avail:
110 ACEC			
117 Restoration			
125 Restoration			
126 Restoration			



129 Restoration  
132 Monitoring  
133 Suppression  
134 Invasive Species  
135 Vegetation  
136 Restoration  
137 Restoration  
138 Monitoring  
139 Invasive Species  
140 Invasive Species  
141 Restoration  
143 Restoration  
145 Invasive Species  
146 Monitoring  
152 Fuels  
156 Suppression  
157 Suppression  
164 Suppression  
165 Suppression  
172 Suppression  
177 Restoration  
178 Restoration  
179 Restoration  
180 Restoration  
181 Fuels  
182 Suppression  
183 Suppression  
184 Suppression  
199 Locatable Minerals  
204 Saleable Minerals  
223 ACECs  
224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est  
243 Travel Management  
247 Recreation and Visitor Services  
248 Recreation and Visitor Services  
249 Recreation and Visitor Services  
250 Travel Management  
251 Travel Management  
260 Livestock Grazing  
298 Livestock Grazing                      Trailing  
299 Fuels  
300 Restoration  
301 Fuels  
318 Livestock Grazing                      Improvements  
319 Livestock Grazing                      Water Development  
320 Livestock Grazing                      Water Development

321 Livestock Grazing	Water Development		
322 Livestock Grazing	Water Development		
323 Livestock Grazing			
325 Restoration			
326 Adaptive Management			
327 Livestock Grazing			
328 Livestock Grazing			
329 Livestock Grazing			
330 Livestock Grazing			
331 Livestock Grazing			
332 Coordination			
333 Livestock Grazing	Riparian		
334 Livestock Grazing			
335 Livestock Grazing	Improvements		
336 Livestock Grazing	Improvements		
337 Livestock Grazing	Improvements		
338 Livestock Grazing	Improvements		
339 Livestock Grazing	Improvements		
340 Livestock Grazing	Improvements		
341 Livestock Grazing	Improvements		
355 Wild Horses and Burros			
356 ACECs			
357 West Nile Virus			
358 West Nile Virus			
359 West Nile Virus			
360 West Nile Virus			
361 West Nile Virus			
507 BMP	Roads		
508 BMP	Roads		
509 BMP	Development		
510 BMP	Development		
511 BMP	Development		
512 BMP	Development		
513 BMP	Development		
514 BMP	Development		
515 BMP	Development		
516 Exemption Process			
24 Designation of Habitat	Populations	All	N/E
25 Designation of Habitat	Mapping	All	N/E
43 Designation of Habitat	Indicators		
48 Implementation	Adaptive Management	All	N/E
49 Adaptive Management	Process	All	N/E
50 Adaptive Management	Process	All	N/E
51 Adaptive Management	Wildfire	Wildfire	Acres of Ha
62 Valid Existing Authorizations	Foundational	N/A	Acres of Riğ
67 Mitigation	Process	Infrastructu	Acres/mile:
234 Travel Management			

246 Recreation and Visitor Services

263 Livestock Grazing

115 Restoration

173 Restoration

100 Habitat Fragmentation

Withdrawal

Mining

acres with

118 Restoration

121 Restoration

97 Habitat Fragmentation

Land Tenure

Urbanizatic acres retair

291 Livestock Grazing

Improvements

348 Implementation

289 Livestock Grazing

Water Development

241 Travel Management

93 Habitat Fragmentation

Reclamation

Infrastructure miles of lin

274 Livestock Grazing

Riparian

99 Habitat Fragmentation

Acquisition

Urbanizatio acres ident

227 Mineral Split Estate

228 Mineral Split Estate

345 Wild Horses and Burros

261 Livestock Grazing

278 Livestock Grazing

Riparian

273 Livestock Grazing

Riparian

424 BMP

Reclamation

400 BMP

Development

489 BMP

Fuels

506 BMP

Suppression

498 BMP

Suppression

384 BMP

Development

378 BMP	West Nile Virus
407 BMP	Development
464 BMP	Development
421 BMP	Development

395 BMP	Roads
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397 BMP	Development
---------	-------------

408 BMP	Development
---------	-------------

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

219 Leased Federal Fluid Mineral Est

218 Habitat Fragmentation

220 Leased Federal Fluid Mineral Est

217 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est

380 BMP                      West Nile Virus

389 BMP                      Roads

412 BMP                      Development

388 BMP                      Roads

410 BMP                      Development



409 BMP Development

386 BMP Roads

487 BMP Fuels

496 BMP Suppression

392 BMP Roads

500 BMP Suppression

490 BMP Fuels

483 BMP Fuels

411 BMP Development

390 BMP Roads

391 BMP Roads

383 BMP West Nile Virus

418 BMP

Development

488 BMP

Fuels

6 Goal

SG Abundance and Dist All

Acres of Ha

424 BMP

Reclamation

377 BMP

West Nile Virus

427 BMP

Reclamation

416 BMP

Development

381 BMP

West Nile Virus

382 BMP	West Nile Virus
422 BMP	Development
420 BMP	Development
387 BMP	Roads

379 BMP	West Nile Virus
425 BMP	Reclamation
504 BMP	Suppression
503 BMP 295 Monitoring	Suppression

155 Fuels

212 Leased Federal Fluid Mineral Est

15 Objective	Distribution	All	Acres of Ha
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16 Habitat Fragmentation	Disturbances sagebrush	Human Dis	Acres of Ha
--------------------------	------------------------	-----------	-------------

342 Wild Horses and Burros

20 Objective	Rehabilitation	All	Acres of Ha
--------------	----------------	-----	-------------

21 Objective	ACEC	All	N/E
--------------	------	-----	-----

142 Restoration

226 Leased Federal Fluid Mineral Est

344 Wild Horses and Burros

7 Designation of Habitat	Designation of Habitat	Human Dis	Acres of Ha
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499 BMP	Suppression		
402 BMP	Development		
399 BMP	Development		
401 BMP	Development		
406 BMP	Development		
94 Habitat Fragmentation	Relocation	Infrastructure	miles of lin
294 Livestock Grazing			
502 BMP	Suppression		
486 BMP	Fuels		
23 Designation of Habitat	Mapping	All	N/E
492 BMP	Fuels		

497 BMP                      Suppression

481 BMP                      Fuels

493 BMP                      Fuels

415 BMP                      West Nile Virus

491 BMP                      Fuels

417 BMP                      Development

469 BMP                      Development

419 BMP                      Development

426 BMP                      Reclamation

414 BMP                      West Nile Virus

404 BMP Development

393 BMP Roads  
385 BMP Development

405 BMP Development

494 BMP Fuels

9 Designation of Habitat Designation of Habitat All Acres of PP

13 Monitoring group N/A N/E



14 Habitat Fragmentation

DFC Thresholds

Infrastructure Acres of Ha

11 Desired Conditions

Desired Conditions

Wildfire, In Acres of sa

501 BMP

Suppression

398 BMP

Development

394 BMP

Roads

482 BMP

Fuels

413 BMP

Development

403 BMP	Roads		
428 BMP	Reclamation		
505 BMP	Suppression		
480 BMP	Fuels		
485 BMP	Fuels		
484 BMP	Fuels		
7 Priority Setting	Implementation		
11 Goal			
13 Designation of Habitat		All	Acres of PP
15 Disease	West Nile Virus		
17 Desired Conditions			
18 Monitoring			
19 Habitat Fragmentation			
21 Designation of Habitat			
91 ACEC			
95 BMP			
97 Habitat Fragmentation			
97 Implementation			
99 ACEC			
102 ACEC			
133 Fuels			
133 Fuels			
135 Restoration			
144 BMP			
155 Restoration			
155 Suppression			
159 Suppression			
162 Fuels			
163 Fuels			
168 Fuels			
173 Suppression			
212 Unleased Federal Fluid Mineral Estate			
246 Travel Management			
247 Travel Management			

248	Travel Management	
249	Travel Management	
273	Livestock Grazing	
274	Livestock Grazing	
278	Livestock Grazing	
280	Livestock Grazing	
281	Livestock Grazing	
284	Coordination	
288	Desired Conditions	
288	Invasive Species	
288	Livestock Grazing	Improvements
289	Livestock Grazing	
300	Livestock Grazing	Sheep
334	Livestock Grazing	Drought
356	West Nile Virus	
386	BMP	Development
387	BMP	Development
388	BMP	Development
390	BMP	Development
391	BMP	Development
503	BMP	Development

**Alternative B – Priority Areas****Alternative B - General Areas**

§ Action: In priority habitat, propose withdrawal from mineral entry based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development. Make any existing claims within the withdrawal area subject to validity exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal. In plans of operations required prior to any proposed surface disturbing activities, include the following: Additional, effective mitigation in perpetuity for conservation (In accordance with existing policy, WO IM 2008-204). Example: purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government). Consider seasonal restrictions if deemed effective.

No Action

1. Action: In priority habitat, apply the following nine conservation measures through Resource Management Plan (RMP) implementation decisions (e.g., approval of an Application for Permit to Drill, Sundry Notice, etc.) and upon completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, among other things: Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and Whether the action is in conformance with the approved RMP.

No Action

Action (Alternative 1): Allow geophysical exploration within priority sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat areas. Allow geophysical operations only by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply.

No Action

Action (Alternative 1): Close priority sage-grouse habitat areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas. No Action

Action (Alternative 2): Allow geophysical exploration within priority sage-grouse habitat areas to obtain exploratory information for areas outside of and adjacent to priority sage-grouse habitat areas. Only allow geophysical operations by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply. No Action

Action (Alternative 2): Close priority sage-grouse habitat areas to fluid mineral leasing. Consider an exception when there is an opportunity for the BLM and FS to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (i.e., checkerboard ownership). In this case, a plan amendment may be developed that opens the priority area for new leasing. The plan must demonstrate long-term population increases in the priority area through mitigation (prior to issuing the lease) including lease stipulations, off-site mitigation, etc., and avoid short-term losses that put the sage-grouse population at risk from stochastic events leading to extirpation. No Action

Action: Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to sage-grouse. No Action

Action: Authorize new water development for diversion from spring or seep source only when priority sage-grouse habitat would benefit from the development. This includes developing new water sources for livestock as part of an AMP/conservation plan to improve sage-grouse habitat. Same as Priority Areas.

Action: Close priority habitat to mineral material sales. No Action

Action: Close priority habitat to non-energy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine. No Action

Action: Complete activity level travel plans within five years of the record of decision. During activity level planning, where appropriate, designate routes in priority habitat with current administrative/agency purpose or need to administrative access only. No Action

Action: Consider potential changes in climate (Miller et al. 2011) when proposing post-fire seedings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seed. (Kramer and Havens 2009). No Action

Action: Consider potential changes in climate (Miller et al. 2011) when proposing restoration seedings when using native plants. Consider collection from the warmer component of the species current range when selecting native species (Kramer and Havens 2009). No Action

Action: Coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments to determine existing structure/condition/composition of vegetation within all BLM HMAs and FS WHTs. No Action

Action: Design fuels management projects in priority sage-grouse habitat to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more linear versus block design (Launchbaugh et al. 2007). No Action

Action: Design post ES&R and BAER management to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ES&R and BAER projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006). No Action

Action: Design post restoration management to ensure long term persistence. This could include changes in livestock grazing management, wild horse and burro management and travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits sage-grouse (Eiswerth and Shonkwiler 2006).

No Action

Action: Develop specific objectives to conserve, enhance or restore priority sage-grouse habitat based on BLM ESDs (FS may use other methods) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances sage-grouse habitat in the NEPA document prepared for the permit renewal (Doherty et al. 2011b, Williams et al. 2011).

No Action

Action: During drought periods, prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (Thurrow and Taylor 1999, Cagney et al. 2010), ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.

No Action

Action: During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al. 2007). Consult with ecologists to minimize impacts to native perennial grasses.

No Action

Action: Evaluate and take advantage of opportunities to remove, bury, or modify existing power lines within priority sage-grouse habitat areas.

No Action

Action: Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/ Conservation Plan or if they provide value in conserving or enhancing the rest of the priority habitats, then no restoration would be necessary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing system during the land health assessments (or other analyses [FS only]) (Davies et al. 2011).

No Action

Action: Follow Best Management Practices (WO IM 2011-138, see appendix E.)

No Action

Action: For all BLM HMAs and FS WHTs within priority sage-grouse habitat, prioritize the evaluation of all AMLs based on indicators that address structure/condition/composition of vegetation and measurements specific to achieving sage-grouse habitat objectives.

No Action

Action: For existing non-energy leasable mineral leases in priority habitat, in addition to the solid minerals BMPs (Appendix E), follow the same BMPs applied to Fluid Minerals (Appendix D), when wells are used for solution mining.

No Action

Action: Implement management actions (grazing decisions, Annual Operating Instructions [FS only], AMP/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements (Connelly et al. 2011c). Consider singly, or in combination, changes in: 1) Season or timing of use; 2) Numbers of livestock (includes temporary non-use or livestock removal); 3) Distribution of livestock use; 4) Intensity of use; and 5) Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) (Briske et al. 2011).

No Action

Action: In fire prone areas where sagebrush seed is required for sage-grouse habitat restoration, consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) and are a priority for protection from outside disturbances.

No Action



Action: In priority habitat, conduct land health assessments that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving sage-grouse habitat objectives (Doherty et al. 2011). If local/state seasonal habitat objectives are not available, use sage-grouse habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007.

No Action

Action: In priority habitat, conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected for protection in previous RMPs.

No Action

Action: In priority habitat, design any new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.

No Action

Action: In priority habitat, do not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with sage-grouse conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with sage-grouse conservation measures.)

No Action

Action: In priority habitat, evaluate existing structural range improvements and location of supplements (salt or protein blocks) to make sure they conserve, enhance or restore sage-grouse habitat. No Action

Action: In priority habitat, limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed. No Action

Action: In priority habitat, limit route construction to realignments of existing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates the need to construct a new road, or is necessary for motorist safety. No Action

Action: In priority habitat, manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve sage-grouse seasonal habitat objectives. No Action

Action: In priority habitat, monitor for, and treat invasive species associated with existing range improvements (Gelbard and Belnap 2003 and Bergquist et al. 2007). No Action

Action: In priority habitat, only allow treatments that conserve, enhance or restore sage-grouse habitat (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat). No Action

Action: In priority habitat, restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives. No Action

Action: In priority habitat, travel management should evaluate the need for permanent or seasonal road closures. No Action

Action: In priority habitat, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 % for that area, then evaluate and implement additional, effective mitigation necessary to offset the resulting loss of sage-grouse habitat (see Objectives).

No Action

Action: In priority habitat, work cooperatively on integrated ranch planning within sage-grouse habitat so operations with deeded/BLM and/or FS allotments can be planned as single units.

No Action

Action: In priority sage-grouse habitat areas, prioritize suppression, immediately after life and property, to conserve the habitat.

Action: In general sage-grouse habitat, prioritize suppression where wildfires threaten priority sage-grouse habitat.

Action: Include sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State Sage-Grouse Conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within priority sage-grouse habitat areas the highest restoration priority.

No Action

Action: Integrated Vegetation Management would be used to control, suppress, and eradicate, where possible, noxious and invasive species per BLM

No Action

Action: Maintain retirement of grazing privileges as an option in priority sage-grouse areas when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals.

No Action

Action: Make applicable Best Management Practices (see Appendix E) mandatory as Conditions of Approval within priority sage-grouse habitat.

No Action

Action: Make priority sage-grouse habitat areas exclusion areas for new BLM ROW or FS Special Use Authorization (SUA) permits. Consider the following exceptions: Within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations: new ROWs or SUAs may be co-located only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs or SUAs. Subject to valid, existing rights: where new ROWs or SUAs associated with valid existing rights are required, co-locate new ROWs or SUAs within existing ROWs or SUAs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, then evaluate and implement additional effective mitigation on a case-by-case basis to offset the resulting loss of sage-grouse habitat.

No Action

Action: Make re-establishment of sagebrush cover and desirable understory plants (relative to ecological site potential) the highest priority for restoration efforts.

No Action

Action: Manage riparian areas and wet meadows for proper functioning condition or other similar methodology (FS only) within priority sage-grouse habitats.

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

No Action

Action: No Similar Action

Sub-objective: Quantify and delineate general habitat for capability to provide connectivity among priority areas (Knick and Hanser 2011).

Action: No Similar Action

Sub-objective: Conserve, enhance or restore sage-grouse habitat and connectivity (Knick and Hanser 2011) to promote movement and genetic diversity, with emphasis on those habitats occupied by sage-grouse.

Action: No Similar Action

· Sub-objective: Assess general sage-grouse habitats to determine potential to replace lost priority habitat caused by perturbations and/or disturbances and provide connectivity (Knick and Hanser 2011) between priority areas. These habitats should be given some priority over other general sage-grouse habitats that provide marginal or substandard sage-grouse habitat. Restore historical habitat functionality to support sage-grouse populations guided by objectives to maintain or enhance connectivity. Total area and locations will be determined at the Land Use Plan level. Enhance general sage-grouse habitat such that population declines in one area are replaced elsewhere within the habitat.

Action: No Similar Action

No Action

Action: No Similar Action

No Action

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Action: Only allow BLM Special Recreation Permits (SRPs) and FS Recreation Special Use Authorizations (RSUAs) in priority habitat that have neutral or beneficial effects to priority habitat areas.

No Action

Action: Prioritize completion of land health assessments (FS may use other analyses) and processing grazing permits within priority sage-grouse habitat areas. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for sage-grouse. Utilize BLM Ecological Site Descriptions (ESDs) (FS may use other methods) to conduct land health assessments to determine if standards of range-land health are being met.

No Action

Action: Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse (Meinke et al. 2009). Prioritize restoration in seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance.

No Action

Action: Prioritize native seed allocation for use in sage-grouse habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from Emergency Stabilization and Rehabilitation (ES&R) (BLM) and/or Burn Area Emergency Rehabilitation (BAER) (FS) projects outside of priority sage-grouse habitat to those inside it. Use of native plant seeds for ES&R or BAER seedings is required based on availability, adaptation (site potential), and probability of success (Richards et al. 1998). Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet sage-grouse habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.

No Action

Action: Propose lands within priority sage-grouse habitat areas for mineral withdrawal.

No Action

Action: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Where probability of success or adapted seed availability is low, non-native seeds may be used as long as they support sage-grouse habitat objectives (Pyke 2011). No Action

Action: Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse. No Action

Action: Retain public ownership of priority sage-grouse habitat. Consider exceptions where: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area. Under priority sage-grouse habitat areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure consideration should be given to pursuing a permanent conservation easement. No Action

Action: To reduce outright sage-grouse strikes and mortality, remove, modify or mark fences in high risk areas within priority sage-grouse habitat based on proximity to lek, lek size, and topography (Christiansen 2009, Stevens 2011). No Action

Action: When conducting NEPA analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in priority sage-grouse habitat, address the direct and indirect effects to sage-grouse populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in priority habitats. No Action

Action: When developing or modifying water developments in priority habitat, use applicable best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011). No Action

Action: When reseeding roads, primitive roads and trails in priority habitat, use appropriate seed mixes and consider the use of transplanted sagebrush.	No Action
Action: Where existing leases or ROWs or SUAs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat.	No Action
Action: Where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (FS only), strive to attain reference state vegetation relative to the ecological site description.	Same as Priority Areas.
Action: Where suitable conservation actions cannot be achieved in priority habitat, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore sage-grouse habitat.	No Action
Action: Where the federal government owns the mineral estate in priority habitat, and the surface is in non-federal ownership, apply the conservation measures applied on public lands.	No Action
Action: Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, apply appropriate Fluid Mineral BMPs (see Appendix D) to surface development.	No Action
Action: Within priority habitat, develop or amend BLM Herd Management Area Plans (HMAPs) and FS Wildhorse Territory Plans (WHTPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMAs) and FS Wildhorse Territories (WHTs).	No Action
Action: Within priority sage-grouse habitat, incorporate sage-grouse habitat objectives and management considerations into all BLM and FS grazing allotments through Allotment Management Plans (AMPs) or permit renewals and/or FS Annual Operating Instructions.	No Action

Action: Within priority sage-grouse habitat, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by sage-grouse in the hot season (summer) (Aldridge and Brigham 2002, Crawford et al. 2004, Hagen et al. 2007).

No Action

Action: Within sage-grouse habitats, manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge to minimize elevated mortality during the late brood rearing period (Hagen et al. 2007, Kolada et al. 2009, Atamian et al. 2010).

Same as Priority Areas.

Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.

Apply a phased development approach with concurrent reclamation.

No Action

As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs.

No Action

As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.

No Action

Assign a sage-grouse resource advisor to all extended attack fires in or near key sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals.

No Action

BMP Section B: Fluid Minerals

No Action

Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments (Knight et al. 2003). Construction of steep shorelines also will create more permanent ponds that are a deterrent to colonizing mosquito species like Cx. tarsalis which prefer newly flooded sites with high primary productivity (Knight et al. 2003).	No Action
Bury distribution power lines.	No Action
Bury power lines.	No Action
Clean up refuse (Bui et al. 2011).	Clean up refuse (Bui et al. 2011).
Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation.	No Action
Cluster disturbances associated with operations (fracturing stimulation, liquids gatherin, etc.) and facilities as close as possible.	Cluster disturbances associated with operations (fracturing stimulation, liquids gatherin, etc.) and facilities as close as possible.
Collocate powerlines, flowlines, and small pipelines under or immediately adjacent to existing roads (Bui et al. 2010).	No Action
Conservation Measure: Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all priority sage-grouse habitat during this period.	No Action
Conservation Measure: Complete Master Development Plans in lieu of Application for Permit to Drill (APD)-by-APD processing for all but wildcat wells.	No Action
Conservation Measure: For future actions, require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Insure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000, Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors for the BLM or FS will perform the work.	No Action
Conservation Measure: Identify areas where acquisitions (including subsurface mineral rights) or conservation easements, would benefit sage-grouse habitat.	No Action

Conservation Measure: Make applicable Best Management Practices (BMPs, see Appendix D) mandatory as Conditions of Approval within priority sage-grouse habitat.	No Action
Conservation Measure: Require unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts to sage-grouse according to the Federal Lease Form, 3100-11, Sections 4 and 6.	No Action
Conservation Measure: When permitting APDs on existing leases that are not yet developed, the proposed surface disturbance cannot exceed 3% for that area. Consider an exception if: Additional, effective mitigation is demonstrated to offset the resulting loss of sage-grouse (see Objectives). When necessary, conduct additional, effective mitigation in 1) priority sage-grouse habitat areas or – less preferably – 2) general sage-grouse habitat (dependent upon the area-specific ability to increase sage-grouse populations). Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same Management Zone as the impact, per 2006 WAFWA Strategy – pg 2-17.	No Action
Construct dams or impoundments that restrict down slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage, or lining constructed ponds in areas where seepage is anticipated (Knight et al. 2003).	No Action
Construct road crossings at right angles to ephemeral drainages and stream crossings. Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007, Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)	Construct road crossings at right angles to ephemeral drainages and stream crossings. Control the spread and effects of non-native plant species (Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)
Coordinate road construction and use among ROW or SUA holders. Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.	Coordinate road construction and use among ROW or SUA holders. Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.

Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to sage-grouse.	No Action
Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.	Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.
Design vegetation treatment in areas of high fire frequency to facilitate firefighting safety, reduce the risk of extreme fire behavior; and to reduce the risk and rate of fire spread to key and restoration habitats.	No Action
Develop state-specific sage-grouse toolboxes containing maps, a list of resource advisors, contact information, local guidance, and other relevant information.	No Action
Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.	Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.
During periods of multiple fires, ensure line officers are involved in setting priorities.	No Action
Emphasize the use of native plant species, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.	No Action
Ensure proposed sagebrush treatments are planned with interdisciplinary input from BLM, FS, and /or state wildlife agency biologist and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.	No Action
Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.	Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.
Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.	Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.
Establish trip restrictions (Lyon and Anderson 2003) or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).	No Action
Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes.	No Action

Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).	No Action
Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats. Annual grasslands are second priority for restoration when the sites not adjacent to key habitat, but within 2 miles of key habitat. The third priority for annual grasslands habitat restoration projects are sites beyond 2 miles of key habitat. The intent is to focus restoration outward from existing, intact habitat.	No Action
GOAL: Maintain and/or increase sage-grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners.	GOAL: Same as Priority Habitat.
Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011).	No Action
Increase the size of fresh -water ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding Cx. tarsalis avoid (De Szalay and Resh 2000). This modification may reduce Cx. tarsalis habitat but could create larval habitat for Culicoides sonorensis, a vector of blue tongue disease, and should be used sparingly (Schmidtman et al. 2000). Steep shorelines should be used in combination with this technique whenever possible (Knight et al. 2003).	No Action
Irrigate interim reclamation if necessary for establishing seedlings more quickly.	No Action
Limit noise to less than 10 decibels above ambient measures (20-24 dBA) at sunrise at the perimeter of a lek during active lek season (Patricelli et al. 2010, Blickley et al. In preparation).	No Action
Line the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water, thus precluding shallow surface inflow and accumulation of sediment that promotes aquatic vegetation.	No Action



Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.	No Action
Locate man camps outside of priority sage-grouse habitats.	No Action
Locate new compressor stations outside priority habitats and design them to reduce noise that may be directed towards priority habitat.	No Action
Locate roads to avoid important areas and habitats.	No Action
Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open water produce 5-10 fold fewer Culex mosquitoes than completely vegetated wetlands (Walton and Workman 1998). Wetlands with open water also had significantly fewer stage III and IV instars which may be attributed to increased predator abundances in open water habitats (Walton and Workman 1998).	No Action
Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling and revegetating cut-and-fill slopes.	No Action
Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.	No Action
Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.	No Action
No Similar Objective	No Action

o Action: In priority habitat, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems. Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for the species. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in future NEPA documents. Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area. Allow no fuels treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality. Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered, in stands where cheatgrass is a very minor component in the

No Action

o Action: In priority habitat, provide the following conservation measures as terms and conditions of the approved RMP: Do not allow new surface occupancy on federal leases within priority habitats, this includes winter concentration areas (Doherty et al. 2008, Carpenter et al. 2010) during any time of the year. Consider an exception: If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section. If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or, depending on topography and other habitat aspects, in an area that is less demonstrably harmful to sage-grouse.

No Action

OBJECTIVE: Maintain or increase current distribution and abundance of sage-grouse on BLM administered lands in support of the range-wide goals.

No Action

OBJECTIVE: Manage land uses, habitat treatments, and anthropogenic disturbances below thresholds necessary to conserve local sage-grouse populations, sagebrush communities and landscapes.

No Action

Objective: Manage wild horse and burro population levels within established Appropriate Management Levels (AML).

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: No Similar Objective

No Action

Objective: Prioritize gathers in priority sage-grouse habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.

No Action

Objective: Protect priority sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse

No Action

On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.	No Action
Pipelines must be under or immediately adjacent to the road (Bui et al. 2010).	No Action
Place infrastructure in already disturbed locations where the habitat has not been fully restored.	No Action
Place liquid gathering facilities outside of priority areas. Have no tanks at well locations within priority habitat areas to minimize truck traffic and perching and nesting sites for ravens and raptors.	No Action
Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.	No Action
Planning Direction Note: Relocate existing designated ROW corridors crossing priority sage-grouse habitat void of any authorized ROWs, outside of the priority habitat area. If relocation is not possible, undesignate that entire corridor during the planning process.	No Action
Planning direction Note: Each planning effort will identify the specific allotment(s) where permanent retirement of grazing privileges is potentially beneficial.	No Action
Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and ATVs prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.	No Action
Power-wash all vehicles and equipment involved in fuels management activities prior to entering the area to minimize the introduction of undesirable and/or invasive plant species.	No Action
Priority sage-grouse habitats are areas that have the highest conservation value to maintaining or increasing sage-grouse populations. These areas would include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors.	General sage-grouse habitat is occupied (seasonal or year-round) habitat outside of priority habitat.
Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.	No Action

Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics.	No Action
Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.	No Action
Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species by planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.	No Action
Remove or re-inject produced water to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Construct dams or impoundments that restrict down slope seepage or overflow. Line the channel where discharge water flows into the pond with crushed rock. Construct spillway with steep sides and line it with crushed rock. Treat waters with larvicides to reduce mosquito production where water occurs on the surface.	No Action
Remove standing and encroaching trees within at least 100 meters of occupied sage-grouse leks and other habitats (e.g., nesting, wintering, and brood rearing) to reduce the availability of perch sites for avian predators, as appropriate, and resources permit.	No Action
Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.	No Action
Require sage-grouse safe fences around sumps.	No Action
Require sage-grouse-safe fences.	No Action
Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.	No Action
Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).	Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).

Restrict the construction of tall facilities and fences to the minimum number and amount needed.	Restrict the construction of tall facilities and fences to the minimum number and amount needed.
Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)	No Action
Roads - PPH	No Action
Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.	No Action
Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, and strictly managed grazed strips) to aid in controlling wildfire should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).	No Action
Sub-objective: Designate priority sage-grouse habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that are large enough to stabilize populations in the short term and enhance populations over the long term.	Sub-objective: Designate general sage-grouse habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that provide for major life history function (e.g., breeding, migration, or winter survival) in order to maintain genetic diversity needed for sustainable Greater Sage-Grouse populations.
Sub-objective: Develop quantifiable habitat and population objectives with WAFWA and other conservation partners at the management zone and/or other appropriate scales. Develop a monitoring and adaptive management strategy to track whether these objectives are being met, and allow for revisions to management approaches if they are not.	No Action

Sub-objective: Manage priority sage-grouse habitats so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat regardless of ownership. Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines. In priority habitats where the 3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by BLM or FS until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights). In this instance, an additional objective will be designated for the priority area to prioritize and reclaim/restore anthropogenic disturbances so that 3% or less of the total priority habitat area is disturbed within 10 years.

No Action

Sub-objective: To maintain or increase current populations, manage or restore priority areas so that at least 70% of the land cover provides adequate sagebrush habitat to meet sage-grouse needs.

No Action

To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, and heli-bases) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.

No Action

Use directional and horizontal drilling to reduce surface disturbance.  
Use dust abatement practices on roads and pads.

Use directional and horizontal drilling to reduce surface disturbance.  
Use dust abatement practices on roads and pads.

Use fire prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

No Action

Use only closed-loop systems for drilling operations and no reserve pits.

No Action

Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).	Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).
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Utilize mulching techniques to expedite reclamation and to protect soils.	No Action
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Utilize retardant and mechanized equipment to minimize burned acreage during initial attack.	No Action
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Where applicable, design fuels treatment objective to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.	No Action
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Where applicable, incorporate roads and natural fuel breaks into fuel break design.	No Action
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Where appropriate, ensure that treatments are configured in a manner (e.g., strips) that promotes use by sage-grouse (See Connelly et al., 2000*)	No Action
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H/PGH map of pph by alternative



New GOA 1/28/2013	Program Area	Sub Topic	Threat	Indicator
4	Adaptive Management	Best Management Prac	N/A	N/E
5	Common to All Alternatives	Implementation	N/A	N/E
6	Goal	SG Abundance and Dist	All	Acres of Ha
7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Ha
7	Priority Setting	Implementation		
8	Common to All Alternatives		N/A	N/E
9	Designation of Habitat	Designation of Habitat	All	Acres of PP
10	Habitat Fragmentation		Infrastructu	Acres of PP
11	Goal			
11	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sa
12	Habitat Fragmentation		Wildfire, In	N/E
13	Designation of Habitat		All	Acres of PP
13	Monitoring	group	N/A	N/E
14	Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of Ha
15	Objective	Distribution	All	Acres of Ha
15	Disease	West Nile Virus		
16	Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of Ha
17	Designation of Habitat	Connectivity	All	Acres of Ha
17	Desired Conditions			
18	Habitat Fragmentation	Connectivity	All	Acres of Ha
18	Monitoring			
19	Adaptive Management		All	N/E
19	Habitat Fragmentation			
20	Objective	Rehabilitation	All	Acres of Ha
21	Designation of Habitat			
21	Objective	ACEC	All	N/E
22	Common to All Alternatives	Process	All	N/E
23	Designation of Habitat	Mapping	All	N/E
24	Designation of Habitat	Populations	All	N/E
25	Designation of Habitat	Mapping	All	N/E
26	Priority Setting	Mapping	All	N/E
27	Designation of Habitat	Mapping	All	N/E
28	Designation of Habitat	Mapping	All	N/E
30	Designation of Habitat	Mapping	All	N/E
31	Designation of Habitat	Mapping	All	N/E
32	Designation of Habitat	Mapping	All	N/E
33	Designation of Habitat	Adaptive Management	All	N/E
34	Designation of Habitat	Threats	All	N/E
35	Designation of Habitat	Threats	All	N/E
36	Designation of Habitat	Mapping	All	N/E
37	Designation of Habitat	Mapping	All	N/E
38	Designation of Habitat	Adaptive Management	All	N/E

39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E
42	Designation of Habitat	Uses	All	
43	Designation of Habitat	Indicators		
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
48	Implementation	Adaptive Management	All	N/E
49	Adaptive Management	Process	All	N/E
50	Adaptive Management	Process	All	N/E
51	Adaptive Management	Wildfire	Wildfire	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha
57	Adaptive Management	Trigger	Wildfire	Acres of Ha
58	Adaptive Management	Wildfire	Wildfire	Acres of Ha
59	Adaptive Management	Process	All	N/E
60	Adaptive Management	Process	All	N/E
61	Designation of Habitat	Trigger	All	Acres of De
62	Valid Existing Authorizations	Foundational	N/A	Acres of Rig
63	Valid Existing Authorizations	Foundational	N/A	Acres of Rig
64	Valid Existing Authorizations	Foundational	Minerals	Acres of va
65	Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66	Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
67	Mitigation	Process	Infrastructu	Acres/mile:
68	Mitigation	Process	All	Acres of ha
69	Designation of Habitat	Restoration	All	Acres Treat
70	Mitigation	Restoration	All	Acres Treat
71	Monitoring	Process	Wildfire, In	Acres of wi
72	Monitoring	Process	Grazing	Acres of thi
73	Monitoring	Process	All	
74	Monitoring	Process	Wildfire	Acres of tre
75	Monitoring	Process	All	Acres
76	Monitoring	Process	All	Population
77	Monitoring	process	grazing	acres in DF
78	Monitoring	Process	Grazing	Acres in DF
79	Habitat Fragmentation	Land Use Authorizations		
80	Habitat Fragmentation	Land Use Authorizations		
81	Human Disturbance	Land Use Authorizations		
82	Habitat Fragmentation	Land Use Authorizations		
83	Habitat Fragmentation	Land Use Authorizations		
84	Habitat Fragmentation	Land Use Authorizations		
85	Habitat Fragmentation	Land Use Authorizations		

86 Human Disturbance	Land Use Authorizations
87 Predation	Land Use Authorizations
88 Habitat Fragmentation	Land Use Authorizations
89 Human Disturbance	Land Use Authorizations
90 Fuels	

91 ACEC

91 Habitat Fragmentation	Land Use Authorization	Infrastructure	Acres exclu
92 Habitat Fragmentation	Land Use Authorization	Infrastructure	miles of lin
93 Habitat Fragmentation	Reclamation	Infrastructure	miles of lin
94 Habitat Fragmentation	Relocation	Infrastructure	miles of lin
95 BMP			
95 Habitat Fragmentation	Avoidance	Infrastructure	acres of av
96 Habitat Fragmentation	Co-location	Infrastructure	miles of lin

97 Habitat Fragmentation	Land Tenure	Urbanizatio	acres retain
97 Habitat Fragmentation			
97 Implementation			
98 Common to All Alternatives	Implementation		

99 ACEC

99 Habitat Fragmentation	Acquisition	Urbanizatio	acres ident
100 Habitat Fragmentation	Withdrawal	Mining	acres withc
101 Habitat Fragmentation	Withdrawal	Mining	Acres close

102 ACEC

102 Habitat Fragmentation	Corridors	Infrastructure	Acres/mile:
103 Habitat Fragmentation	Land Tenure	Predation	Acres
104 Habitat Fragmentation	Wind Energy	Infrastructure	Acres avail:
105 Habitat Fragmentation	unauthorized uses	infrastructure	acres
106 Habitat Fragmentation	siting	Infrastructure	acres avail:

110 ACEC

115 Restoration  
116 Restoration

117 Restoration  
118 Restoration  
119 Restoration

120 Restoration

121 Restoration

122 Restoration

123 Restoration

125 Restoration

126 Restoration

129 Restoration

132 Monitoring

133 Fuels

133 Fuels

133 Suppression

134 Invasive Species

135 Restoration

135 Vegetation

136 Restoration

137 Restoration

138 Monitoring

139 Invasive Species

140 Invasive Species

141 Restoration

142 Restoration

143 Restoration

144 BMP

144 Invasive Species

145 Invasive Species

146 Monitoring

152 Fuels

155 Fuels

155 Restoration

155 Suppression

156 Suppression

157 Suppression

159 Fuels

159 Suppression

160 Fuels

162 Fuels

162 Suppression

163 Fuels

164 Suppression

165 Suppression

168 Fuels

168 Suppression

172 Suppression

173 Restoration

173 Suppression

174 Restoration

175 Restoration

177 Restoration

178 Restoration

179 Restoration

180 Restoration

181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals

196 Locatable Minerals

199 Locatable Minerals

202 Saleable Minerals

203 Saleable Minerals

204 Saleable Minerals

205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

211 Leased Federal Fluid Mineral Est

212 Leased Federal Fluid Mineral Est

212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est  
217 Leased Federal Fluid Mineral Est  
218 Habitat Fragmentation  
219 Leased Federal Fluid Mineral Est  
220 Leased Federal Fluid Mineral Est

223 ACECs

224 Leased Federal Fluid Mineral Est  
225 Leased Federal Fluid Mineral Est

226 Leased Federal Fluid Mineral Est  
227 Mineral Split Estate  
228 Mineral Split Estate  
233 Travel Management  
234 Travel Management  
235 Travel Management  
236 Travel Management  
237 Travel Management  
238 Travel Management  
240 Travel Management  
241 Travel Management  
243 Travel Management  
246 Recreation and Visitor Services  
246 Travel Management  
247 Recreation and Visitor Services  
247 Travel Management  
248 Recreation and Visitor Services  
248 Travel Management  
249 Recreation and Visitor Services  
249 Travel Management  
250 Travel Management  
251 Travel Management  
260 Livestock Grazing  
261 Livestock Grazing  
262 Livestock Grazing  
263 Livestock Grazing  
264 Livestock Grazing  
267 Livestock Grazing                      Objectives  
268 Livestock Grazing                      Objectives  
269 Livestock Grazing  
270 Livestock Grazing                      Drought  
271 Livestock Grazing                      Riparian  
273 Livestock Grazing                      Riparian

273 Livestock Grazing	
274 Livestock Grazing	Riparian
274 Livestock Grazing	
278 Livestock Grazing	Riparian
278 Livestock Grazing	
280 Livestock Grazing	Water Development
280 Livestock Grazing	
281 Livestock Grazing	Water Development
281 Livestock Grazing	
284 Coordination	
284 Restoration	
285 Restoration	
288 Desired Conditions	
288 Invasive Species	
288 Livestock Grazing	Improvements
288 Livestock Grazing	Improvements
289 Livestock Grazing	Water Development
289 Livestock Grazing	
290 Livestock Grazing	Improvements
291 Livestock Grazing	Improvements
292 Invasive Species	
293 Livestock Grazing	
294 Livestock Grazing	
295 Monitoring	
298 Livestock Grazing	Trailing
299 Fuels	
300 Livestock Grazing	Sheep
300 Restoration	
301 Fuels	
318 Livestock Grazing	Improvements
319 Livestock Grazing	Water Development
320 Livestock Grazing	Water Development
321 Livestock Grazing	Water Development
322 Livestock Grazing	Water Development
323 Livestock Grazing	
325 Restoration	
326 Adaptive Management	
327 Livestock Grazing	
328 Livestock Grazing	
329 Livestock Grazing	
330 Livestock Grazing	
331 Livestock Grazing	
332 Coordination	
333 Livestock Grazing	Riparian
334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements

336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements
341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	
346 Wild Horses and Burros	
347 Wild Horses and Burros	
348 Implementation	
355 Wild Horses and Burros	

356 ACECs	
356 West Nile Virus	
357 West Nile Virus	
358 West Nile Virus	
359 West Nile Virus	
360 West Nile Virus	
361 West Nile Virus	
377 BMP	West Nile Virus
378 BMP	West Nile Virus
379 BMP	West Nile Virus
380 BMP	West Nile Virus
381 BMP	West Nile Virus
382 BMP	West Nile Virus
383 BMP	West Nile Virus
384 BMP	Development
385 BMP	Development
386 BMP	Development
386 BMP	Roads
387 BMP	Development
387 BMP	Roads
388 BMP	Development
388 BMP	Roads
389 BMP	Roads
390 BMP	Development
390 BMP	Roads
391 BMP	Development
391 BMP	Roads
392 BMP	Roads
393 BMP	Roads
394 BMP	Roads
395 BMP	Roads



397 BMP	Development
398 BMP	Development
399 BMP	Development
400 BMP	Development
401 BMP	Development
402 BMP	Development
403 BMP	Roads
404 BMP	Development
405 BMP	Development
406 BMP	Development
407 BMP	Development
408 BMP	Development
409 BMP	Development
410 BMP	Development
411 BMP	Development
412 BMP	Development
413 BMP	Development
414 BMP	West Nile Virus
415 BMP	West Nile Virus
416 BMP	Development
417 BMP	Development
418 BMP	Development
419 BMP	Development
420 BMP	Development
421 BMP	Development
422 BMP	Development
424 BMP	Reclamation
424 BMP	Reclamation
425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels
485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels

493 BMP	Fuels
494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression
503 BMP	Development
503 BMP	Suppression
504 BMP	Suppression
505 BMP	Suppression
506 BMP	Suppression
507 BMP	Roads
508 BMP	Roads
509 BMP	Development
510 BMP	Development
511 BMP	Development
512 BMP	Development
513 BMP	Development
514 BMP	Development
515 BMP	Development
516 Exemption Process	

## Alternative C – Priority Areas

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

Objective: Same as Alternative B.

Action: No Similar Action

Designate all preliminary priority and general habitats as priority habitat areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

H/PGH map of pph by alternative

Action: No Similar Action

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Action: No Similar Action

New corridors/facilities New transmission corridors, ROWs for corridors (oil, gas, water/aquifer mining), and communication or other towers are prohibited in ACECs and occupied habitats. (WWP)

Action: New corridors/facilities will be sited in non-habitat and bundled with existing corridors to the maximum extent possible. (WWP)” “

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

All public lands in ACECs, occupied habitats, and identified restoration and rehab land areas will be retained in public ownership. (WWP)

Action: No Similar Action

Action: BLM and FS will strive to acquire important private lands in BLM-designated ACECs and FS Sage-Grouse Special Areas.

Action: Acquisition will be prioritized over easements. (WWP)” “ “ “

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Existing designated corridors in BLM ACECs and FS Special Areas may be accessed for maintenance. (WWP)” “

Action: ROWs will be amended to require features that enhance sage-grouse habitat security. (WWP)

No action.

Action: No Similar Action

Action: No similar action.

Action: No similar action.

Action: Industrial solar projects will be prohibited in ACECs and occupied habitats. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Composition, function, and structure of native vegetation communities will be consistent with the reference state of the appropriate ESD and will be maximized to provide for healthy, resilient, and recovering sage-grouse habitat components. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Exotic seedlings will be rehabbed, interseeded, restored to recover sagebrush in areas to expand occupied habitats. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Active restoration practices:” “Removal of livestock water troughs, pipelines, and wells.” “Where possible, without further damage to springs/water sources, remove waterline piping and maximize water at spring/stream sources supporting diverse riparian and meadow vegetation. “ “Promote natural healing of headcuts to the maximum extent possible by limiting disturbance throughout the watershed. At times, a combination of methods may need to be used – but gabions and structural devices and boulder dumping should be limited, and restoration should strive for a functioning system. “ “Ripping/recontouring of roads and seeding with native local ecotypes of shrubs and grasses. (WWP)

Active restoration of crested wheatgrass seedlings. This can be accomplished, following targeted restoration planning to expand, reconnect or recover habitats required by sage-grouse by:” “Inter-seeding sagebrush seed or seedlings. “ “Removal of crested wheatgrass through plowing while minimizing use of herbicides. Subsequent re-seeding with local native ecotypes. “ “Active restoration of cheatgrass infestation areas.” “In all cases, local native plant ecotype seeds and seedlings must be used. (WWP)

Action: No similar action.

Action: No Similar Action

No action.

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Objective: No similar objective.

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Action: No Similar Action

Action: Same as Alternative B.

Action: Lands will be managed to be in the good or better ecological condition to help minimize adverse impacts of fire. (WWP)

Action: Any fuels treatments will focus on interfaces with human habitation or significant existing disturbances.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No Similar Action

Action: No Similar Action

Action: Same as Alternative B.

Action: No Similar Action

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No similar action.

Action: No similar action.

Action: No similar action.

Action: No similar action.

Action: Mowing of grass will be used in any fuelbreak fuels reduction project (roadsides or other areas).

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

No action.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: No Similar Action

Action: No new leases or permits will be issued. (WWP)

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Action: Same as Alternative B.

Timing avoidance periods will be required. (WWP) “

Conservation Measure: Same as Alternative B.





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Action: No Similar Action

Objective: Same as Alternative A.

Objective: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: Same as Alternative A.

Action: No Similar Action

Action: Large ACECs will be designated to preserve, protect, conserve, restore, and sustain sage-grouse populations and the sagebrush ecosystem on which the sage-grouse relies. See WWP ACEC proposals. (WWP)

No action.

No action.

No action.

Action: No Similar Action

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Action: No Similar Action





New GOA 1/28/2013	Program Area	Sub Topic	Threat	Indicator
	4 Adaptive Management	Best Management Prac	N/A	N/E
	5 Common to All Alternatives	Implementation	N/A	N/E
	6 Goal	SG Abundance and Dist	All	Acres of Ha
	7 Designation of Habitat	Designation of Habitat	Human Dis	Acres of Ha
	7 Priority Setting	Implementation		
	8 Common to All Alternatives		N/A	N/E
	9 Designation of Habitat	Designation of Habitat	All	Acres of PP
	10 Habitat Fragmentation		Infrastruct	Acres of PP
	11 Goal			
	11 Desired Conditions	Desired Conditions	Wildfire, In Acres of sa	

12	Habitat Fragmentation		Wildfire, In N/E
13	Designation of Habitat		All Acres of PP
13	Monitoring	group	N/A N/E
14	Habitat Fragmentation	DFC Thresholds	Infrastructure Acres of Ha
15	Objective	Distribution	All Acres of Ha
15	Disease	West Nile Virus	
16	Habitat Fragmentation	Disturbances sagebrush	Human Dis Acres of Ha
17	Designation of Habitat	Connectivity	All Acres of Ha
17	Desired Conditions		
18	Habitat Fragmentation	Connectivity	All Acres of Ha
18	Monitoring		
19	Adaptive Management		All N/E
19	Habitat Fragmentation		
20	Objective	Rehabilitation	All Acres of Ha
21	Designation of Habitat		
21	Objective	ACEC	All N/E
22	Common to All Alternatives	Process	All N/E

23	Designation of Habitat	Mapping	All	N/E
24	Designation of Habitat	Populations	All	N/E
25	Designation of Habitat	Mapping	All	N/E
26	Priority Setting	Mapping	All	N/E
27	Designation of Habitat	Mapping	All	N/E
28	Designation of Habitat	Mapping	All	N/E
30	Designation of Habitat	Mapping	All	N/E
31	Designation of Habitat	Mapping	All	N/E
32	Designation of Habitat	Mapping	All	N/E
33	Designation of Habitat	Adaptive Management	All	N/E
34	Designation of Habitat	Threats	All	N/E
35	Designation of Habitat	Threats	All	N/E
36	Designation of Habitat	Mapping	All	N/E
37	Designation of Habitat	Mapping	All	N/E
38	Designation of Habitat	Adaptive Management	All	N/E
39	Designation of Habitat	Adaptive Management	All	N/E
40	Wildfire	Priorities	Wildfire	Acres of Ha
41	Implementation	Process	All	N/E
42	Designation of Habitat	Uses	All	
43	Designation of Habitat	Indicators		
44	Desired Conditions	DFC	All	Acres of Ha
45	Desired Conditions	DFC	All	Acres of Ha
46	Implementation	Process	All	N/E
47	Habitat Fragmentation	Resiliency	All	Acres of Ha
48	Implementation	Adaptive Management	All	N/E
49	Adaptive Management	Process	All	N/E
50	Adaptive Management	Process	All	N/E
51	Adaptive Management	Wildfire	Wildfire	Acres of Ha
52	Adaptive Management	Trigger	Wildfire	Acres of Ha
53	Adaptive Management	Trigger	Wildfire	Acres of Ha
54	Adaptive Management	Grazing	Grazing	Acres of Ha
55	Adaptive Management	Process	All	Population
56	Adaptive Management	Trigger	Wildfire	Acres of Ha
57	Adaptive Management	Trigger	Wildfire	Acres of Ha
58	Adaptive Management	Wildfire	Wildfire	Acres of Ha
59	Adaptive Management	Process	All	N/E
60	Adaptive Management	Process	All	N/E
61	Designation of Habitat	Trigger	All	Acres of De

62 Valid Existing Authorizations	Foundational	N/A	Acres of Rig
63 Valid Existing Authorizations	Foundational	N/A	Acres of Rig
64 Valid Existing Authorizations	Foundational	Minerals	Acres of va
65 Valid Existing Authorizations	Foundational	Minerals	Acres of Mi
66 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
67 Mitigation	Process	Infrastructu	Acres/mile:
68 Mitigation	Process	All	Acres of ha
69 Designation of Habitat	Restoration	All	Acres Treat
70 Mitigation	Restoration	All	Acres Treat
71 Monitoring	Process	Wildfire, In	Acres of wi
72 Monitoring	Process	Grazing	Acres of th
73 Monitoring	Process	All	
74 Monitoring	Process	Wildfire	Acres of tre
75 Monitoring	Process	All	Acres
76 Monitoring	Process	All	Population
77 Monitoring	process	grazing	acres in DF
78 Monitoring	Process	Grazing	Acres in DF

79 Habitat Fragmentation      Land Use Authorizations

80 Habitat Fragmentation      Land Use Authorizations



81 Human Disturbance

Land Use Authorizations

82 Habitat Fragmentation

Land Use Authorizations

83 Habitat Fragmentation

Land Use Authorizations

84 Habitat Fragmentation

Land Use Authorizations

85 Habitat Fragmentation

Land Use Authorizations

86 Human Disturbance

Land Use Authorizations

87 Predation

Land Use Authorizations

88 Habitat Fragmentation

Land Use Authorizations

89 Human Disturbance

Land Use Authorizations

90 Fuels

91 ACEC

91 Habitat Fragmentation

Land Use Authorizations Infrastructure Acres exclu

92 Habitat Fragmentation

Land Use Authorizations Infrastructure miles of lin

93 Habitat Fragmentation

Reclamation Infrastructure miles of lin

94 Habitat Fragmentation

Relocation Infrastructure miles of lin

95 BMP

95 Habitat Fragmentation

Avoidance Infrastructure acres of av

96 Habitat Fragmentation

Co-location Infrastructure miles of lin

97 Habitat Fragmentation

Land Tenure

Urbanizatic acres retain

97 Habitat Fragmentation

97 Implementation

98 Common to All Alternatives

Implementation

99 ACEC

99 Habitat Fragmentation

Acquisition

Urbanizatic acres ident

100 Habitat Fragmentation	Withdrawal	Mining	acres with
101 Habitat Fragmentation	Withdrawal	Mining	Acres close
102 ACEC			

102 Habitat Fragmentation	Corridors	Infrastructure	Acres/mile:
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103 Habitat Fragmentation

Land Tenure

Predation Acres

104 Habitat Fragmentation

Wind Energy

Infrastructure Acres available

105 Habitat Fragmentation

unauthorized uses

infrastructure acres

106 Habitat Fragmentation

siting

Infrastructure acres available

110 ACEC

115 Restoration

116 Restoration

117 Restoration  
118 Restoration

119 Restoration  
120 Restoration  
121 Restoration  
122 Restoration  
123 Restoration  
125 Restoration  
126 Restoration  
129 Restoration

132 Monitoring

133 Fuels

133 Fuels

133 Suppression

134 Invasive Species  
135 Restoration

135 Vegetation

136 Restoration



137 Restoration

138 Monitoring

139 Invasive Species

140 Invasive Species

141 Restoration

142 Restoration

143 Restoration

144 BMP

144 Invasive Species

145 Invasive Species

146 Monitoring

152 Fuels

155 Fuels

155 Restoration

155 Suppression  
156 Suppression  
157 Suppression  
159 Fuels  
159 Suppression

160 Fuels

162 Fuels  
162 Suppression  
163 Fuels

164 Suppression

165 Suppression  
168 Fuels  
168 Suppression

172 Suppression  
173 Restoration  
173 Suppression

174 Restoration

175 Restoration  
177 Restoration  
178 Restoration  
179 Restoration  
180 Restoration  
181 Fuels

182 Suppression

183 Suppression

184 Suppression

188 Non Energy Leasable Minerals

189 Non Energy Leasable Minerals

195 Locatable Minerals

196 Locatable Minerals

199 Locatable Minerals

202 Saleable Minerals

203 Saleable Minerals

204 Saleable Minerals

205 Unleased Federal Fluid Mineral

206 Unleased Federal Fluid Mineral

208 Unleased Federal Fluid Mineral

209 Unleased Federal Fluid Mineral

211 Leased Federal Fluid Mineral Est

212 Leased Federal Fluid Mineral Est

212 Unleased Federal Fluid Mineral Estate

213 Leased Federal Fluid Mineral Est

215 Leased Federal Fluid Mineral Est

216 Leased Federal Fluid Mineral Est

217 Leased Federal Fluid Mineral Est

218 Habitat Fragmentation

219 Leased Federal Fluid Mineral Est

220 Leased Federal Fluid Mineral Est

223 ACECs

224 Leased Federal Fluid Mineral Est

225 Leased Federal Fluid Mineral Est

226 Leased Federal Fluid Mineral Est



227 Mineral Split Estate

228 Mineral Split Estate

233 Travel Management

234 Travel Management

235 Travel Management

236 Travel Management

237 Travel Management  
238 Travel Management

240 Travel Management

241 Travel Management

243 Travel Management

246 Recreation and Visitor Services  
246 Travel Management

247 Recreation and Visitor Services  
247 Travel Management

248 Recreation and Visitor Services  
248 Travel Management

249 Recreation and Visitor Services  
249 Travel Management

250 Travel Management  
251 Travel Management  
260 Livestock Grazing

261 Livestock Grazing

262 Livestock Grazing

263 Livestock Grazing

264 Livestock Grazing

267 Livestock Grazing

Objectives

268 Livestock Grazing

Objectives

269 Livestock Grazing

270 Livestock Grazing

Drought

271 Livestock Grazing

Riparian

273 Livestock Grazing

Riparian

273 Livestock Grazing

274 Livestock Grazing

Riparian

274 Livestock Grazing

278 Livestock Grazing

Riparian

278 Livestock Grazing

280 Livestock Grazing  
280 Livestock Grazing

Water Development

281 Livestock Grazing  
281 Livestock Grazing  
284 Coordination

Water Development

284 Restoration

285 Restoration

288 Desired Conditions

288 Invasive Species

288 Livestock Grazing

Improvements

288 Livestock Grazing

Improvements

289 Livestock Grazing

Water Development



289 Livestock Grazing

290 Livestock Grazing

291 Livestock Grazing

292 Invasive Species

Improvements

Improvements

293 Livestock Grazing  
294 Livestock Grazing  
295 Monitoring

298 Livestock Grazing

Trailing

299 Fuels  
300 Livestock Grazing

Sheep

300 Restoration

301 Fuels

318 Livestock Grazing

319 Livestock Grazing

320 Livestock Grazing

321 Livestock Grazing

322 Livestock Grazing

323 Livestock Grazing

325 Restoration

326 Adaptive Management

327 Livestock Grazing

328 Livestock Grazing

329 Livestock Grazing

330 Livestock Grazing

331 Livestock Grazing

332 Coordination

Improvements

Water Development

Water Development

Water Development

Water Development

333 Livestock Grazing	Riparian
334 Livestock Grazing	
334 Livestock Grazing	Drought
335 Livestock Grazing	Improvements
336 Livestock Grazing	Improvements
337 Livestock Grazing	Improvements
338 Livestock Grazing	Improvements
339 Livestock Grazing	Improvements
340 Livestock Grazing	Improvements
341 Livestock Grazing	Improvements
342 Wild Horses and Burros	
344 Wild Horses and Burros	
345 Wild Horses and Burros	

346 Wild Horses and Burros

347 Wild Horses and Burros

348 Implementation

355 Wild Horses and Burros  
356 ACECs  
356 West Nile Virus  
357 West Nile Virus  
358 West Nile Virus  
359 West Nile Virus  
360 West Nile Virus

361 West Nile Virus

377 BMP

West Nile Virus

378 BMP

West Nile Virus

379 BMP

West Nile Virus

380 BMP

West Nile Virus

381 BMP

West Nile Virus

382 BMP

West Nile Virus

383 BMP

West Nile Virus

384 BMP

Development

385 BMP

Development

386 BMP

Development

386 BMP

Roads

387 BMP

Development

387 BMP

Roads

388 BMP

Development

388 BMP

Roads

389 BMP Roads  
390 BMP Development

390 BMP Roads  
391 BMP Development  
391 BMP Roads  
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395 BMP Roads

397 BMP Development

398 BMP Development

399 BMP Development

400 BMP Development

401 BMP Development

402 BMP Development

403 BMP Roads

404 BMP Development

405 BMP Development

406 BMP Development

407 BMP Development

408 BMP Development

409 BMP Development

410 BMP Development

411 BMP Development

412 BMP Development

413 BMP Development

414 BMP

West Nile Virus

415 BMP

West Nile Virus

416 BMP

Development

417 BMP

Development

418 BMP

Development

419 BMP

Development

420 BMP

Development

421 BMP

Development



422 BMP	Development
424 BMP	Reclamation
424 BMP	Reclamation

425 BMP	Reclamation
426 BMP	Reclamation
427 BMP	Reclamation
428 BMP	Reclamation
464 BMP	Development
469 BMP	Development
480 BMP	Fuels
481 BMP	Fuels
482 BMP	Fuels
483 BMP	Fuels
484 BMP	Fuels

485 BMP	Fuels
486 BMP	Fuels
487 BMP	Fuels
488 BMP	Fuels
489 BMP	Fuels
490 BMP	Fuels
491 BMP	Fuels
492 BMP	Fuels

493 BMP	Fuels
494 BMP	Fuels
496 BMP	Suppression
497 BMP	Suppression
498 BMP	Suppression
499 BMP	Suppression
500 BMP	Suppression
501 BMP	Suppression
502 BMP	Suppression



516 Exemption Process

**Alternative D - Priority Habitat Areas**

**Alternative D - Medial Habitat Areas**

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

OBJECTIVE: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain sage-grouse population persistence.

Action: No Similar Action

Sub-objective: Same as Alternative B.

OBJECTIVE: Identify and expand sagebrush areas to increase the extent and condition of available habitat on the landscape.

OBJECTIVE: Reconnect and expand areas of higher native plant community integrity/ rangeland health to increase the extent of high quality habitat and, where possible, to account for the future effects of climate change.

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

OBJECTIVE: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain sage-grouse population persistence.

Action: No Similar Action

Sub-objective: Designate medial sage-grouse habitats within WAFWA management zone IV (Stiver et al. 2006) that augment identified priority habitat areas.

OBJECTIVE: Identify and expand sagebrush areas to increase the extent and condition of available habitat on the landscape.

OBJECTIVE: Same as Priority.

OBJECTIVE: Increase the amount and functionality of seasonal habitats. a. Increase canopy cover and average patch size of sagebrush in perennial grasslands. b. Increase the amount, condition and connectivity of seasonal habitats. c. Protect or improve sage-grouse migration/ movement corridors . d. Reduce conifer encroachment within sage-grouse seasonal habitats. e. Improve understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats. f. Reduce the extent of annual grasslands within to priority habitat.

H/PGH map of pph by alternative

Action: No Similar Action

OBJECTIVE: Increase the amount and functionality of seasonal habitats. a. Increase canopy cover and average patch size of sagebrush in perennial grasslands. b. Increase the amount, condition and connectivity of seasonal habitats. c. Protect or improve sage-grouse migration/ movement corridors . d. Reduce conifer encroachment within sage-grouse seasonal habitats. e. Improve understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats. f. Reduce the extent of annual grasslands within to priority habitat.

Action: No Similar Action

OBJECTIVE: Manage anthropogenic development and human disturbance in priority habitat to minimize the likelihood of adverse local population-level effects on sage-grouse and and provide for no net loss of habitat. bitat

OBJECTIVE: Same as Priority Habitat.

OBJECTIVE: Reduce or minimize risk of West Nile Virus or other diseases.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

OBJECTIVE: Reduce or minimize risk of West Nile Virus or other diseases.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

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Action: No Similar Action



Action: No Similar Action  
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Designate areas as ROW Avoidance areas and exclusion areas for wind and solar development. The following uses are not allowed: Transmission facilities (greater than 50kV in size - based on recent IM), wind energy testing and development, commercial solar development, commercial geothermal development, nuclear development, oil and gas development, mineral development, airports, and ancillary facilities associated with any of the forementioned development; paved roads and graded gravel roads, and landfills.

Designate areas as ROW Avoidance areas.

New ROW and land use authorizations would be avoided whenever possible. Any new ROW and land use authorizations would not result in a net loss of sage-grouse habitat of the respective priority area.

Same as Priority areas.

Land authorizations that are temporary in nature (such as film permits, apiaries sites, etc.), that do not result in loss of sage-grouse habitat would be subject to seasonal or timing restrictions and are otherwise exempt from mitigation requirements regarding habitat loss.

Same as priority areas.

New authorizations and modifications to existing ROW and land use authorizations would be subject to siting prescriptions and design features considered on a case-by-case basis, in subsequent NEPA analysis. This could include modifications to the types of uses that are excluded from consideration as new authorizations. For example upgrade of an existing 50kV powerline to a 115kV powerline, to eliminate the need for an additional line could be considered.

New authorizations and modifications to existing ROW and land use authorizations would be considered subject to siting prescriptions and design features considered on a case-by-case basis, in subsequent NEPA analysis.

New authorizations or modifications should be sited substantially within an existing disturbance or minimum necessary adjacent to the existing footprint, where feasible.

New authorizations or modifications should be sited substantially within the existing disturbance footprints where feasible.

Removal/relocation/ or burial opportunities for powerlines should be explored and implemented where feasible.

Same as Priority areas.

Site new authorizations or facilities outside the lek avoidance buffer areas (defined as???) unless topographic features reduce or eliminate effects to the lek.

Same as Priority areas.

Guy wires will be avoided where feasible. Where guy wires are necessary and appropriate without causing a human safety risk, bird collision diverters will be required.

Same as Priority areas.



Design structures and facilities to reduce perching and nesting opportunities for avian predators.	Same as Priority areas.
New power and communication lines, outside of existing ROWs, would be buried, where physically feasible, and associated above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.	New power and communication lines, outside of existing ROWs, would be buried, where physically and economically feasible, and associated above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.
Adhere to seasonal restrictions? Linear ROWs may be considered as vegetated fuel-breaks.	Same as Priority areas. Same as Priority areas.
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Retain public ownership of priority sage-grouse habitat. Consider exceptions where: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area.	Same as priority areas.
Action: Lands currently identified for retention within priority areas would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority areas.	
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Withdrawal Areas [We need for guidance here . Is the NTT action calling for withdrawals meant to be more for special designations such ACECs] Need to look at what needs to be retained and what we can get rid of, per LUP handbook Action: Withdrawal for the protection of sage-grouse may or may not be the most appropriate means to provide for the maintenance and enhancement for sage-grouse\*. ROW Avoidance and Exclusion designations will be evaluated to provide necessary protections. Action: When modifying or extending an existing withdrawal, ensure the lands are segregated from all of the mining and mineral leasing laws, as long as the segregation does not interfere with the intent of the withdrawal. \*Note: Lands are generally withdrawn for a specific use of the land by a BLM or another federal agency, and not simply to protect a resource. The withdrawn lands are generally segregated from some or all the public land laws and some or all of the mining and mineral

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Key Decision: Lands for Acquisition  
Action: Identify lands for acquisition that increase the extent of or provide for connectivity of PPH. Action: Acquisition of sage-grouse PPH will have priority over the acquisition of land for other program purposes subject to the approval of the Authorized officer.

Action: No Similar Action

Key Decision: Lands for Exchange  
Action: Evaluate potential land exchanges containing historically low-quality sage-grouse habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal sage-grouse habitats or lands providing for T&E species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of PPH. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of PPH sagebrush areas currently in public ownership. Lower priority will be given to those lands that will promote enhancement the other PPH and PGH areas.

Same as Priority areas.

Solar and wind energy development is not allowed.

Action: Wind and solar energy development would be restricted where adverse effects could not be mitigated. Ancillary facilities such as roads, electric lines, etc. could potentially be authorized provided there is no net loss of sage-grouse habitat through mitigation.

Action: Process unauthorized use. If the unauthorized use does not serve the best interest of the public, reclaim the site by removing these features and restoring the habitat. If the use needs to be authorized, management actions for new authorizations would need to be consistent with objectives for conserving sage-grouse.

Same as Priority areas.

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vegetation rehabilitation projects to achieve the greatest improvement in sage-grouse habitat. Factors contributing to higher emphasis for implementation include:

- Projects within priority habitat areas.
- Sites where environmental variables contribute to improved chances for project success (Meinke et al. 2009).
- Improvement of seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance (wintering areas, wet meadows and riparian areas, nesting areas, leks, etc.).
- Re-establishment of sagebrush cover in otherwise suitable sage-grouse habitat (native perennial grasslands, recently burned areas).
- Re-establishment of desirable understory vegetation in existing sagebrush stands.
- Cooperative efforts that may improve sage-grouse habitat quality over multiple ownerships.
- Projects in general habitat areas that may provide connectivity between suitable habitats or expand existing good quality habitats.
- Projects that address Same as Priority areas.

Action: Develop objectives that include sage-grouse habitat objectives for re-vegetation projects being done to enhance sage-grouse habitat. Objectives for sagebrush canopy cover and plant community structure should be consistent with what would be expected for the ecological site(s) of the project area. Consider general sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007), State or Local Sage-Grouse Conservation plans and other local information in order to develop restoration objectives that most effectively improve sage-grouse habitat quality.

Same as Priority areas.

Action: No Similar Action  
Same as Alternative B.

Action: No Similar Action  
Same as Priority areas.

Action: Implement management changes, as necessary, to maintain suitable sage-grouse habitat, improve unsuitable sage-grouse habitat and to ensure long-term persistence of improved sage-grouse habitat achieved through restoration efforts. (Eiswerth and Shonkwiler 2006). Management changes could be considered for livestock grazing, wild horse and burros, travel planning, etc.

Same as Priority areas.

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Action: Utilize existing and appropriate rangeland health assessment and sage-grouse habitat assessment (currently the Habitat Assessment Framework) processes to quantify sage-grouse habitat quality. Prioritize assessment completion in priority habitat areas.

Same as Priority areas.

habitat from fire through strategic wildfire suppression planning. Planning measures may include: pre-planning of wildfire suppression tactics in important sage-grouse habitat; prioritizing suppression of wildfire in priority areas; Train firefighting personnel regarding sage-grouse/sagebrush management issues as related to wildfire suppression activities, including maps (e.g. habitat, strategies, etc.); Where appropriate (e.g. expected lightning occurrence) stage initial attack resources closer to areas of expected lightning or storm paths to ensure quicker response times; Conducting burn-out/backfiring operations in a manner that minimizes the loss of sagebrush when possible; utilize other applicable fire management strategies; the Agency Administrator or Duty Officer will prioritize the assignment of resources for suppression activities in the event of multiple wildfire starts in priority habitat. Use resource advisors during extended attack. Resource Advisors

Same as Priority areas.

Use strategically placed fuel breaks (e.g. fire resistant vegetation, green-strip seedings, etc.) to aid in firefighter safety, assist in control of wildfire spread and in minimizing human ignitions and reduce the potential extent or chance of wildfire.

Same as Priority areas.

Strategically pre-treat areas to reduce fine fuels through mechanical treatments, grazing strategies, chemical or biological application (brown stripping), etc.

Same as Priority areas.

Action: Implement integrated weed management actions for noxious and invasive weed populations that are impacting or threatening sage-grouse habitat quality . In concert with partners and/or weed management areas as appropriate apply education, inventory, prevention, control, rehabilitation, and monitoring strategies that protect or enhance sage-grouse habitat .

Same as Priority areas.

Action: Implement rehabilitation projects on degraded areas that have the potential to produce good quality sage-grouse habitat.

Same as Priority areas.

Action: Utilize cooperative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from local landowners, working groups, and other federal, state, county, and private organizations should be solicited and considered in development of projects .

Same as Priority areas.

will contribute to the most favorable conditions for success when planning and implementing rehabilitation projects. Considerations should include: - Careful review of available plant species and their adaptation to the site when developing seed mixes. (Lambert 2005, VegSpec). - The impacts of potential climate changes (Miller et al. 2011), consider utilizing the warmer component of a species' current range when selecting native species for restoration (Kramer and Havens 2009). - The need to reduce annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc. (Pyke 2011). - The need to reduce density and competition of perennial grasses and techniques to accomplish this reduction (Pellant and Lysne 2005 ). - Techniques to introduce desired species to the site such as drill seeding, broadcast seeding followed by a seed coverage technique such as harrowing, chaining or livestock trampling, transplanting container or Same as Priority areas.

Action: Monitor vegetation utilizing techniques that quantify sage-grouse habitat attributes to determine if vegetation management objectives are being achieved. This monitoring would occur consistent with appropriate BLM and FS direction which current utilizes the Habitat Assessment Framework and BLM Technical Reference 1734-4.

Same as Priority areas.

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GOAL: In priority habitat, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.

Same as Priority areas.

Action: Suppress wildland fires in sage-grouse habitats.

future condition (DFC) in the Low-elevation Shrub, Perennial Grass, Invasive Annual Grass, Mid-Elevation Shrub, Mountain Shrubs, and Juniper vegetation types. Use chemical, mechanical, seeding, and prescribed fire treatments as appropriate to enhance and restore habitats that are currently in FRCC2 and FRCC3. In Perennial Grass, Invasive Annual Grass, and juniper-invaded cover types, restore sagebrush steppe with an aggressive sagebrush seeding effort, using the appropriate sagebrush subspecies for the treatment area. Conduct vegetation treatments in areas that pose a wildland fire risk to sage-grouse habitats. Treat areas within sage-grouse habitats that have low resiliency to disturbance (i.e. areas characterized by lower native plant species diversity than expected for the site, undesirable plant species composition, and dead or decadent sagebrush) to improve long-term habitat suitability for sage-grouse. Treat sage grouse habitat and potential restoration areas to expand priority

Same as Priority areas.

treatments with an emphasis on maintaining, protecting, and expanding sage grouse habitats. Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with sage-grouse habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of sage-grouse habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process. Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and will maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where

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Action: During fuels management project design, consider targeted livestock grazing to strategically reduce fine fuels, primarily in areas dominated by annual grasses and non-native perennial grasses (Diamond et al. 2009; Pellant et al. 2010), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al. 2007).                      Same as priority areas.

Same as Alternative B.

Same as Priority Areas.

Action: No Similar Action

Standard procedures described in Fire Management Plan

Action: No Similar Action

Standard procedures described in Fire Management Plan

Action: No Similar Action

See BMPs

Delineate conifer (juniper) encroachment areas as areas to manage wildfire for resource benefit.

Same as Priority Areas.

Same as Alternative B.

Same as Priority areas.

Action: Design post fuel, restoration, and ES&R management to ensure long term persistence of seeded or pre-burn native plants. Use chemical, mechanical, and seeding treatments with appropriate plant materials to attempt to stabilize sites and prevent dominance of invasive, annual vegetation, and noxious weeds. Use native plant materials were determined to be appropriate and practical at the project-implementation level. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, fuels and rehabilitation, etc., to achieve and maintain the desired condition of ES&R projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006).

Same as Priority areas.

Action: To address potential climate changes (Miller et al. 2011), consider utilizing the warmer component of a species' current range where feasible (financially, seed availability, etc.) when selecting native species for restoration.

Same as Priority areas.

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Ensure firefighter personnel receive orientation regarding sage-grouse/sagebrush management issues as related to wildfire suppression activities.

Same as Priority areas.

Use knowledgeable resource advisors during extended attack. Resource Advisors should also be available on short notice during red flag conditions.

Same as Priority areas.

Where appropriate, stage initial attack resources closer to areas of expected higher fire occurrence areas to ensure quicker response times in or near sage-grouse habitat.

Same as Priority areas.

Action: Lands are available for leasing, subject to a stipulation that applies a timing restriction (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: Lands are available for leasing, subject to applicable timing restrictions (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or initial mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Lands would remain open to locatable mineral entry.

Action: No Similar Action

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or initial mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Same as Priority areas.

Action: No Similar Action

Require new 3809 notices and Plans of Operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044). Require habitat restoration in reclamation plan, and include cost of restoring habitat in bond calculation. Require off-site mitigation if effects to habitat are unavoidable.

No new authorizations would be approved within xx miles of an occupied lek. Newly authorized disposals would be subject to seasonal timing restrictions and BMPs, as appropriate. Sales from existing community pits within Priority habitat would be subject to seasonal timing restrictions.

Action: Restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives.

Require new 3809 notices and Plans of Operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044). Require habitat restoration in reclamation plan, and include cost of restoring habitat in bond calculation.

No new authorizations would be approved within xx miles of an occupied lek. Newly authorized disposals would be subject to seasonal timing restrictions and BMPs, as appropriate. Sales from existing community pits within medial habitat would be subject to seasonal timing restrictions.

Same as Priority areas.

Reclamation bonding will be required on new authorizations for mineral material sales in core sage-grouse habitat (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).

Same as Priority areas.

Action: Lands are available for leasing, subject to appropriate timing stipulation (seasonal and daily), and a stipulation prohibiting surface occupancy within xx miles of an occupied lek. If development of a producing field is proposed, require a Master Development Plan to ensure surface disturbance is mitigated and minimized.

Same as priority areas.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

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Not Applicable - there are no existing leases in Core habitat in the planning area.

Action: Continue to only allow exploration and drilling activity on currently leased areas between 7/1 and 11/15, unless monitoring of the area proposed to be disturbed shows signs of sage-grouse occupancy within that window. Additional required design features, as described below, would be applied as Conditions of Approval to a drilling permit, as appropriate.

Action: When a surface disturbing activity is proposed on a future fluid mineral lease, include in the NEPA analysis an alternative that sites the activity at the most distal part of the lease from any lek, or in an area that is less harmful to sage-grouse habitat.

Action: When a surface disturbing activity is proposed on a future fluid mineral lease, include in the NEPA analysis an alternative that sites the activity at the most distal part of the lease from any lek, or in an area that is less harmful to sage-grouse habitat.

Covered in Action #205

Covered in Action # 205

Conservation Measure: For future leases where a producing field is proposed to be developed, complete a Master Development Plan in lieu of Application for Permit to Drill (APD)-by-APD processing.

Same as Priority areas.

Conservation Measure: When approving a Master Development Plan on a future lease, if on-site mitigation is inadequate to restore habitat, consider requiring off-site mitigation to improve habitat, in accordance with 2006 WAFWA Strategy (pg 2-17).

Same as Priority areas.

Same as Alternative B.

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Conservation Measure: If surface disturbing activities are proposed on a future lease, require a full reclamation bond specific to the site. Ensure reclamation bonds are sufficient to cover costs that would result in full rehabilitation. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

Conservation Measure: If surface disturbing activities are proposed on an existing or future lease, require a full reclamation bond specific to the site. Ensure reclamation bonds are sufficient to cover costs that would result in full rehabilitation. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

Conservation Measure: When an APD is submitted for approval on a future lease, make applicable Best Management Practices (BMPs, see Appendix E of NTT Report) mandatory as Conditions of Approval.

Conservation Measure: When an APD is submitted for approval on an existing or future lease, make applicable Best Management Practices (BMPs) mandatory as Conditions of Approval.

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Action: Where the federal government owns the mineral estate in Core habitat and the surface is in non-federal ownership, apply stipulations, conservation measures, and design features consistent with those applied to public lands in Core habitat in the area.

Action: Where the federal government owns the mineral estate in priority habitat and the surface is in non-federal ownership, apply stipulations, conservation measures, and design features consistent with those applied to public lands in priority habitat in the area.

Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in core habitat. Note: This would be a realty action, as the mineral estate is not involved.

Where the federal government owns the surface, and the mineral estate is in non-federal ownership in priority habitat, Recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in priority habitat. Note: This would be a realty action, as the mineral estate is not involved.

Action: Limit motorized travel to designated roads, primitive roads, and trails at a minimum.

Same as Priority areas.

Action: No Similar Action

No similar action.

Action: Travel management planning would evaluate the need for permanent or seasonal road closures as per Travel Management Handbook 8342.1.

Same as Priority areas.

Action: Prioritize areas for complete transportation management plans as per handbook 8342.1.

Action: Complete Transportation management plans as per handbook 8342.1.



Action: Consider sage-grouse objectives during subsequent travel management planning. Design and designate a travel system to minimize adverse effects to GSG (i.e. designate or design routes to direct use away from sensitive areas and still provide for high-quality and sustainable travel routes and administrative access, legislatively mandated requirements, and commercial needs). Allow for route upgrade, closure of existing routes, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within priority habitat would be placed on having a neutral or positive effect on sage grouse habitat.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Action: Prioritize restoration of linear disturbances (those routes not designatged in a Travel Management Plan) in priority GSG habitat.

Action: Prioritize restoration of linear disturbances (those routes not designatged in a Travel Management Plan) after priority GSG habitat.

Action: When rehabilitating linear disturbances, use seed mixes or transplant techniques that will maintain or enhance GSG habitat.

Same as Priority areas.

Schedule road maintenance to avoid disturbance during sensitive periods and times.

Same as Priority areas.

Action: SRPs would be analyzed on a case by case basis per Special Recreation Permit Manual 2930 and through the NEPA process to minimize impacts to GRSG and/or habitat by directing use away from sensitive seasons and/or areas. Coordinate issuance of SRPs with IDFG and Idaho Outfitter and Guide licensing board when relevant and appropriate.

Same as Priority areas.

Designate or design developed recreation sites and associated facilities to direct use away from sensitive areas and provide sustainable recreational opportunities.

Same as Priority areas.

Incorporate seasonal restrictions for authorized activities to minimize impacts to GRSG and/or their habitat.

Same as Priority areas.

Recreation activities and developed recreation sites and facilities within lands not designated as a recreation management area would be managed and designed to minimize adverse effects to GRSG by directing use away from sensitive areas.

Same as Priority areas.

Limit snow machine travel to existing routes in sage-grouse wintering areas from November 1 through March 31. Assess routes during subsequent travel management planning.

Same as Priority areas.

Action: No Similar Action

Repeat

Action: No Similar Action

Action: No Similar Action

Action: Within grazing allotments containing sage-grouse habitat, incorporate grazing management measures designed to meet sage-grouse habitat objectives through allotment management plans (AMPs), grazing permit renewal or permit modification processes.

Same as Priority areas.

Where opportunities exist, work cooperatively with other land managers to allow livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit sage-grouse and their habitat.

Same as Priority areas.

Action: Priority areas are the highest priority for land health assessments (and FS assessments) and processing of grazing permits within priority sage-grouse habitat areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Action: Prioritize land health assessments (and FS assessments) and processing of grazing permits after priority areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Action: During the land health assessment process determine whether vegetation structure, condition and composition are meeting sage-grouse habitat objectives in sagebrush cover types through implementation of the habitat assessment framework, (Stiver et al 2010 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance.

Same as Priority areas.

Action: Use monitoring information and rangeland health assessments to develop specific habitat objectives and grazing management plans designed to maintain, enhance and restore sage-grouse habitat. Prioritize implementation of grazing systems or permit modifications that make progress towards meeting habitat objectives, in areas that are not meeting these objectives.

Same as Priority areas.

Action: Manage for vegetation composition and structure consistent with appropriate sage-grouse seasonal habitat objectives relative to site potential.

Same as Priority areas.

Action: Where livestock management practices are not compatible with meeting or making progress towards habitat objectives, implement changes in grazing management through grazing authorization modifications, or AMP implementation. Potential considerations include, but are not limited to, changes in: 1) Season or timing of use; 2) Numbers of livestock; 3) Distribution of livestock use; 4) Duration and/or level of use; 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011). 6) Voluntary measures such as temporary non-use; and 7) Grazing schedules (including rest or deferment)

Same as Priority areas.

Action: Adjust grazing management (i.e. delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing, etc.) to promote adequate food and cover for sage-grouse during drought periods. Use a recognized drought indicator, such as the Drought Monitor or Palmer Drought Severity Index, to determine when abnormally dry or drought conditions are developing, present, or easing. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999, Cagney et al. 2010), allow for vegetation recovery through post-drought management that meets sage-grouse needs in priority sage-grouse habitat areas.

Same as Priority areas.

Manage livestock grazing in sage-grouse habitats so that proper functioning conditions and late brood rearing habitat objectives are achieved in riparian and lentic areas according to site potential.

Same as Priority areas.

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Action: Limit authorization of new water developments to projects that would benefit, maintain, or have a neutral effect on priority sage-grouse habitat (such as by shifting livestock use away from critical areas). New developments that divert surface water must be designed to maintain integrity and functionality riparian or wetland vegetation and hydrology. New developments should also be sited in lower quality habitats or, disturbed areas where possible, and avoid areas that have not had significant prior grazing use (Adopted from Idaho State Plan page 4.64). Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as Priority areas.

Action: During project inspections, analyze the design and condition of existing water developments associated with springs, wetlands or playas, such as headboxes, exclosures, pipelines and troughs to determine if modification, repair or retrofitting or removal is needed to maintain or restore the integrity and functionality of the riparian/lentic areas to current site potential within priority sage-grouse habitat. Modifications may include, but are not limited to, installing float valves on troughs, reconfiguring exclosure fencing, or moving troughs out of riparian/lentic areas. Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Action: Assess the compatibility of existing non-native seedings for sage-grouse habitat or as a component of a grazing system or forage reserve during land health assessments (Davies et al. 2011). Evaluate existing seedings currently dominated by introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be diversified with native grasses, forbs, and shrubs, including sagebrush. If these seedings are part of an AMP/ Conservation Plan and if they provide value in conserving or enhancing the rest of the priority habitats, restoration may not be appropriate.

Same as Priority areas.

Consider the potential for invasive and noxious weed establishment or increase following construction in the project planning process and monitor and treat post-construction. Where appropriate, areas of soil disturbance will be planted with a seed mix designed to compete with invasive species.

Same as Priority areas.

Action: Design any new structural range improvements consistent with objectives to maintain, enhance, or restore sage-grouse habitat.

Same as Priority areas.

Design and locate fences to minimize the potential for sage-grouse strikes.

Same as Priority areas.

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).

... evaluate the design and location of existing structural range improvements and location of supplements (salt or protein blocks) with respect to their effect on sage-grouse habitat, including, but not limited to: potential for sage-grouse strikes, avian predation due to creation of roosting, perching or nesting sites, introduction of weeds, West Nile Virus and effects to vegetation structure or composition.

Assess existing livestock management fences within priority sage-grouse habitat for risk of sage-grouse strikes based on proximity to leks, lek size, and topography (Christiansen 2009; Stevens 2011) or existing collision risk models (Stevens 2012). Prioritize removal, modification or marking of fences in areas of moderate or high collision risk to reduce the incidence of sage-grouse mortality due to fence strikes. Avoid building new permanent fences within 2 km of occupied leks or winter concentration areas. If this is not feasible, ensure that high risk segments are marked with collision diverter

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action



Action: When grazing privileges are relinquished in sage-grouse habitat, consider retiring the associated grazing preference, and analyze the effects of decreased or discontinued grazing on sage-grouse habitat conditions, including possible changes in wildfire and invasive species risks. When grazing privileges are relinquished the associated allotment(s) may be retired from grazing, or converted to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere (Adopted from Idaho State Plan page 4.64), when such actions are determined to result in a net benefit to sage-grouse habitat and other priority resources.

Action: No Similar Action

Action: No Similar Action

Same as priority areas.

Action: No Similar Action

Action: No Similar Action

Action: Incorporate Terms and Conditions in crossing permits to limit disturbance of leks when trailing livestock across public lands in the spring. Appropriate Terms and Conditions include, but are not limited to: required herding practices, permitted routes, timing of livestock movements during lekking season, watering, overnighting and sheep bedding locations.

Same as Priority Areas.

Where opportunities exist, consider targeted domestic livestock grazing as a tool to reduce fuels and facilitate wildland fire suppression efforts in limited areas such as travel corridors (e.g. roads, rail lines) or around other likely ignition sources.

Same as Priority Areas.



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Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Same as Priority areas.  
Same as Priority areas.  
Same as Priority areas.

Action: When evaluating AML on HMAs within priority habitat, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving sage-grouse habitat objectives.

Same as Priority areas.

Utilize interdisciplinary land health assessments in HMAs containing sage-grouse habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.

Same as Priority areas.

Refer to livestock grazing actions for guidance on water and rangeland developments for wild horse management

Refer to livestock grazing actions for guidance on water and rangeland developments for wild horse management

Action: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts to sage-grouse habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of priority and medial habitat.

Do not expands HMAs.  
Action: No Similar Action

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Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose. Same as Priority areas.

maintenance activities shall not cause noise greater than 10 decibels above ambient noise levels within 1.5 km of the perimeter of occupied or undetermined status leks from 6:00 p.m. to 9:00 a.m. between approximately March 15 and May 15 or at any time within known winter concentration areas from approximately December 1 to March 14. The 1.5 km distance may be increased based on NEPA analysis if the nature of the disturbance dictates that a greater disturbance buffer is warranted. Specific seasonal timeframes may be adjusted based on the chronology of sage-grouse locally. The default ambient noise level is defined as 20 decibels unless an appropriate and defensible site-specific acoustics study has occurred that is acceptable to the authorized officer. Modified from Blickley et al. 2012.

Avoid human disturbance between 6:00 p.m. to 9:00 a.m. during the lekking period (generally March 15 to May 15). Same as Priority areas.

Same as Alternative B.

Same as priority areas.

Coordinate road construction and use among ROW or SUA holders. Same as Priority areas.

Construct road crossings at right angles to ephemeral drainages and stream crossings. Same as Priority areas.

Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds. Same as Priority areas.

Action: No Similar Action                      Action: No Similar Action  
Action: No Similar Action                      Action: No Similar Action

Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.) Same as Priority areas.

Use dust abatement on roads and pads. Same as Priority areas.

Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation as soon as possible upon completion of activity. Same as priority areas.  
Cluster disturbances, operations (fracture stimulation, liquids gathering, etc.), and facilities. Same as Priority areas.

Use directional and horizontal drilling to reduce surface disturbance. Same as Priority areas.

Place infrastructure in already disturbed locations where the habitat has not been fully restored. Same as Priority areas.

Apply a phased development approach with concurrent reclamation. Same as Priority areas.

Place liquid gathering facilities outside of priority areas. Have no tanks at well locations within priority habitat areas to minimize truck traffic and perching and nesting sites for ravens and raptors. Same as Priority areas.

Consider placing pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW.

Same as Priority areas.

Develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003). For example, in oil and gas operations, this could include trip restrictions or minimization through use of telemetry and remote well control.

Same as Priority areas.

Restrict the construction of tall facilities and fences to the minimum number and amount needed.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.

Same as Priority areas.

Where physically feasible, bury distribution powerlines and communication lines

Where physically feasible, bury distribution powerlines and communication lines

Action: No Similar Action

Action: No Similar Action

Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to sage-grouse.

Same as Priority areas.

Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.

Same as Priority areas.

Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.

Same as Priority areas.

Control the spread and effects of non-native plant species (Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).

Same as Priority areas.

Remove or re-inject produced water (fluid mineral activities) to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Construct dams or impoundments that restrict down slope seepage or overflow. Line constructed ponds in areas where seepage is anticipated. Line the channel where discharge water flows into the pond with crushed rock. Construct spillway with steep sides and line it with crushed rock. Treat waters with larvicides to reduce mosquito production where water occurs on the surface.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Require noise shields when drilling during the breeding (lekking, nesting, early brood-rearing), or wintering season.

Same as Priority areas.

Fit transmission or distribution towers with anti-perch devices (Lammers and Collopy 2007).

Same as Priority areas.

Require sage-grouse-safe fences: use siting, marking, fence modification and/or fence density thresholds based on latest science (e.g. Stevens 2011)

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

Clean up refuse (Bui et al. 2011).

Same as Priority areas.

Locate temporary construction camps/sites, outside of priority habitats.

Same as Alternative B.  
Same as Alternative B.

Same as Priority areas.  
Same as priority areas.

When road and well pad is no longer needed but access is still required, reduce access road width to minimum standard needed, seed edges of road, reclaim well pad by re-shaping to blend, topsoil, re-seed to surrounding landscape.

Same as Alternative B.  
Same as Alternative B.  
Same as Alternative B.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

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Where applicable, incorporate linear authorizations and natural fuel breaks into fuel break design.

Where applicable, incorporate linear authorizations and natural fuel breaks into fuel break design.

Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

Action: No Similar Action

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Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

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Action: No Similar Action

Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species by planting perennial vegetation (e.g., green-strips) paralleling linear authorizations.

Same as Priority areas.

Same as Alternative B.

Same as Priority areas.

Action: No Similar Action

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Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.	Same as Priority areas.
Minimize unnecessary cross-country vehicle travel during construction and operations and maintenance of authorizations in sage-grouse habitat.	Same as Priority areas.
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Utilize existing roads, or realignments of existing routes to the extent possible.	Same as Priority areas.
Construct new roads to minimum design standards needed for production activities.	Same as Priority areas.
Micro-site linear facilities to reduce impacts to sage-grouse habitats.	Same as Priority areas.
Locate staging areas outside sage-grouse habitat areas.	Same as Priority areas.
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Action: No Similar Action	Action: No Similar Action
Wind energy development is excluded in priority areas.	Wind energy development project must comply with the 2012 U.S. Fish and Wildlife Service's Wind Energy Guidelines.

granting exceptions to seasonal wildlife restrictions:

Even with conscientious planning up front, it is sometimes not possible to avoid impacts to wildlife. In such cases, temporary exceptions to wildlife seasonal restrictions may be allowed at times to accommodate certain activities, such as construction of energy development facilities, power transmission lines or other projects, if the activities can be done quickly and with little or no disturbance to the wildlife species of interest. The intent of allowing an exception is to eliminate a restriction when it has no applicability or is not needed to avoid impacts to wildlife. The discretion to allow an exception is limited to those situations where the degree of impacts to wildlife, as predicted in the NEPA analysis (e.g., as completed in the EA or EIS for the project in question), would be the same, with or without the restriction. An exception is a case-by-case, one time exemption from a seasonal restriction for a specified portion of the Same as Priority areas.

**Alternative D - General Habitat Areas**

Action: No Similar Action

Action: No Similar Action

GOAL: Same as Alternative B.

OBJECTIVE: Conserve, enhance or restore general habitat areas to improve habitat condition and connectivity between priority and medial habitat areas.

Action: No Similar Action

Sub-objective: Same as Alternative B.

OBJECTIVE: Manage general habitats in a way that buffers adjoining priority and medial habitat from disturbances.

OBJECTIVE: Same as Priority.

OBJECTIVE: Reduce the extent of annual grassland adjacent to priority and medial habitat, improve conditions to reconnect priority and medial habitats.

Action: No Similar Action

Action: No Similar Action

OBJECTIVE: Reduce or minimize risk of West Nile Virus or other diseases.

Action: No Similar Action

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Same as Medial Habitat.

New ROW and land use authorizations would be avoided whenever possible.

Same as priority areas.

Same as medial areas.

Same as medial areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as medial areas.

Same as priority areas.

Same as priority areas.

Action: No Similar Action

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Same as priority areas.

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Action: No Similar Action



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Action: No Similar Action

Same as priority areas.

Action: Lands shall be considered avoidance areas for wind and solar development.

Same as priority areas.  
Action: No Similar Action  
Action: No Similar Action

Same as priority areas.

Same as priority areas.

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Same as priority areas.

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Same as priority areas.

Same as priority areas.



Same as priority areas.  
Action: No Similar Action  
Action: No Similar Action

Action: No Similar Action

Same as priority areas.

Action: In general sage-grouse habitat, prioritize suppression of sage-grouse and threatened and endangered species habitat, immediately after life and property.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Same as Priority Areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.  
Action: No Similar Action  
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Action: No Similar Action

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: Lands are available for leasing subject to applicable timing restrictions (seasonal and daily) for exploration activities and initial mine development, as well as a stipulation preventing surface occupancy within xx miles of an occupied sage-grouse lek. Lands are available for prospecting, subject to applicable timing restrictions (seasonal and daily). Prospecting would not be allowed within xx miles of an occupied sage-grouse lek.

Action: For existing undeveloped non-energy mineral leases, require timing restrictions (seasonal and daily) when exploration activities or mine development is proposed, as appropriate. Also require appropriate BMPs (Appendix E to the NTT Report) as Conditions of Approval to the mine plan, and require restoration of habitat or off-site mitigation, if on-site restoration is not feasible.

Same as priority areas.

Action: No Similar Action

Require new 3809 notices and plans of operation include measures to avoid or minimize adverse effects to sage-grouse and habitat. Ensure compliance with 3809 regulations to prevent unnecessary and undue degradation (from WO IM 2012-044).reasonable and appropriate BMPs (see Appendix E of NTT Report) as a Condition of Approval of a 3809 Plan of Operations or Notice.

No new authorizations would be approved within xx miles of an occupied lek. Disposals would be subject to seasonal timing restrictions, as appropriate.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: Allow geophysical exploration subject to seasonal timing restrictions and/or other restrictions that may apply.

Action: No Similar Action

Action: No Similar Action

Not Applicable - no existing leases in general habitat.

Same as Medial Areas.

Covered in Action # 205

Same as priority areas.

Action: No Similar Action

Same as priority areas.

Action: No Similar Action

Conservation Measure: If surface disturbing activities are proposed on a future lease, require a full reclamation bond specific to the site. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

Conservation Measure: When an APD is submitted for approval on a future lease, make applicable Best Management Practices (BMPs) mandatory as Conditions of Approval.

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

Action: Where the federal government owns the mineral estate in general habitat and the surface is in non-federal ownership, apply stipulations, conservation measures and design features consistent with those applied to public lands in general habitat in the area.

Recommend to the mineral estate owner that they apply a timing restriction stipulation and restrict activities within xx miles of an occupied lek, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in general habitat. Note: This would be a realty action, as the mineral estate is not involved.

Same as priority areas.  
Action: No Similar Action

Same as priority areas.

Same as priority areas.

Same as priority areas.  
Action: No Similar Action

Action: Prioritize restoration of linear disturbances (those routes not designatged in a Travel Management Plan) after medial GSG habitat.

Same as priority areas.

Same as priority areas.



Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.  
Action: No Similar Action  
Action: No Similar Action

Same as priority areas.

Same as priority areas.

Action: Prioritize land health assessments (and FS assessments) and processing of grazing permits after medial areas, with emphasis in management units of greatest concern with respect to sage-grouse. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.  
Action: No Similar Action

Action: No Similar Action

Action: No Similar Action

New water developments that divert surface water must be designed to maintain integrity and functionality of riparian or wetland vegetation and hydrology. New developments should also be sited in lower quality habitats or disturbed areas where possible (Adopted from Idaho State Plan page 4.64). Ensure that troughs are fitted with wildlife escape ramps to facilitate use of and escape by animals, including sage-grouse.

Same as priority areas.

Action: No Similar Action

Same as priority areas.

Same as priority areas.

Same as priority areas.

Same as priority areas.

Action: When developing or modifying water developments in priority habitat, use best management practices (BMPs, see Appendix C) to mitigate potential impacts from West Nile virus (Clark et al. 2006, Doherty 2007, Walker et al. 2007b, Walker and Naugle 2011).

Action: During project inspections, evaluate the design and location of existing structural range improvements and location of supplements (salt or protein blocks) with respect to their effect on sage-grouse habitat, including, but not limited to: potential for sage-grouse strikes, avian predation due to creation of roosting, perching or nesting sites, introduction of weeds, West Nile Virus and effects to vegetation structure or composition.

Avoid building new fences within 2 km of occupied leks or winter concentration areas. If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates.

Action: No Similar Action

Action: No Similar Action

Same as priority areas.  
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Action: No Similar Action

Same as Priority Areas.

Same as Priority Areas.





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Same as priority areas.  
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Same as priority areas.

Same as priority areas.

Same as priority areas.  
Refer to livestock grazing actions for  
guidance on water and rangeland  
developments for wild horse  
management

Action: No Similar Action  
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Action: No Similar Action

Same as priority areas.  
Where physically feasible, bury  
distribution powerlines and  
communicaiton lines  
Action: No Similar Action

Same as priority areas.

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Same as priority areas.



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Action: No Similar Action

Same as Medial Areas.



Same as priority areas.

New GOA 1/28/2013	GOA 11/6/2012	Program Area	Sub Topic	Threat	Indicator	Review Comment s - Ralston
4	4	Adaptive Management	Best Management Prac	N/A	N/E	G - referen
5	5	Common to All Alternatives	Implementation	N/A	N/E	
6	6	Goal	SG Abundance and Dist	All	Acres of Habitat & pop	
7	7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Habitat	
7		Priority Setting	Implementation			
8	8	Common to All Alternatives		N/A	N/E	
9	9	Designation of Habitat	Designation of Habitat	All	Acres of PPH/PGH map	
10	9.1	Habitat Fragmentation		Infrastructu	Acres of PP	Need to de
11		Goal				
11	10	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sagebrush hak	
12	11	Habitat Fragmentation		Wildfire, In	N/E	
13		Designation of Habitat		All	Acres of PPH/PGH map	
13	11.1	Monitoring	group	N/A	N/E	Need to sp
14	12	Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of H <sub>2</sub>	Need to de
15	13	Objective	Distribution	All	Acres of Habitat	
15		Disease	West Nile Virus			
16	14	Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of H <sub>2</sub>	
17	15	Designation of Habitat	Connectivity	All	Acres of H <sub>2</sub>	May be duj
17		Desired Conditions				
18	16	Habitat Fragmentation	Connectivity	All	Acres of H <sub>2</sub>	May be sir
18		Monitoring				
19	17	Adaptive Management		All	N/E	
19		Habitat Fragmentation				
20	18	Objective	Rehabilitation	All	Acres of Habitat	
21		Designation of Habitat				
21	19	Objective	ACEC	All	N/E	
22	20	Common to All Alternatives	Process	All	N/E	
23	21	Designation of Habitat	Mapping	All	N/E	
24	22	Designation of Habitat	Populations	All	N/E	
25	23	Designation of Habitat	Mapping	All	N/E	
26	24	Priority Setting	Mapping	All	N/E	
27	25	Designation of Habitat	Mapping	All	N/E	
28	26	Designation of Habitat	Mapping	All	N/E	
30	28	Designation of Habitat	Mapping	All	N/E	
31	29	Designation of Habitat	Mapping	All	N/E	
32	30	Designation of Habitat	Mapping	All	N/E	
33	31	Designation of Habitat	Adaptive Management	All	N/E	
34	32	Designation of Habitat	Threats	All	N/E	
35	33	Designation of Habitat	Threats	All	N/E	
36	34	Designation of Habitat	Mapping	All	N/E	

37	35 Designation of Habitat	Mapping	All	N/E	
38	36 Designation of Habitat	Adaptive Management	All	N/E	
39	37 Designation of Habitat	Adaptive Management	All	N/E	
40	39 Wildfire	Priorities	Wildfire	Acres of Ha	
41	40 Implementation	Process	All	N/E	
42	41 Designation of Habitat	Uses	All		
43	42 Designation of Habitat	Indicators			
44	43 Desired Conditions	DFC	All	Acres of Ha	Need to inc
45	44 Desired Conditions	DFC	All	Acres of Ha	Include Tak
46	45 Implementation	Process	All	N/E	
47	46 Habitat Fragmentation	Resiliency	All	Acres of Ha	
48	47 Implementation	Adaptive Management	All	N/E	mapping u
49	48 Adaptive Management	Process	All	N/E	Governor -
50	49 Adaptive Management	Process	All	N/E	
51	50 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
52	51 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
53	52 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
54	53 Adaptive Management	Grazing	Grazing	Acres of Habitat	
55	54 Adaptive Management	Process	All	Population	
56	55 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
57	56 Adaptive Management	Trigger	Wildfire	Acres of Habitat	
58	57 Adaptive Management	Wildfire	Wildfire	Acres of Habitat	
59	58 Adaptive Management	Process	All	N/E	
60	59 Adaptive Management	Process	All	N/E	
61	60 Designation of Habitat	Trigger	All	Acres of Designation	
62	61 Valid Existing Authorizations	Foundational	N/A	Acres of Ri	
63	62 Valid Existing Authorizations	Foundational	N/A	Acres of Rights	
64	63 Valid Existing Authorizations	Foundational	Minerals	Acres of valid existing i	
65	64 Valid Existing Authorizations	Foundational	Minerals	Acres of Mining	
66	65 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va	
67	66 Mitigation	Process	Infrastructu	Acres/mile:	
68	67 Mitigation	Process	All	Acres of ha	
69	68 Designation of Habitat	Restoration	All	Acres Treat	
70	69 Mitigation	Restoration	All	Acres Treat	
71	70 Monitoring	Process	Wildfire, In	Acres of wi Reference	
72	71 Monitoring	Process	Grazing	Acres of th	
73	72 Monitoring	Process	All		Outside BLI
74	73 Monitoring	Process	Wildfire	Acres of tre	
75	74 Monitoring	Process	All	Acres	
76	75 Monitoring	Process	All	Population	
77	77 Monitoring	process	grazing	acres in DF	
78	78 Monitoring	Process	Grazing	Acres in DF incorporate	
79	79 Habitat Fragmentation	Land Use Authorizations			IM Referen
80	80 Habitat Fragmentation	Land Use Authorizations			
81	81 Human Disturbance	Land Use Authorizations			
82	82 Habitat Fragmentation	Land Use Authorizations			rationale fc
83	83 Habitat Fragmentation	Land Use Authorizations			rationale fc

84	87 Habitat Fragmentation	Land Use Authorizations	
85	89 Habitat Fragmentation	Land Use Authorizations	Define lek ;
86	90 Human Disturbance	Land Use Authorizations	Apply to ne
87	92 Predation	Land Use Authorizations	Differences
88	94 Habitat Fragmentation	Land Use Authorizations	Differences
89	96 Human Disturbance	Land Use Authorizations	What are tl
90	98 Fuels		
91	ACEC		
91	99 Habitat Fragmentation	Land Use Authorizatio	Infrastructure Acres excluded, acres l
92	101 Habitat Fragmentation	Land Use Authorizatio	Infrastructure miles of lines buried
93	102 Habitat Fragmentation	Reclamation	Infrastructure miles of line reclaimed
94	105 Habitat Fragmentation	Relocation	Infrastructure miles of line relocated,
95	BMP		
95	117 Habitat Fragmentation	Avoidance	Infrastructure acres of avoidance
96	118 Habitat Fragmentation	Co-location	Infrastructure miles of lines; footprin
97	119 Habitat Fragmentation	Land Tenure	Urbanizatic acres retained; acres o
97	Habitat Fragmentation		
97	Implementation		
98	120 Common to All Alternatives	Implementation	
99	ACEC		
99	121 Habitat Fragmentation	Acquisition	Urbanizatic acres identified for acc
100	122 Habitat Fragmentation	Withdrawal	Mining acres withc Keep SR Di
101	123 Habitat Fragmentation	Withdrawal	Mining Acres closed/withdraw
102	ACEC		
102	124 Habitat Fragmentation	Corridors	Infrastructure Acres/miles of corridoi
103	125 Habitat Fragmentation	Land Tenure	Predation Acres
104	126 Habitat Fragmentation	Wind Energy	Infrastructure Acres avail;
105	127 Habitat Fragmentation	unauthorized uses	infrastructure acres
106	128 Habitat Fragmentation	siting	Infrastructure acres avail;
110	132 ACEC		
115	151 Restoration		
116	152 Restoration		Incorporat
117	153 Restoration		
118	156 Restoration		
119	162 Restoration		
120	163 Restoration		
121	164 Restoration		
122	165 Restoration		
123	166 Restoration		
125	168 Restoration		
126	169 Restoration		
129	172 Restoration		
132	175 Monitoring		
133	Fuels		
133	Fuels		

133	176 Suppression
134	177 Invasive Species
135	Restoration
135	178 Vegetation
136	179 Restoration
137	180 Restoration
138	181 Monitoring
139	182 Invasive Species
140	183 Invasive Species
141	184 Restoration
142	185 Restoration
143	186 Restoration
144	BMP
144	187 Invasive Species
145	188 Invasive Species
146	189 Monitoring
152	220 Fuels
155	223 Fuels
155	Restoration
155	Suppression
156	224 Suppression
157	225 Suppression
159	227 Fuels
159	Suppression
160	228 Fuels
162	Fuels
162	230 Suppression
163	231 Fuels
164	232 Suppression
165	233 Suppression
168	Fuels
168	236 Suppression
172	240 Suppression
173	246 Restoration
173	Suppression
174	249 Restoration
175	250 Restoration
177	252 Restoration
178	253 Restoration
179	254 Restoration
180	255 Restoration
181	256 Fuels
182	257 Suppression
183	258 Suppression
184	259 Suppression

Is there a n  
Is there a n

Incorporate

188	268 Non Energy Leasable Minerals	Identify kn
189	272 Non Energy Leasable Minerals	What abou
195	283 Locatable Minerals	
196	284 Locatable Minerals	Include BM
199	287 Locatable Minerals	
202	300 Saleable Minerals	
203	301 Saleable Minerals	
204	304 Saleable Minerals	
205	307 Unleased Federal Fluid Mineral	
206	308 Unleased Federal Fluid Mineral	
208	312 Unleased Federal Fluid Mineral	
209	313 Unleased Federal Fluid Mineral	
211	320 Leased Federal Fluid Mineral Est	
212	322 Leased Federal Fluid Mineral Est	
212	Unleased Federal Fluid Mineral Estate	
213	323 Leased Federal Fluid Mineral Est	
215	325 Leased Federal Fluid Mineral Est	
216	326 Leased Federal Fluid Mineral Est	
217	327 Leased Federal Fluid Mineral Est	
218	328 Habitat Fragmentation	
219	329 Leased Federal Fluid Mineral Est	
220	330 Leased Federal Fluid Mineral Est	
223	333 ACECs	
224	334 Leased Federal Fluid Mineral Est	
225	335 Leased Federal Fluid Mineral Est	
226	336 Leased Federal Fluid Mineral Est	
227	337 Mineral Split Estate	
228	338 Mineral Split Estate	Reference i
233	343 Travel Management	Incorporat
234	344 Travel Management	
235	345 Travel Management	
236	346 Travel Management	Move to fir
237	347 Travel Management	
238	348 Travel Management	
240	350 Travel Management	
241	351 Travel Management	
243	353 Travel Management	
246	356 Recreation and Visitor Services	Define nue
246	Travel Management	
247	357 Recreation and Visitor Services	What does
247	Travel Management	
248	358 Recreation and Visitor Services	Need to de
248	Travel Management	Need to de
249	359 Recreation and Visitor Services	Need to de
249	Travel Management	
250	360 Travel Management	
251	361 Travel Management	

260	374 Livestock Grazing		
261	376 Livestock Grazing		Need SG M
262	377 Livestock Grazing		Define inte
263	378 Livestock Grazing		Define mar
264	379 Livestock Grazing		
267	382 Livestock Grazing	Objectives	
268	383 Livestock Grazing	Objectives	
269	384 Livestock Grazing		
270	385 Livestock Grazing	Drought	
271	386 Livestock Grazing	Riparian	
273	388 Livestock Grazing	Riparian	
273	Livestock Grazing		
274	389 Livestock Grazing	Riparian	
274	Livestock Grazing		
278	393 Livestock Grazing	Riparian	
278	Livestock Grazing		
280	395 Livestock Grazing	Water Development	Reference 1
280	Livestock Grazing		
281	396 Livestock Grazing	Water Development	
281	Livestock Grazing		
284	Coordination		
284	399 Restoration		
285	400 Restoration		
288	Desired Conditions		
288	Invasive Species		
288	403 Livestock Grazing	Improvements	
288	Livestock Grazing	Improvements	
289	404 Livestock Grazing	Water Development	
289	Livestock Grazing		
290	405 Livestock Grazing	Improvements	Check buffi
291	406 Livestock Grazing	Improvements	
292	407 Invasive Species		
293	408 Livestock Grazing		
294	409 Livestock Grazing		Need to do
295	410 Monitoring		
298	413 Livestock Grazing	Trailing	
299	414 Fuels		
300	Livestock Grazing	Sheep	how are oc
300	415 Restoration		
301	416 Fuels		
318	433 Livestock Grazing	Improvements	
319	434 Livestock Grazing	Water Development	
320	435 Livestock Grazing	Water Development	
321	436 Livestock Grazing	Water Development	
322	437 Livestock Grazing	Water Development	
323	438 Livestock Grazing		
325	440 Restoration		

326	441 Adaptive Management		tie in refer
327	442 Livestock Grazing		
328	443 Livestock Grazing		
329	444 Livestock Grazing		
330	445 Livestock Grazing		
331	446 Livestock Grazing		
332	447 Coordination		
333	448 Livestock Grazing	Riparian	
334	449 Livestock Grazing		
334	Livestock Grazing	Drought	
335	450 Livestock Grazing	Improvements	
336	451 Livestock Grazing	Improvements	
337	452 Livestock Grazing	Improvements	
338	453 Livestock Grazing	Improvements	
339	454 Livestock Grazing	Improvements	
340	455 Livestock Grazing	Improvements	
341	456 Livestock Grazing	Improvements	
342	457 Wild Horses and Burros		
344	459 Wild Horses and Burros		
345	460 Wild Horses and Burros		
346	461 Wild Horses and Burros		
347	462 Wild Horses and Burros		
348	463 Implementation		
355	470 Wild Horses and Burros		
356	471 ACECs		
356	West Nile Virus		
357	472 West Nile Virus		
358	473 West Nile Virus		
359	474 West Nile Virus		
360	475 West Nile Virus		
361	476 West Nile Virus		
377	532 BMP	West Nile Virus	
378	533 BMP	West Nile Virus	
379	534 BMP	West Nile Virus	
380	535 BMP	West Nile Virus	
381	536 BMP	West Nile Virus	
382	537 BMP	West Nile Virus	
383	538 BMP	West Nile Virus	
384	539 BMP	Development	Need to loc
385	540 BMP	Development	
386	BMP	Development	
386	541 BMP	Roads	
387	BMP	Development	
387	542 BMP	Roads	
388	BMP	Development	
388	543 BMP	Roads	
389	544 BMP	Roads	



390	BMP	Development
390	545 BMP	Roads
391	BMP	Development
391	546 BMP	Roads
392	547 BMP	Roads
393	548 BMP	Roads
394	549 BMP	Roads
395	550 BMP	Roads
397	552 BMP	Development
398	553 BMP	Development
399	554 BMP	Development
400	555 BMP	Development
401	556 BMP	Development
402	557 BMP	Development
403	558 BMP	Roads
404	559 BMP	Development
405	560 BMP	Development
406	561 BMP	Development
407	562 BMP	Development
408	563 BMP	Development
409	564 BMP	Development
410	565 BMP	Development
411	566 BMP	Development
412	567 BMP	Development
413	568 BMP	Development
414	569 BMP	West Nile Virus
415	570 BMP	West Nile Virus
416	571 BMP	Development
417	572 BMP	Development
418	573 BMP	Development
419	574 BMP	Development
420	575 BMP	Development
421	576 BMP	Development
422	577 BMP	Development
424	579 BMP	Reclamation
424	BMP	Reclamation
425	580 BMP	Reclamation
426	581 BMP	Reclamation
427	582 BMP	Reclamation
428	583 BMP	Reclamation
464	619 BMP	Development
469	624 BMP	Development
480	635 BMP	Fuels
481	636 BMP	Fuels
482	637 BMP	Fuels
483	638 BMP	Fuels
484	639 BMP	Fuels

485	640 BMP	Fuels
486	641 BMP	Fuels
487	642 BMP	Fuels
488	643 BMP	Fuels
489	644 BMP	Fuels
490	645 BMP	Fuels
491	646 BMP	Fuels
492	647 BMP	Fuels
493	648 BMP	Fuels
494	649 BMP	Fuels
496	651 BMP	Suppression
497	652 BMP	Suppression
498	653 BMP	Suppression
499	654 BMP	Suppression
500	655 BMP	Suppression
501	656 BMP	Suppression
502	657 BMP	Suppression
503	BMP	Development
503	658 BMP	Suppression
504	659 BMP	Suppression
505	660 BMP	Suppression
506	661 BMP	Suppression
507	662 BMP	Roads
508	663 BMP	Roads
509	664 BMP	Development
510	665 BMP	Development
511	666 BMP	Development
512	667 BMP	Development
513	668 BMP	Development
514	669 BMP	Development
515	670 BMP	Development
516	671 Exemption Process	





Current DFO RMP - ap	Action: No	No Action	Action: No Sim	Removal/r	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Site new at	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	Guy wires \	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Design stru	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	New power	New power	Same as	medial areas.	
Current RMP Pg 64, A	Action: No	No Action	Action: No Sim	Adhere to	Same as Pr	Same as pr	priority areas	
Same as SR	Action: No	No Action	Action: No Sim	Linear ROV	Same as Pr	Same as pr	See Fire M	
				New corridors/	facilities	New transmission corridors, ROWs fo		
Action: No	Similar Act	Action: Ma	No Action	Action: New co	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ev	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Wf	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Planning D	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Ma	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Wf	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Acquisition Criteria - A	Action: Re	No Action	All public lands	Retain pub	Same as pr	Same as pr	priority areas	
				Action: Lands currently identified for retentio				
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
				Action: BLM and FS will strive to acquire important private la				
Action: No	Similar Act	Action: Wf	No Action	Action: Acquisi	Action: No	Action: No	Action: No	Similar Acti
Current RMP - Withdr	Action: Prc	No Action	Action: Same a	Action: No	Key Decisio	Action: No	Similar Acti	
Same as N.	Same as N.	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
				Action: Existing designated corridors in BLM ACECs and FS Sp				
Current RMP - Acquis	Action: No	No Action	Action: ROWs v	Action: No	Key Decisio	Action: No	Similar Acti	
Land Ownership Adju	Action: No	No Action	No action.	Key Decisio	Same as Pr	Same as pr	priority areas	
Appendix X pg 213 Is	Action: No	No Action	Action: No Sim	Solar and v	Action: Wi	Action: Lands shall be		
Same as sub -region	Action: No	No Action	Action: No simi	Action: Pro	Same as Pr	Same as pr	priority areas	
2. Use the 0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti	
4. Restrict 0	Action: No	No Action	Action: Industr	Action: No	Action: No	Action: No	Similar Acti	
Appendix X. pg 208 Is	Action: Pri	No Action	Action: Same a	Action: Pri	Same as Pr	Same as pr	priority areas	
See above	Action: Inc	No Action	Action: Same a	Action: De	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: No	No Action	Action: Compo	Action: No	Action: No	Action: No	Similar Acti
Rangeland Veg pg. 51	Action: Re	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	priority areas	
Same as NA - See resp	Action: De	No Action	Action: Same a	Action: Im	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: Co	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Re	No Action	Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Action: In	f	No Action	Action: Same a	Action: No	Action: San	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti
Livestock	Same as N.	Action: No	No Action	Action: No Sim	Action: Uti	Same as Pr	Same as pr	priority areas
				Use strateg	Same as Pr	Same as pr	priority areas	
				Strategicall	Same as Pr	Same as pr	priority areas	

				Same as Priority	
Appendix X pg.208	CO NOXIOUS \ DFO has a	Action: No Action	No Action	No action.	Action: Pro areas. Same as priority areas
See above 0		Action: No Action	No Action	Action: No similar action.	
Same as NA - under c		Action: No Action	No Action	Action: No Sim	Action: Uti Same as Pr Same as priority areas
Appendix E pg. 118	M	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
WILDLIFE i	DFO is also	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Objective: No	Action	Objective: No s	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: Int	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
DFO ROD/RMP pg. 28		Action: No Action	No Action	Action: No Sim	GOAL: In p Same as Pr Same as pr Utilize simi
DFO ROD/	All prescri	Action: No Action	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
					Action: Ma Same as Pr Same as priority areas
					Action: Suppress wildland fires in sage-grouse
Action: No	Similar Act	Action: No Action	No Action	Action: Lands v	Action: No No similar ; Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: Any fue	Action: No No similar ; Action: No Similar Acti
Action: No	Similar Act	Action: De	No Action	Action: Same a	Action: No No similar ; Action: No Implement
Appendix X pg.208	C	Action: Du	No Action	Action: Same a	Action: Dur Same as pr Same as priority areas
Action: No	Similar Act	Action: In	Action: In g	Action: Same a	Same as Al; Same as Pr Action: In general sage
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
Same NTT.		Action: Fol	No Action	Action: Same a	Action: No See BMPs Action: No Similar Acti
DFO RMP	All project:	Action: No Action	No Action	Action: No Sim	Delineate c Same as Pr Same as Priority Areas
Same as SR		Action: Pri	No Action	Action: Same a	Same as Al; Same as Pr Same as priority areas
Fuels and F	Same as N.	Action: De	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Same as SF	Climate ch	Action: Co	No Action	Action: Same a	Action: To ; Same as Pr Same as priority areas
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: No simi	Action: No Action: No Action: No Similar Acti
Action: No	0	Action: No Action	No Action	Action: Mowing	Action: No Action: No Action: No Similar Acti
Same as N.	0	Action: No Action	No Action	Action: No Sim	Ensure fire: Same as Pr Same as pr Revised sc
Same as N.	0	Action: No Action	No Action	Action: No Sim	Use knowle Same as Pr Same as pr Revised sc
Same as NA/SR - from		Action: No Action	No Action	Action: No Sim	Where app Same as Pr Same as pr Revised sli

Proposed RMP/Final E	Action: Clo	No Action	Action: Same a	Action: Lan	Action: Lan	Action: Lands	Lands are avail
Same as N. Appendix E	Action: For	No Action	Action: Same a	Action: For	Action: For	Action: For	existing un
Proposed F Appendix E	§ Action: I	No Action	Action: Same a	Lands woul	Same as Pr	Same as pr	priority areas
Action: No Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Proposed F This was cr	Action: No	No Action	No action.	Require ne	Require ne	Require ne	new 3809 not
Salable Mil also Apper	Action: Clo	No Action	Action: Same a	No new au	No new au	No new au	authorizations
Same as NA - Covered	Action: In	No Action	Action: Same a	Action: Res	Same as Pr	Same as pr	priority areas
Same as SR for PPH ar	Action: No	No Action	Action: No Sim	Reclamatio	Same as Pr	Same as pr	priority areas
Pg. 45 Acti No Lease v	Action (Alt	No Action	Action: No new	Action: Lar	Same as pr	Same as pr	priority areas
RMP Final DFO curre	Action (Alt	No Action	Action: Same a	Action: All	Action: Allc	Action: Allow	geophys
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SFO	1. Action: I	No Action	Action: Same a	Not Applic	Action: Cor	Not Applic	- no ex
Same as SFO	o Action: No	Action	Action: Same as	Alternative B.			
				Action: Wh	Action: Wh	Same as	Medial Areas.
Stipulation Need to up	Conservati	No Action	Timing avoidan	Covered in	Covered in	Covered in	Action # 20
Same as SFO	Conservati	No Action	Conservation M	Conservati	Same as Pr	Same as pr	priority areas
Same as SR	Conservati	No Action	Conservation M	Conservati	Same as Pr	Action: No	Similar Acti
Same as SFO	Conservati	No Action	Conservation M	Same as Al	Same as pr	Same as pr	priority areas
Action: No Similar Act	Conservati	No Action	Conservation M	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Action: No Similar Act	Action: No	No Action	Action: Agencie	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: Include	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: No wait	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Objective: No	Action	Objective: Any	Action: No	Action: No	Action: No	Similar Acti
DFO ROD/RMP pg. 44	Action: Wf	No Action	Action: Same a	Action: Wh	Action: Wh	Action: Where the fed	
Same as SR	Action: Wf	No Action	Action: Same a	Where the	Where the	Recommend to the mi	
RMP pg. 60 Same as N.	Action: In	No Action	Action: Same a	Action: Lir	Same as Pr	Same as pr	Incorporat
Action: No Similar Act	Action: No	No Action	Action: Same a	Action: No	No similar	Action: No	Needs to fo
Pg. 61 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Tr	Same as Pr	Same as pr	Is this the s
Same as N. Same as N.	Action: Co	No Action	Action: Same a	Action: Pri	Action: Co	Same as pr	priority areas
Pg. 59 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Cor	Same as Pr	Same as pr	Combined
Action: No Similar Act	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Repeat of :
Appendix X Is this a Re	Action: In	No Action	Action: Same a	Action: Pric	Action: Pric	Action: Pric	Changed ic
Same as al Is this a Re	Action: Wf	No Action	Action: Same a	Action: Wf	Same as Pr	Same as pr	Use definit
Same as SFO Is this a Re	Action: No	No Action	No action.	Schedule r	Same as Pr	Same as pr	Added an a
Not really : SRP in sag	Action: On	No Action	Action: Same a	Action: SRI	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 215 R	Action: No	No Action	Action: Same a	Designate	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 214 R	Action: No	No Action	No action.	Incorporat	Same as Pr	Same as pr	Keep Idahc
fine restrictions - BMPs?							
Appendix X Same as N.	Action: No	No Action	Action: No Sim	Recreation	Same as Pr	Same as pr	No similar
Same as SFO Most of ou	Action: No	No Action	Action: No Sim	Limit snow	Same as Pr	Same as pr	Added an a
Action: No Similar Act	Action: No	No Action	Action: No Sim	Action: No Repeat	Action: No	Similar Acti	





Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	Do not incl	
Action: No	Similar Act	Objective: No Action	Objective: Sam	Same as Al	Same as Pr	Same as pr	carry forwa	
Not applica	0	Action: Wi	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: For	No Action	Action: Same a	Action: Wl	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Co	No Action	Action: Same a	Utilize inte	Same as Pr	Same as pr	Recommen
N/A - NO V	0	Action: Wl	No Action	Action: Same a	Refer to liv	Refer to liv	Refer to liv	Recommen
N/A - NO V	0	Action: No	No Action	Action: No Sim	Do not exp	Action: An	Action: No	Similar Acti
Action: No	Similar Act	Action: No No Action	Action: Large A	Action: No	Action: No	Action: No	Similar Acti	
Action: No	Similar Act	Action: No No Action	No action.	Action: No	Action: No	Action: No	Similar Acti	
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Action: No	0	Roads - PP	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - 3
Action: No	0	Design roa	Design roa	Action: No Sim	Design roa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate roa	No Action	Action: No Sim	Constructio	Same as Pr	Same as pr	priority areas
Action: No	0	Coordinate	Coordinate	Action: No Sim	Coordinate	Same as Pr	Same as pr	NTT Recon
Action: No	0	Construct i	Construct i	Action: No Sim	Construct r	Same as Pr	Same as pr	NTT Recon

Action: No	0	Establish s	Establish s	Action: No Sim	Establish s	Same as Pr	Same as pr	NTT Recon
Action: No	0	Establish t	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - To
Action: No	0	Do not issu	Do not issu	Action: No Sim	Action: No	Action: No	Action: No	DELETE - D
Action: No	0	Restrict ve	No Action	Action: No Sim	Restrict vel	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use dust a	Use dust a	Action: No Sim	Use dust al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Close and	No Action	Action: No Sim	Close and r	Same as pr	Same as pr	NTT Recon
Action: No	0	Cluster dis	Cluster dis	Action: No Sim	Cluster dist	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use directi	Use directi	Action: No Sim	Use directi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place infra	No Action	Action: No Sim	Place infra	Same as Pr	Same as pr	NTT Recon
Action: No	0	Apply a ph	No Action	Action: No Sim	Apply a ph	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place liqui	No Action	Action: No Sim	Place liqui	Same as Pr	No Similar	NTT Recon
Action: No	0	Pipelines n	No Action	Action: No Sim	Consider pl	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Restrict th	Restrict th	Action: No Sim	Restrict th	Same as Pr	Same as pr	NTT Recon
Action: No	0	Site and/o	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Li
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Action: No	0	Collocate	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Design or	No Action	Action: No Sim	Design or	Same as Pr	Same as pr	NTT Recon
Action: No	0	Cover (e.g.	Cover (e.g.	Action: No Sim	Cover (e.g.,	Same as Pr	Same as pr	NTT Recon
Action: No	0	Equip tank	Equip tank	Action: No Sim	Equip tank	Same as Pr	Same as pr	NTT Recon
Action: No	0	Control the	Control the	Action: No Sim	Control the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use only cl	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Ir
Action: No	0	Restrict pit	Restrict pit	Action: No Sim	Restrict pit	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove or	No Action	Action: No Sim	Remove or	Same as Pr	Same as pr	NTT Recon
Action: No	0	Limit noise	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Require no	No Action	Action: No Sim	Require no	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Locate nev	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Clean up r	Clean up r	Action: No Sim	Clean up re	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Include ob	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
		Address post reclamation managemen			Same as Alternative B.			Same as priority areas
Action: No	0	Maximize	No Action	Action: No Sim	When road	Same as pr	Same as pr	NTT Recon
Action: No	0	Restore di	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Irrigate int	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Utilize mul	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
Action: No	0	Bury powe	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
Action: No	0	Require sa	No Action	Action: No Sim	Action: No	Action: No	Action: No	These are l
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Action: No	0	Ensure pro	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Land
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Action: No	0	Where app	No Action	Action: No Sim	Where app	Where app	Where app	NTT Recon
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Action: No	0	Give priori	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	As funding	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Emphasize	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Protect wil	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Reduce the	No Action	Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Strategical	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"
Action: No	0	Develop st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
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					Minimize u	Same as Pr	Same as pr	priority areas
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Action: No	0	Minimize t	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
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Action: No	0	As safety a	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
Action: No	0	Action: No	No Action	Action: No Sim	Utilize exis	Same as Pr	Same as pr	Used Gove
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Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
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Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
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Action: No Actively m Actively m Aggressive p. 26, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Control in Control co Action: No p. 32, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Emphasize Emphasize Action: No p. 32, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Reallocate Reallocate Action: No p. 32, pp. 4 Same as Alternative A Objective: Develop and implement  
Action: No Where the Where the Action: No p. 32, pp. 4 Same as Alternative A No action.  
Action: No Action: No Require be Action: No p. 39, pp. 4 Same as Alternative A

on Action: No Similar Action  
Action: No Action: No Eradicate c Eradicate c p. 39, pp. 5 Same as Alternative A No action.  
Action: No Action: No Monitor w Monitor w p. 39, pp. 6 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Design and implement fu

Action: No Reduce the Reduce the Reduce the p. 31, pp. 6 Same as Alternative A  
Action: No Prioritize p Prioritize p Emphasize p. 26, p. 1; Same as Alternative A Action: No similar action.  
Action: No Decrease v Decrease v Action: No p. 31, pp. 8 Same as Alternative A Action: No similar action.  
ation level objectives. Action: No similar action. (WEG)''

Action: No Develop a Develop a Action: No p. 32, pp. 1 Same as Alternative A  
Action: No Action: No Create and Create and p. 38, pp. 5 Same as Alternative A Action: No similar action. (WEG)''  
Action: No Action: No Prescribe c Prescribe c p. 38, pp. 1 Same as Alternative A  
e-grouse habitat, prioritize suppression of sage-grouse and threatened and enc Action: Same as Alternative B. (W  
Action: No Action: No Coordinate Action: No p. 38, pp. 1 Same as Alternative A  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
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on Action: Same as Alternative B. (W  
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Action: Same as Alternative B.

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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Oil and gas Oil and gas Action: No p. 34, pp. 3 Same as Alternative A 1. Action: Apply the following c  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Prohibit new road constru  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
o language. Hard to demonstrate neutral and beneficial impacts. Incorporates : Action: Same as Alternative B.  
Action: No Prioritize t Prioritize t Same as Al p. 34, pp. 5 Same as Alternative A  
o language - no similar actions in region. Action: Seasonally prohibit campi  
Action: No Restrict ve Restrict ve Same as Al p. 34, pp. 6 Same as Alternative A  
o language recommend incorporation across region. No action.  
Action: No Designate Designate Action: No p. 35, pp. 1 Same as Alternative A  
action across region. Action: No Similar Action  
Action: No Re-route e Re-route e Action: No p. 35, pp. 2 Same as Alternative A  
Action: No Reduce act Reduce act Action: No p. 35, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Prioritize t Prioritize t Action: No p. 26, pp. 4 Same as Alternative A Action: No Similar Action



Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action

Action: No Prioritize p Prioritize p Action: No p. 26, pp. 5 Same as Alternative A Action: Sar Action: Sar Action: Sar

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. “ “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Conduct ra Conduct ra Action: No p. 36, pp. 2 Same as Alternative A Action: No similar action.

Action: No Maintain e Maintain e Action: No p. 36, pp. 3 Same as Alternative A Action: Manage for vegetation co

Action: No Adjust graz Adjust graz Action: No p. 36, pp. 4 Same as Alternative A Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: During drought periods, p

Action: No Implement Implement Action: No p. 36, pp. 6 Same as Alternative A Action: Same as Alternative B.

nd dropping - this can be covered under riparian objectives/actions Same as Alternative B.

Consider g Action: No Action: No Action: No p. 12, pp. 6 Same as Alternative A

nd dropping Action: Same as Alternative B.

Consider a Altering gr Enhance gr Enhance gr p. 12, pp. 7 Same as Alternative A

nder 384 Action: No similar action.

Complete 1 Prioritize a Prioritize a Action: No p. p. 13, pp. Same as Alternative A

nd making an overarching statement regarding the priority of SG habitat relati Action: Authorize no new water c

Utilize a va Action: No Action: No Action: No p. 14, pp. 2 Same as Alternative A

anguage Action: Analyze springs, seeps and

Include me Action: No Action: No Action: No p. 14, pp. 5 Same as Alternative A

Inform anc Action: No Action: No Action: No p. 13, pp. 4 Same as Alternative A

er restoration section Action: Ensure that vegetation tre

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Evaluate the role of existi

Use sage-g Action: No Action: No Action: No p. 13, pp. 2 Same as Alternative A

nd modified wording Action: Avoid all new structural r

o wording Action: Same as Alternative B. (W

Maintain fl Action: No Action: No Action: No p. 13, pp. 3 Same as Alternative A

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: To reduce outright sage-g

Action: No Treat and r Treat and r Action: No p. 48, pp. 8 Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In each planning process,

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Encourage partners to

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Any vegetation treatment

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Avoid cons Avoid cons Action: No p. 48, pp. 2 Same as Alternative A Action: No Similar Action

Action: No Design nev Design nev Action: No p. 48, pp. 3 Same as Alternative A Action: No Similar Action

Action: No Install ram Install ram Action: No p. 48, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Place and c Place and c Action: No p. 48, pp. 5 Same as Alternative A Action: No Similar Action

Action: No Avoid instã Avoid instã Action: No p. 48, pp. 6 Same as Alternative A Action: No Similar Action

Action: No Establish s Establish s Action: No p. 48, pp. 7 Same as Alternative A Action: No Similar Action

Action: No Initiate veç Initiating v Action: No p. 48, pp. 9 Same as Alternative A Action: No Similar Action

Action: No Apply adaç Apply adaç Action: No p. 46, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Implement Implement Action: No p. 47, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Modify gra Action: No p. 47, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Graze exot Graze exot Action: No p. 47, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Modify aut Modify aut Action: No p. 47, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Maintain rı Maintain rı Action: No p. 47, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Inform per Inform per Action: No p. 47, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Manage gr Manage gr Action: No p. 47, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Same as Core Action: No p. 47, pp. 9 Same as Alternative A Action: No Similar Action  
Prioritize e Same as Core Areas.  
Action: No Place salt ç Place salt ç Action: No p. 47, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Reduce thç Reduce thç Action: No p. 39, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Mark fenceç Mark fenceç Action: No p. 37, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Remove ur Remove ur Remove ur p. 37, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Consider ir Consider ir Action: No p. 37, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Construct ı Construct ı Action: No p. 37, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Place new, Place new, Action: No p. 37, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
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on Action: Designate Areas of Critical  
Action: No Construct ı Construct ı Action: No p. 35, pp. 8 Same as Alternative A  
Action: No Return waı Return waı Action: No p. 35, pp. 9 Same as Alternative A No action.  
Action: No Minimize ç Minimize ç Minimize t p. 35, pp. 3 Same as Alternative A No action.  
Action: No Permit anc Permit anc Permit anc p. 35, pp. 5 Same as Alternative A No action.  
Action: No Minimize t Minimize t Action: No p. 35, pp. 6 Same as Alternative A Action: No Similar Action  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Evaluate ai Evaluate ai Action: No p. 44, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Limit surfa Limit surfa Action: No p. 44, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Apply no sı Apply no sı Action: No p. 44, pp. 9 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Limit activi Limit activi Action: No p. 44, pp. 10  
NTT Recommendation and Governor's BMP's have beer Same as Alternative A Same as Alternative B.  
Action: No Allow explı Allow explı Action: No p. 45, pp. 1 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Locate mai Locate mai Action: No p. 45, pp. 2 Same as Alternative A Same as Alternative B.





maintain and increase current sage-grouse abundance and distribution by conserving, enhancing or restoring

Designate Restoration sage-grouse habitat, based on its importance to sage-grouse and the likelihood of

effective.

effective.

effective.

effective.

effective.

sagebrush steppe to its ecological potential in occupied sage-grouse habitat.

sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.



cupied habitats. (WWP)

at areas shall be exclusion areas for new ROWs permits. Consider the following exceptions:" "Within de

EG)" "" "

EG)" "" "

EG)" "

thout exceptions for disposal to consolidate ownership that would be beneficial to sage-grouse.  
r connectivity of priority areas.

(EG)" "" "" "

ral proposals not associated with mineral activity unless the land management is consistent with sage-gr

development in priority sage-grouse habitat (Jones 2012). (WEG)

ment at least five miles from active sage-grouse leks. (WEG)

of restoration projects based on environmental variables that improve chances for project success in a  
at objectives parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State S:

(EG)

(EG)

n/treatments to increase livestock or big game forage in priority habitat and include plans to restore hig

ensure that soil cover and native herbaceous plants are at their ESD potential to help protect against inva:

nt methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants. (WEG)

els treatments with an emphasis on protecting existing sagebrush ecosystems. “Do not reduce sagebr

“

“

(EG)” “

(EG)” “

(EG)

networks with seed growers to assure availability of native seed for ES&R projects. “ “

include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recc  
be excluded from burned areas until woody and herbaceous plants achieve sage-grouse habitat objectivi  
se habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) shou



(EG) “  
(EG) “

(EG) “

(EG) “  
(EG) “

ation of existing leases, do not accept nominations/expressions of interest for parcels within priority ha  
ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc

ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc  
conservation measures as Conditions of Approval at the project and well permitting stages, and through  
Alternative B. “ “

seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting a  
Alternative B. (WEG)

Alternative B.  
Alternative B. (WEG)  
Alternative B. (WEG)  
Alternative B. (WEG)

(EG) “  
(EG) “

action within 4 miles of active sage-grouse leks, and avoid new road construction in priority sage-grouse  
“ “

o realignments of existing designated routes if that realignment has a minimal impact on sage-grouse h  
ng a 4-mile buffer from leks to determine road route.

oads, primitive roads and trails, use appropriate native seed mixes and require consider the use of transp

ing and other non-motorized recreation within 4 miles of active sage-grouse leks. (WEG)

ne as Alternative B.

composition and structure consistent with ecological site potential and within the reference state to achieve  
prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their biological

developments for diversion from spring or seep sources only when within priority sage-grouse habitat with  
d associated water developments pipelines to determine if modifications are necessary to maintain the

treatments Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse  
seedlings that are currently composed of primarily introduced perennial grasses in and adjacent to priority

range developments in priority sage-grouse habitat unless independent peer-reviewed studies show that

(WEG) “

“ “

sage-grouse strikes and mortality, rRemove, modify or mark fences in high risk areas of moderate or high risk

“ “

identify grazing allotments where permanent retirement of grazing privileges would be potentially beneficial  
monitor effects of retiring grazing permits in sage-grouse habitat. (WEG)

management plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures

(WEG)

Environmental Concern (ACECs) (BLM) and Sagebrush Conservation Areas (SCAs) (USFS), respectively, :





ing the sagebrush ecosystem.

f successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005c), as degraded



esignated ROW corridors encumbered by existing ROW authorizations: new ROWs may be co-located on

ouse conservation measures. (For example,, in a proposed withdrawal for a military training range buffe

reas most likely to benefit sage-grouse (Meinke et al. 2009).” ““Prioritize restoration in seasonal habit:  
age Grouse Conservation plans and appropriate local information in habitat restoration projects objectiv

gh-quality habitat in areas with invasive species. (Audubon)



sive plants. In areas without ESDs, reference sites would be utilized to identify appropriate vegetation c

ush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management c

covery. (WEG)

es. (WEG)

ld be closed to grazing until recovered. (WEG)

abitat. (WEG)

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

i RMP implementation decisions and upon completion of the environmental record of review (43 CFR §

and brood-rearing season in all priority sage-grouse habitat during this period. This seasonal restriction s

habitat. (WEG)

abitat, eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any im

planted sagebrush. (WEG)” “

ave sage-grouse habitat objectives.

ll needs for food and cover, as well as drought effects on ungrazed reference areas. Since there is a lag in

ould benefit from the development. This includes developing new water sources for livestock as part of  
continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modification

ouse. Only allow treatments that conserve, enhance, or restore sage-grouse habitat are demonstrated t  
riority sage-grouse habitat to determine if they should be restored to sagebrush or habitat of higher qua

: the range improvement structure benefits sage-grouse. Design any new structural range improvement:

of sage-grouse strikes within priority sage-grouse habitat based on proximity to lek, lek size, and topogr

eficial to sage-grouse. (WEG)

s, and include long-term monitoring where treated areas are monitored for at least three years before g

as sagebrush reserves to conserve sage-grouse and other sagebrush-dependent species. (WEG).





or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if





ly if the entire footprint of the proposed project (including construction and staging), can be completed

er area, manage the buffer area with sage-grouse conservation measures that have been demonstrated

ats that are thought to be limiting sage-grouse distribution and/or abundance and where factors causing  
res. Make meeting these objectives within priority sage-grouse habitat the highest restoration priority. (

ommunities and soil cover.

objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-ξ

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r  
3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, amon;

hall also to apply to related activities that are disruptive to sage-grouse, including vehicle traffic and oth

pacts with methods that have been demonstrated to be effective to offset the loss of sage-grouse habit;

vegetation recovery following drought (Thurow and Taylor 1999; Cagney et al. 2010), ensure that post

an AMP/conservation plan to improve sage-grouse habitat. (WEG)

s where necessary, including dismantling water developments considering impacts to other water uses

o benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat object  
lity for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in c

s and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habi

aphy (Christiansen 2009; Stevens 2011). (WEG)

grazing returns. Continue monitoring for” “five years after livestock are returned to the area, and compa







restored to its potential natural community.





within the existing disturbance associated with the authorized ROWs.” “Subject to valid, existing rights:

to be effective.) (WEG)

3 degradation have already been addressed (e.g., changes in livestock management). (WEG)” “  
WEG)

grouse habitat and conserve habitat quality for the species. “Closely evaluate the benefits of the fuel t

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br  
g other things.” “Whether the conservation measure is “reasonable” (43 CFR § 3101.1-2) with the valid

er human presence. (WEG)

at. (WEG)

-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-gro

when such considerations are neutral or beneficial to sage-grouse. (WEG)

ives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve saq  
onserving or enhancing the rest of the priority sage-grouse habitats, then no restoration would be nece:

tat through an improved grazing management system relative to sage-grouse objectives. Structural rang

ire to treated, ungrazed exclosures, as well as untreated areas. (WEG)













where new ROWs associated with valid existing rights are required, co-locate new ROWs within existing

break against the additional loss of sagebrush cover in the EA process. “ “Apply appropriate seasonal res

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)” ““

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)  
existing rights; and” “Whether the action is in conformance with the approved RMP. (WEG)

use habitat areas based on sage-grouse habitat objectives. (WEG)

sage-grouse habitat). (WEG)

ssary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing

sage improvements developments, in this context, include but are not limited to cattleguards, fences, excl













3 ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as describe

trictions for implementing fuels management treatments according to the type of seasonal habitats pre

“SUB-ALTERNATIVE:” “Action: No new geophysical exploration permits will be issued. “ “ “ “

system during the land health assessments (Davies et al. 2011). (WEG)” “

osures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including movea













d above, to access valid existing rights that are not yet developed. If valid existing rights cannot be acces

sent in a priority area.” “Allow no fuels treatments in known winter range unless the treatments are de:



ible tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developr













used via existing roads, then build any new road constructed to the absolute minimum standard necessa

signed to strategically reduce wildfire risk around or in the winter range and will maintain winter range f





ments. Potential for invasive species establishment or increase following construction must be considered.











ry, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exce

habitat quality. “Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyom





ed in the project planning process and monitored and treated post-construction. Consider the comparat











reduces 3% for that area, then make additional effective mitigation



ing big sagebrush or other xeric sagebrush species; Conn



ive cost of changing grazing management instead of constructing additi

New GOA 1/28/2013	GOA 11/6/2012	Program Area	Sub Topic	Threat	Indicator	Review Comment s - Ralston
4	4	Adaptive Management	Best Management Prac	N/A	N/E	G - referen
5	5	Common to All Alternatives	Implementation	N/A	N/E	
6	6	Goal	SG Abundance and Dist	All	Acres of Habitat & pop	
7	7	Designation of Habitat	Designation of Habitat	Human Dis	Acres of Habitat	
7		Priority Setting	Implementation			
8	8	Common to All Alternatives		N/A	N/E	
9	9	Designation of Habitat	Designation of Habitat	All	Acres of PPH/PGH map	
10	9.1	Habitat Fragmentation		Infrastructu	Acres of PP	Need to de
11		Goal				
11	10	Desired Conditions	Desired Conditions	Wildfire, In	Acres of sagebrush hak	
12	11	Habitat Fragmentation		Wildfire, In	N/E	
13		Designation of Habitat		All	Acres of PPH/PGH map	
13	11.1	Monitoring	group	N/A	N/E	Need to sp
14	12	Habitat Fragmentation	DFC Thresholds	Infrastructu	Acres of H <sub>2</sub>	Need to de
15	13	Objective	Distribution	All	Acres of Habitat	
15		Disease	West Nile Virus			
16	14	Habitat Fragmentation	Disturbances sagebrusl	Human Dis	Acres of H <sub>2</sub>	
17	15	Designation of Habitat	Connectivity	All	Acres of H <sub>2</sub>	May be duj
17		Desired Conditions				
18	16	Habitat Fragmentation	Connectivity	All	Acres of H <sub>2</sub>	May be sir
18		Monitoring				
19	17	Adaptive Management		All	N/E	
19		Habitat Fragmentation				
20	18	Objective	Rehabilitation	All	Acres of Habitat	
21		Designation of Habitat				
21	19	Objective	ACEC	All	N/E	
22	20	Common to All Alternatives	Process	All	N/E	
23	21	Designation of Habitat	Mapping	All	N/E	
24	22	Designation of Habitat	Populations	All	N/E	
25	23	Designation of Habitat	Mapping	All	N/E	
26	24	Priority Setting	Mapping	All	N/E	
27	25	Designation of Habitat	Mapping	All	N/E	
28	26	Designation of Habitat	Mapping	All	N/E	
30	28	Designation of Habitat	Mapping	All	N/E	
31	29	Designation of Habitat	Mapping	All	N/E	
32	30	Designation of Habitat	Mapping	All	N/E	
33	31	Designation of Habitat	Adaptive Management	All	N/E	
34	32	Designation of Habitat	Threats	All	N/E	
35	33	Designation of Habitat	Threats	All	N/E	
36	34	Designation of Habitat	Mapping	All	N/E	

37	35 Designation of Habitat	Mapping	All	N/E
38	36 Designation of Habitat	Adaptive Management	All	N/E
39	37 Designation of Habitat	Adaptive Management	All	N/E
40	39 Wildfire	Priorities	Wildfire	Acres of Ha
41	40 Implementation	Process	All	N/E
42	41 Designation of Habitat	Uses	All	
43	42 Designation of Habitat	Indicators		
44	43 Desired Conditions	DFC	All	Acres of Ha Need to inc
45	44 Desired Conditions	DFC	All	Acres of Ha Include Tak
46	45 Implementation	Process	All	N/E
47	46 Habitat Fragmentation	Resiliency	All	Acres of Ha
48	47 Implementation	Adaptive Management	All	N/E mapping u
49	48 Adaptive Management	Process	All	N/E Governor -
50	49 Adaptive Management	Process	All	N/E
51	50 Adaptive Management	Wildfire	Wildfire	Acres of Habitat
52	51 Adaptive Management	Trigger	Wildfire	Acres of Habitat
53	52 Adaptive Management	Trigger	Wildfire	Acres of Habitat
54	53 Adaptive Management	Grazing	Grazing	Acres of Habitat
55	54 Adaptive Management	Process	All	Population
56	55 Adaptive Management	Trigger	Wildfire	Acres of Habitat
57	56 Adaptive Management	Trigger	Wildfire	Acres of Habitat
58	57 Adaptive Management	Wildfire	Wildfire	Acres of Habitat
59	58 Adaptive Management	Process	All	N/E
60	59 Adaptive Management	Process	All	N/E
61	60 Designation of Habitat	Trigger	All	Acres of Designation
62	61 Valid Existing Authorizations	Foundational	N/A	Acres of Riç
63	62 Valid Existing Authorizations	Foundational	N/A	Acres of Rights
64	63 Valid Existing Authorizations	Foundational	Minerals	Acres of valid existing i
65	64 Valid Existing Authorizations	Foundational	Minerals	Acres of Mining
66	65 Valid Existing Authorizations	Valid Existing Rights	All	Acres of Va
67	66 Mitigation	Process	Infrastructu	Acres/mile:
68	67 Mitigation	Process	All	Acres of ha
69	68 Designation of Habitat	Restoration	All	Acres Treat
70	69 Mitigation	Restoration	All	Acres Treat
71	70 Monitoring	Process	Wildfire, In	Acres of wi Reference
72	71 Monitoring	Process	Grazing	Acres of th
73	72 Monitoring	Process	All	Outside BLI
74	73 Monitoring	Process	Wildfire	Acres of tre
75	74 Monitoring	Process	All	Acres
76	75 Monitoring	Process	All	Population
77	77 Monitoring	process	grazing	acres in DF
78	78 Monitoring	Process	Grazing	Acres in DF incorporate
79	79 Habitat Fragmentation	Land Use Authorizations		IM Referen
80	80 Habitat Fragmentation	Land Use Authorizations		
81	81 Human Disturbance	Land Use Authorizations		
82	82 Habitat Fragmentation	Land Use Authorizations		rationale fc
83	83 Habitat Fragmentation	Land Use Authorizations		rationale fc

84	87	Habitat Fragmentation	Land Use Authorizations	
85	89	Habitat Fragmentation	Land Use Authorizations	Define lek ;
86	90	Human Disturbance	Land Use Authorizations	Apply to ne
87	92	Predation	Land Use Authorizations	Differences
88	94	Habitat Fragmentation	Land Use Authorizations	Differences
89	96	Human Disturbance	Land Use Authorizations	What are tl
90	98	Fuels		
91		ACEC		
91	99	Habitat Fragmentation	Land Use Authorizatio	Infrastructure Acres excluded, acres l
92	101	Habitat Fragmentation	Land Use Authorizatio	Infrastructure miles of lines buried
93	102	Habitat Fragmentation	Reclamation	Infrastructure miles of line reclaimed
94	105	Habitat Fragmentation	Relocation	Infrastructure miles of line relocated,
95		BMP		
95	117	Habitat Fragmentation	Avoidance	Infrastructure acres of avoidance
96	118	Habitat Fragmentation	Co-location	Infrastructure miles of lines; footprin
97	119	Habitat Fragmentation	Land Tenure	Urbanizatic acres retained; acres o
97		Habitat Fragmentation		
97		Implementation		
98	120	Common to All Alternatives	Implementation	
99		ACEC		
99	121	Habitat Fragmentation	Acquisition	Urbanizatic acres identified for acc
100	122	Habitat Fragmentation	Withdrawal	Mining acres withc Keep SR Di
101	123	Habitat Fragmentation	Withdrawal	Mining Acres closed/withdraw
102		ACEC		
102	124	Habitat Fragmentation	Corridors	Infrastructure Acres/miles of corridoi
103	125	Habitat Fragmentation	Land Tenure	Predation Acres
104	126	Habitat Fragmentation	Wind Energy	Infrastructure Acres avail;
105	127	Habitat Fragmentation	unauthorized uses	infrastructure acres
106	128	Habitat Fragmentation	siting	Infrastructure acres avail;
110	132	ACEC		
115	151	Restoration		
116	152	Restoration		Incorporat
117	153	Restoration		
118	156	Restoration		
119	162	Restoration		
120	163	Restoration		
121	164	Restoration		
122	165	Restoration		
123	166	Restoration		
125	168	Restoration		
126	169	Restoration		
129	172	Restoration		
132	175	Monitoring		
133		Fuels		
133		Fuels		

133	176 Suppression
134	177 Invasive Species
135	Restoration
135	178 Vegetation
136	179 Restoration
137	180 Restoration
138	181 Monitoring
139	182 Invasive Species
140	183 Invasive Species
141	184 Restoration
142	185 Restoration
143	186 Restoration
144	BMP
144	187 Invasive Species
145	188 Invasive Species
146	189 Monitoring
152	220 Fuels
155	223 Fuels
155	Restoration
155	Suppression
156	224 Suppression
157	225 Suppression
159	227 Fuels
159	Suppression
160	228 Fuels
162	Fuels
162	230 Suppression
163	231 Fuels
164	232 Suppression
165	233 Suppression
168	Fuels
168	236 Suppression
172	240 Suppression
173	246 Restoration
173	Suppression
174	249 Restoration
175	250 Restoration
177	252 Restoration
178	253 Restoration
179	254 Restoration
180	255 Restoration
181	256 Fuels
182	257 Suppression
183	258 Suppression
184	259 Suppression

Is there a n  
Is there a n

Incorporate

188	268 Non Energy Leasable Minerals	Identify kn
189	272 Non Energy Leasable Minerals	What abou
195	283 Locatable Minerals	
196	284 Locatable Minerals	Include BM
199	287 Locatable Minerals	
202	300 Saleable Minerals	
203	301 Saleable Minerals	
204	304 Saleable Minerals	
205	307 Unleased Federal Fluid Mineral	
206	308 Unleased Federal Fluid Mineral	
208	312 Unleased Federal Fluid Mineral	
209	313 Unleased Federal Fluid Mineral	
211	320 Leased Federal Fluid Mineral Est	
212	322 Leased Federal Fluid Mineral Est	
212	Unleased Federal Fluid Mineral Estate	
213	323 Leased Federal Fluid Mineral Est	
215	325 Leased Federal Fluid Mineral Est	
216	326 Leased Federal Fluid Mineral Est	
217	327 Leased Federal Fluid Mineral Est	
218	328 Habitat Fragmentation	
219	329 Leased Federal Fluid Mineral Est	
220	330 Leased Federal Fluid Mineral Est	
223	333 ACECs	
224	334 Leased Federal Fluid Mineral Est	
225	335 Leased Federal Fluid Mineral Est	
226	336 Leased Federal Fluid Mineral Est	
227	337 Mineral Split Estate	
228	338 Mineral Split Estate	Reference i
233	343 Travel Management	Incorporat
234	344 Travel Management	
235	345 Travel Management	
236	346 Travel Management	Move to fir
237	347 Travel Management	
238	348 Travel Management	
240	350 Travel Management	
241	351 Travel Management	
243	353 Travel Management	
246	356 Recreation and Visitor Services	Define nue
246	Travel Management	
247	357 Recreation and Visitor Services	What does
247	Travel Management	
248	358 Recreation and Visitor Services	Need to de
248	Travel Management	Need to de
249	359 Recreation and Visitor Services	Need to de
249	Travel Management	
250	360 Travel Management	
251	361 Travel Management	



260	374 Livestock Grazing		
261	376 Livestock Grazing		Need SG M
262	377 Livestock Grazing		Define inte
263	378 Livestock Grazing		Define mar
264	379 Livestock Grazing		
267	382 Livestock Grazing	Objectives	
268	383 Livestock Grazing	Objectives	
269	384 Livestock Grazing		
270	385 Livestock Grazing	Drought	
271	386 Livestock Grazing	Riparian	
273	388 Livestock Grazing	Riparian	
273	Livestock Grazing		
274	389 Livestock Grazing	Riparian	
274	Livestock Grazing		
278	393 Livestock Grazing	Riparian	
278	Livestock Grazing		
280	395 Livestock Grazing	Water Development	Reference 1
280	Livestock Grazing		
281	396 Livestock Grazing	Water Development	
281	Livestock Grazing		
284	Coordination		
284	399 Restoration		
285	400 Restoration		
288	Desired Conditions		
288	Invasive Species		
288	403 Livestock Grazing	Improvements	
288	Livestock Grazing	Improvements	
289	404 Livestock Grazing	Water Development	
289	Livestock Grazing		
290	405 Livestock Grazing	Improvements	Check buffi
291	406 Livestock Grazing	Improvements	
292	407 Invasive Species		
293	408 Livestock Grazing		
294	409 Livestock Grazing		Need to do
295	410 Monitoring		
298	413 Livestock Grazing	Trailing	
299	414 Fuels		
300	Livestock Grazing	Sheep	how are oc
300	415 Restoration		
301	416 Fuels		
318	433 Livestock Grazing	Improvements	
319	434 Livestock Grazing	Water Development	
320	435 Livestock Grazing	Water Development	
321	436 Livestock Grazing	Water Development	
322	437 Livestock Grazing	Water Development	
323	438 Livestock Grazing		
325	440 Restoration		

326	441 Adaptive Management		tie in refer
327	442 Livestock Grazing		
328	443 Livestock Grazing		
329	444 Livestock Grazing		
330	445 Livestock Grazing		
331	446 Livestock Grazing		
332	447 Coordination		
333	448 Livestock Grazing	Riparian	
334	449 Livestock Grazing		
334	Livestock Grazing	Drought	
335	450 Livestock Grazing	Improvements	
336	451 Livestock Grazing	Improvements	
337	452 Livestock Grazing	Improvements	
338	453 Livestock Grazing	Improvements	
339	454 Livestock Grazing	Improvements	
340	455 Livestock Grazing	Improvements	
341	456 Livestock Grazing	Improvements	
342	457 Wild Horses and Burros		
344	459 Wild Horses and Burros		
345	460 Wild Horses and Burros		
346	461 Wild Horses and Burros		
347	462 Wild Horses and Burros		
348	463 Implementation		
355	470 Wild Horses and Burros		
356	471 ACECs		
356	West Nile Virus		
357	472 West Nile Virus		
358	473 West Nile Virus		
359	474 West Nile Virus		
360	475 West Nile Virus		
361	476 West Nile Virus		
377	532 BMP	West Nile Virus	
378	533 BMP	West Nile Virus	
379	534 BMP	West Nile Virus	
380	535 BMP	West Nile Virus	
381	536 BMP	West Nile Virus	
382	537 BMP	West Nile Virus	
383	538 BMP	West Nile Virus	
384	539 BMP	Development	Need to loc
385	540 BMP	Development	
386	BMP	Development	
386	541 BMP	Roads	
387	BMP	Development	
387	542 BMP	Roads	
388	BMP	Development	
388	543 BMP	Roads	
389	544 BMP	Roads	

390	BMP	Development
390	545 BMP	Roads
391	BMP	Development
391	546 BMP	Roads
392	547 BMP	Roads
393	548 BMP	Roads
394	549 BMP	Roads
395	550 BMP	Roads
397	552 BMP	Development
398	553 BMP	Development
399	554 BMP	Development
400	555 BMP	Development
401	556 BMP	Development
402	557 BMP	Development
403	558 BMP	Roads
404	559 BMP	Development
405	560 BMP	Development
406	561 BMP	Development
407	562 BMP	Development
408	563 BMP	Development
409	564 BMP	Development
410	565 BMP	Development
411	566 BMP	Development
412	567 BMP	Development
413	568 BMP	Development
414	569 BMP	West Nile Virus
415	570 BMP	West Nile Virus
416	571 BMP	Development
417	572 BMP	Development
418	573 BMP	Development
419	574 BMP	Development
420	575 BMP	Development
421	576 BMP	Development
422	577 BMP	Development
424	579 BMP	Reclamation
424	BMP	Reclamation
425	580 BMP	Reclamation
426	581 BMP	Reclamation
427	582 BMP	Reclamation
428	583 BMP	Reclamation
464	619 BMP	Development
469	624 BMP	Development
480	635 BMP	Fuels
481	636 BMP	Fuels
482	637 BMP	Fuels
483	638 BMP	Fuels
484	639 BMP	Fuels

485	640 BMP	Fuels
486	641 BMP	Fuels
487	642 BMP	Fuels
488	643 BMP	Fuels
489	644 BMP	Fuels
490	645 BMP	Fuels
491	646 BMP	Fuels
492	647 BMP	Fuels
493	648 BMP	Fuels
494	649 BMP	Fuels
496	651 BMP	Suppression
497	652 BMP	Suppression
498	653 BMP	Suppression
499	654 BMP	Suppression
500	655 BMP	Suppression
501	656 BMP	Suppression
502	657 BMP	Suppression
503	BMP	Development
503	658 BMP	Suppression
504	659 BMP	Suppression
505	660 BMP	Suppression
506	661 BMP	Suppression
507	662 BMP	Roads
508	663 BMP	Roads
509	664 BMP	Development
510	665 BMP	Development
511	666 BMP	Development
512	667 BMP	Development
513	668 BMP	Development
514	669 BMP	Development
515	670 BMP	Development
516	671 Exemption Process	





Current DFO RMP - ap	Action: No	No Action	Action: No Sim	Removal/r	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Site new at	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	Guy wires \	Same as Pr	Same as pr	priority areas	
Same as #90 above fr	Action: No	No Action	Action: No Sim	Design stru	Same as Pr	Same as pr	priority areas	
Same as SR PPH and P	Action: No	No Action	Action: No Sim	New power	New power	Same as	medial areas.	
Current RMP Pg 64, A	Action: No	No Action	Action: No Sim	Adhere to	Same as Pr	Same as pr	priority areas	
Same as SR	Action: No	No Action	Action: No Sim	Linear ROV	Same as Pr	Same as pr	See Fire M	
				New corridors/	facilities	New transmission corridors, ROWs fo		
Action: No	Similar Act	Action: Ma	No Action	Action: New co	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ev	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Wf	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Planning D	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Ma	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: No	Action: Wf	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Acquisition Criteria - A	Action: Re	No Action	All public lands	Retain pub	Same as pr	Same as pr	priority areas	
				Action: Lands currently identified for retentio				
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	Similar Acti
				Action: BLM and FS will strive to acquire important private la				
Action: No	Similar Act	Action: Wf	No Action	Action: Acquisi	Action: No	Action: No	Action: No	Similar Acti
Current RMP - Withdr	Action: Prc	No Action	Action: Same a	Action: No	Key Decisio	Action: No	Similar Acti	
Same as N.	Same as N.	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
				Action: Existing designated corridors in BLM ACECs and FS Sp				
Current RMP - Acquis	Action: No	No Action	Action: ROWs v	Action: No	Key Decisio	Action: No	Similar Acti	
Land Ownership Adjus	Action: No	No Action	No action.	Key Decisio	Same as Pr	Same as pr	priority areas	
Appendix X pg 213 Is	Action: No	No Action	Action: No Sim	Solar and v	Action: Wi	Action: Lands shall be		
Same as sub -region	Action: No	No Action	Action: No simi	Action: Pro	Same as Pr	Same as pr	priority areas	
2. Use the 0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti	
4. Restrict 0	Action: No	No Action	Action: Industr	Action: No	Action: No	Action: No	Similar Acti	
Appendix X. pg 208 Is	Action: Pri	No Action	Action: Same a	Action: Pri	Same as Pr	Same as pr	priority areas	
See above	Action: Inc	No Action	Action: Same a	Action: De	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: No	No Action	Action: Compo	Action: No	Action: No	Action: No	Similar Acti
Rangeland Veg pg. 51	Action: Re	No Action	Action: Same a	Same as Al	Same as Pr	Same as pr	priority areas	
Same as NA - See resp	Action: De	No Action	Action: Same a	Action: Im	Same as Pr	Same as pr	priority areas	
Action: No	Similar Act	Action: Co	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Re	No Action	Action: Exotic s	Action: No	Action: No	Action: No	Similar Acti
Action: No	Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Action: In	f	No Action	Action: Same a	Action: No	Action: San	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Active restorat	Action: No	Action: No	Action: No	Similar Acti
Action: No	0	Action: No	No Action	Action: No simi	Action: No	Action: No	Action: No	Similar Acti
Livestock	Same as N.	Action: No	No Action	Action: No Sim	Action: Uti	Same as Pr	Same as pr	priority areas
				Use strateg	Same as Pr	Same as pr	priority areas	
				Strategicall	Same as Pr	Same as pr	priority areas	

				Same as Priority	
Appendix X pg.208	CO NOXIOUS \ DFO has a	Action: No Action	No Action	No action.	Action: Pro areas. Same as priority areas
See above 0	Same as NA - under cu	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Appendix E pg. 118	M WILDLIFE i DFO is also	Action: No Action	No Action	No action.	Action: Im Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No similar action.	
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Uti Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: Co Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Objective: No Action	No Action	Objective: No s	Action: No Action: No Action: No Similar Acti
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Action: No	Similar Act	Action: Int	No Action	Action: No Sim	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
Action: No	Similar Act	Action: No Action	No Action	No action.	Action: No Action: No Action: No Similar Acti
DFO ROD/RMP pg. 28	DFO ROD/ All prescri	Action: No Action	No Action	Action: No Sim	GOAL: In p Same as Pr Same as pr Utilize simi
Action: No	Similar Act	Action: No Action	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: No	Action: Ma Same as Pr Same as priority areas
Action: No	Similar Act	Action: No Action	No Action	Action: Lands v	Action: Suppress wildland fires in sage-grouse
Action: No	Similar Act	Action: No Action	No Action	Action: Any fue	Action: No No similar ; Action: No Similar Acti
Action: No	Similar Act	Action: De	No Action	Action: Same a	Action: No No similar ; Action: No Implement
Appendix X pg.208	C	Action: Du	No Action	Action: Same a	Action: Dur Same as pr Same as priority areas
Action: No	Similar Act	Action: In	Action: In g	Action: Same a	Same as Al Same as Pr Action: In general sage
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
N/A		Action: No Action	No Action	Action: No Sim	Action: No Standard p Action: No Similar Acti
Same NTT.		Action: Fol	No Action	Action: Same a	Action: No See BMPs Action: No Similar Acti
DFO RMP p All project:		Action: No Action	No Action	Action: No Sim	Delineate c Same as Pr Same as Priority Areas
Same as SR		Action: Pri	No Action	Action: Same a	Same as Al Same as Pr Same as priority areas
Fuels and F	Same as N.	Action: De	No Action	Action: Same a	Action: Des Same as Pr Same as priority areas
Same as SF	Climate ch	Action: Co	No Action	Action: Same a	Action: To ; Same as Pr Same as priority areas
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Same as N.	0	Action: No Action	No Action	Action: No Sim	Ensure fire Same as Pr Same as pr Revised sc
Same as N.	0	Action: No Action	No Action	Action: No Sim	Use knowle Same as Pr Same as pr Revised sc
Same as NA/SR - from		Action: No Action	No Action	Action: No Sim	Where app Same as Pr Same as pr Revised sli



Proposed RMP/Final E	Action: Clo	No Action	Action: Same a	Action: Lan	Action: Lan	Action: Lands	Lands are avail
Same as N. Appendix E	Action: For	No Action	Action: Same a	Action: For	Action: For	Action: For	existing un
Proposed F Appendix E	§ Action: I	No Action	Action: Same a	Lands woul	Same as Pr	Same as pr	priority areas
Action: No Similar Act	Action: Ma	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Proposed F This was cr	Action: No	No Action	No action.	Require ne	Require ne	Require ne	new 3809 not
Salable Mil also Apper	Action: Clo	No Action	Action: Same a	No new au	No new au	No new au	authorizations
Same as NA - Covered	Action: In	No Action	Action: Same a	Action: Res	Same as Pr	Same as pr	priority areas
Same as SR for PPH ar	Action: No	No Action	Action: No Sim	Reclamatio	Same as Pr	Same as pr	priority areas
Pg. 45 Acti No Lease v	Action (Alt	No Action	Action: No new	Action: Lar	Same as pr	Same as pr	priority areas
RMP Final DFO curre	Action (Alt	No Action	Action: Same a	Action: All	Action: Allc	Action: Allow	geophys
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action (Alt	No Action	Action: Same a	Action: No	Action: No	Action: No	Similar Acti
Same as SFO	1. Action: I	No Action	Action: Same a	Not Applic	Action: Cor	Not Applic	- no ex
Same as SFO	o Action: No	Action	Action: Same as	Alternative B.	Action: Wh	Action: Wh	Same as Medial Areas.
Stipulation Need to up	Conservati	No Action	Timing avoidan	Covered in	Covered in	Covered in	Action # 20
Same as SFO	Conservati	No Action	Conservation M	Conservati	Same as Pr	Same as pr	priority areas
Same as SR	Conservati	No Action	Conservation M	Conservati	Same as Pr	Action: No	Similar Acti
Same as SFO	Conservati	No Action	Conservation M	Same as Al	Same as pr	Same as pr	priority areas
Action: No Similar Act	Conservati	No Action	Conservation M	Action: No	Action: No	Action: No	Similar Acti
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Same as SR	Conservati	No Action	Conservation M	Conservati	Conservati	Conservation Measure	
Action: No Similar Act	Action: No	No Action	Action: Agencie	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: Include	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Action: No	No Action	Action: No wait	Action: No	Action: No	Action: No	Similar Acti
Action: No Similar Act	Objective: No	Action	Objective: Any	Action: No	Action: No	Action: No	Similar Acti
DFO ROD/RMP pg. 44	Action: Wf	No Action	Action: Same a	Action: Wh	Action: Wh	Action: Where the fed	
Same as SR	Action: Wf	No Action	Action: Same a	Where the	Where the	Recommend to the mi	
RMP pg. 60 Same as N.	Action: In	No Action	Action: Same a	Action: Lir	Same as Pr	Same as pr	Incorporat
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Pg. 61 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Tr	Same as Pr	Same as pr	Is this the s
Same as N. Same as N.	Action: Co	No Action	Action: Same a	Action: Pri	Action: Co	Same as pr	priority areas
Pg. 59 Acti Same as N.	Action: In	No Action	Action: Same a	Action: Cor	Same as Pr	Same as pr	Combined
Action: No Similar Act	Action: In	No Action	Action: Same a	Action: No	Action: No	Action: No	Repeat of :
Appendix X Is this a Re	Action: In	No Action	Action: Same a	Action: Pric	Action: Pric	Action: Pric	Changed ic
Same as al Is this a Re	Action: Wf	No Action	Action: Same a	Action: Wf	Same as Pr	Same as pr	Use definit
Same as SFO Is this a Re	Action: No	No Action	No action.	Schedule r	Same as Pr	Same as pr	Added an a
Not really : SRP in sag	Action: On	No Action	Action: Same a	Action: SRI	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 215 R	Action: No	No Action	Action: Same a	Designate	Same as Pr	Same as pr	Keep Idahc
Appendix X pp. 214 R	Action: No	No Action	No action.	Incorporat	Same as Pr	Same as pr	Keep Idahc
fine restrictions - BMPs?							
Appendix X Same as N.	Action: No	No Action	Action: No Sim	Recreation	Same as Pr	Same as pr	No similar
Same as SFO Most of ou	Action: No	No Action	Action: No Sim	Limit snow	Same as Pr	Same as pr	Added an a
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Appendix >	0	Increase tl	No Action	Action: No	Similar Action			Have repla
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Action: No	0	Roads - PP	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - 3
Action: No	0	Design roa	Design roa	Action: No Sim	Design roa	Same as Pr	Same as pr	NTT Recon
Action: No	0	Locate roa	No Action	Action: No Sim	Constructio	Same as Pr	Same as pr	priority areas
Action: No	0	Coordinate	Coordinate	Action: No Sim	Coordinate	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Do not issu	Do not issu	Action: No Sim	Action: No	Action: No	Action: No	DELETE - D
Action: No	0	Restrict ve	No Action	Action: No Sim	Restrict vel	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use dust a	Use dust a	Action: No Sim	Use dust al	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Cluster dis	Cluster dis	Action: No Sim	Cluster dist	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use directi	Use directi	Action: No Sim	Use directi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place infra	No Action	Action: No Sim	Place infra	Same as Pr	Same as pr	NTT Recon
Action: No	0	Apply a ph	No Action	Action: No Sim	Apply a ph	Same as Pr	Same as pr	NTT Recon
Action: No	0	Place liquic	No Action	Action: No Sim	Place liquic	Same as Pr	No Similar	NTT Recon
Action: No	0	Pipelines n	No Action	Action: No Sim	Consider pl	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use remot	Use remot	Action: No Sim	Develop a j	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Site and/o	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Li
Action: No	0	Place new	No Action	Action: No Sim	Place new i	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Equip tank	Equip tank	Action: No Sim	Equip tank	Same as Pr	Same as pr	NTT Recon
Action: No	0	Control th	Control th	Action: No Sim	Control the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Use only cl	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - Ir
Action: No	0	Restrict pit	Restrict pit	Action: No Sim	Restrict pit	Same as Pr	Same as pr	NTT Recon
Action: No	0	Remove or	No Action	Action: No Sim	Remove or	Same as Pr	Same as pr	NTT Recon
Action: No	0	Limit noise	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - S
Action: No	0	Require no	No Action	Action: No Sim	Require no	Same as Pr	Same as pr	NTT Recon
Action: No	0	Fit transmi	No Action	Action: No Sim	Fit transmi	Same as Pr	Same as pr	NTT Recon
Action: No	0	Require sa	No Action	Action: No Sim	Require sa	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Include ob	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
		Address post reclamation managemen			Same as Alternative B.			Same as priority areas
Action: No	0	Maximize t	No Action	Action: No Sim	When road	Same as pr	Same as pr	NTT Recon
Action: No	0	Restore di	No Action	Action: No Sim	Same as Al	Same as pr	Same as pr	NTT Recon
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Action: No	0	Emphasize	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	NTT Recon
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Action: No	0	Reduce the	No Action	Action: No Sim	Reduce the	Same as Pr	Same as pr	NTT Recon
Action: No	0	Strategical	No Action	Action: No Sim	Same as Al	Same as Pr	Same as pr	Corrected"
Action: No	0	Develop st	No Action	Action: No Sim	Action: No	Action: No	Action: No	NA to Lanc
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					Minimize u	Same as Pr	Same as pr	priority areas
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Action: No	0	Action: No	No Action	Action: No Sim	Micro-site	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Locate stag	Same as Pr	Same as pr	Used Gove
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	0	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - W
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Action: No	Action: No	Action: No	DELETE - A
Action: No	Similar Act	Action: No	No Action	Action: No Sim	Wind ener	Wind ener	Same as M	Used Gove
Action: No	Similar Act	Action: No	No Action	Action: No Sim	General pr	Same as Pr	Same as pr	This is the

Alternative E - Idaho - Common to All Areas	Alternative E - Idaho - Core Areas	Alternative E - Idaho - Important Areas	Alternative E - Idaho - General Areas	Alternative E - Idaho - Governor's Alternative Reference	Alternative E - Montana Areas	Alternative E - Utah Areas	Alternative F - Priority Areas	Alternative F - General Areas	Alternative F - Restoration Areas
Continuous Maintenance	Action: No	Action: No	Action: No	p. 45, pp. 1	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Conserve or enhance or restore general habitat areas to improve habitat condition and connectivity	Action: No	Action: No	Action: No	p. 46, pp. 2	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Focus on Activities	Action: No	Action: No	Action: No	p. 1, pp. 1, Same as Alternative A	GOAL: Maintain	GOAL: Maintain	GOAL: Maintain	Objective: No similar objective.	
Action: No Sub-objective	Action: No	Action: No	Action: No	p. 25, pp. 4	Same as Alternative A	Action: No	Similar Action	Objective: Design	Objective: Design
Action: No Conservation	Action: No	Action: No	Action: No	p. 1, pp. 3, Same as Alternative A	Priority.	Action: No	Similar Action	Objective: No similar objective.	
Action: No Conservation	Action: No	Action: No	Action: No	p. 3, pp. 1, Same as Alternative A	on	Action: No	Similar Action	Sub-objective: No similar sub-objective	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	Sub-objective: No similar sub-objective		
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 2, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 1, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 3, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 4, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 5, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	Similar Act Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 7, pp. 5, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 5	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 6	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 24, pp. 7	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 25, pp. 2	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 1	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 2	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 3	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 31, pp. 4	Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
Action: No Conservation	Action: No	Action: No	Action: No	p. 5, pp. 6, Same as Alternative A	Action: No	Similar Action	Action: No	Similar Action	
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
or corridors (oil, gas, water/aquifer mining), and communication or other towers are prohibited in ACECs and oc  
Action: No Designate Designate Manage ne p. 26, pp. 3 Same as Alternative A Action: Priority sage-grouse habit  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B (W  
Action: No Prohibit th Authorize i Authorize i p. 33, pp. 5 Same as Alternative A Action: Same as Alternative B (W  
Action: No Prohibit th Action: No Action: No p. 34, pp. 1 Same as Alternative A Action: Same as Alternative B (W  
Action: No Apply best Action: No Action: No p. 34, pp. 2 Same as Alternative A  
on Action: No similar action.” “  
Infrastruct Action: No Action: No There are i p. 11, s. 4; Same as Alternative A Action: No similar action.  
Action: Same as Alternative B, wi  
n within priority areas would be retained unless disposal of those lands would increase the extent or provide fo  
Modify, an Action: No Action: No Action: No p. 24, pp. 3 Same as Alternative A  
Conduct a Action: No Action: No Action: No p. 24, pp. 2 Same as Alternative A Action: No Similar Action  
nds in BLM-designated ACECs and FS Sage-Grouse Special Areas.  
Action: No New infras Action: No Action: No p. 26, pp. 6 Same as Alternative A Action: No similar action.  
Action: No Allow for e Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No In allowing Action: No Action: No p. 27, pp. 1 Same as Alternative A Action: Do not approve withdraw  
ecial Areas may be accessed for maintenance. (WWP)” “  
Action: No Maintain a Action: No Action: No p. 27, pp. 3 Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Do not site wind energy d  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Site wind energy develop  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Prioritize tl Prioritize tl Action: No p. 33, pp. 3 Same as Alternative A Action: Prioritize implementation  
Action: No Actively re Actively re Action: No p. 33, pp. 4 Same as Alternative A Action: Include sage-grouse habit  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Avoid sagebrush reductio  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action



Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In sage-grouse habitat, er  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Actively m Actively m Aggressive p. 26, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Control in Control co Action: No p. 32, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Emphasize Emphasize Action: No p. 32, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Reallocate Reallocate Action: No p. 32, pp. 4 Same as Alternative A Objective: Develop and implement  
Action: No Where the Where the Action: No p. 32, pp. 4 Same as Alternative A No action.  
Action: No Action: No Require be Action: No p. 39, pp. 4 Same as Alternative A

on Action: No Similar Action  
Action: No Action: No Eradicate c Eradicate c p. 39, pp. 5 Same as Alternative A No action.  
Action: No Action: No Monitor w Monitor w p. 39, pp. 6 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Design and implement fu

Action: No Reduce the Reduce the Reduce the p. 31, pp. 6 Same as Alternative A  
Action: No Prioritize p Prioritize p Emphasize p. 26, p. 1; Same as Alternative A Action: No similar action.  
Action: No Decrease v Decrease v Action: No p. 31, pp. 8 Same as Alternative A Action: No similar action.  
ation level objectives. Action: No similar action. (WEG)''

Action: No Develop a Develop a Action: No p. 32, pp. 1 Same as Alternative A  
Action: No Action: No Create and Create and p. 38, pp. 5 Same as Alternative A Action: No similar action. (WEG)''  
Action: No Action: No Prescribe c Prescribe c p. 38, pp. 1 Same as Alternative A  
e-grouse habitat, prioritize suppression of sage-grouse and threatened and enc Action: Same as Alternative B. (W  
Action: No Action: No Coordinate Action: No p. 38, pp. 1 Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Develop m Action: No p. 28, pp. 3 Same as Alternative A

on Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: Same as Alternative B.

Action: No Prioritize fi Action: No Action: No p. 3, pp. 2, Same as Alternative A  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Establish and strengthen  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Post fire recovery must in  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Livestock grazing should b  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Where burned sage-grouse  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No similar action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Upon expiration or termin  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Allow geophysical explor  
Action: No Oil and gas Oil and gas Action: No p. 34, pp. 3 Same as Alternative A 1. Action: Apply the following c  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Apply a s  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Conservation Measure: Same as A  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. (W  
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Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Sar Same a Priority Areas.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Prohibit new road constru  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Limit route construction t  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B usi  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: When reseeding closed rc  
Action: No Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.  
o language. Hard to demonstrate neutral and beneficial impacts. Incorporates : Action: Same as Alternative B.  
Action: No Prioritize t Prioritize t Same as Al p. 34, pp. 5 Same as Alternative A  
o language - no similar actions in region. Action: Seasonally prohibit campi  
Action: No Restrict ve Restrict ve Same as Al p. 34, pp. 6 Same as Alternative A  
o language recommend incorporation across region. No action.  
Action: No Designate Designate Action: No p. 35, pp. 1 Same as Alternative A  
action across region. Action: No Similar Action  
Action: No Re-route e Re-route e Action: No p. 35, pp. 2 Same as Alternative A  
Action: No Reduce act Reduce act Action: No p. 35, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Prioritize t Prioritize t Action: No p. 26, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action

Action: No Prioritize p Prioritize p Action: No p. 26, pp. 5 Same as Alternative A Action: Sar Action: Sar Action: Sar

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B. “ “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.

Action: No Conduct ra Conduct ra Action: No p. 36, pp. 2 Same as Alternative A Action: No similar action.

Action: No Maintain e Maintain e Action: No p. 36, pp. 3 Same as Alternative A Action: Manage for vegetation co

Action: No Adjust graz Adjust graz Action: No p. 36, pp. 4 Same as Alternative A Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: During drought periods, p

Action: No Implement Implement Action: No p. 36, pp. 6 Same as Alternative A Action: Same as Alternative B.

nd dropping - this can be covered under riparian objectives/actions Same as Alternative B.

Consider g Action: No Action: No Action: No p. 12, pp. 6 Same as Alternative A

nd dropping Action: Same as Alternative B.

Consider a Altering gr Enhance gr Enhance gr p. 12, pp. 7 Same as Alternative A

nder 384 Action: No similar action.

Complete 1 Prioritize a Prioritize a Action: No p. p. 13, pp. Same as Alternative A

nd making an overarching statement regarding the priority of SG habitat relati Action: Authorize no new water c

Utilize a va Action: No Action: No Action: No p. 14, pp. 2 Same as Alternative A

anguage Action: Analyze springs, seeps and

Include me Action: No Action: No Action: No p. 14, pp. 5 Same as Alternative A

Inform anc Action: No Action: No Action: No p. 13, pp. 4 Same as Alternative A

er restoration section Action: Ensure that vegetation tre

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Evaluate the role of existi

Use sage-g Action: No Action: No Action: No p. 13, pp. 2 Same as Alternative A

nd modified wording Action: Avoid all new structural r

o wording Action: Same as Alternative B. (W

Maintain fl Action: No Action: No Action: No p. 13, pp. 3 Same as Alternative A

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: To reduce outright sage-g

Action: No Treat and r Treat and r Action: No p. 48, pp. 8 Same as Alternative A Action: Same as Alternative B.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: In each planning process,

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Encourage partners to

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.” “

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Any vegetation treatment

Action: No Action: No Action: No Action: No Similar Act Same as Alternative A No action.

Action: No Avoid cons Avoid cons Action: No p. 48, pp. 2 Same as Alternative A Action: No Similar Action

Action: No Design nev Design nev Action: No p. 48, pp. 3 Same as Alternative A Action: No Similar Action

Action: No Install ram Install ram Action: No p. 48, pp. 4 Same as Alternative A Action: No Similar Action

Action: No Place and c Place and c Action: No p. 48, pp. 5 Same as Alternative A Action: No Similar Action

Action: No Avoid insta Avoid insta Action: No p. 48, pp. 6 Same as Alternative A Action: No Similar Action

Action: No Establish s Establish s Action: No p. 48, pp. 7 Same as Alternative A Action: No Similar Action

Action: No Initiate veg Initiating v Action: No p. 48, pp. 9 Same as Alternative A Action: No Similar Action

Action: No Apply adaç Apply adaç Action: No p. 46, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Implement Implement Action: No p. 47, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Modify gra Action: No p. 47, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Graze exot Graze exot Action: No p. 47, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Modify aut Modify aut Action: No p. 47, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Maintain rı Maintain rı Action: No p. 47, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Inform per Inform per Action: No p. 47, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Manage gr Manage gr Action: No p. 47, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Modify gra Same as Core Action: No p. 47, pp. 9 Same as Alternative A Action: No Similar Action  
Prioritize e Same as Core Areas.  
Action: No Place salt ç Place salt ç Action: No p. 47, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Reduce thç Reduce thç Action: No p. 39, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Mark fenceç Mark fenceç Action: No p. 37, pp. 1 Same as Alternative A Action: No Similar Action  
Action: No Remove ur Remove ur Remove ur p. 37, pp. 2 Same as Alternative A Action: No Similar Action  
Action: No Consider ir Consider ir Action: No p. 37, pp. 3 Same as Alternative A Action: No Similar Action  
Action: No Construct ı Construct ı Action: No p. 37, pp. 4 Same as Alternative A Action: No Similar Action  
Action: No Place new, Place new, Action: No p. 37, pp. 5 Same as Alternative A Action: No Similar Action  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Objective: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Action: No Similar Action  
on Action: Designate Areas of Critical  
Action: No Construct ı Construct ı Action: No p. 35, pp. 8 Same as Alternative A  
Action: No Return waı Return waı Action: No p. 35, pp. 9 Same as Alternative A No action.  
Action: No Minimize ç Minimize ç Minimize t p. 35, pp. 3 Same as Alternative A No action.  
Action: No Permit anc Permit anc Permit anc p. 35, pp. 5 Same as Alternative A No action.  
Action: No Minimize t Minimize t Action: No p. 35, pp. 6 Same as Alternative A Action: No Similar Action  
Action: No Develop ar Develop ar Develop ar p. 35, pp. 7 Same as Alternative A No action.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
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Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Action: No Action: No Action: No Similar Act Same as Alternative A Same as Alternative B.  
Action: No Evaluate ai Evaluate ai Action: No p. 44, pp. 7 Same as Alternative A Action: No Similar Action  
Action: No Limit surfa Limit surfa Action: No p. 44, pp. 8 Same as Alternative A Action: No Similar Action  
Action: No Apply no sı Apply no sı Action: No p. 44, pp. 9 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Limit activi Limit activi Action: No p. 44, pp. 10  
NTT Recommendation and Governor's BMP's have beer Same as Alternative A Same as Alternative B.  
Action: No Allow explı Allow explı Action: No p. 45, pp. 1 Same as Alternative A  
Recommendation used for Core, PPH and PGH. Language was not changed. (per La Same as Alternative B.  
Action: No Locate mai Locate mai Action: No p. 45, pp. 2 Same as Alternative A Same as Alternative B.





maintain and increase current sage-grouse abundance and distribution by conserving, enhancing or restoring

Designate Restoration sage-grouse habitat, based on its importance to sage-grouse and the likelihood of

effective.

effective.

effective.

effective.

effective.

sagebrush steppe to its ecological potential in occupied sage-grouse habitat.

sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.





cupied habitats. (WWP)

at areas shall be exclusion areas for new ROWs permits. Consider the following exceptions:" "Within de

EG)" "" "

EG)" "" "

EG)" "

thout exceptions for disposal to consolidate ownership that would be beneficial to sage-grouse.  
r connectivity of priority areas.

(EG)" "" "" "

ral proposals not associated with mineral activity unless the land management is consistent with sage-gr

development in priority sage-grouse habitat (Jones 2012). (WEG)

ment at least five miles from active sage-grouse leks. (WEG)

of restoration projects based on environmental variables that improve chances for project success in a  
at objectives parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State S

(EG)

(EG)

n/treatments to increase livestock or big game forage in priority habitat and include plans to restore hig

ensure that soil cover and native herbaceous plants are at their ESD potential to help protect against inva:

nt methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants. (WEG)

els treatments with an emphasis on protecting existing sagebrush ecosystems. “ “Do not reduce sagebr

“

“

(EG)” “

(EG)” “

(EG)

networks with seed growers to assure availability of native seed for ES&R projects. “ “

include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recc  
be excluded from burned areas until woody and herbaceous plants achieve sage-grouse habitat objectivi  
se habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) shou

(EG) “  
(EG) “

(EG) “

(EG) “  
(EG) “

ation of existing leases, do not accept nominations/expressions of interest for parcels within priority ha  
ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc

ation within priority sage-grouse habitat areas to obtain exploratory information for areas outside of anc  
conservation measures as Conditions of Approval at the project and well permitting stages, and through  
Alternative B. “ “

seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting a  
Alternative B. (WEG)

Alternative B.  
Alternative B. (WEG)  
Alternative B. (WEG)  
Alternative B. (WEG)

(EG) “  
(EG) “

action within 4 miles of active sage-grouse leks, and avoid new road construction in priority sage-grouse  
“ “

o realignments of existing designated routes if that realignment has a minimal impact on sage-grouse h  
ng a 4-mile buffer from leks to determine road route.

oads, primitive roads and trails, use appropriate native seed mixes and require consider the use of transp

ing and other non-motorized recreation within 4 miles of active sage-grouse leks. (WEG)

ne as Alternative B.

composition and structure consistent with ecological site potential and within the reference state to achieve  
prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their biological

developments for diversion from spring or seep sources only when within priority sage-grouse habitat with  
d associated water developments pipelines to determine if modifications are necessary to maintain the

treatments Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse  
seedlings that are currently composed of primarily introduced perennial grasses in and adjacent to priority

range developments in priority sage-grouse habitat unless independent peer-reviewed studies show that

(WEG) “

“ “

sage-grouse strikes and mortality, rRemove, modify or mark fences in high risk areas of moderate or high risk

“ “

identify grazing allotments where permanent retirement of grazing privileges would be potentially beneficial  
monitor effects of retiring grazing permits in sage-grouse habitat. (WEG)

management plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures

(WEG)

Environmental Concern (ACECs) (BLM) and Sagebrush Conservation Areas (SCAs) (USFS), respectively, :





ing the sagebrush ecosystem.

f successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005c), as degraded





esignated ROW corridors encumbered by existing ROW authorizations: new ROWs may be co-located on

ouse conservation measures. (For example,, in a proposed withdrawal for a military training range buffe

reas most likely to benefit sage-grouse (Meinke et al. 2009).” ““Prioritize restoration in seasonal habit:  
age Grouse Conservation plans and appropriate local information in habitat restoration projects objectiv

gh-quality habitat in areas with invasive species. (Audubon)

sive plants. In areas without ESDs, reference sites would be utilized to identify appropriate vegetation cc

ush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management c

covery. (WEG)

es. (WEG)

ld be closed to grazing until recovered. (WEG)

abitat. (WEG)

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

d adjacent to priority sage-grouse habitat areas. Only allow” “geophysical operations by helicopter-port:

i RMP implementation decisions and upon completion of the environmental record of review (43 CFR §

and brood-rearing season in all priority sage-grouse habitat during this period. This seasonal restriction s

habitat. (WEG)

abitat, eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any imj

planted sagebrush. (WEG)” “

ave sage-grouse habitat objectives.

ll needs for food and cover, as well as drought effects on ungrazed reference areas. Since there is a lag in

ould benefit from the development. This includes developing new water sources for livestock as part of  
continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modification

ouse. Only allow treatments that conserve, enhance, or restore sage-grouse habitat are demonstrated t  
riority sage-grouse habitat to determine if they should be restored to sagebrush or habitat of higher qua

: the range improvement structure benefits sage-grouse. Design any new structural range improvement:

of sage-grouse strikes within priority sage-grouse habitat based on proximity to lek, lek size, and topogr

eficial to sage-grouse. (WEG)

s, and include long-term monitoring where treated areas are monitored for at least three years before g

as sagebrush reserves to conserve sage-grouse and other sagebrush-dependent species. (WEG).







or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if



ly if the entire footprint of the proposed project (including construction and staging), can be completed

er area, manage the buffer area with sage-grouse conservation measures that have been demonstrated

ats that are thought to be limiting sage-grouse distribution and/or abundance and where factors causing  
res. Make meeting these objectives within priority sage-grouse habitat the highest restoration priority. (

ommunities and soil cover.

objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-ξ

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r

able drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that r  
3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, amon;

hall also to apply to related activities that are disruptive to sage-grouse, including vehicle traffic and oth

pacts with methods that have been demonstrated to be effective to offset the loss of sage-grouse habit;

1 vegetation recovery following drought (Thurow and Taylor 1999; Cagney et al. 2010), ensure that post

an AMP/conservation plan to improve sage-grouse habitat. (WEG)

s where necessary, including dismantling water developments considering impacts to other water uses 1

o benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat object  
lity for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in c

s and location of supplements (salt or protein blocks) to conserve, enhance, or restore sage-grouse habi

aphy (Christiansen 2009; Stevens 2011). (WEG)

grazing returns. Continue monitoring for” “five years after livestock are returned to the area, and compa









restored to its potential natural community.



within the existing disturbance associated with the authorized ROWs.” “Subject to valid, existing rights:

to be effective.) (WEG)

3 degradation have already been addressed (e.g., changes in livestock management). (WEG)” “  
WEG)

grouse habitat and conserve habitat quality for the species. “Closely evaluate the benefits of the fuel t

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br

may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in br  
g other things:" "Whether the conservation measure is "reasonable" (43 CFR § 3101.1-2) with the valid

er human presence. (WEG)

at. (WEG)

-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-gro

when such considerations are neutral or beneficial to sage-grouse. (WEG)

ives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve saq  
onserving or enhancing the rest of the priority sage-grouse habitats, then no restoration would be nece:

tat through an improved grazing management system relative to sage-grouse objectives. Structural rang

ire to treated, ungrazed exclosures, as well as untreated areas. (WEG)













where new ROWs associated with valid existing rights are required, co-locate new ROWs within existing

break against the additional loss of sagebrush cover in the EA process. “ “Apply appropriate seasonal res

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)” ““

eeding, nesting, brood rearing and winter habitats during their season of use by sage-grouse. (WEG)  
existing rights; and” “Whether the action is in conformance with the approved RMP. (WEG)

use habitat areas based on sage-grouse habitat objectives. (WEG)

sage-grouse habitat). (WEG)

ssary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing

sage improvements developments, in this context, include but are not limited to cattleguards, fences, excl













3 ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as describe

trictions for implementing fuels management treatments according to the type of seasonal habitats pre

“SUB-ALTERNATIVE:” “Action: No new geophysical exploration permits will be issued.” “ “ “



system during the land health assessments (Davies et al. 2011). (WEG)” “

osures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including movea











d above, to access valid existing rights that are not yet developed. If valid existing rights cannot be acces

sent in a priority area.” “Allow no fuels treatments in known winter range unless the treatments are de:





ible tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developr











used via existing roads, then build any new road constructed to the absolute minimum standard necessa



signed to strategically reduce wildfire risk around or in the winter range and will maintain winter range f



ments. Potential for invasive species establishment or increase following construction must be considered.













ry, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exce

habitat quality. “Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyom



ed in the project planning process and monitored and treated post-construction. Consider the comparat













reduces 3% for that area, then make additional effective mitigation

ing big sagebrush or other xeric sagebrush species; Conn



ive cost of changing grazing management instead of constructing additi

# Idaho and Southwestern Montana Greater Sage-Grouse

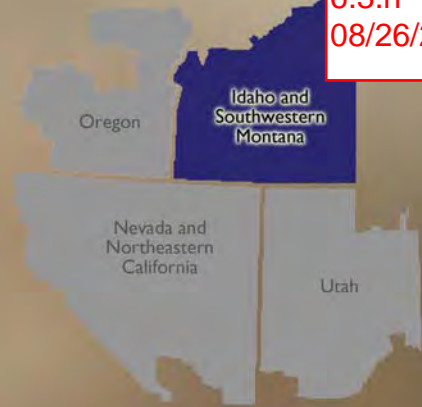
Proposed  
Land Use Plan Amendment and  
Final Environmental Impact Statement

Volume I

US Department of the Interior  
Bureau of Land Management

US Department of Agriculture  
Forest Service

June 2015



Forest Service



The Bureau of Land Management's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

Cover Photo: Steve Ting

**BLM-IDAHO****Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)****January 19, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:****Development in Highly Important Landscapes****Direction:**

The BLM will designate Sagebrush Focal Areas (SFAs) consisting of the BLM-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. The ADPP will reflect the following management guidance for the SFAs:

- 1) The ADPP will recommend administrative withdrawals from the 1872 Mining Law (locatable minerals) in SFAs, subject to valid existing rights.
- 2) These areas will be NSO, without exceptions, for oil and gas development.
- 3) The BLM will prioritize management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases.



**Issue:** **Mitigation**  
**Direction:** The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and assure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:** **Mapping**  
**Direction:** Not Applicable

**Issue:** **Disturbance**  
**Direction:** Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance.

**Issue:** **Vegetation Objectives**  
**Direction:** The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment II for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP.

**Issue:**

**Livestock Grazing**

**Direction:**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*
- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

**Issue:**

**Mineral Materials (Salable Minerals)**

**Direction:**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

**Issue:** **High-voltage Transmission and Major Pipeline ROWs and Corridors**

**Direction:**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservations measures, avoidance criteria, and RDFs outlined in this document [list the criteria/RDFs].”*

**Issue:**

**Direction:**

**Coal Suitability**

Sub-regions will include the following management action:

*“At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).”*

**Issue:**

**Direction:**

**Fluid Mineral Resources (Including Geothermal)**

All ADPPs will include the conservation objective for leasing and development outside of GRSG habitat:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable*

*stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed oil and gas or geothermal project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce oil and gas or geothermal resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:**  
**Direction:**

**No Surface Occupancy (NSO) Exception Language**

Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new oil and gas leases at the time of leasing only and may not be applied to existing oil and gas leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*No waivers or modifications to an oil and gas lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to an oil and gas lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal oil and gas lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly."*

**Issue:**

**Adaptive Management**

**Direction:**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

**Issue:**

**Application of Lek Buffers**

**Direction:**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment X) through this drop-in Chapter 2 language:

*"In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review ([Open File Report 2014-1239](#)) in accordance with Attachment X."*

Buffer Attachment

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* (Open File Report 2014-1239). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

- linear features (roads) within 3.1 miles of leks
- infrastructure related to energy development within 3.1 miles of leks.
- tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
- low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
- surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
- noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as Conditions of Approval to fully address the impacts to leks as identified in the NEPA analysis.

- Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
- If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
  - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater level of protection to GRS and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
  - Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).
- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as Conditions of Approval to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<b>Idaho/SW MT*</b>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open



## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and assure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and assure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and assure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).



## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment III

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

**BLM-IDAHO**

**Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)**

January ~~1923~~, 2015

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM’s history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM’s mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:**

**Development in Highly Important Landscapes**

**Direction:**

The BLM will designate Sagebrush Focal Areas (SFAs) consisting of the BLM-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*.

In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Alternative only): “Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). All BLM-administered lands within the SFA boundary would be:

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.



3) Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."

~~The ADPP will reflect the following management guidance for the SFAs:~~

~~The ADPP will recommend administrative withdrawals from the 1872 Mining Law (locatable minerals) in SFAs, subject to valid existing rights.~~

~~These areas will be NSO, without exceptions, for oil and gas development.~~

~~The BLM will prioritize management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases.~~

**Issue:**

**Mitigation**

**Direction:**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*"In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and assure-ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions."*

**Issue:**

**Mapping**

**Direction:**

Not Applicable

**Issue:**

**Disturbance**

**Direction:**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance.

Planning units will include the following land use plan actions within their ADPPs that states:

a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSB Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable

- laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.
- b. If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in*

*Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

***Issue:***

***Direction:***

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

***Issue:***

***Direction:***

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservation measures; ~~avoidance criteria, and RDFs outlined in this document [list the criteria/RDFs].~~”*

**Issue:** Coal Suitability

**Direction:** ~~Sub-regions will include the following management action:~~  
~~“At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is “unsuitable” for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).”~~Not Applicable in Idaho

**Issue:** Fluid Mineral Resources (Including Geothermal)

**Direction:** All ADPPs will include the following as a conservation objective~~for leasing and development outside of GRSG habitat:~~

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed ~~oil and gas or geothermal~~fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project*

*proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce ~~oil and gas or geothermal~~fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:**

**Direction:**

**No Surface Occupancy (NSO) Exception Language**

Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral ~~oil and gas~~ leases at the time of leasing only and may not be applied to existing ~~oil and gas~~fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*No waivers or modifications to ~~an oil and gas~~fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to ~~an oil and gas~~fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal ~~oil and gas~~fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State*

*Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly."*

**Issue:**

**Adaptive Management**

**Direction:**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

**Issue:**

**Application of Lek Buffers**

**Direction:**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment ~~XIV~~) through this drop-in Chapter 2 language:

*"In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with *Attachment Appendix X*."*

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<b>Idaho/SW MT*</b>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ~~ensure~~ ~~assure~~ mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation



*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ~~assure~~ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ~~assure-ensure~~ mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*



*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

Disturbance Calculations for the BSUs and for the Project Analysis Areas:

- For the BSUs: **% Degradation Disturbance = (combined acres of the 12 degradation threats\*) ÷ (acres of all lands within the PHMAs in a BSU) x 100.**
- For the Project Analysis Area: **% Degradation Disturbance = (combined acres of the 12 degradation threats<sup>1</sup> plus the 7 site scale threats<sup>2</sup>) ÷ (acres of all lands within the project analysis area in the PHMA) x 100.**

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2

Project analysis area method for permitting surface disturbance activities:

- Draw the project analysis area polygon which consists of a 4 mile buffer around the proposed project footprint plus areas intersected by any 4 mile buffers from nearby leks or mapped seasonal habitats.

- Map disturbances or use locally available data. Use of NAIP imagery is recommended.
- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj./Loc. Hab. Area <sup>6</sup>
	Management:	Internal BLM & FS estimates	3% <sup>3</sup> Cap, Adapt. Mgmt <sup>4</sup>	3% <sup>3</sup> Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>2</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>2</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pads and Mines<sup>1</sup></u> Square Mile		<u>Well Pads and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs

**ACRONYMS**

PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit  
 EVT = Existing Vegetation Type              BpS = Areas of Biotic Potential

<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.  
<sup>2</sup> Westwide data will be used only if state or local data are not available.  
<sup>3</sup> A 5% disturbance cap will be allowed in Wyoming.  
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.  
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management  
<sup>6</sup> The analysis area will be based on a 4-mile project area, 4-mile buffers around leks/ lek complexes, or other seasonal habitat, and clipped to PHMA (DDCT methodology).  
<sup>7</sup> See Table 2

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.



When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IVH

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Buffer Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* (Open File Report 2014-1239). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures, such as Conditions of Approval, to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the

applicable distance identified above offers the same or a greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as Conditions of Approval to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.



## ***BLM-IDAHO***

### **Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)**

**January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

***Issue:***

**Development in Highly Important Landscapes**

***Direction:***

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.
  - Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

**Issue:**

**Direction:**

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

**Issue:**

**Direction:**

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high*

*voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project's NEPA review process, which will include analysis of the following conservations measures.”*

**Issue:** **Coal Suitability**  
**Direction:** Not Applicable in Idaho

**Issue:** **Fluid Mineral Resources (Including Geothermal)**  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** **No Surface Occupancy (NSO) Exception Language**  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

**Issue:**

**Adaptive Management**

**Direction:**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also

investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

**Issue:**

**Direction:**

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*



Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<b>Idaho/SW MT*</b>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)



**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*

*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

Disturbance Calculations for Project Analysis Areas:

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the Project Area} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area method for permitting surface disturbance activities:

- Draw the project analysis area polygon which consists of a 4 mile buffer around the proposed project footprint plus all of the area within a 4 mile buffer from nearby leks if those lek buffers intersect the project buffer. In areas with mapped or modeled nesting habitats, the areas to be included in the project analysis area are the mapped/ modeled habitat within 4 miles beyond the project 4 mile buffer.
- Map disturbances or use locally available data. Use of NAIP imagery is recommended.
- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.



		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>6</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj./Loc. Hab. Area <sup>6</sup>
	Management:	Internal BLM & FS estimates	3% <sup>3</sup> Cap, Adapt. Mgmt <sup>4</sup>	3% <sup>3</sup> Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pads and Mines<sup>1</sup></u> Square Mile		<u>Well Pads and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs

**ACRONYMS**

PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit  
 EVT = Existing Vegetation Type              BpS = Areas of Biotic Potential

<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.  
<sup>2</sup> Westwide data will be used only if state or local data are not available.  
<sup>3</sup> A 5% disturbance cap will be allowed in Wyoming.  
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.  
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management  
<sup>6</sup> The analysis area will be based on a 4-mile project area, 4-mile buffers around leks/lek complexes, or other seasonal habitat, and clipped to sage-grouse habitat and PHMA (DDCT methodology).  
<sup>7</sup> See Table 2

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.



Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

**BLM-IDAHO****Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)****January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:****Development in Highly Important Landscapes****Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.
  - Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

**Issue:**

**Direction:**

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

**Issue:**

**Direction:**

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high*

*voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project's NEPA review process, which will include analysis of the following conservations measures.”*

**Issue:** **Coal Suitability**  
**Direction:** Not Applicable in Idaho

**Issue:** **Fluid Mineral Resources (Including Geothermal)**  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** **No Surface Occupancy (NSO) Exception Language**  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:



*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

***Issue:***

***Direction:***

**Adaptive Management**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also

investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

**Issue:**

**Direction:**

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<i>Idaho/SW MT*</i>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion Imp – Avoid
<b>Wind – General</b>	Open Screening process
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.



- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*

*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300



**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>3</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7</u> PHMAs in Proj. <sup>2</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT <sup>1</sup>	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pds and Mines</u> <sup>1</sup> Square Mile		<u>Well Pds and Mines</u> <sup>1</sup> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs
<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit				
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential				
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.				
<sup>2</sup> Westwide data will be used only if state or local data are not available.				
<sup>3</sup> This footnote was removed from the table. January 2015.				
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.				
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management				
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).				
<sup>7</sup> See Table 2				

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).



help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

**BLM-IDAHO****Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)****January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:****Development in Highly Important Landscapes****Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Forest Service Lost River Mountains North (~5,000 acres) Area and South Area (~6,000 acres)– these areas will be treated as PHMA, with the SFA management actions for this FS-land.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.

- Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSB Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid*

*existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas,*



*including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

***Issue:***

***Direction:***

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

***Issue:***

***Direction:***

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that

are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservations measures.”*

**Issue:** Coal Suitability  
**Direction:** Not Applicable in Idaho

**Issue:** Fluid Mineral Resources (Including Geothermal)  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** No Surface Occupancy (NSO) Exception Language  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral

leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

**Issue:**

**Direction:**

**Adaptive Management**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

***Issue:***

***Direction:***

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review ([Open File Report 2014-1239](#)) in accordance with Appendix X.”*

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<i>Idaho/SW MT*</i>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[Red box] = Instructions

[Yellow box] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and



compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*

*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\begin{aligned} & \text{Disturbance Percentage} \\ & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100 \end{aligned}$$



Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>3</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj. <sup>2</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT <sup>1</sup>	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pds and Mines<sup>1</sup></u> Square Mile		<u>Well Pds and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs
<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit				
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential				
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.				
<sup>2</sup> Westwide data will be used only if state or local data are not available.				
<sup>3</sup> This footnote was removed from the table. January 2015.				
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.				
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management				
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).				
<sup>7</sup> See Table 2				

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.



## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

### **Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

Draft Internal Working Document- Not For Distribution -Pre-Decisional Deliberative Document

**BLM-IDAHO**

**Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)**

**January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:**

**Development in Highly Important Landscapes**

**Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Forest Service Lost River Mountains North (~5,000 acres) Area and South Area (~6,000 acres)– these areas will be treated as PHMA, with the SFA management actions for this FS-land.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.



- Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**  
**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**  
**Direction:**

**Mapping**

Not Applicable

**Issue:**  
**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSB Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid*

- existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
- b. If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas,*

*including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Alloments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

**Issue:**

**Mineral Materials (Salable Minerals)**

**Direction:**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

**Issue:**

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

**Direction:**

- 1) Apply the recommended NPT allocation guidance for PHMA of avoidance.
- 2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.
- 3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that

are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and ~~General Important Habitat~~ Management Areas (~~GHMAs~~IHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservation measures.”*

**Commented [jmbeck1]:** This has already been fixed.

**Issue:** Coal Suitability  
**Direction:** Not Applicable in Idaho

**Issue:** Fluid Mineral Resources (Including Geothermal)  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and ~~GHMA~~IHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and ~~GHMA~~IHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees’ rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Commented [jmbeck2]:** The original language was not consistent with Idaho’s 3-tiered habitat mapping and contradicts the allocation table.

**Issue:** No Surface Occupancy (NSO) Exception Language

**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

**Issue:** **Adaptive Management**

**Direction:** Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

**Issue:**  
**Direction:**

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in ~~both~~ GHMA, IHMA, and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*

**Commented [jmbeck3]:** The original language was not consistent with Idaho’s 3-tiered habitat mapping.

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<i>Idaho/SW MT*</i>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

Attachment I

**GREATER SAGE-GROUSE RMPA/FEIS  
TEMPLATE LANGUAGE FOR ADDRESSING  
MITIGATION**

[Green box] = Instructions  
[Yellow box] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

**Chapter 1 - Introduction**

[Nothing new to add to EIS]

**Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]**

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

**Mitigation**



*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

#### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

#### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

##### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

#### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

#### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

#### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

#### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*



*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

**Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\begin{aligned} & \text{Disturbance Percentage} \\ & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100 \end{aligned}$$

Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{12}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

1. Coalbed Methane Ponds
2. Meteorological Towers
3. Nuclear Energy Facilities
4. Airport Facilities and Infrastructure
5. Military Range Facilities & Infrastructure
6. Hydroelectric Plants
7. Recreation Areas Facilities and Infrastructure

**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj. <sup>5</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices	
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	n/a
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices		
Energy and Mining	Unit:	WAFWA Populations		Project Area & Seasonal Hhb.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pds and Mines<sup>1</sup></u> Square Mile	n/a	<u>Well Pds and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
Who:	BLM NOC		BLM NOC or SOs or POs	
<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit				
EVT = Existing Vegetation Type                  BpS = Areas of Biotic Potential				
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.				
<sup>2</sup> Westwide data will be used only if state or local data are not available.				
<sup>3</sup> This footnote was removed from the table, January 2015.				
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.				
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data analysis should be used for Adaptive Management.				
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any jets within the project boundary in PHMA (Idaho methodology).				
<sup>7</sup> See Table 2				

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:  
*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.



When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height		
	Arid sites		
	Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover		
Arid sites			
Mesic sites			
Perennial grass and forb height			
Perennial forb canopy cover			
Arid sites			
Mesic sites			
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112-74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSR RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSR habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSR habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSR Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

### **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

### **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*  
Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239)*. The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:
  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*  
The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.
  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

- level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or
- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.



**BLM-IDAHO****Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)****January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:****Development in Highly Important Landscapes****Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Forest Service Lost River Mountains North (~5,000 acres) Area and South Area (~6,000 acres)– these areas will be treated as PHMA, with the SFA management actions for this FS-land.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.

- Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSB Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid*

*existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas,*

*including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

***Issue:***

***Direction:***

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

***Issue:***

***Direction:***

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that

are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and Important Habitat Management Areas (IHMAAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservations measures.”*

**Issue:** Coal Suitability  
**Direction:** Not Applicable in Idaho

**Issue:** Fluid Mineral Resources (Including Geothermal)  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA, IHMA, and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA, IHMA, and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** No Surface Occupancy (NSO) Exception Language  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral

leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

**Issue:**

**Direction:**

**Adaptive Management**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

***Issue:***

***Direction:***

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA, IHMA, and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*



Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<b>Idaho/SW MT*</b>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and

compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)



**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*

*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\begin{aligned} & \text{Disturbance Percentage} \\ & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100 \end{aligned}$$

Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.



		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>3</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7</u> PHMAs in Proj. <sup>2</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAFWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT <sup>1</sup>	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAFWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pds and Mines</u> <sup>1</sup> Square Mile		<u>Well Pds and Mines</u> <sup>1</sup> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs
<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit				
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential				
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.				
<sup>2</sup> Westwide data will be used only if state or local data are not available.				
<sup>3</sup> This footnote was removed from the table. January 2015.				
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.				
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management				
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).				
<sup>7</sup> See Table 2				

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112–74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.



Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

Issue	Applies To	Where to incorporate	Language
Land Retention	All ADPPs	Section 2.6.2, Lands and Realty – Land Tenure	<p>Include drop-in language:</p> <p><i>"Lands classified as priority, important, and general habitat for Greater Sage-Grouse will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation gain to the Greater Sage-Grouse or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse."</i></p>
Prescribed Fire	All ADPPs	Section 2.6.2, Wildland Fire Management – Pre-Suppression	<p>Include drop-in language:</p> <p><i>"If prescribed fire is used in Greater Sage-Grouse habitat, the NEPA analysis for the Burn Plan will address:</i></p> <ul style="list-style-type: none"> <li><i>• why alternative techniques were not selected as a viable options;</i></li> <li><i>• how Greater Sage-Grouse goals and objectives would be met by its use;</i></li> <li><i>• how the COT Report objectives would be addressed and met;</i></li> <li><i>• a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized.</i></li> </ul> <p><i>a) Allow prescribed fire as a vegetation or fuels treatment in Wyoming big sagebrush sites or other xeric sagebrush species sites, or in areas with a potential for post-fire exotic annual dominance only after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that would protect Greater Sage-Grouse habitat in PHMAs (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities).</i></p> <p><i>b) Allow prescribed fire in known winter range only after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat would need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality."</i></p>
Conifer Removal	All ADPPs	Section 2.6.2, Vegetation – Conifer Encroachment	<p>Include drop-in language:</p> <p><u>For Great Basin</u>  <i>"Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDDT and the FIAT report (Chambers et. al., 2014) will help refine the location for specific areas to be treated."</i></p> <p><u>For Rocky Mountain</u>  <i>"Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific</i></p>

			<p><i>analysis and principles like those included in the FIAT report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.”</i></p>
TTM Temp Closures	All ADPPs	Section 2.6.2, Comprehensive Trails and Travel Management	<p>Include drop-in language:</p> <p><i>“In PHMA, IHMA, and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).</i></p> <p><i>Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.”</i></p>
Recreation Facilities	All ADPPs	Section 2.6.2, Recreation and Visitor Services	<p>Include drop-in language:</p> <p><i>“In PHMA and IHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development would have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.”</i></p>
WH&B	Utah, Oregon, Nevada, Idaho ADPPs	Section 2.6.2, Wild Horses and Burros	<p>Include drop-in language (Oregon, Nevada, Idaho will include language highlighted in yellow prioritizing WHB management actions in SFAs) :</p> <p><u><i>“Management Action 1:</i></u> <i>Manage herd management areas (HMAs) in GRSG habitat within established AML ranges to achieve and maintain GRSG habitat objectives (Table 2-X).</i></p> <p><u><i>Management Action 2:</i></u> <i>Complete rangeland health assessments for HMAs containing GRSG habitat using an interdisciplinary team of specialists (e.g. range, wildlife, and riparian). The priorities for conducting assessments are:</i></p> <ol style="list-style-type: none"> <li><i>1. HMAs containing SFA;</i></li> <li><i>2. HMAs containing PHMA;</i></li> <li><i>3. HMAS containing IHMA</i></li> <li><i>4. HMAs containing only GHMA;</i></li> <li><i>5. HMAs containing sagebrush habitat outside of PHMA, IHMA. and GHMA mapped habitat;</i></li> </ol>

			<p>6. <i>HMA</i>s without <i>GRSG</i> habitat.</p> <p><u>Management Action 3:</u> <i>Prioritize gathers and population growth suppression techniques in HMA</i>s in <i>GRSG</i> habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Place higher priority on Herd Areas not allocated as Herd Management Areas and occupied by wild horses and burros in <i>SFA</i>s followed by <i>PHMA</i>, as these areas are to be managed for zero wild horses and burros.</p> <p><u>Management Action 4:</u> In <i>SFA</i>s and <i>PHMA</i> outside of <i>SFA</i>, assess and adjust <i>AML</i>s through the <i>NEPA</i> process within <i>HMA</i>s when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current <i>AML</i> is not being exceeded .</p> <p><u>Management Action 5:</u> In <i>SFA</i>s and <i>PHMA</i> outside of <i>SFA</i>, monitor the effects of <i>WHB</i> use in relation to <i>GRSG</i> seasonal habitat objectives on an annual basis to help determine future management actions.</p> <p><u>Management Action 6:</u> Develop or amend herd management area plans (<i>HMAP</i>s) to incorporate <i>GRSG</i> habitat objectives and management considerations for all <i>HMA</i>s within <i>GRSG</i> habitat, with emphasis placed on <i>SFA</i>s and other <i>PHMA</i>s.</p> <p><u>Management Action 7:</u> Consider removals or exclusion of <i>WHB</i> during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting <i>GRSG</i> habitat objectives where <i>HMA</i>s overlap with <i>GRSG</i> habitat.</p> <p><u>Management Action 8:</u> When conducting <i>NEPA</i> analysis for wild horse/burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect effects to <i>GRSG</i> populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.</p> <p><u>Management Action 9:</u> Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g., population growth suppression, inventory techniques, and telemetry) for implementing the <i>WHB</i> program.”</p>
Split Estate	All <i>ADPP</i> s	Section 2.6.2, Fluid Minerals	<p>Include drop-in language:</p> <p>“Where the federal government owns the mineral estate in <i>PHMA</i>s, <i>IHMA</i>s, and <i>GHMA</i>s, and the surface is in non-federal ownership, apply the same stipulations, <i>COA</i>s, and/or conservation measures and <i>RDF</i>s applied if the mineral estate is developed on <i>BLM</i>-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.”</p> <p>“Where the federal government owns the surface and the mineral estate is in non-federal ownership in <i>PHMA</i>, <i>IHMA</i>, and <i>GHMA</i>, apply appropriate surface use <i>COA</i>s, stipulations, and mineral <i>RDF</i>s through <i>ROW</i> grants or</p>

			<i>other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.”</i>
Technical/ Economically Feasible	All ADPPs	Glossary	<p>Include drop-in language:</p> <p><i>“Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the BLM’s sole responsibility to determine what actions are technically and economically feasible. The BLM will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant’s costs and profit.”</i> (Modified from the CEQ’s 40 Most Asked Questions and BLM NEPA Handbook, Section 6.6.3)</p>
RDFs	All ADPPs	Appendix, Glossary	<p>Insert as introductory text in the RDF Appendix, and as an entry in the glossary under “Required Design Feature”</p> <p><i>Required Design Features (RDFs) are required for certain activities in all GRSG habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:</i></p> <ul style="list-style-type: none"> <li>• <i>A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g. due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;</i></li> <li>• <i>An alternative RDF is determined to provide equal or better protection for GRSG or its habitat;</i></li> <li>• <i>A specific RDF will provide no additional protection to GRSG or its habitat.</i></li> </ul>
PACs/COT	All ADPPs	Chapter 1 (exact location TBD, will vary for each ADPP)	<p>Include drop-in language:</p> <p><b><i>Greater Sage-grouse Conservation Objectives: Priority Areas for Conservation and how they correlate with Priority and General Habitat Management Areas</i></b></p> <p><i>In 2012, the Director of the USFWS asked the Conservation Objectives Team (COT), consisting of state and USFWS representatives, to produce recommendations regarding the degree to which the threats need to be reduced or ameliorated to conserve GRSG so that it would no longer be in danger of extinction or likely to become in danger of extinction in the foreseeable future. The COT Report (USFWS 2013a) provides objectives based upon the best scientific and commercial data available at the time of its release. The BLM/FS planning decisions analyzed in the LUP/EISs are intended to ameliorate threats identified in the COT report and to reverse the trends in habitat condition. The COT Report can be viewed online at the following address:</i></p> <p><a href="http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-">http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-</a></p>

			<p><a href="#">Letter.pdf</a></p> <p><i>The highest level objective in the COT Report is identified as meeting the objectives of WAFWA’s 2006 GRSG Comprehensive Strategy of “reversing negative population trends and achieving a neutral or positive population trend.”</i></p> <p><i>The COT Report provides a WAFWA Management Zone and Population Risk Assessment. The report identifies localized threats from sagebrush elimination, fire, conifer encroachment, weed and annual grass invasion, mining, free-roaming wild horses and burros, urbanization, and widespread threats from energy development, infrastructure, grazing, and recreation (USFWS 2013a, p. 18).</i></p> <p><i>Key areas across the landscape that are considered “necessary to maintain redundant, representative, and resilient populations” are identified within the COT Report. The USFWS in concert with the respective state wildlife management agencies identified these key areas as Priority Areas for Conservation (PACs).</i></p> <p><i>Within the [insert name of planning area here], the PACs consist of a total _____ acres. Under the Proposed Plan, the PACs are comprised of _____ acres of PHMA managed by the BLM/FS, _____ acres of GHMA managed by the BLM/FS, and _____ acres of non-habitat managed by the BLM/FS [adapt to each particular ADPP, such as include IHMA in Idaho and “other mapped habitat” in Nevada].</i></p>
SFA	All ADPPs that have SFA	Section 1.1.1 (for amendments), will vary for revisions	<p>Include drop-in language:</p> <p><i>“On October 27, 2014, the FWS provided the BLM/FS a memorandum titled “Greater Sage-Grouse: Additional Recommendations to Refine Land Use Allocations in Highly Important Landscapes”. The memorandum and associated maps provided by the FWS identify areas that represent recognized “strongholds” for GRSG that have been noted and referenced by the conservation community as having the highest densities of GRSG and other criteria important for the persistence of the species. These areas have been incorporated into the Proposed Plan as Sagebrush Focal Areas (SFA) (Map X), and will be managed as PHMA with the following additional management:</i></p> <ol style="list-style-type: none"> <li><i>1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.</i></li> </ol> <p>[Note: item #1 will need to be adjusted for WY to say: “Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights, the lands show in Map Y (x acres)]</p> <ol style="list-style-type: none"> <li><i>2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.</i></li> <li><i>3) Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions).”</i></li> </ol> <p>The SOL will work with the BLM Subregional Teams to draft language that address specifically how non-habitat within SFAs was handled in ADPPs. Idaho, Nevada, and Utah ADPPs will likely need more specific language.</p>
		Glossary	<p>Include drop-in definition for “Sagebrush Focal Area”:</p> <p><i>“Areas identified by the FWS that that represent recognized “strongholds” for GRSG that have been noted and</i></p>

			<i>referenced by the conservation community as having the highest densities of GRSG and other criteria important for the persistence of GRSG.”</i>
All Allocations	All ADPPs	Chap 1, Planning Criteria Section	Include drop-in language as a separate planning criterion:  <i>“Where more restrictive land use allocations or decisions are made in existing RMPs, those more restrictive land use allocations or decisions will remain in effect and will not be amended by this LUPA.”</i>
		Chap 2, Management Common to All Alternatives	Include drop-in language as a management action common to all alternatives:  <i>“Where more restrictive land use allocations or decisions are made in existing RMPs, those more restrictive land use allocations or decisions will remain in effect and will not be amended by this LUPA.”</i>
Buffers	All ADPPs except for those in WY	Section 1.1.1 (for amendments), will vary for revisions	Include drop-in language:  <i>“On November 21, 2014 the USGS published “Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review” (USGS 2014). The USGS review provided a compilation and summary of published scientific studies that evaluate the influence of anthropogenic activities and infrastructure on GRSG populations. The BLM has reviewed this information and examined how lek buffer-distances were addressed through land use allocations and other management actions in the Draft [Insert Plan Name]. Based on this review, in undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third party actions, the he BLM will apply the lek buffer-distances in the USGS Report “Conservation Buffer Distance Estimates for Greater Sage Grouse-A Review (Open File Report 2014-1239)” in both GHMA and PHMA as detailed in [Appendix X].” .</i>
Mitigation Framework	All ADPPs	Mitigation Appendix	There was a typo on page 1 of the Mitigation Framework that was distributed on January 30 <sup>th</sup> . At the bottom of the page, the following sentence should be corrected to read:  <i>This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate <u>proactive</u> <del>protective</del> conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.</i>  This corrected sentence accurately quotes BLM Manual 6840.
Livestock Grazing	All ADPPs	Section 2.6.2, Livestock Grazing	There was an error in the Livestock Grazing issue direction distributed on January 30 <sup>th</sup> . Under the "Livestock Grazing" issue, the "and/or" needs to be replaced with "and". The revised second bullet point drop-in now reads:  <i>"The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table <del>and/or</del> Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA."</i>
Introduction	All ADPPs	Section 2.6.1 (for	<b>PENDING:</b> Consistent language for Chap 2.6.1 that states why the PRMPs changed from what was in the DRMP



Draft internal document – pre decisional – do not disclose

of Alternatives		amendments), will vary for revisions	pref. alternative, and generally explain BLM's approach. This will be distributed on 2/11.
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Clarification in the Mitigation Plan and the overall glossary:

“Actions which result in habitat loss and degradation” include those identified as threats which contribute to Greater Sage-Grouse disturbance as identified by the U.S. Fish and Wildlife Service in its 2010 listing decision (75 FR 13910) and shown in Table 2 in the attached Monitoring Framework (Appendix X).

**Table 2.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

<b>USFWS Listing Decision Threat</b>	<b>Sagebrush Availability</b>	<b>Habitat Degradation</b>	<b>Energy and Mining Density</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **BLM-MONTANA AND DAKOTAS**

### **Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plans (ADPPs)**

**January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:**

**Development in Highly Important Landscapes**

**Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

The ADPP will also reiterate the SFA decisions in the locatable minerals, fluid minerals, and livestock grazing sections of Chapter 2.

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include GHMA in SFAs*—While GHMA may be within the SFA boundaries, GHMA (surface and subsurface) will continue to be managed as GHMA and not be included in SFA management.
- *Do Not Include the following in SFA Management:*
  - Burnt Lodge and Seven Blackfoot WSA (including federal mineral estate underlying private surface within the boundaries of the WSAs) - The current management is generally protective of GRSG in the WSAs. These will continue to be managed so as not to impair their suitability for preservation as wilderness.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status.
  - 640 acres between the Burnt Lodge WSA and CMR Wildlife Refuge –This area should be managed to the most restrictive management analyzed in the Draft Land Use Plan/DEIS.
- *Do Not Include Areas outside of the Planning Areas* – SFA will not apply to Upper Missouri River Breaks National Monument as it is outside of the ADPP planning areas.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private/state lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate identified as PHMA in the DEIS should be treated as PHMA with SFA management actions.

- Under other Federal lands: subsurface estate should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA-management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs regarding SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The MT/DK ADPPs will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

BLM-MT will use a 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale, until the state strategy, similar to WY’s Core Strategy of 5% for all lands and all disturbances, is fully implemented. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. See Attachment II for appropriate scales and methodology for calculating disturbance and recommended drop-in language. Planning units will include the following land use plan actions within their ADPPs that states:

- a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid*

*existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The MT/DK ADPPs will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the MT and DK ADPPs.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health*

*Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment IV provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

**Issue:**

**Direction:**

**Mineral Materials (Salable Minerals)**

As directed in the NPT guidance, all Priority Habitat Management Areas will be closed to new mineral materials development.

The following management action will be applied to all ADPPs:

*“PHMAs are closed to new mineral material sales. However, these areas remain “open” to free use permits and the expansion of existing active pits, only if the following criteria are met:*

- *the activity is within the Biologically Significant Unit (BSU) and project area disturbance cap;*
- *the activity is subject to the provisions set forth in the mitigation framework [Appendix X];*
- *all applicable required design features are applied; and [if applicable] the activity is permissible under the specific sub-regional screening criteria [site location in ADPP where this screening process is present].”*

**Issue:** **High-voltage Transmission and Major Pipeline ROWs and Corridors**  
**Direction:** Apply the recommended NPT allocation guidance for PHMA and GHMA of avoidance.

**Issue:** **Coal Suitability**  
**Direction:** Sub-regions will include the following management action:  
*“At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).”*

**Issue:** **Fluid Mineral Resources (Including Geothermal)**  
**Direction:** The MT/DK ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** **No Surface Occupancy (NSO) Exception Language**  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the



time of leasing. Include the following language into the MT and DK ADPPs:

*No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly."*

**Issue:**  
**Direction:**

**Adaptive Management  
For Montana**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

For North Dakota

Due to the fragmented habitat and limited amount of sage-grouse in the planning area, ND will not be including an adaptive management strategy in their ADPP. The ADPP should explain that regular review of the populations and habitats will occur and that if a significant decline in sage-grouse or habitat is identified during the life of the plan, ND will work with the USFWS and NDGF to identify the causal factors and discuss ways to address the declines.

**Issue:**  
**Direction:**

**Application of Lek Buffers**

The ADPPs will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in both GHMA and PHMA (see Attachment V) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*

Allocation Direction

	<b>MT ADPPs</b>
<b>Solar - Priority</b>	Exclusion
<b>Solar – General</b>	Avoidance
<b>Wind – Priority</b>	Exclusion
<b>Wind – General</b>	Avoidance
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Avoidance
<b>Minor ROWs – Priority</b>	Avoidance
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed
<b>Mineral Materials – General</b>	Open

Attachment I

**GREATER SAGE-GROUSE RMPA/FEIS  
TEMPLATE LANGUAGE FOR ADDRESSING  
MITIGATION**

[ ] = Instructions

[ ] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

**Chapter 1 - Introduction**

[Nothing new to add to EIS]

**Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]**

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

**Mitigation**

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net

conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e. avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix X.

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the

issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

## Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

## Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional

guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.
      - This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
      - For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g.



- uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
  - **Compensatory Mitigation Options**
    - Options for implementing compensatory mitigation should be identified, such as:
      - Utilizing certified mitigation/conservation bank or credit exchanges.
      - Contributing to an existing mitigation/conservation fund.
      - Authorized-user conducted mitigation projects.
    - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
  - **Compensatory Mitigation Siting**
    - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
    - Sites should be durable (see glossary).
    - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
  - **Compensatory Mitigation Project Types and Costs**
    - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
    - Each project type should have a goal and measurable objectives.
    - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
    - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
  - **Compensatory Mitigation Compliance and Monitoring**
    - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
    - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.
  - **Compensatory Mitigation Reporting**
    - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.

- Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

## **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

Montana will use a 3% disturbance cap until the state of Montana strategy, similar to WY’s Core Area Strategy that uses a 5% disturbance cap for all lands and all disturbances, is fully

implemented. BLM MT will develop, and include in their plans, the conditions to be met prior to the change in the disturbance cap.

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)
- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance

calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.

- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

#### **Additional Information/Formulas**

Disturbance Calculations for the BSUs and for the Project Analysis Areas:

- For the BSUs: **% Degradation Disturbance = (combined acres of the 12 degradation threats\*) ÷ (acres of all lands within the PHMAs in a BSU) x 100.**
- For the Project Analysis Area: **% Degradation Disturbance = (combined acres of the 12 degradation threats<sup>1</sup> plus the 7 site scale threats<sup>2</sup>) ÷ (acres of all lands within the project analysis area in the PHMA) x 100.**

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2

Project analysis area method for permitting surface disturbance activities:

- Determine potentially affected occupied leks by placing a four mile boundary around the proposed area of physical disturbance related to the project. All occupied leks located within the four mile project boundary and within PHMA will be considered affected by the project.
- Next, place a four mile boundary around each of the affected occupied leks.
- The PHMA within the four mile lek boundary and the four mile project boundary creates the project analysis area for each individual project. If there are no occupied leks within the four-mile project boundary, the project analysis area will be that portion of the four-mile project boundary within the Priority Habitat Management Area.
- Map disturbances or use locally available data. Use of NAIP imagery is recommended. In Wyoming, burned areas are included in this step.
- Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
- Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.

- Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
- If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300



**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
Habitat Degradation	Unit:	WAPWA Populations	Biologically Significant Unit	Project/Local Habitat Areas <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>2</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7<sup>7</sup></u> PHMAs in Proj. <sup>6</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
Sagebrush Availability	Unit:	WAPWA Populations	Biologically Significant Unit	n/a
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
Energy and Mining	Unit:	WAPWA Populations	n/a	Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pads and Mines<sup>1</sup></u> Square Mile		<u>Well Pads and Mines<sup>1</sup></u> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs

**ACRONYMS**

PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit  
 EVT = Existing Vegetation Type                EoS = Areas of Biotic Potential

<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.  
<sup>2</sup> Westwide data will be used only if state or local data are not available.  
<sup>3</sup> This footnote was removed from the table. January 2015.  
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.  
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management  
<sup>6</sup> The project analysis area will be based on a 4-mile radius project boundary combined with a 4-mile left boundary for leeks within the 4mi project boundary in PHMA (DDCT methodology).  
<sup>7</sup> See Table 2

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.

## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112-74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).



help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and/or Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

**BLM-IDAHO****Greater Sage-Grouse Planning Issues for the BLM Planning Teams to Insert and Analyze in Administrative Draft Proposed Plan (ADPP)****January 30, 2015**

*The March 4, 2010 decision by the U.S. Fish and Wildlife Service that the greater sage-grouse warranted listing but was precluded [Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to list the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered] set in motion the most comprehensive land-use planning initiative in the BLM's history.*

*In 2011, the BLM began updating land-use plans across the West so as to ensure not only the long-term viability of the greater sage-grouse on public lands and the continued economic vitality of the West. This has been a complex and demanding process involving collaboration with an unprecedented number of stakeholders, including Governors, State Fish and Game agencies, the U.S. Fish and Wildlife Service and many others. The BLM's mandate of multiple use and sustained yield has required us to balance the full range of resource uses on public lands, including the conservation of crucial wildlife habitat. As we have worked through this process, public land managers throughout the BLM have made difficult resource management decisions.*

*These documents provide key guidance that will enable the BLM to finalize land use plans that will contribute to the conservation of the Greater Sage-Grouse and other sagebrush associated species across the West. The guidance outlines a suite of tools, such as disturbance limits in key habitats and mitigation approaches, which will help us to reach this goal. These mechanisms will work in concert to conserve sage-grouse habitat so that we can achieve our twin goals of thriving Greater Sage-Grouse populations and robust Western economies.*

**Issue:****Development in Highly Important Landscapes****Direction:**

As more specifically provided in this guidance, the ADPP will include Sagebrush Focal Areas (SFA), consisting of the BLM and FS-managed lands within the area depicted in the October 27, 2014 USFWS memo, *Greater Sage-Grouse: Additional Recommendation to Refine Land Use Allocations in Highly Important Landscapes*. In the Special Status Species Section of Chapter 2, include the following management action drop in language (for the Proposed Plan only):

*“Designate Sagebrush Focal Areas (SFA) as shown on Map X (x acres). SFAs will be managed as PHMA, with the following additional management:*

- 1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.*
- 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.*

- 3) *Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions)."*

**The NOC will provide updated shapefiles that delineate the SFAs.**

Except as otherwise provided below, the ADPP will provide that all BLM- and FS-managed lands (including subsurface) within SFAs will be allocated and managed as PHMA and include the management actions above.

- *Do Not Include the following in SFA Management*
  - Hawley Mountain WSA (ID), Shoshone WSA (ID), Cedar Buttes WSA (ID), Lower Salmon Falls Creek (ID), Little Jack Wilderness (ID), Bruneau-Jarbidge Wilderness (ID) in non-habitat – The current management in these areas is generally protective of GRSG. As applicable, these will continue to be managed so as not to impair their suitability for preservation as wilderness, or under the terms of the Wilderness Act to preserve wilderness character.
    - To the extent that these areas were analyzed for contingent management as general or priority habitat, the ADPP will include contingent allocations and management direction that would apply in the event that Congress releases the areas from WSA status
  - Non-habitat areas outside Little Jack and Bruneau-Jarbidge Wilderness and Salmon Falls Creek ACEC which were previously shown within the SFA –These areas will not be managed as PHMA or SFA.
- Do Include Forest Service Lost River Mountains North (~5,000 acres) Area and South Area (~6,000 acres)– these areas will be treated as PHMA, with the SFA management actions for this FS-land.
- Do Include Donkey Hills ACEC –In order to consolidate parcels for protection as SFAs, this area will be treated as PHMA and included for SFA management.
- *Do Not Include Other Agency Land in SFA Management* – while lands managed by other agencies will be shown on the SFA maps, BLM ADPP decisions will not be applied to them.
- *Do Not Include Private/State Lands in SFA Management* – while private lands may be within the SFA boundaries, ADPP decisions will not be applied to them, but may apply to Federal subsurface underlying such lands as provided below.
- *Subsurface Estate:*
  - Under private/state lands: subsurface estate in PHMA and GHMA should be treated as PHMA with SFA management actions.

- Under other Federal lands: subsurface state should be treated as PHMA with SFA management actions if it is not already withdrawn (such as in Refuges or Parks) and PHMA or GHMA management was analyzed in the DEIS.

Additional direction/drop in language for the ADPPs on SFAs will be forthcoming.

**Issue:**

**Direction:**

**Mitigation**

The ADPP will include the updated Mitigation Framework (Attachment I) and drop-in Chapter 2 language to reflect the following language:

*“In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.”*

**Issue:**

**Direction:**

**Mapping**

Not Applicable

**Issue:**

**Direction:**

**Disturbance**

Per the original April 2014 NPT guidance on disturbance, the ADPP will use the 3% disturbance cap at the Biologically Significant Unit (BSU) and project scale. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the 1872 Mining Law; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded. BLM-ID will use the disturbance calculation methodology developed prior to this guidance (see Attachment II).

Planning units will include the following land use plan actions within their ADPPs that states:

- a. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSB Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid*

*existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*

- b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

**Issue:**

**Direction:**

**Vegetation Objectives**

The ADPP will establish and incorporate vegetation and GRSG habitat objectives (see Attachment III for specific guidance and a GRSG Habitat Objectives Table template that follows the Sage-Grouse Habitat Assessment Framework Technical Reference-6710-1). The vegetation and GRSG habitat objectives guidance states that the values for the desired conditions in the GRSG Habitat Objectives Table are to be used, at a minimum, to meet the applicable land health standard in sage-grouse habitats. Planning units may include additional indicators and desired condition values as appropriate. The desired condition value for each indicator can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%).

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP. The vegetation objective should be placed in the Vegetation section of the ADPP. Planning units will include the following land use plan vegetation objective within the Vegetation section of their ADPPs:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*

**Issue:**

**Direction:**

**Livestock Grazing**

The following management actions will be included in the Livestock Grazing section of the ADPP.

- *The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas,*



*including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.*

- *The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.*
- *Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.*
- *At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.*

Attachment III provides guidance as to how the BLM will incorporate GRGS decisions from the Sage-Grouse RMP/Amendments into grazing permits/leases.

***Issue:***

***Direction:***

**Mineral Materials (Salable Minerals)**

All Priority Habitat Management Areas will be closed to mineral materials development. All Important Habitat Management Areas and General Habitat Management Areas will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria.

***Issue:***

***Direction:***

**High-voltage Transmission and Major Pipeline ROWs and Corridors**

1) Apply the recommended NPT allocation guidance for PHMA of avoidance.

2) GHMA will remain open. BLM-ID will employ a location and design process to ensure protection.

3) For sub-regions that have planned priority transmission lines that traverse their planning area (Gateway West, Boardman to Hemingway, and TransWest Express, including those portions of Gateway South that

are co-located), apply the following language as a management action in their ADPP:

*“Priority Habitat Management Areas (PHMAs) and Important Habitat Management Areas (IHMAs) are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in [insert citation here] of this document. The BLM is currently processing an application for [Insert name of transmission project] and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the project’s NEPA review process, which will include analysis of the following conservations measures.”*

**Issue:** Coal Suitability  
**Direction:** Not Applicable in Idaho

**Issue:** Fluid Mineral Resources (Including Geothermal)  
**Direction:** All ADPPs will include the following as a conservation objective:

*“Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA, IHMA, and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA, IHMA, and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).”*

*“Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.”*

**Issue:** No Surface Occupancy (NSO) Exception Language  
**Direction:** Follow NPT guidance for Priority Habitat Management Areas. No-surface-occupancy stipulations will be included in new fluid mineral

leases at the time of leasing only and may not be applied to existing fluid mineral leases that did not include no-surface-occupancy stipulation at the time of leasing. Include the following language into the ADPP:

*“No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action:*

- (i) Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or,*
- (ii) Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG.*

*Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP [revision or amendment]. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts.*

*Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.”*

**Issue:**

**Direction:**

**Adaptive Management**

Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and FWS experts.

When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

***Issue:***

***Direction:***

**Application of Lek Buffers**

The ADPP will require the use of lek buffer-distances for all new BLM-managed and BLM-authorized anthropogenic disturbances in GHMA, IHMA, and PHMA (see Attachment IV) through this drop-in Chapter 2 language:

*“In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix X.”*

Allocation Direction

\*Southwest Montana will follow the allocations designated for the MT ADPP

	<i>Idaho/SW MT*</i>
<b>Solar - Priority</b>	Exclusion <i>Imp - Avoid</i>
<b>Solar – General</b>	Open
<b>Wind – Priority</b>	Exclusion <i>Imp – Avoid</i>
<b>Wind – General</b>	Open <i>Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - Priority</b>	Avoidance <i>Imp - Avoid Screening process</i>
<b>HV Transmission Lines and Large Pipeline ROWs - General</b>	Open
<b>Minor ROWs – Priority</b>	Avoidance <i>Imp - Avoid</i>
<b>Minor ROWs – General</b>	Open
<b>Fluids – Priority</b>	NSO <i>Imp - NSO</i>
<b>Fluids – General</b>	Open with Moderate constraints
<b>Non-energy Leasables - Priority</b>	Closed <i>Imp - Open</i>
<b>Non-energy Leasables - General</b>	Open
<b>Mineral Materials – Priority</b>	Closed <i>Imp - Open</i>
<b>Mineral Materials – General</b>	Open

## Attachment I

# GREATER SAGE-GROUSE RMPA/FEIS TEMPLATE LANGUAGE FOR ADDRESSING MITIGATION

[Red box] = Instructions

[Yellow box] = Fill in the blank

[This mitigation language addresses greater sage-grouse. However, if you are working on a plan revision, you may need to add additional language to be more inclusive of other resource and value objectives (e.g. cultural resources, national historic trails, recreation values, other special status species) that may need to be mitigated.]

## Chapter 1 - Introduction

[Nothing new to add to EIS]

## Chapter 2 – Alternatives – [Proposed Plan/Proposed Plan Amendment]

- Add these two new sections (below) to the **Chapter 2 Alternatives** section.
- Replace the Regional Mitigation placeholder language that was included in the draft EIS with the new “Mitigation” section, below.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

Consistent with the proposed plan’s goal outlined in [Table 2-X – Description of Alternatives], the intent of the [Proposed Plan/Proposed Plan Amendment] is to provide a net conservation gain to the species. To do so, in undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate protective conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

## Mitigation

*Mitigation Standards.* In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in Appendix X).

*Greater Sage-Grouse Conservation Team.* The BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section).

The BLM/USFS will invite governmental and Tribal partners to participate in this Team, including the State Wildlife Agency and U.S. Fish and Wildlife Service, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM/USFS will strive for a collaborative and unified approach between Federal agencies (e.g. FWS, BLM, and USFS), Tribal governments, state and local government(s), and other stakeholders for greater sage-grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

*Developing a Regional Mitigation Strategy.* The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the Record of Decision. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices/Forests within the WAFWA Management Zone's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e.

avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in Appendix [X].

In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

*Incorporating the Regional Mitigation Strategy into NEPA Analyses.* The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

*Implementing a Compensatory Mitigation Program.* Consistent with the principles identified above, the BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Chapter 3 – Affected Environment**

[Nothing to add]

### **Chapter 4 – Environmental Consequences – [Proposed Plan/Proposed Plan Amendment]**

#### **Mitigation**

This Chapter describes the environmental consequences associated with the impacts to greater sage-grouse and its habitat from activities carried out in conformance with this plan, in addition to BLM/USFS management actions. In undertaking BLM/USFS management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and



compensating for impacts by applying beneficial mitigation actions. In addition, to help implement this [Proposed Plan / Proposed Plan Amendment], a WAFWA Management Zone Regional Mitigation Strategy (per Appendix [X]) will be developed within one year of the issuance of the Record of Decision. The Strategy will elaborate on the components identified in Chapter 2 (avoidance, minimization, compensation, additionality, timeliness, and durability), and will be considered by the BLM/USFS for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The implementation of a Regional Mitigation Strategy will benefit greater sage-grouse, the public, and land-users by providing a reduction in threats, increased public transparency and confidence, and a predictable permit process for land-use authorization applicants.

### Appendix [X]

- Add this new Appendix.
- Ensure a degree of consistency between this nationally standardized language and that found in the rest of the EIS.
- Fine tune this language, if necessary, but maintain consistency with the other BLM/USFS plan amendments.
- Remove references to USFS for plans that do not address US Forest Service lands

### Appendix (X) – Mitigation – [Proposed Plan/Proposed Plan Amendment]

#### General

In undertaking BLM/USFS management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy for BLM/USFS management actions and third party actions that result in habitat loss and degradation. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance
  - Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
  - Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- Minimization
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- Compensation
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - Residual Impact and Compensatory Mitigation Project Valuation Guidance
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects, including accounting for any uncertainty associated with the effectiveness of the projects.

- This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
- For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure (e.g. uncertainty associated with effectiveness) may require an upward adjustment of the valuation.
- The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
- **Compensatory Mitigation Options**
  - Options for implementing compensatory mitigation should be identified, such as:
    - Utilizing certified mitigation/conservation bank or credit exchanges.
    - Contributing to an existing mitigation/conservation fund.
    - Authorized-user conducted mitigation projects.
  - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
- **Compensatory Mitigation Siting**
  - Sites should be in areas that have the potential to yield a net conservation gain to the greater sage-grouse, regardless of land ownership.
  - Sites should be durable (see glossary).
  - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be considered, if those sites have the potential to yield a net conservation gain to greater sage-grouse and are durable.
- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.

- Compensatory Mitigation Reporting
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- Compensatory Mitigation Program Implementation Guidelines
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into NEPA Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/USFS management actions and third party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

### **Glossary Terms**

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (adopted and modified from BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** The [restoration](#), [creation](#), [enhancement](#), and/or [preservation](#) of impacted resources (adopted and modified from 33 CFR 332), such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements). (adopted and modified from BLM Manual Section 1794).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur. (adopted and modified from BLM Manual Section 1794).

**Durability (protective and ecological):** the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations. (adopted and modified from BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

## Attachment II

### **Greater Sage-Grouse (GRSG) Land Use Plans Disturbance Caps Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning actions that need to be incorporated into the administrative draft proposed plans to respond to the 3% disturbance cap once it is exceeded in either the Biologically Significant Units (BSU) or at the project scale.
- II. Provide guidance on the use of the west-wide habitat degradation (disturbance) data layers as well as the use of locally collected disturbance data for BSUs to determine if the disturbance cap has been exceeded as the land use plans (LUP) are being implemented.
- III. Provide guidance on the use of locally collected disturbance data for project authorizations to determine if the disturbance cap has been exceeded as the LUPs are being implemented.
- IV. Provide guidance on the inclusion of fire in disturbance calculations.
- V. Provide guidance on the use of the density of energy and mining facilities during authorizations
- VI. Provide guidance on the use of the BER analysis in the land use plans (Chapter 2, Affected Environment) and the use of the “west-wide” sagebrush availability and habitat degradation data/estimates for the Priority Habitat Management Areas in each population for monitoring and management purposes as the LUPs are being implemented.
- VII. Provide guidance on what is considered in the disturbance calculations versus what is considered for the disturbance cap.

#### **Guidance**

- I. Planning units will include the following land use plan actions within their administrative draft proposed land use plans (ADPPs) that states:
  - a. *If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG Priority Habitat Management Areas in any given Biologically Significant Unit until the disturbance has been reduced to less than the cap.*
  - b. *If the 3% disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a Priority Habitat Management Areas, then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain*

*the area under the cap (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.).*

- II. Use of west-wide habitat degradation data as well as the use of locally collected disturbance data to determine the level of existing disturbance:
  - a) In the GRSG Priority Habitat Management Areas in any given Biologically Significant Unit, use the west-wide data at a minimum and/or locally collected disturbance data as available (e.g., DDCT) for the anthropogenic disturbance types listed in Table 1.
  
- III. Use of locally collected disturbance data for project authorizations:
  - a) In a proposed project analysis area, digitize all existing anthropogenic disturbances identified in the GRSG Monitoring Framework and the 7 additional features that are considered threats to sage-grouse (Table 2). Using 1 meter resolution NAIP imagery is recommended. Use local data if available.
  
- IV. Fire-burned and habitat treatment areas will not be included in the project scale degradation disturbance calculation for managing sage-grouse habitat under a disturbance cap. These areas will be considered part of a sagebrush availability when rangewide, consistent, interagency fine- and site-scale monitoring has been completed and the areas have been determined to meet sage-grouse habitat requirements. These and other disturbances identified in Table 3 will be part of a sagebrush availability evaluation and will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.
  
- V. Planning units are directed to use a density cap related to the density of energy and mining facilities (listed below) during project scale authorizations. If the disturbance density in a proposed project area is on average less than 1/ 640 acres, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than an average of 1/ 640 acres, either defer the proposed project or co-locate it into existing disturbed area (*subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.*).
  - Energy (oil and gas wells and development facilities)
  - Energy (coal mines)
  - Energy (wind towers)
  - Energy (solar fields)
  - Energy (geothermal)
  - Mining (active locatable, leasable, and saleable developments)

- VI. Planning units are directed to continue using the baseline data from the 2013 USGS Baseline Environmental Report (BER) in the Affected Environment section of the proposed plans/ FEISs. West-wide sagebrush availability and habitat degradation data layers will be used for the Priority Habitat Management Areas in each population for monitoring (see the GRSG Monitoring Framework in the Monitoring Appendix of the EIS) and management purposes as the LUPs are being implemented. The BER reported on individual threats across the range of sage-grouse while the west-wide disturbance calculation consolidated the anthropogenic disturbance data into a single measure using formulas from the GRSG Monitoring Framework. These calculations will be completed on an annual basis by the BLM's National Operation Center. Planning units will be provided the 2014 baseline disturbance calculation derived from the west-wide data once the RODs are signed that describe the Priority Habitat Management Areas.
- VII. Planning units are directed to use the three measures (sagebrush availability, habitat degradation, density of energy and mining) in conjunction with other information during the NEPA process to most effectively site project locations, such as by clustering disturbances and/or locating facilities in already disturbed areas. Although locatable mine sites are included in the degradation calculation, mining activities under the 1872 mining law may not be subject to the 3% disturbance cap. Details about locatable mining activities should be fully disclosed and analyzed in the NEPA process to assess impacts to sage-grouse and their habitat as well as to BLM goals and objectives, and other BLM programs and activities.

### **Additional Information/Formulas**

A collaborative effort in Idaho developed a disturbance calculation method that includes the 3% disturbance cap plus a modifier that includes effective habitat and is described in Appendix G of their ADPP. The formulas below are excerpted from that Appendix.

Disturbance Calculations for the BSU:

$$\begin{aligned} & \text{Disturbance Percentage} \\ & = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^1}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100 \end{aligned}$$



Disturbance Calculations for Project Analysis Areas (PAAs):

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}^{1,2}}{\text{Acres within the PAA} * \left( \frac{\text{Acres of Effective Habitat within the PAA}}{\text{Acres within the PAA}} + 0.3 \right)} \right) \times 100$$

<sup>1</sup> see Table 3. <sup>2</sup> see Table 2.

Project analysis area (PAA) method for permitting surface disturbance activities:

1. Determine potentially affected occupied leks by placing a four-mile buffer around the project boundary as defined by the proposed area of physical disturbance related to the project. All occupied leks within this buffer will be considered affected by the proposed project.
2. Next place a four mile boundary around each of the occupied leks identified in item 1, above.
3. The polygon formed by the merging and dissolving of polygons from step 1 and 2 creates the Project Analysis Area (PAA) for surface disturbance activities.
4. Map existing disturbances within the analysis area or use locally available spatial data. Use of digitized NAIP imagery is recommended.
5. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3%, proceed to next step. If existing disturbance is greater than 3%, defer the project.
6. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3%, proceed to next step. If disturbance is greater than 3%, defer project.
7. Calculate the disturbance density of energy and mining facilities (listed above). If the disturbance density is less than 1 facility per 640 acres, averaged across project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed project or co-locate it into existing disturbed area.
8. If a project that would exceed the degradation cap or density cap cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

Table 1. Anthropogenic disturbance types for disturbance calculations. Data sources are described for the west-wide habitat degradation estimates (Table copied from the GRSG Monitoring Framework)

<b>Degradation Type</b>	<b>Subcategory</b>	<b>Data Source</b>	<b>Direct Area of Influence</b>	<b>Area Source</b>
<b>Energy (oil &amp; gas)</b>	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
<b>Energy (coal)</b>	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Energy (wind)</b>	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
<b>Energy (solar)</b>	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
<b>Energy (geothermal)</b>	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
<b>Mining</b>	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
<b>Infrastructure (roads)</b>	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
<b>Infrastructure (railroads)</b>	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
<b>Infrastructure (power lines)</b>	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
<b>Infrastructure (communication)</b>	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

**Table 2.** The seven additional features to include in the disturbance calculation at the project scale

<ol style="list-style-type: none"> <li>1. Coalbed Methane Ponds</li> <li>2. Meteorological Towers</li> <li>3. Nuclear Energy Facilities</li> <li>4. Airport Facilities and Infrastructure</li> <li>5. Military Range Facilities &amp; Infrastructure</li> <li>6. Hydroelectric Plants</li> <li>7. Recreation Areas Facilities and Infrastructure</li> </ol>
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**Table 3.** Relationship between the 18 threats and the three habitat disturbance measures for monitoring and disturbance calculations.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

## **Background**

In the USFWS's 2010 listing decision for sage-grouse, the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the sage-grouse's habitat or range (75 FR 13910 2010). In April 2014, the Interagency GRSG Disturbance and Monitoring Sub-Team finalized the Greater Sage-Grouse Monitoring Framework (hereafter, framework) to track these threats. The 18 threats have been aggregated into three measures to account for whether the threat predominantly removes sagebrush or degrades habitat. The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Density of Energy and Mining (facilities and locations per unit area)

The BLM is committed to monitoring the three disturbance measures and reporting them to the FWS on an annual basis. However, for the purposes of calculating the amount of disturbance to provide information for management decisions and inform the success of the sage-grouse planning effort, the data depicting the location and extent of the 12 anthropogenic types of threats will be used at a minimum in the BSUs and those same 12 anthropogenic and the additional 7 types of features that are threats to sage-grouse will be used in the project analysis areas.

		Scales		
		Broad/Mid (Populations)	Intermediate (BSU)	Local/Project (Seas. Hab.)
<b>Habitat Degradation</b>	Unit:	WAFWA Populations	Biologically Significant Unit	Project/Local Habitat Area <sup>5</sup>
	Area of Interest:	PHMAs	PHMAs	PHMAs
	Data:	Westwide degradation data	Westwide <sup>3</sup> , State, Local	State, Local
	Formula (Measure 2a):	<u>12 Degradation Threats</u> PHMAs in Populations	<u>12 Degradation Threats</u> PHMAs in BSUs	<u>12 Degradation Threats + 7</u> PHMAs in Proj. <sup>2</sup>
	Management:	Internal BLM & FS estimates	3% Cap, Adapt. Mgmt <sup>4</sup>	3% Disturbance Cap
	All Lands:	Yes	Yes	Yes
	Fire Included:	No	No	No
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	State Offices or Field Offices
<b>Sagebrush Availability</b>	Unit:	WAFWA Populations	Biologically Significant Unit	
	Area of Interest:	PHMAs	PHMAs	
	Data:	LANDFIRE Updated EVT <sup>1</sup>	Updated EVT or State data	
	Formula (Measure 1a):	<u>Existing Updated Sagebrush</u> PHMAs in Populations	<u>Existing Updated Sagebrush</u> PHMAs in BSUs	n/a
	Management:	Internal BLM & FS estimates	Adaptive Management <sup>4</sup>	
	All Lands:	Yes	Yes	
	Fire Included:	Yes	Yes	
	Who:	BLM NOC	BLM NOC <sup>3</sup> or State Offices	
<b>Energy and Mining</b>	Unit:	WAFWA Populations		Project Area & Seasonal Hab.
	Area of Interest:	PHMAs		PHMAs
	Data:	Westwide well & mine data		Westwide <sup>2</sup> , State data
	Formula (Measure 3):	<u>Well Pds and Mines</u> <sup>1</sup> Square Mile	n/a	<u>Well Pds and Mines</u> <sup>1</sup> Square Mile
	Management:	Internal BLM & FS estimates		Project Authorization
	All Lands:	Yes		Yes
	Fire Included:	No		No
	Who:	BLM NOC		BLM NOC or SOs or FOs
<b>ACRONYMS</b>				
PHMA = Priority Habitat Management Area      BSU = Biologically Significant Unit				
EVT = Existing Vegetation Type                      EpS = Areas of Biotic Potential				
<sup>1</sup> Only mines with a Plan of Operation (>5 acres of disturbance) will be included.				
<sup>2</sup> Westwide data will be used only if state or local data are not available.				
<sup>3</sup> This footnote was removed from the table. January 2015.				
<sup>4</sup> This may be one of several variables used to inform Adaptive Management. The BSU is the scale at which Adaptive Management will be applied.				
<sup>5</sup> A moving window analysis will be conducted at this scale by the NOC using westwide data. If available, state and local data/analysis should be used for Adaptive Management				
<sup>6</sup> The project analysis area will be based on a 4-mile radius polygon around the project area combined with a 4-mile buffer around any leaks within the project boundary in PHMA (Idaho methodology).				
<sup>7</sup> See Table 2				

## Attachment III

### **Greater Sage-Grouse (GRSG) Land Use Plans Vegetation Objectives Guidance**

#### **Purpose**

- I. Provide the planning units with land use planning vegetation objectives that need to be incorporated into the administrative draft proposed plans.
- II. Provide guidance on the use of a template for GRSG habitat objectives in the Special Status Species section of the ADPPs.
- III. Provide guidance on prioritizing land health assessments in sage-grouse habitats and conducting assessments at the watershed scale using the sage-grouse habitat objectives.

#### **Guidance**

- I. Planning units will include the following land use plan vegetation objective within the Vegetation section of their administrative draft proposed land use plans (ADPPs) that states:

*In all Sagebrush Focal Areas and Priority Habitat Management Areas, the desired condition is to maintain a minimum of 70% of lands capable of producing sagebrush with 10 to 30% sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).*
- II. Planning units will populate the GRSG Habitat Objectives table template to provide vegetation objectives for sage-grouse life history stages based on the ecology in your region to be used to meet the applicable land health standard in GRSG habitats. Planning units are encouraged to work across boundaries when developing the objectives to ensure regional continuity and will provide appropriate peer-reviewed science to support the habitat values for the indicators. These desired condition value can be a range of values rather than a single value (e.g., the value for the desired condition for sagebrush canopy cover in breeding and nesting habitat could be 15-25%). Planning units may include additional indicators and desired condition values as appropriate (see the Sage-Grouse Habitat Assessment Framework (HAF, *Technical Reference 6710-1*) for appropriate indicators). The HAF contains values for habitat suitability indicators in sage-grouse seasonal habitats from the Connelly et al. (2000) sage-grouse guidelines and has incorporated many of the core indicators in the AIM strategy (Toevs et al. 2011) as well. Planning units may use the indicator values from Connelly et al. (2000) while developing the land use plan Sage-Grouse Habitat Objectives table.

When using the indicators to guide management actions or during land health assessments, consider that the indicators are sensitive to the ecological processes operating at the scale of interest and that a single habitat indicator does not necessarily define habitat suitability for an area or particular scale. Indicators must be collectively reviewed, assessed based on the site potential, and put into spatial and temporal context to correctly determine habitat suitability which will include more than one scale and multiple indicators. Assessment and evaluation of these objectives will follow the steps described in the HAF.

The GRSG Habitat Objectives table is to be placed in the Special Status Species section of the ADPP and is to be used as a minimum to meet the applicable land health standard in sage-grouse habitats.

Greater Sage-Grouse Habitat Objectives

ATTRIBUTE	INDICATORS	DESIRED CONDITION	Reference
<b>BREEDING AND NESTING (Seasonal Use Period March 1-June 15)</b>			
Lek Security	Proximity of trees		
	Proximity of sagebrush to leks		
Cover	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover		
	Sagebrush height Arid sites Mesic sites		
	Predominant sagebrush shape		
	Perennial grass cover Arid sites Mesic sites		
	Perennial grass and forb height		
	Perennial forb canopy cover Arid sites Mesic sites		
<b>BROOD-REARING/SUMMER<sup>1</sup> (Seasonal Use Period June 16-October 31)</b>			
Cover	% of Seasonal habitat meeting desired condition		
	Sagebrush canopy cover		
	Sagebrush height		
	Perennial grass canopy cover and forbs		
	Riparian areas/mesic meadows		
	Upland and riparian perennial forb availability		
<b>WINTER<sup>1</sup> (Seasonal Use Period November 1-February 28)</b>			
Cover and Food	% of seasonal habitat meeting desired conditions		
	Sagebrush canopy cover above snow		
	Sagebrush height above snow		

- III. The BLM will prioritize land health assessments in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. Field offices are to conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et. al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in GRSG designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat.



## Attachment IV

### **Incorporating GSGR RMP Decisions into Grazing Authorizations**

#### **Purpose**

The purpose is to provide recommended ADPP language; outline the process for prioritizing the review and processing of grazing permits/leases to determine if modification is necessary (prior to renewal and in accordance with prioritization criteria); provide direction for including specific management thresholds and defined responses that will allow adjustments to livestock grazing within the terms and conditions of permits; and provide a process for prioritizing compliance monitoring within Sagebrush Focal Areas (SFAs) and Priority Habitat Management Areas (PHMAs).

#### **Background**

The BLM manages approximately 18,000 livestock grazing permits and leases on the public lands. Livestock grazing is an integral part of the BLM multiple-use mission and is authorized by the Taylor Grazing Act (1934), the Federal Land Policy Management Act (1976) and the Public Rangeland Improvement Act (1978). By statute and regulation, grazing leases and permits are normally issued for 10-year periods. Annually, a range of 1,200 to 3,200 grazing permits expire and the BLM receives 500 to 1,500 grazing permit/lease transfer requests.

The BLM currently issues permits/leases in accordance with:

- All applicable law, regulation, policy (NEPA, consultation, proposed/final grazing decision-also known as a fully processed permit); or
- Various appropriation authorities enacted between 1999 and 2014 extending terms and conditions of expiring or transferred permits/leases that the BLM is unable to fully process before their expiration; or
- Section 402(c)(2) of FLPMA (as amended by Public Law 113-291, enacted December 19, 2014).

Congress has acted to ensure that grazing permittees could continue to graze if the BLM is unable to complete the environmental analysis mandated by the NEPA and other applicable laws. Since 1999, a provision (“the rider”) has been included in the Interior Appropriations bill that, in various forms, generally authorizes the BLM to renew grazing permits and leases under their same terms and conditions until it fully processes the permit renewal in compliance with NEPA, ESA, and other legal or regulatory requirements. The most recent rider is contained in Section 411, Public Law 113-76.<sup>1</sup> The FLPMA amendment to Section 402 (c) allows BLM to renew

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<sup>1</sup> The Consolidated Appropriations Act, 2014 includes the provision Section 411 which states: “Section 415 of division E of Public Law 112-74 is amended by striking “and 2013” and inserting “through 2015.” The terms and conditions of section 325 of Public Law 108-108 (117 stat. 1307), regarding permits at the Department of the Interior and the Forest Service, shall remain in effect through fiscal year 2015. A grazing permit or lease issued by the Secretary of the Interior for lands administered by the Bureau of Land Management that is the subject of a request for a grazing preference transfer shall be issued, without further processing, for the remaining time period in

grazing permits and leases under the same terms and conditions. This relieves the BLM's renewal processing workload, allowing the BLM to prioritize permit processing based on sensitivity of the resources at issue.<sup>2</sup>

The BLM may modify terms and conditions of a permit or lease at any time following completion of appropriate analysis and consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public.<sup>3</sup> Under 43 C.F.R. 4160.1, the BLM must serve a proposed decision on any affected applicant, permittee or lessee, any agent and lien holder of record. Copies of the decisions are provided to the interested publics.

**Recommended Language to be incorporated as Livestock Grazing Management Actions within the GRSG ADPPs:**

- The BLM will prioritize the review of grazing permits/leases, including those prior to renewal to determine if modification is necessary, and processing of grazing permits and leases, in Sagebrush Focal Areas (SFAs) followed by PHMAs outside of the SFAs. In setting workload priorities, precedence will be given to existing permits/leases in areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource conditions (ex., fire) and legal obligations.
- The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.
- Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to

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the existing permit or lease using the same mandatory terms and conditions. If the authorized officer determines a change in the mandatory terms and conditions is required, the new permit must be processed as directed in section 325 of Public Law 108-108.” Where a FO is unable to fully process a permit renewal in compliance with all applicable laws prior to the permit expiration, Section 411 extends the authority to renew the grazing permit with the same terms and conditions as the expiring permit. Section 325 provides the process for authorizing grazing until a permit or lease is issued in compliance with all applicable law and regulatory processes.

<sup>2</sup> The newly amended section 402(c) of FLPMA provides permanent authority to BLM to renew expiring permits. That section states, “The terms and conditions in a grazing permit or lease that has expired, or was terminated due to a grazing preference transfer, shall be continued under a new permit or lease until the date on which the Secretary concerned completes any environmental analysis and documentation for the permit or lease required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable laws.”

<sup>3</sup> 43 CFR 4130.3-3 states: Following consultation, cooperation and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 (Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

help ensure compliance with the terms and conditions within the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

- At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

### **Addressing GRSG RMP Amendments/Revisions Objectives in Grazing Permits/Leases**

BLM will develop criteria to prioritize the workload to process permits/leases (either fully processed or reauthorized based on the Appropriations rider, or issued under Section 402(c)(2) of FLPMA) and determine whether modification is necessary prior to renewal within PHMAs, beginning with those in SFAs. In setting priorities, those containing riparian areas and areas not meeting Land Health Standards (43 C.F.R. 4180) will take precedence. Potential criteria for prioritizing permit modifications could include:

- Are there riparian areas or wet meadows in the permit/lease area?
- Was current livestock grazing identified as a causal factor for not meeting Land Health Standards?
- Since the last allotment/watershed evaluation, is there current monitoring information to determine that the watershed/allotment is currently achieving or making significant progress towards achieving land health standards?
- Does the permit have terms and conditions adequate to ensure proper grazing practices to meet GRSG habitat objectives found in the Special Status Species section of the land use plan?
- Is there data that indicates that the GRSG habitat objectives, including the Habitat Objectives table, found in the Special Status Species section of the land use plan are being met?
- Is there a request from the permittee to modify the terms and conditions of his/her permit?

Additionally, if an existing permit/lease within PHMAs requires modification because current grazing is a significant causal factor for not meeting the Land Health Standards, the BLM will prepare the appropriate NEPA analysis and issue the proposed/final grazing decision under 43 C.F.R. Subpart 4160, subject to administrative appeal and potential judicial challenge.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA. Adjustments to meet seasonal Sage-Grouse habitat requirements could include:

- Season or timing of use;
- Numbers of livestock (includes temporary non-use or livestock removal);
- Distribution of livestock use;
- Intensity of use; and
- Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).

## **Compliance Monitoring**

The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFAs, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data:

- Vegetation Condition
- Actual Use
- Utilization
- Use Supervision

## **Concerning Voluntary Relinquishments**

All ADPPs will include the following language:

At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives.

For completing this, BLM offices should use [WO IM 2013-184 Relinquishment of Grazing Permitted Use](#) or the most recent policy guidance.

Attachment V

**Applying Lek Buffer-Distances When Approving Actions**

- *Buffer Distances and Evaluation of Impacts to Leks*

Evaluate impacts to leks from actions requiring NEPA analysis. In addition to any other relevant information determined to be appropriate (e.g. State wildlife agency plans), the BLM will assess and address impacts from the following activities using the lek buffer-distances as identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* ([Open File Report 2014-1239](#)). The BLM will apply the lek buffer-distances specified as the lower end of the interpreted range in the report unless justifiable departures are determined to be appropriate (see below). The lower end of the interpreted range of the lek buffer-distances is as follows:

  - linear features (roads) within 3.1 miles of leks
  - infrastructure related to energy development within 3.1 miles of leks.
  - tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks.
  - low structures (e.g., fences, rangeland structures) within 1.2 miles of leks.
  - surface disturbance (continuing human activities that alter or remove the natural vegetation) within 3.1 miles of leks.
  - noise and related disruptive activities including those that do not result in habitat loss (e.g., motorized recreational events) at least 0.25 miles from leks.

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations, state regulations) may be appropriate for determining activity impacts. The USGS report recognized “that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range”. The USGS report also states that “various protection measures have been developed and implemented... [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands”. All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization.

In determining lek locations, the BLM will use the most recent active or occupied lek data available from the state wildlife agency.

- *For Actions in GHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis.

  - Impacts should first be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.
  - If it is not possible to relocate the project outside of the applicable lek buffer-distance(s) identified above, the BLM may approve the project only if:
    - Based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations), the BLM determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater

level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area; or

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations); and
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a net conservation gain, as outlined in the Mitigation Strategy (Appendix X).

- *For Actions in PHMA and IHMA*

The BLM will apply the lek buffer-distances identified above as required conservation measures to fully address the impacts to leks as identified in the NEPA analysis. Impacts should be avoided by locating the action outside of the applicable lek buffer-distance(s) identified above.

The BLM may approve actions in PHMA and IHMA that are within the applicable lek buffer distance identified above only if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a buffer distance other than the distance identified above offers the same or greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area.
- The BLM will explain its justification for determining the approved buffer distances meet these conditions in its project decision.

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
<b>Incidental disturbance to individual GRSB within all habitat types during all seasons</b>			
	Public or administrative activities that include incidental foot, aerial, horseback, or other similar travel.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Livestock grazing activities (except where specifically noted below).	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Public vehicle travel not otherwise restricted in Travel Management Plans; or administrative vehicle travel on existing routes for maintenance of existing infrastructure, facilities, or vegetation projects; or non-organized/non-permitted activities.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
<b>Loss (i.e. death) of nests/eggs, chicks and/or adults that may occur within the nesting<sup>4</sup> habitat during the nesting season</b>			
	Anthropogenic activities such as the use of heavy equipment <sup>2</sup> or	BMP Priority, Important, General: Avoid these activities within nesting	Application of the seasonal nesting habitat restriction would avoid and

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	targeted grazing in nesting habitat <sup>3</sup> for: 1) implementation of fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical exploration activities; 4) organized motorized recreational events	habitat during the nesting <sup>3</sup> season.	minimize the loss of nests/chicks/hens. This is a BMP since the impact is loss of individual grouse and is small scale and not population-scale. Disallowing infrastructure maintenance or construction in nesting habitat outright may not be realistic as an RDF. Impacts may be able to be offset via appropriate mitigation.
	Bedding Sheep & Associated Camps	BMP: Priority, Important, General: During the nesting season, locate bedding areas and camps outside of sagebrush areas <sup>3</sup> .	Application of the seasonal nesting habitat restriction would avoid/minimize the loss of nests/chicks by focusing bedding and camps in areas not meeting nest habitat characteristics for sagebrush cover (i.e., use areas less than 15% canopy cover).
	Fences	Existing Fences:  RDF: Priority and Important; BMP for General- Where consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management, move, modify (e.g. lay down fences) or mark existing fences to reduce collision risk within areas that have a high	Application of these measures would avoid/minimize the loss of birds to fence strikes.



Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		probability of fence strikes (per Stevens et al. 2012 model or latest science).	
		New Fences:  RDF: Priority and Important; BMP for General- Do not construct new fences within areas of high collision risk unless marked or modified, consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management .	
<b>Permanent functional or physical loss of a lek or declining attendance at lek<sup>4</sup></b>			
	Unleased fluid minerals	Stipulation: Preiority, Important, General: Do not allow wells, pads, facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek.  Stipulation: Priority, Important, General: Limit average well pad density to no more than 1 per 640 acres within nesting <sup>3</sup> and winter <sup>3</sup> habitat.	This impact may have a population level effect and trip a population trigger therefore we recommended this be an RDF. Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km from grouse leks. The 1/640 density per based on consideration of 1) Harju et al. (2010) who found pad density of

Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			1.54 pad/sq km (1 pad/247 ac) had 13-74% lower attendance at leks and 2) Doherty (2008 page iii and 79) who noted potential impacts from oil and gas development were indiscernible at ~1 well/640 acres. IDswMT biology team recommended a more conservative approach to minimize risk of tripping a population trigger, hence the 1/640.
	Commercial solar development	RDF: Priority-No commercial solar development.  RDF: Important- Do not allow new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .  BMP-General: Avoid new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	No specific literature available relative to solar development. Recommended buffer is based on recent literature (Harju et al 2010) that 0.6 or 0.25 mile buffers are not. The 2 mile buffer is consistent with Connelly et al. 2000 regarding energy facilities (page 978).
	Roads	BMP: Priority, Important, General: Do not construct new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of leks <sup>4</sup> .	Patricelli et al. 2012 (Recommendations for interim protections in WY) recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. We apply it

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			here as a lek-centric BMP because we may need to construct a road near a lek (perhaps for fire operations/access or to allow access to private lands or per ROW need). If we buffer roads in the Priority or Important Areas via a large lek buffer, it may lead to disturbance of a much larger area of nesting habitat in the course of avoiding the lek and buffers. The BMP would at least allow for siting to avoid the lek, and reducing road noise near the lek, without compromising broader landscapes.
	Commercial/ industrial Pipelines (oil, gas, slurry, and similar)	BMP: Priority, Important, General. Minimize removal of sagebrush within 0.6 miles of leks <sup>4</sup> .	<p>Application of this measure is designed to minimize loss of sagebrush in the vicinity of the lek. The main concern was with loss of sagebrush in vicinity of lek, that is used by GRSG for cover. The 0.6 mile buffer is based on rationale in the Colorado GRSG Conservation Plan as below:</p> <p>BACKGROUND                      INFORMATION: From Colorado GRSG Conservation Plan                      Appendix B: [Lek Habitat (March</p>

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			through mid-May) - The basis and rationale for the first radius, 0.6 miles from a lek (Fig. B-1), is developed by summarizing data from 5 separate studies of daytime movements of adult male sage-grouse during the breeding season (Carr 1967, Wallestad and Schladweiler 1974, Rothenmaier 1979, Emmons 1980, Schoenberg 1982), because daytime movements of adult male GRSG during the breeding season do not vary greatly. Wallestad and Schladweiler (1974) found daily movements of adult males ranged between 0.2 and 0.8 miles from leks, with a maximum cruising radius of 0.9 - 1.2 miles. Ellis et al. (1987) reported that dispersal flights of male GRSG (to day-use areas) ranged from 0.3 – 0.5 miles, with the longest flights ranging from 1.2 – 1.3 miles. Carr (1967) recorded a cruising radius for male GRSG that ranged from 0.9-1.1 miles. Rothenmaier (1979) found that 60-80% of male GRSG locations were within 0.6 - 0.7 miles of a lek. Emmons (1980) reported

## Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>that male dispersal distances to day-use areas of 0.1 miles were common and that 67% of all use areas were greater than 0.3 miles from the lek. In addition, Schoenberg (1982) found that male daily movements averaged 0.6 miles, but ranged from 0.02 - 1.5 miles.</p> <p>Male GRSG activity patterns during the breeding season include strutting during the early morning hours, feeding and loafing during the day, and roosting on the lek during the night. Grouse attending the lek do not always roost on the exact location where the strutting occurs the next morning. Occasionally (this is lek-dependent), grouse roost in adjacent sagebrush cover.</p> <p>Ultimately, male GRSG require an open area for strutting, and sagebrush immediately adjacent for feeding and loafing. Sagebrush adjacent to the lek is also used as escape cover from predators or other types of disturbance. Female GRSG that attend the lek also use</p>

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>the area in this zone in the same fashion as do males (Patterson 1952, Barnett and Crawford 1994, Coggins 1998).]</p> <p>Study locations noted above: Carr-Colorado; Wallestad and Schladweiller- Montana; Emmons-Colorado; Schoenberg- Colorado; Rothenmaier –unable to locate Univ. WY Thesis but study area not defined.</p>
	<p>Miscellaneous anthropogenic structures/ activities (e.g., corrals, water windmills, apiaries, signs, informational kiosks, etc.)</p>	<p>BMP Priority, Important, General: Avoid human activities or placement of new structures as noted within 2 miles (3.2 km) mi of a lek<sup>4</sup> or ensure they are out of the viewshed of the lek.</p>	<p>This is a catch all to reduce impact of miscellaneous structures where possible (some are tall<sup>5</sup>, such as water windmill, some are small, but have human activity- such as kiosks) or activities not otherwise addressed in this table. Based on biology team discussion and input, and Connelly et al. 2000 Guidelines that state, “avoid building powerlines and other tall structures that provide perch sites for raptors within 3 km of seasonal habitats” (page 977). Avoiding “seasonal habitats” entirely by 3 km would preclude any of these activities at all</p>

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			in Priority, Important or General, but siting 2 miles + from leks as a BMP would nonetheless help protect leks from disturbance. Adding the “viewshed” caveat can help with siting in cases where topography or such screens view of the activity or structure.
	Campgrounds and other developed recreation facilities (trailheads etc.)	BMP: Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	Biology team discussion. No literature specific to this issue. Aldrich (2012) mentions GRSB avoidance threshold 2.5 km from any single development at patch scale.
	OHV Play or Open Areas	RDF-Priority and Important; BMP for General. No new Open or Play areas.	Rationale is to reduce risk for further noise, habitat loss, fire risk in the Priority, Important and General Areas.
	Solid Minerals		These measures for solid minerals are intended to reduces noise and human disturbance to lekking birds. Siting/ avoidance buffers not realistic due to the nature of mineral deposits.
		Locatables-BMP Priority,	Regulations 43 CFR 3809.420

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		Important, General: Access roads and associated infrastructure not on the mining claim-Avoid disturbance to leks <sup>4</sup> during the lekking season.	performance standards, speak to T/E, and habitat. As a BMP, it provides an opportunity to work with the developer where we can, such as routing access roads etc., siting of facilities/infrastructure etc., that are off the claim, that we have some discretion with.
		Salables- RDF: Priority: Do not construct new salable development within 0.8 mile (1.3 km) of leks <sup>4</sup> .	<u>Salables</u> - No literature specific to salables but buffer distance is based on the noise literature for roads. See Patricelli et al. 2012 (WY recommendations for interim noise protections) that recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. Chose RDF for Priority and BMP in Important and General habitat since new Salable pits (e.g., gravel) may be necessary to support road maintenance or improvement for access by fire operations or for other locally important factors.



**Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary**

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		<p>Leasables-non-energy (e.g., phosphate)-</p> <p>RDF-Priority and Important: New phosphate leasing is administratively unavailable.</p> <p>BMP-Priority, Important, General- On existing leases avoid disturbance to leks<sup>4</sup> during the lekking season</p>	<p><u>Leasables:</u> None presently known in Priority based on current mapping, but Priority RDF included in case of a trigger trip and re-delineation of IDswMT subregional management areas.</p> <p>In “Important” there is only one such area with existing lease and Known Phosphate Lease Areas (KPLAs), just west of Bear. It is Federal mineral/private surface. No interest in surface mining but there is interest by a company in underground development. Company is proposing facilities on surface, but working with IDFG locally. Lek within .3 mile.</p> <p>BMP for lek disturbance for all Management Areas in case of trigger trip and IDswMT Management Area re-delineation and since there are some KPLAs in the General Management Area. Working with proponent to reduce lek disturbance is realistic and may take on different forms, such as</p>

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			road access, placement of facilities, etc.. However, “exclusion” buffers are not realistic given the nature of the location of solid mineral deposits (i.e., cannot site elsewhere). For these, incorporation of appropriate mitigation, in addition to the lek BMP may need to be a primary focus.
	Wind development (commercial)	RDF: Priority-No commercial wind development .  BMP: Important and General: Avoid wind development in nesting and/or winter habitat.	<u>Wind</u> : Labeau et al. (2014) stated that erecting wind turbines at least 5 km from nesting and brood rearing habitat should reduce negative impacts, at least in the short term. However putting a 5 km (3 mile) buffer around leks in Important habitat, would create a defacto closure for the most part, inconsistent with the intent of the Important designation. Hence BMP to avoid placement in nesting or winter habitat.
	Communication Towers	RDF: Priority -Do not allow communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> unless needed to address public safety needs.	Johnson et al. (2011 pg. 427) noted "Analogously, across all management areas there was a steady downward pattern of trends of lek counts as the number of

## Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		BMP- Important and General-- Avoid communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> . unless needed to address public safety needs.	towers increased, either within 5 km (Fig. 21) or within 18 km (Fig. 22)."
	Transmission Lines	RDF: Priority, Important, General: Do not allow transmission line construction within 600 m of a lek.  BMP Priority, Important, General: Avoid transmission line construction within 2 miles (3.2 km) of a lek.	A 600 m GRSG avoidance zone reported per Gillan et al. (2013). No other spatial buffer supported by literature. While 600 m is a citable buffer, a 2 mile zone as BMP for Transmission is recommended as well. Based on Connelly et al. 2000 Guidelines to avoid tall structures in important seasonal habitats.
	Distribution Lines	BMP: Priority, Important and General-Avoid distribution line construction within 600 m of a lek or bury where possible	600 m, based on Gillan et al. BMP as this may not always be feasible.
<b>Temporary functional loss of a lek<sup>4</sup>. SEASONAL RESTRICTION</b>			
	BLM and Forest Service permitted anthropogenic activities that result in noise or visual disturbance that may lead to sustained avoidance of the lek during a particular lekking	RDF: Priority and Important- No repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of	Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	season.	leks during the lekking season <sup>3</sup> .  BMP-General: Avoid repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season <sup>3</sup> .	as far as 1.6 km (~ 1 mile) from grouse leks. . IDswMT biology team recommended a more conservative approach to managing disturbance to minimize risk of disturbance.
	Sheep Bedding & Sheep Camps	BMP Priority, Important, General: Avoid bedding sheep and placing camps within 0.6 mi of a lek during the lekking season.	No literature. BMP based on biology team consensus.
	Organized Recreational Events	RDF Priority and Important-Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.  BMP General- Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.	Biology team consensus. No specific literature relative to buffers for recreational events but can manage this through avoiding the appropriate season. This threat (organized recreational events) is a short term, typically one-day event, with temporary disruption from noise the main issue.
<b>Permanent functional or physical loss of nesting or winter habitat.</b>			

## Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	Anthropogenic development or activities that result in loss of habitat or constant or repeated noise levels or objects on the landscape that result in permanent avoidance of the habitat.	Ensure > 80% of the landscape is functionally and physically meeting GRSG habitat objectives appropriate to the seasonal habitat <sup>3</sup> .	<p>Impacts resulting from loss of habitat vary depending on the extent of the habitat lost. Minimal loss of habitat (e.g. removal of small amounts of sagebrush cover) would not likely result in any measurable impacts to GRSG individuals or the associated populations.</p> <p>More extensive loss of habitat may result in increased probability of population level impacts, and trigger trips, through the increased probability that leks will no longer persist.</p>
	Roads	BMP: Priority, Important, General: Avoid construction of new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of nesting habitat.	See citations used for permanent loss of leks, above.
	Unreleased Fluid Minerals	Stipulation: Priority, Important, General: Limit average well pad density to no more than 1/640 acres within nesting <sup>3</sup> and winter <sup>3</sup> habitat.	See citations used for permanent loss of leks, above.
	Commercial Solar	RDF: Priority-No commercial solar	See citations used for permanent

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		development.  RDF: Important: Do not allow facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .  BMP-Important: Avoid placing new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	loss of leks, above.
	Campgrounds	BMP-Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	See citations used for permanent loss of leks, above.
	OHV Play and Open areas	RDF-Priority and Important. No new Open or Play areas. BMP-General: Avoid new Open or Play areas	See citations used for permanent loss of leks, above.
	Wind Development (commercial)	RDF Priority - No commercial wind development .  BMP: Important: Avoid wind development in nesting habitat	See citations used for permanent loss of leks, above.
Temporary functional loss of winter habitat			

## Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	Anthropogenic activities that result in noise or visual disturbance that may lead to avoidance of a particular wintering area during a particular wintering season.	RDF: Priority, Important- No repeated or sustained disturbance from construction activities in winter habitat during the wintering season.  BMP General: Avoid repeated or sustained disturbance from construction activities in winter habitat during the wintering season.	No known buffer. Biology team recommendation.

<sup>1</sup> Land use allocations or activities provided below are examples, but are not limited to those listed.

<sup>2</sup> Heavy equipment includes but is not limited to: tractors, discs, drills, mowers, Lawson aerators, large sprayers, masticators, dozers, graders, large trucks, excavators, backhoes cranes.

<sup>3</sup> As per Habitat Objectives table. Based on local GRSB seasonal use dates. Lekking ~ March 1-May 2<sup>5</sup> depending on elevation; Nesting /early brood ~April 1-June 30; Winter ~December 1-February 28. Source-Modified from ISAC 2006.

<sup>4</sup> Occupied lek as per IDFG definitions (active during at least one of past 5 years). Undetermined status leks will be evaluated on a case by case at the site specific scale during project-level NEPA.

<sup>5</sup> Definition of "tall structure": Any structure that has the potential to disrupt lekking or nesting GRSB and/or decrease the use of an area. This includes but is not limited to communication towers, meteorological towers, electrical transmission or distribution towers, etc.

<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
<b>Incidental disturbance to individual GRSG within all habitat types during all seasons</b>			
	Public or administrative activities that include incidental foot, aerial, horseback, or other similar travel.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Livestock grazing activities (except where specifically noted below).	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Public vehicle travel not otherwise restricted in Travel Management Plans; or administrative vehicle travel on existing routes for maintenance of existing infrastructure, facilities, or vegetation projects; or non-organized/non-permitted activities.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
<b>Loss (i.e. death) of nests/eggs, chicks and/or adults that may occur within the nesting<sup>4</sup> habitat during the nesting season</b>			
	Anthropogenic activities such as the use of heavy equipment <sup>2</sup> or	BMP Priority, Important, General: Avoid these activities within nesting	Application of the seasonal nesting habitat restriction would avoid and



<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
	targeted grazing in nesting habitat <sup>3</sup> for: 1) implementation of fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical exploration activities; 4) organized motorized recreational events	habitat during the nesting <sup>3</sup> season.	minimize the loss of nests/chicks/hens. This is a BMP since the impact is loss of individual grouse and is small scale and not population-scale. Disallowing infrastructure maintenance or construction in nesting habitat outright may not be realistic as an RDF. Impacts may be able to be offset via appropriate mitigation.
	Bedding Sheep & Associated Camps	BMP: Priority, Important, General: During the nesting season, locate bedding areas and camps outside of sagebrush areas <sup>3</sup> .	Application of the seasonal nesting habitat restriction would avoid/minimize the loss of nests/chicks by focusing bedding and camps in areas not meeting nest habitat characteristics for sagebrush cover (i.e., use areas less than 15% canopy cover).
	Fences	Existing Fences:  RDF: Priority and Important; BMP for General- Where consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management, move, modify (e.g. lay down fences) or mark existing fences to reduce collision risk within areas that have a high	Application of these measures would avoid/minimize the loss of birds to fence strikes.

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		probability of fence strikes (per Stevens et al. 2012 model or latest science).	
		New Fences:  RDF: Priority and Important; BMP for General- Do not construct new fences within areas of high collision risk unless marked or modified, consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management .	
<b>Permanent functional or physical loss of a lek or declining attendance at lek<sup>4</sup></b>			
	Unleased fluid minerals	Stipulation: Preiority, Important, General: Do not allow wells, pads, facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek.  Stipulation: Priority, Important, General: Limit average well pad density to no more than 1 per 640 acres within nesting <sup>3</sup> and winter <sup>3</sup> habitat.	This impact may have a population level effect and trip a population trigger therefore we recommended this be an RDF. Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km from grouse leks. The 1/640 density per based on consideration of 1) Harju et al. (2010) who found pad density of

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			1.54 pad/sq km (1 pad/247 ac ) had 13-74% lower attendance at leks and 2) Doherty (2008 page iii and 79) who noted potential impacts from oil and gas development were indiscernible at ~1 well/640 acres. IDswMT biology team recommended a more conservative approach to minimize risk of tripping a population trigger, hence the 1/640.
	Commercial solar development	RDF: Priority-No commercial solar development.  RDF: Important- Do not allow new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .  BMP-General: Avoid new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	No specific literature available relative to solar development. Recommended buffer is based on recent literature (Harju et al 2010) that 0.6 or 0.25 mile buffers are not. The 2 mile buffer is consistent with Connelly et al. 2000 regarding energy facilities (page 978).
	Roads	BMP: Priority, Important, General: Do not construct new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of leks <sup>4</sup> .	Patricelli et al. 2012 (Recommendations for interim protections in WY) recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. We apply it

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			here as a lek-centric BMP because we may need to construct a road near a lek (perhaps for fire operations/access or to allow access to private lands or per ROW need). If we buffer roads in the Priority or Important Areas via a large lek buffer, it may lead to disturbance of a much larger area of nesting habitat in the course of avoiding the lek and buffers. The BMP would at least allow for siting to avoid the lek, and reducing road noise near the lek, without compromising broader landscapes.
	Commercial/ industrial Pipelines (oil, gas, slurry, and similar)	BMP: Priority, Important, General. Minimize removal of sagebrush within 0.6 miles of leks <sup>4</sup> .	Application of this measure is designed to minimize loss of sagebrush in the vicinity of the lek. The main concern was with loss of sagebrush in vicinity of lek, that is used by GRSG for cover. The 0.6 mile buffer is based on rationale in the Colorado GRSG Conservation Plan as below:  BACKGROUND INFORMATION: From Colorado GRSG Conservation Plan Appendix B: [Lek Habitat (March

**Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary**

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>through mid-May) - The basis and rationale for the first radius, 0.6 miles from a lek (Fig. B-1), is developed by summarizing data from 5 separate studies of daytime movements of adult male sage-grouse during the breeding season (Carr 1967, Wallestad and Schladweiler 1974, Rothenmaier 1979, Emmons 1980, Schoenberg 1982), because daytime movements of adult male GRSG during the breeding season do not vary greatly. Wallestad and Schladweiler (1974) found daily movements of adult males ranged between 0.2 and 0.8 miles from leks, with a maximum cruising radius of 0.9 - 1.2 miles. Ellis et al. (1987) reported that dispersal flights of male GRSG (to day-use areas) ranged from 0.3 – 0.5 miles, with the longest flights ranging from 1.2 – 1.3 miles. Carr (1967) recorded a cruising radius for male GRSG that ranged from 0.9-1.1 miles. Rothenmaier (1979) found that 60-80% of male GRSG locations were within 0.6 - 0.7 miles of a lek. Emmons (1980) reported</p>

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>that male dispersal distances to day-use areas of 0.1 miles were common and that 67% of all use areas were greater than 0.3 miles from the lek. In addition, Schoenberg (1982) found that male daily movements averaged 0.6 miles, but ranged from 0.02 - 1.5 miles.</p> <p>Male GRSG activity patterns during the breeding season include strutting during the early morning hours, feeding and loafing during the day, and roosting on the lek during the night. Grouse attending the lek do not always roost on the exact location where the strutting occurs the next morning. Occasionally (this is lek-dependent), grouse roost in adjacent sagebrush cover.</p> <p>Ultimately, male GRSG require an open area for strutting, and sagebrush immediately adjacent for feeding and loafing. Sagebrush adjacent to the lek is also used as escape cover from predators or other types of disturbance. Female GRSG that attend the lek also use</p>

Idaho and Southwest Montana GRSB Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			<p>the area in this zone in the same fashion as do males (Patterson 1952, Barnett and Crawford 1994, Coggins 1998).]</p> <p>Study locations noted above: Carr-Colorado; Wallestad and Schladweiler- Montana; Emmons-Colorado; Schoenberg- Colorado; Rothenmaier –unable to locate Univ. WY Thesis but study area not defined.</p>
	Miscellaneous anthropogenic structures/ activities (e.g., corrals, water windmills, apiaries, signs, informational kiosks, etc.)	BMP Priority, Important, General: Avoid human activities or placement of new structures as noted within 2 miles (3.2 km) mi of a lek <sup>4</sup> or ensure they are out of the viewshed of the lek.	This is a catch all to reduce impact of miscellaneous structures where possible (some are tall <sup>5</sup> , such as water windmill, some are small, but have human activity- such as kiosks) or activities not otherwise addressed in this table. Based on biology team discussion and input, and Connelly et al. 2000 Guidelines that state, “avoid building powerlines and other tall structures that provide perch sites for raptors within 3 km of seasonal habitats” (page 977). Avoiding “seasonal habitats” entirely by 3 km would preclude any of these activities at all

<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
			in Priority, Important or General, but siting 2 miles + from leks as a BMP would nonetheless help protect leks from disturbance. Adding the "viewshed" caveat can help with siting in cases where topography or such screens view of the activity or structure.
	Campgrounds and other developed recreation facilities (trailheads etc.)	BMP: Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	Biology team discussion. No literature specific to this issue. Aldrich (2012) mentions GRSG avoidance threshold 2.5 km from any single development at patch scale.
	OHV Play or Open Areas	RDF-Priority and Important; BMP for General. No new Open or Play areas.	Rationale is to reduce risk for further noise, habitat loss, fire risk in the Priority, Important and General Areas.
	Solid Minerals		These measures for solid minerals are intended to reduces noise and human disturbance to lekking birds. Siting/ avoidance buffers not realistic due to the nature of mineral deposits.
		Locatables-BMP Priority,	Regulations 43 CFR 3809.420



Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		Important, General: Access roads and associated infrastructure not on the mining claim-Avoid disturbance to leks <sup>4</sup> during the lekking season.	performance standards, speak to T/E, and habitat. As a BMP, it provides an opportunity to work with the developer where we can, such as routing access roads etc., siting of facilities/infrastructure etc., that are off the claim, that we have some discretion with.
		Salables- RDF: Priority: Do not construct new salable development within 0.8 mile (1.3 km) of leks <sup>4</sup> .	<u>Salables</u> - No literature specific to salables but buffer distance is based on the noise literature for roads. See Patricelli et al. 2012 (WY recommendations for interim noise protections) that recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. Chose RDF for Priority and BMP in Important and General habitat since new Salable pits (e.g., gravel) may be necessary to support road maintenance or improvement for access by fire operations or for other locally important factors.

**Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary**

Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		<p>Leasables-non-energy (e.g., phosphate)-</p> <p>RDF-Priority and Important: New phosphate leasing is administratively unavailable.</p> <p>BMP-Priority, Important, General- On existing leases avoid disturbance to leks<sup>4</sup> during the lekking season</p>	<p><u>Leasables:</u> None presently known in Priority based on current mapping, but Priority RDF included in case of a trigger trip and re-delineation of IDswMT subregional management areas.</p> <p>In "Important" there is only one such area with existing lease and Known Phosphate Lease Areas (KPLAs), just west of Bear. It is Federal mineral/private surface. No interest in surface mining but there is interest by a company in underground development. Company is proposing facilities on surface, but working with IDFG locally. Lek within .3 mile.</p> <p>BMP for lek disturbance for all Management Areas in case of trigger trip and IDswMT Management Area re-delineation and since there are some KPLAs in the General Management Area. Working with proponent to reduce lek disturbance is realistic and may take on different forms, such as</p>

**Commented [BER1]:** Elena Shaw - The BMP says "New phosphate leasing is administratively unavailable in Important Habitat Mgmt. areas". However, the proposed mgmt. action (page 43) says that "areas outside of KPLAs are open to prospecting and subsequent leasing....." Do these statements say the same thing or do they differ?

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			road access, placement of facilities, etc.. However, "exclusion" buffers are not realistic given the nature of the location of solid mineral deposits (i.e., cannot site elsewhere). For these, incorporation of appropriate mitigation, in addition to the lek BMP may need to be a primary focus.
	Wind development (commercial)	RDF: Priority-No commercial wind development .  BMP: Important and General: Avoid wind development in nesting and/or winter habitat.	<u>Wind</u> : Labeau et al. (2014) stated that erecting wind turbines at least 5 km from nesting and brood rearing habitat should reduce negative impacts, at least in the short term. However putting a 5 km (3 mile) buffer around leks in Important habitat, would create a defacto closure for the most part, inconsistent with the intent of the Important designation. Hence BMP to avoid placement in nesting or winter habitat.
	Communication Towers	RDF: Priority -Do not allow communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> unless needed to address public safety needs.	Johnson et al. (2011 pg. 427) noted "Analogously, across all management areas there was a steady downward pattern of trends of lek counts as the number of

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		BMP- Important and General-- Avoid communication tower construction within 3 miles (5 km) of a lek <sup>4</sup> , unless needed to address public safety needs.	towers increased, either within 5 km (Fig. 21) or within 18 km (Fig. 22)."
	Transmission Lines	RDF: Priority, Important, General: Do not allow transmission line construction within 600 m of a lek.  BMP Priority, Important, General: Avoid transmission line construction within 2 miles (3.2 km) of a lek.	A 600 m GRSG avoidance zone reported per Gillan et al. (2013). No other spatial buffer supported by literature. While 600 m is a citable buffer, a 2 mile zone as BMP for Transmission is recommended as well. Based on Connelly et al. 2000 Guidelines to avoid tall structures in important seasonal habitats.
	Distribution Lines	BMP: Priority, Important and General-Avoid distribution line construction within 600 m of a lek or bury where possible	600 m, based on Gillan et al. BMP as this may not always be feasible.
<b>Temporary functional loss of a lek<sup>4</sup>. SEASONAL RESTRICTION</b>			
	BLM and Forest Service permitted anthropogenic activities that result in noise or visual disturbance that may lead to sustained avoidance of the lek during a particular lekking	RDF: Priority and Important- No repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of	Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended

<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
	season.	leks during the lekking season <sup>3</sup> .  BMP-General: Avoid repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season <sup>3</sup> .	as far as 1.6 km (~ 1 mile) from grouse leks. . IDswMT biology team recommended a more conservative approach to managing disturbance to minimize risk of disturbance.
	Sheep Bedding & Sheep Camps	BMP Priority, Important, General: Avoid bedding sheep and placing camps within 0.6 mi of a lek during the lekking season.	No literature. BMP based on biology team consensus.
	Organized Recreational Events	RDF Priority and Important-Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.  BMP General- Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.	Biology team consensus. No specific literature relative to buffers for recreational events but can manage this through avoiding the appropriate season. This threat (organized recreational events) is a short term, typically one-day event, with temporary disruption from noise the main issue.
<b>Permanent functional or physical loss of nesting or winter habitat.</b>			

<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
	Anthropogenic development or activities that result in loss of habitat or constant or repeated noise levels or objects on the landscape that result in permanent avoidance of the habitat.	Ensure > 80% of the landscape is functionally and physically meeting GRSG habitat objectives appropriate to the seasonal habitat <sup>3</sup> .	<p>Impacts resulting from loss of habitat vary depending on the extent of the habitat lost. Minimal loss of habitat (e.g. removal of small amounts of sagebrush cover) would not likely result in any measurable impacts to GRSG individuals or the associated populations.</p> <p>More extensive loss of habitat may result in increased probability of population level impacts, and trigger trips, through the increased probability that leks will no longer persist.</p>
	Roads	BMP: Priority, Important, General: Avoid construction of new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of nesting habitat.	See citations used for permanent loss of leks, above.
	Unleased Fluid Minerals	Stipulation: Priority, Important, General: Limit average well pad density to no more than 1/640 acres within nesting <sup>3</sup> and winter <sup>3</sup> habitat.	See citations used for permanent loss of leks, above.
	Commercial Solar	RDF: Priority-No commercial solar	See citations used for permanent

<b>Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary</b>			
<b>Impacts</b>	<b>Causes<sup>1</sup></b>	<b>Minimization Measures Seasonal/Timing Restrictions &amp; Buffers</b>	<b>Rationale</b>
		development.  RDF: Important: Do not allow facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .  BMP-Important: Avoid placing new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek <sup>4</sup> .	loss of leks, above.
	Campgrounds	BMP-Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	See citations used for permanent loss of leks, above.
	OHV Play and Open areas	RDF-Priority and Important. No new Open or Play areas. BMP-General: Avoid new Open or Play areas	See citations used for permanent loss of leks, above.
	Wind Development (commercial)	RDF Priority - No commercial wind development .  BMP: Important: Avoid wind development in nesting habitat	See citations used for permanent loss of leks, above.
Temporary functional loss of winter habitat			

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes <sup>1</sup>	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	Anthropogenic activities that result in noise or visual disturbance that may lead to avoidance of a particular wintering area during a particular wintering season.	RDF: Priority, Important- No repeated or sustained disturbance from construction activities in winter habitat during the wintering season.  BMP General: Avoid repeated or sustained disturbance from construction activities in winter habitat during the wintering season.	No known buffer. Biology team recommendation.

<sup>1</sup> Land use allocations or activities provided below are examples, but are not limited to those listed.

<sup>2</sup> Heavy equipment includes but is not limited to: tractors, discs, drills, mowers, Lawson aerators, large sprayers, masticators, dozers, graders, large trucks, excavators, backhoes cranes.

<sup>3</sup> As per Habitat Objectives table. Based on local GRSG seasonal use dates. Lekking ~ March 1-May 2<sup>5</sup> depending on elevation; Nesting /early brood ~April 1-June 30; Winter ~December 1-February 28. Source-Modified from ISAC 2006.

<sup>4</sup> Occupied lek as per IDFG definitions (active during at least one of past 5 years). Undetermined status leks will be evaluated on a case by case at the site specific scale during project-level NEPA.

<sup>5</sup> Definition of "tall structure": Any structure that has the potential to disrupt lekking or nesting GRSG and/or decrease the use of an area. This includes but is not limited to communication towers, meteorological towers, electrical transmission or distribution towers, etc.



## Appendix F – Idaho Key Habitat Map Update Process and Provisions for Addressing GRSG documented in New Areas Outside Priority, Important and General Habitat Management Areas

### Modifications to Priority, Important and General Habitat Management Areas:

The BLM and FS have worked closely with the State of Idaho and USFWS in using the best available science to delineate GRSG occupancy in Idaho to the extent possible, as reflected in the boundaries of the Priority, Important and General Habitat Management Areas (PHMA, IHMA, GHMA) identified in this Plan. These management areas will be reviewed and updated approximately every 5 years. Prior to a specific 5-year update, however, it is possible that due to progress toward conservation and habitat restoration, vegetation succession or new information arising from scientific studies or targeted surveys, additional areas of occupied GRSG habitat may be identified, occurring outside the three management areas. Such new areas of occupancy must be based on sound science (e.g., telemetry, formal habitat assessments documenting GRSG usage etc.) and represent an occupied seasonal habitat. They must not be based solely on random or occasional observations of GRSG. In these areas GRSG habitat on BLM and/or FS lands will be managed in accordance with Required Design Features, seasonal restrictions and/or BMPs deemed appropriate by BLM or FS for that area. During the 5-year map update, formal designation of these new areas as PHMA, IHMA or GHMA will be considered by BLM/FS in coordination with the State of Idaho and USFWS along with other recommendations for modification to existing PHMA, IHMA or GHMA areas.

### Modifications to the Key Habitat Map:

The Idaho GRSG Key habitat map displays several broad vegetation classes relevant to GRSG conservation and habitat restoration, that underlie and help inform the Priority, Important and General Habitat Management Areas. These vegetation classes include Key habitat, perennial grasslands, annual grasslands and conifer encroachment areas, and have been utilized in GRSG conservation in Idaho since 2000.

As directed in IM ID-2013-010, Idaho BLM annually updates the Key Habitat map. The purpose of this Instruction Memorandum (IM) is to request updates to the Idaho Sage-grouse Habitat Planning Map. The update is needed to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. This update is also intended to capture additional edits recommended by the field offices, sage-grouse Local Working Groups (LWG), or agency partners in sage-grouse conservation.

**Factors to Consider During Edits:** The following factors are applicable to land of any ownership status for which the Bureau of Land Management (BLM) data are available, or for which data or other information are provided by non-BLM partners. If such new data are unavailable, or not provided by partners, retain the existing spatial data in the dataset:

1. Wildfires that have occurred in the most recent calendar year fire season on land administered by the BLM and on land not administered by the BLM.
2. Vegetation management projects that have been completed within key habitat or potential restoration areas of sage-grouse planning areas. This includes activities

such as burned area rehabilitation seeding projects, sagebrush thinning/reduction, conifer thinning/reduction, restoration of annual grasslands, new fuel breaks, etc. However, only consider those treatment areas completed and where a change in habitat classification has occurred (e.g., from annual grassland to perennial grassland; perennial grassland to key habitat, etc.). Areas planned for treatment or in the process of treatment (e.g., cheatgrass chemical treatment is completed, but seeding is pending) should not be included until an observed change in habitat category is achieved.

3. Changes in habitat status resulting from vegetation succession, such as perennial grasslands that have transitioned to key habitat due to increased sagebrush cover.
4. Habitat mapping errors or omissions that have been identified in the existing Idaho Sage-grouse Habitat Planning Map and other edits recommended by sage-grouse conservation partners, as appropriate. For this item, it is crucial that BLM field office biologists or an alternate staff specialist coordinate closely with their agency partners, especially the UFSFS and the Idaho Department of Fish and Game (IDFG), to actively solicit and resolve additional suggested edits that we may not be aware of. Those edits must also be incorporated into the respective BLM office's update submission. This is vital to ensure that the update is completed efficiently and as collaboratively as possible.
5. Since the Idaho Sage-grouse Habitat Planning Map is intended for use by all conservation partners in Idaho, it is important that we maintain a seamless coverage across land ownerships. In that regard, when editing, do not clip out BLM (or non-BLM land) on the basis of land ownership. Rather, make edits based on vegetation boundaries only, using the best available information and professional judgment. If you have uncertainties about accuracies for certain areas, document that in the metadata as appropriate.
6. Based on discussions during map updates in recent years, we will again use a 10.0 acre minimum polygon size for wildfires since data are readily available to that scale. For vegetation treatments, we will also use a minimum area of 10 acres. For sagebrush or other vegetation patches (e.g., key habitat, perennial grassland, annual grassland, conifer encroachment), delineate habitat to the extent you have data, recognizing that some offices may have more recent, finer resolution data than others.
7. Areas that have recently burned, for which the field has little or no information as to habitat status, should be classified as "recent burn." Efforts to document the general habitat status in these areas should be made the following field season if possible, in preparation for the next map update. The field may also attribute 2013 fires as perennial grassland or annual grassland, as appropriate.

8. Sage-grouse habitat polygon descriptions relevant to this IM include key habitat, perennial grassland, annual grassland, and conifer encroachment potential restoration areas.
  - o Key habitat includes areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year.
  - o Perennial grassland can be reclassified as key habitat once average sagebrush canopy cover is at least 10 percent.
  - o Annual grassland areas may be reclassified as perennial grassland once a restoration, fuels treatment or related project, such as an Emergency Stabilization and Rehabilitation (ES&R) seeding, is considered successful (i.e., seeded perennial species have successfully established).
  - o Conifer encroachment areas may be reclassified as key habitat following treatment of conifers if sagebrush cover is at least 10 percent and there is a perennial understory. They can also be reclassified as perennial grasslands if native perennial herbaceous species are dominant or if an associated restoration seeding is successful.
  
9. Field offices must ensure that original project-level data utilized in this update, including Global Positioning System data files, spatial, tabular and metadata associated with specific vegetation treatments, restoration projects, ES&R projects, etc., are archived at the field level and readily accessible in the event of future data calls.

## Appendix G – Anthropogenic Disturbance and Adaptive Management

### Part I – Baseline Map and Description of Development

The **biologically significant units (BSUs)** are geographical/spatial areas within Greater Sage-grouse habitat that contains relevant and important habitats which is used as the basis for comparative calculations to support evaluation of changes to habitat. The BSUs include all land ownerships for evaluation, although application of the anthropogenic disturbance cap is specific only to BLM and Forest Service lands. The BSUs are used in the evaluation of anthropogenic disturbance and in the adaptive management habitat trigger.

For the Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment EIS the biologically significant units are defined as:

*Idaho: All of the modeled nesting<sup>1</sup> and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas<sup>2</sup>*

*Montana: All of the Priority Habitat Management Area*

These BSUs form the geographic basis for the calculation of anthropogenic disturbance and in the soft and hard adaptive management habitat triggers.

While the BSUs define the geographic extent and scale of the Subregion's landscape that will be considered in evaluating anthropogenic disturbance and the adaptive management habitat triggers, how disturbance and habitat triggers are calculated differ since anthropogenic disturbance and habitat loss affect Greater Sage-grouse differently (Knick et al. 2013).

The BSU is the total area (acreage) of nesting and wintering habitat within Priority or Important Habitat Management Areas, separately, by each Conservation Area. For Idaho this results in 8 BSUs, 2 each within the Idaho Conservation Areas – 1 in Priority Habitat Management Areas and 1 in Important Habitat Management Areas. There is 1 BSU in southwest Montana and 1 BSU for the Utah portion of the Sawtooth National Forest (Raft River BSU). There are a total of 10 BSUs within the Idaho and Southwestern Montana Subregion as shown in Map-G-1.

In developing these BSUs it was determined at the subregional level that data from these units must be compatible with aggregation to the PAC and WAFWA Management Zone levels, in order to meet FWS needs. In addition, BSUs must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

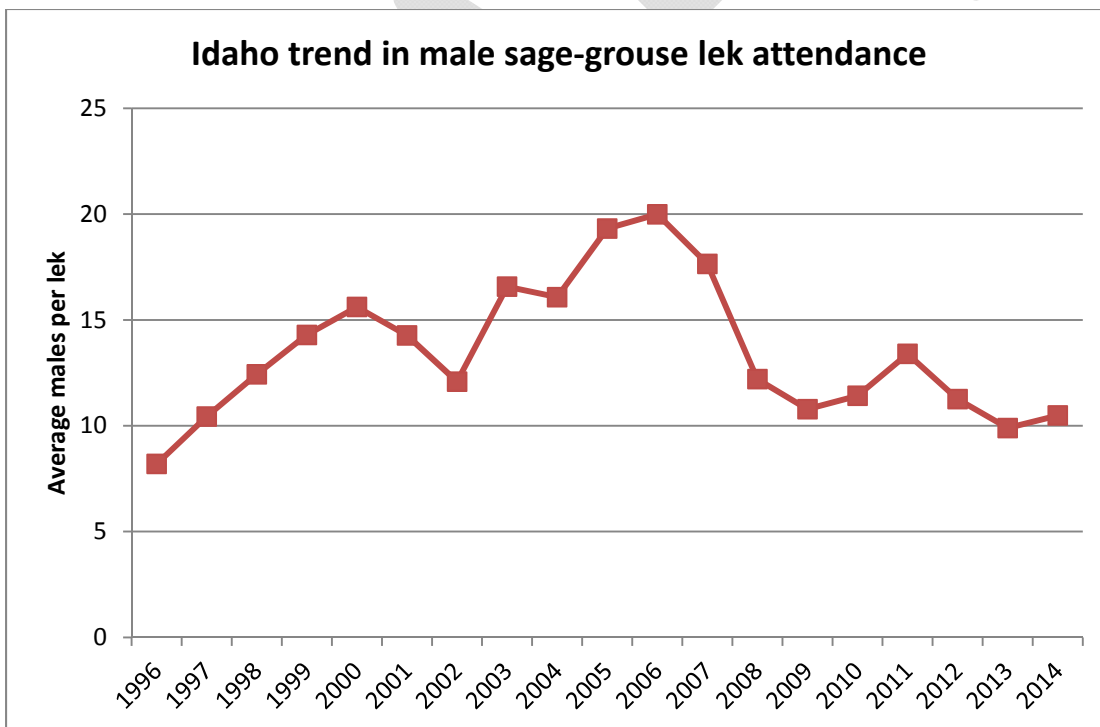
<sup>1</sup> Modeled nesting habitat is defined as those areas of Priority or Important Habitat Management Areas within 6.2 miles of 2011 active leks.

<sup>2</sup> The Utah portion of the Sawtooth National Forest is calculated separately for the Southern Conservation area.

The application of these calculations requires certain assumptions and associated baseline values which set an appropriate benchmark for future comparison.

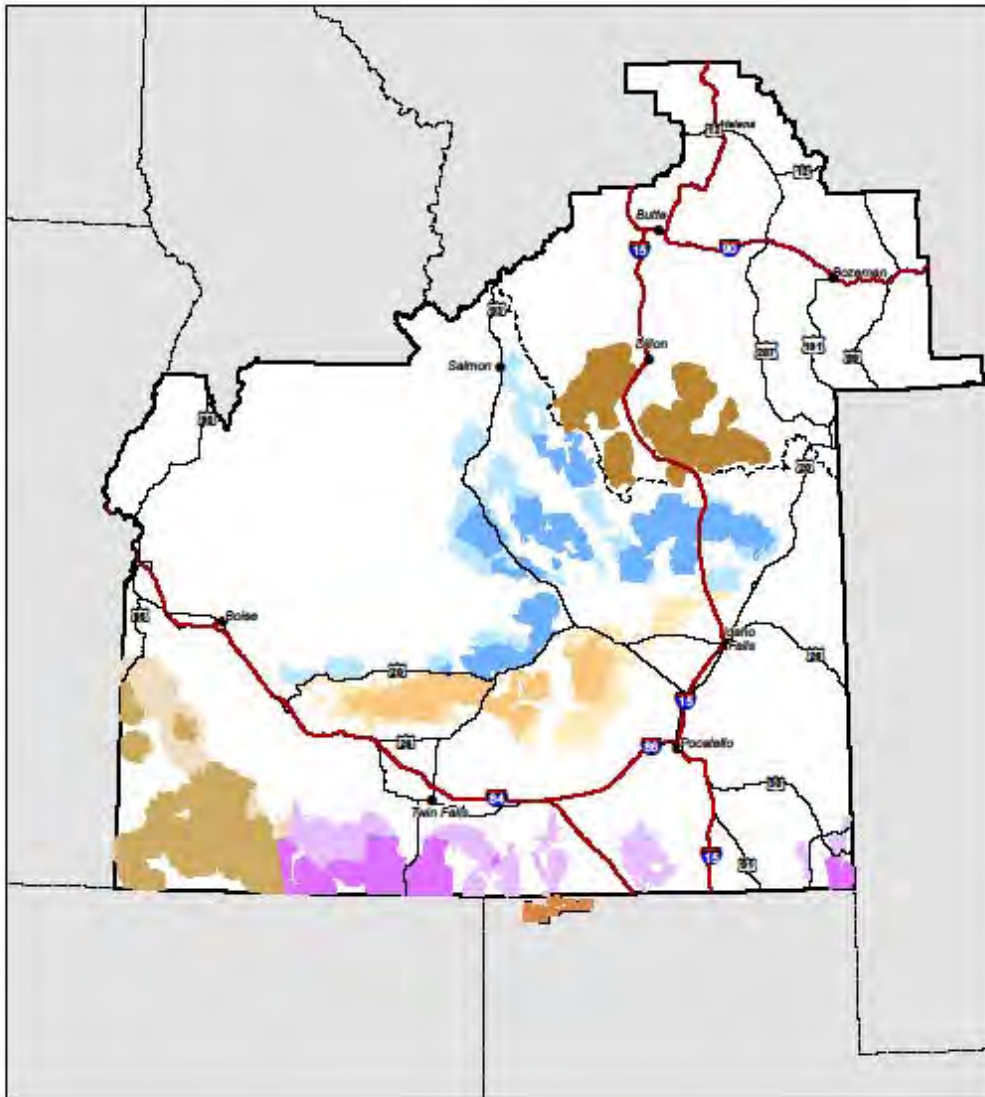
For the adaptive management evaluation in Idaho the baseline year for comparison of both the population and habitat values is set at 2011. Sage-grouse have been monitored by counting males on leks since the 1950's (IDFG files). Average male lek attendance (statewide average) reached a low point in 1996 (IDFG in file). A more consistent and intensified survey of leks began with the annual monitoring of all 78 lek routes across southern Idaho in 1996. Average male lek attendance has fluctuated since 1996 (Figure G-1) in response to favorable or unfavorable conditions (e.g. weather, habitat improvements or loss, and West Nile virus). Peaks were in 2000, 2006, and 2011 with low points in 2002 and 2009. The increase in male lek attendance after previous declines indicates that sage-grouse populations can rebound over a relatively short time frame (e.g. 5 years) given desirable conditions. The baseline was set at the 2011 average number of males because this level is approximately the medium (8 higher and 7 lower years) of the counts between 1996-2011. At the statewide scale, the 2011 baseline allows 10% and 20% population triggers to be above the second lowest point in 2009. Application of the trigger at a smaller (Conservation Area) scale is a more conservative approach that will indicate potential trends sooner than if applied at the state-wide scale.

Figure G-1. Idaho Trend in Male Sage-grouse Lek Attendance.



Map-G-1

### Biologically Significant Unit



- Idaho Desert Conservation Area - Core
- Idaho Desert Conservation Area - Important
- Idaho Mountain Valleys Conservation Area - Core
- Idaho Mountain Valleys Conservation Area - Important
- Idaho Southern Conservation Area - Core
- Idaho Southern Conservation Area - Important
- Idaho West Owyhee Conservation Area - Core
- Idaho West Owyhee Conservation Area - Important
- Raft River - Core
- SW Montana Conservation Area - Core
- Analysis Boundary

**Part II – Anthropogenic Disturbance Calculation**

The specific formula for the percent of anthropogenic disturbance is defined by:

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

The BSU in the denominator represents the total area (acreage) of the applicable area of analysis. Each BSU is tracked and evaluated separately within each of the 10 BSUs, and reaching the 3% disturbance cap in any one BSU has specific management implications both within and beyond that specific BSU as described in the Proposed Plan.

All sub-regions within the Great Basin Region will use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis and would use local data and/or more current satellite imagery if available.

Anthropogenic Disturbance included in the numerator is shown in Table G-1.

Table G-1. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
Oil and Gas Wells and Development Facilities	HIS; BLM (AFMSS)	5.0 ac
Coal Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resource Data System	Polygon Area
Wind Towers	Federal Aviation Administration	3.0 ac
Solar Fields	Platts (power plants)	7.3 ac
Geothermal Development Facilities	IHS	3.0 ac or Polygon Area
Mining (Active Locatable, Leasable and Saleable Developments)	InfoMine	5.0 ac or Polygon Area
Roads <sup>4</sup>	ESRI StreetMap Premium	40.7 ft. (surface streets) 84.0 ft. (major roads) 240.2 ft. (Interstate Hwys.)
Railroads <sup>5</sup>	Federal Railroad Administration	30.8 ft.
Powerlines <sup>6</sup>	Platts	100 ft. (1-199kV)

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

<sup>4</sup> Values described for line features – roads; railroads; powerlines – represent associated widths centered on the line feature.

<sup>5</sup> See previous note.

<sup>6</sup> See previous note.

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
		150 ft. (200-399kV) 200 ft. (400-699kV) 250 ft. (700+kV)
Communication Towers	Federal Communications Commission	2.5 ac
Other Vertical Structures	Federal Aviation Administration	2.5 ac
Additional Local Datasets (need definitions)		
Underground Pipelines		
Coal Bed Methane Ponds		
Meteorological Towers	BLM; Federal Communications Commission	2.5 ac
Nuclear Energy Facilities	As Available	Polygon Area
Airports	Federal Aviation Administration	Polygon Area
Military Ranges (ground based?)		
Hydropower plants		
Recreation Areas (Developed)	BLM data	Polygon Area

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance (see Part V for definitions):

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

**Non-Disturbance**

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.
- Linear transportation features identified as primitive routes.
- Linear disturbances.



### *Derivation of the Disturbance Formula -*

There is no definitive and scientifically proven formula to determine impact to GRSG from disturbance described in current research. However, Knick et al. (2013) did describe certain relationships between GRSG and anthropogenic disturbance that have been used, in conjunction with specific assumptions to describe a mathematical relationship between human disturbance footprint, effective GRSG habitat and effects to GRSG.

The variables in the equation are defined as:

- Acres of a Biologically Significant Unit (BSU)
- Acres of Anthropogenic Development within the BSU
- Acres of Effective GRSG Habitat (sagebrush) within the BSU

Knick et al. (2013) defined their unit of comparison (analogous to a biologically significant unit) as an area within 5 km of the lek. Within this area they also found that 79% of this area contained sagebrush (analogous to effective GRSG habitat). Results of the study show that “Ninety-nine percent of active leks were in landscapes with <3% developed”. This shows that when areas within 5 km of a lek containing 79% sagebrush were 3% developed there was a measurable effect on the presence of GRSG – this defines a disturbance threshold of 3% at which point GRSG are affected. Knick et al. developed a habitat similarity relationship between the proportion of leks and percent of sagebrush which shows the highest proportion of leks when sagebrush percentage is between 70-90% (Knick et al. 2013, Figure 5, Connelly et al. 2000, Wisdom ???). Above 90% and below 70% the proportion of leks is reduced. This helps define the optimum range for sagebrush at between 70-90% and also indicates that the disturbance threshold of 3% is also dependent upon and varies with the percent of sagebrush present (effective habitat).

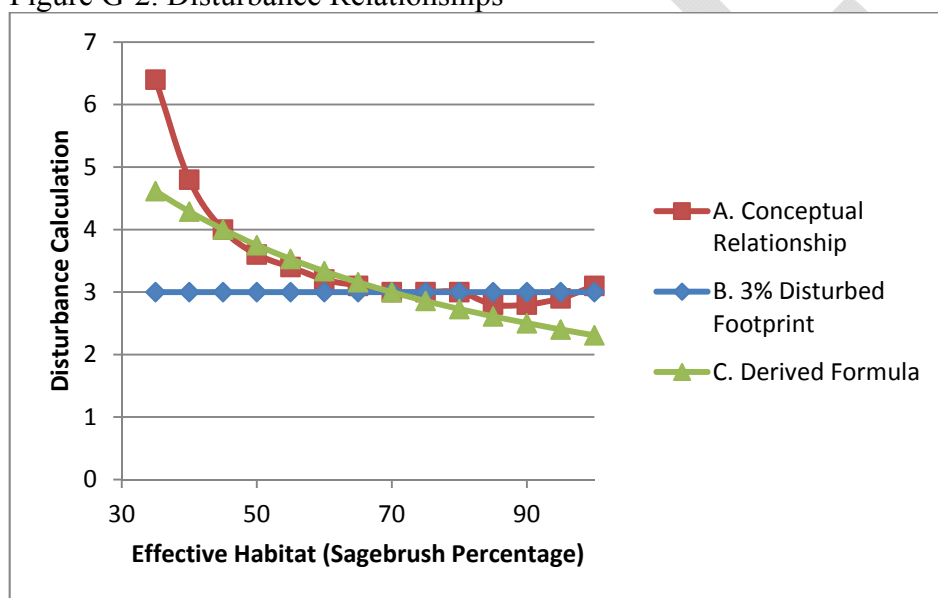
These findings from Knick et al. (2013) help define some mathematical parameters to define a modeled relationship between disturbance, effective habitat and effects to GRSG. Figure G-2 illustrates three different ‘disturbance curves’ that reflect the relationship between disturbance (y-axis) and effective habitat (sagebrush percentage) (x-axis) when the footprint disturbed is equivalent to 3% of the area. The red boxes (A) represent the conceptual relationship between disturbance and effective habitat as described and interpreted from Knick et al. (2013). The blue diamonds (B) represent a simple calculation based only on disturbance footprint, without regard to effective habitat. The green triangles (C) represent the derived formula to model the relationship.

The ‘A’ disturbance curve shows that when the disturbance footprint is 3% of the area and the sagebrush percentage is between 70-90% the disturbance calculation would be 3. When sagebrush percent falls below 70% or rises above 90%, the change in habitat, even without a change in disturbed footprint would begin to affect the presence of GRSG. As the amount of sagebrush declines while disturbance remains the same there would be an increasing effect to GRSG presence. This disturbance curve is conceptual and Knick et al. (2013) does not explicitly define this relationship, although this relationship does reflect numerical the observations described in Knick et al. (2013).

The ‘B’ disturbance curve is a straight calculation based only on disturbed footprint over a specified area. It does not account for variability of sagebrush percentage, and the only variable is the acres of disturbance. For an area that is 3% disturbed the relationship ‘curve’ is a flat line at 3, regardless of sagebrush percentage. This ‘curve’ or calculation would match the conceptual curve when sagebrush percentage is between 70 and 90%. This calculation would not account for changes in effective habitat due to loss through fire or gain through restoration and rehabilitation.

The ‘C’ disturbance curve models and approximates the conceptual relationship described in Knick et al. (2013). It accounts for changes in effective habitat that would translate into variable effects to GRSG based on loss or gain of habitat. It includes the ability to consider habitat loss such as from fire and to consider habitat gain such as from rehabilitation efforts including conifer removal. The model matched the conceptual relationship in the range of 70% sagebrush and approximates the conceptual relationship in areas with more or less sagebrush cover. The conceptual relationship assumes a more exponential relationship to GRSG effects from loss of habitat, while the derived formula assumes a more linear relationship. There are no available scientific studies that more clearly define the nature of the relationship. The derived formula and the conceptual relationship are substantially similar from 35-90% sagebrush percentage to validate the derived formula’s relative approximation of the relationship.

Figure G-2. Disturbance Relationships



**Development of the Modeled Formula:**

In order to manage and apply a defined disturbance cap it is necessary to take the findings of the appropriate scientific research and utilize them as appropriately as possible to develop management strategies and evaluation techniques consistent with the management objective. Most scientific research is not completed with the intent to develop specific management objectives or approaches; however, it is through the management approaches that the scientific findings utilized to inform management.

Development of the modeled formula began by describing the simplest relationship of disturbance across a defined area by defining the disturbance percentage as:

$$\% \text{ Disturbance} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within Area of Concern}} \right) * 100$$

This accounts for disturbance, but does not account for changes in effective habitat or sagebrush percentage as described in Knick et al. (2013). To account for effective habitat the formula needs to include a term that adjusts the resulting calculation with regard to effective habitat. This should be reflected as an adjustment to the denominator (acres within area of concern). The denominator would be weighted based on the amount of effective habitat. In mathematical terms this would give a denominator of:

$$(\text{Acres within Area of Concern}) * (\text{Adjustment Based on Effective Habitat})$$

The adjustment term must equal 1.0 when the effective habitat is somewhere between 70-90% as described in Knick et al. (2013). Assuming the adjustment term is related to the relative percentage of sagebrush or effective habitat then the *Adjustment Based on Effective Habitat* could be expressed as:

$$\frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}}$$

However, this term does not equal 1.0 when effective habitat is less than 100%. In order to meet the requirement of equaling 1.0 a constant must be added. This constant, when added to the percentage calculated in the previous term must equal 1.0 when the *Acres of Effective Habitat within the Area of Concern* is somewhere between 70-90%. In the Idaho and Southwestern Montana Subregional Plan an objective of 70% effective habitat has been defined, which is consistent with Knick et al. (2013). If the objective is 70% then the constant that must be added to this term is 0.3 in order to meet the requirement of equaling 1.0 at 70% effective habitat. This defines the following derived formula that approximates the conceptual relationship described in Knick et al. (2013).

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance within Area of Concern}}{\text{Acres within the Area of Concern} * \left( \frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}} + 0.3 \right)} \right) * 100$$

**Scale:**

The particular scale for which this formula is calculated is defined by the Area of Concern. The Knick et al. (2013) used a study area defined by the area within 5 km of an individual lek. The disturbance relationships described previously are applicable at this scale and begin to break down or lose their integrity at greater distances from the lek (18 km). This concern, coupled with limited availability of consistent data across broader areas undermines the reliability and accuracy of the calculation when including areas more distant from the lek.

From a management perspective there is a need to address concerns at the broader scale to help manage those threats before they become a concern at the site specific scale. In Idaho, nesting location data collected by Idaho Department of Fish and Game (IDFG), shows that most nesting habitat occurs

within 6.2 miles (10 km) of the lek. IDFG has also collected telemetry data on GRSG movements and used this data to help define wintering areas. Nesting and wintering areas are the most limited and seasonal habitats in Idaho and additional disturbance in those areas could have impacts to GRSG presence. For these reasons the Area of Concern, referred to as the Biologically Significant Unit have been delineated to include nesting and wintering habitats. This results in areas that include more acres than just those associated within a 5 km area of an individual lek as described by Knick et al. (2013), but that are associated (within 6.2 miles or 10 km) with leks. While the Knick et al. (2013) study did not include winter habitat, because of their relative importance they have also been included as part of the BSU since conceivably disturbances that would cause lek abandonment would also likely cause abandonment or avoidance of other seasonal habitat areas. Using other administratively defined areas not delineated or based on specific GRSG use may undermine the utility and integrity of the disturbance relationship and calculation.

This approach, built upon the findings in Knick et al. (2013), uses those findings to help inform management at a broader scale that would help determine management actions based on disturbance evaluations. Using the BSU as the Area of Concern is a scale larger than described in Knick et al. (2013), but still within the predictive bounds described in that study. The formula can be used to calculate disturbance at the BSU scale to help inform a disturbance cap, and it can also be used at the site or project scale to help inform specific project activities.

**Example 1 – Anthropogenic Disturbance**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres and the Important BSU was delineated to include 1,036,455 acres, which represent the acres of the Biologically Significant Unit to be used in the denominator. The acres of Effective Habitat in the Priority BSU are 424,656 and in the Important BSU are 447,497. This sets up two equations – one for Priority Habitat Management Areas and one for Important Habitat Management Areas.

The existing footprint acres of disturbance within the Priority BSU are 17,661 acres and the footprint acres of disturbance within the Important BSU are 12,748 acres.

This gives the following two equations to define the baseline disturbance condition in the BSUs:

$$Priority = \frac{17661}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100$$

$$Or \left( \frac{17661}{784958 * (0.54) + 0.3} \right) * 100$$

$$Or \left( \frac{17661}{784958 * (0.84)} \right) * 100$$

Yielding a percent disturbance in the Priority BSU of 2.68%

$$Important = \frac{12748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance in the Important BSU of 1.68%

If by 2015 we project additional development within the Priority BSU to be 2120 acres (a 12% increase) and development within the Important BSU to be 4000 acres (a 30% increase) then the Priority footprint acres becomes 20,161 acres and the Important footprint acres becomes 16,748 acres. The resulting evaluation for this cumulative disturbance is calculated by:

$$Priority = \frac{19781}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100 \quad Important = \frac{16748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance as: Priority = 3.00% and Important = 2.21%

In the examples, given the existing disturbance footprint it would require development of an additional 2,120 acres in the Priority BSU and an additional 10,005 acres in the Important BSU before the 3% cap would be engaged.

### Part III - Adaptive Management

#### Adaptive Management Habitat Trigger-

The specific formula for the change in habitat for the habitat trigger is defined by:

Within Idaho and Utah all factors are measured within the modeled nesting and wintering habitat within Priority or Important Habitat Management Areas (calculated separately) by Conservation Area; in Southwest Montana all factors are measured within the Priority Habitat Management Area.

In simple description the adaptive management habitat trigger calculation is the percentage of Effective Habitat (defined as areas of generally intact sagebrush that provide Greater sage-grouse habitat during some portion of the year) within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area within a particular year when compared to the Effective Habitat within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area as of the 2011 baseline. Using Effective Habitat as the metric of comparison removes non-habitat acres from the calculation. The calculation is evaluated within both Priority and Important Habitat Management Areas separately within each of the 10 BSUs.

For purposes of evaluating the adaptive management habitat triggers, Effective Habitat in Idaho is tracked using the Key Habitat Map which is updated annually by BLM in coordination with IDFG, Forest Service, US FWS and Local Working Groups and tracks the areas of generally intact sagebrush providing Greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map. Appendix F contains a description of the Key Habitat Map maintenance and update process including the inclusion of disturbances from fire and temporary disturbances and habitat restoration/rehabilitation. **For Montana and Utah Effective Habitat is based on...**

Factors: EHP(Y) – where Y is the year and EHC is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(Y) - where Y is the year and EHI is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year within the 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year (Y) within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

EHP(2011) – the Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(2011) - the Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

Formulas:

$$\text{Priority Habitat Management Area} = 100 - \left( \frac{EHP(Y) - ADP(Y)}{EHP(2011) - ADP(2011)} \right) * 100$$

$$\text{Important Habitat Management Area} = 100 - \left( \frac{EHI(Y) - ADI(Y)}{EHI(2011) - ADI(2011)} \right) * 100$$

When this calculation equals or exceeds 10 then an adaptive trigger has been engaged as per AM-7 & AM-8.

Tables 2-7 describe the acreages associated with the BSUs by Conservation Area for the Idaho and Southwestern Montana Subregion. The tables contain values for the entire BSU (Priority and Important), including all ownerships, acres of effective habitat within the BSUs and acres of anthropogenic disturbance within the BSUs.

These values will be used to provide several examples applying the anthropogenic disturbance and adaptive management habitat trigger evaluations. These are for illustrative purposes and do not represent an actual evaluation of ground conditions.

**Example 2 – Adaptive Management – Habitat**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres, of which 424,656 acres were Effective habitat; therefore EHP(2011) is equal to 424,656 acres. Development within the Effective Habitat in 2011 was measured at 10,074 acres; therefore ADP(2011) is equal to 10,074 acres.

If in 2015 we project a cumulative loss of 42,000 Effective habitat acres due to wildfire (10% loss) and an additional 1000 acres of anthropogenic development (10% increase), then

EHP(2015) is equal to 424,656 – 42,000 or 382,656 and ADP(2015) is equal to 10,074+1000 or 11,074. The evaluation for the adaptive management trigger is calculated by:

$$100 - \left( \frac{382656 - 11074}{424656 - 10074} \right) * 100$$

This simplifies to:  $100 - \left( \frac{371582}{414582} \right) * 100$

Or  $100 - (0.896 * 100)$

Or  $100 - 89.6$

Or  $10.4 - \text{equivalent to } 10.4\%$

This evaluation shows a loss of greater than 10 percent and less than 20 percent which would engage the soft habitat trigger as described in AM-8 and not the hard habitat trigger described in AM-7.

**Soft Trigger Considerations and Implementation Actions**

The Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service would utilize monitoring information to assess when triggers have been tripped. When information indicates that the soft habitat or population trigger may have been tripped, a Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service - aided by the technical expertise of IDF&G - would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to BLM possible changes in management to the PHMA. As to the IHMA, the Sage-Grouse Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state's ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Sage-Grouse Implementation Task Force analyze the secondary threats to the species and determine whether further management actions are needed.

**Potential Implementation Level Actions to Consider in the Event Soft Trigger Criteria are Met**

- ✓ Increase monitoring and evaluation of sage-grouse populations in Priority Habitat Management Area (area of concern).
- ✓ Implement Priority Habitat Management Area management strategy in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Implement Priority Habitat Management Area RDFs in corresponding Important Habitat Management Area of the same Conservation Area.



- ✓ Not allow any new (large) infrastructure development within the Priority Habitat Management Area (no exceptions allowed).
- ✓ Reallocate resources to focus on primary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Apply Priority Habitat Management Area criteria for all primary threats, and/or all secondary threats to the Important Habitat Management Area.
- ✓ Reallocate resources to focus on primary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).

**If Livestock Grazing is determined to be a Causal Factor Consider the Following Measures:**

1. Employ grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.
2. When use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat, include as appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) in grazing programs.
3. If available and feasible, utilize exotic perennial grass seedings and/or annual grasslands to avoid breeding season of use of occupied sage-grouse habitat.
4. Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse.
5. Where appropriate, maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Table 5.
6. Insure that permittees are informed of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.
7. Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site. In some cases enclosure fencing may be a viable option. However, recognize the availability and quality of desired herbaceous species may be improved by periodic grazing use of the enclosure.
8. Implement management actions (grazing decisions, allotment management plan/conservation plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. Employ proper grazing management by providing flexibility in scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives. During drought periods, prioritize evaluating effects of drought in the CMA relative to grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.
9. When using salt or mineral supplements: a) place them in existing disturbed sites, areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites—to reduce impacts to sage-grouse breeding habitat, b) where feasible use salts or mineral supplements to improve management of livestock for the benefit of sage-grouse habitat.

10. In general, avoid constructing new fences within 2 km of occupied leks. Where feasible, place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors. Careful consideration, based on local conditions, should also be given to the placement of new fences or structures near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.
11. New spring developments in sage-grouse habitat should be designed to maintain or enhance the free-flowing characteristics of springs and wet meadows. Analyze developed springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat. Make modifications where necessary, considering impacts to other water users when such considerations are neutral or beneficial to sage-grouse.
12. Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife. Do not use floating boards or similar objects, as these are too unstable and are ineffective. Use BMPs to mitigate potential impacts from West Nile virus.
13. When placing new water developments in sage-grouse breeding habitat, choose sites and designs that will provide the greatest enhancement for sage-grouse and sage-grouse habitat.
14. Avoid new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.
15. Identify and when feasible, establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas.
16. Monitor for, and treat invasive species associated with, existing range improvements.
17. Consider initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth. These projects should only be undertaken where it can be achieved without negatively impacting the species.

### **Adaptive Grazing Management Response**

BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on allotments within the CMA that have declining sage-grouse populations. Following those permits within the CMA, resources will be further prioritized to allotments within the IMA with breeding habitats that have decreasing lek counts. Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the adaptive assessment process. The assessment/determination process for sage-grouse pursuant to Standard 8 will consider published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

Where an allotment or pasture meets one of these Categories above, the GRSG Habitat Management Objectives will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable:

- (a) due to the existing ecological condition, ecological potential or the existing vegetation; or
- (b) due to causal events unrelated to existing livestock grazing.

Allotments will only be managed for the primary seasonal habitat that it has the potential to support. Based on these habitat characteristics, BLM will conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics GRSG HMOs will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management shall not result from one year of data at a specific location within an allotment. If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics GRSG HMOs, renewed permits will include measures to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.

**Part IV – Anthropogenic Disturbance and Adaptive Management 2011 Baseline Indices**

**Table G-2 – Desert Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Desert Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-3 – Mountain Valleys Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Mountain Valleys Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-4 – Southern Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southern Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)	560,985	784,958	424,656	17,661	10,074
Important BSU (nesting and wintering)	798,691	1,036,455	447,497	12,748	6,289

**Table G-5 – West Owyhee Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>West Owyhee Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-6 – Southwest Montana Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southwest Montana Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

**Table G-7 – Raft River (Utah Portion of Sawtooth National Forest)**

				Existing Anthropogenic Disturbance	
<b>Utah portion of Sawtooth National Forest</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

## **Part V - Travel and Transportation Management Definitions for Use in Anthropogenic Disturbance Calculation**

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

### ***Maintenance Intensities***

#### **Level 0**

##### Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

**Maintenance Objectives:**

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1****Maintenance Description:**

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

**Maintenance Objectives:**

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3****Maintenance Description:**

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

**Maintenance Objectives:**

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

**Level 5**

## Maintenance Description:

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

## Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.



## Appendix G – Anthropogenic Disturbance and Adaptive Management

### Part I – Baseline Map and Description of Development

The **biologically significant units (BSUs)** are geographical/spatial areas within Greater Sage-grouse habitat that contains relevant and important habitats which is used as the basis for comparative calculations to support evaluation of changes to habitat. The BSUs include all land ownerships for evaluation, although application of the anthropogenic disturbance cap is specific only to BLM and Forest Service lands. The BSUs are used in the evaluation of anthropogenic disturbance and in the adaptive management habitat trigger.

For the Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment EIS the biologically significant units are defined as:

*Idaho: All of the modeled nesting<sup>1</sup> and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas<sup>2</sup>*

*Montana: All of the Priority Habitat Management Area*

These BSUs form the geographic basis for the calculation of anthropogenic disturbance and in the soft and hard adaptive management habitat triggers.

While the BSUs define the geographic extent and scale of the Subregion's landscape that will be considered in evaluating anthropogenic disturbance and the adaptive management habitat triggers, how disturbance and habitat triggers are calculated differ since anthropogenic disturbance and habitat loss affect Greater Sage-grouse differently (Knick et al. 2013).

The BSU is the total area (acreage) of nesting and wintering habitat within Priority or Important Habitat Management Areas, separately, by each Conservation Area. For Idaho this results in 8 BSUs, 2 each within the Idaho Conservation Areas – 1 in Priority Habitat Management Areas and 1 in Important Habitat Management Areas. There is 1 BSU in southwest Montana and 1 BSU for the Utah portion of the Sawtooth National Forest (Raft River BSU). There are a total of 10 BSUs within the Idaho and Southwestern Montana Subregion as shown in Map-G-1.

In developing these BSUs it was determined at the subregional level that data from these units must be compatible with aggregation to the PAC and WAFWA Management Zone levels, in order to meet FWS needs. In addition, BSUs must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

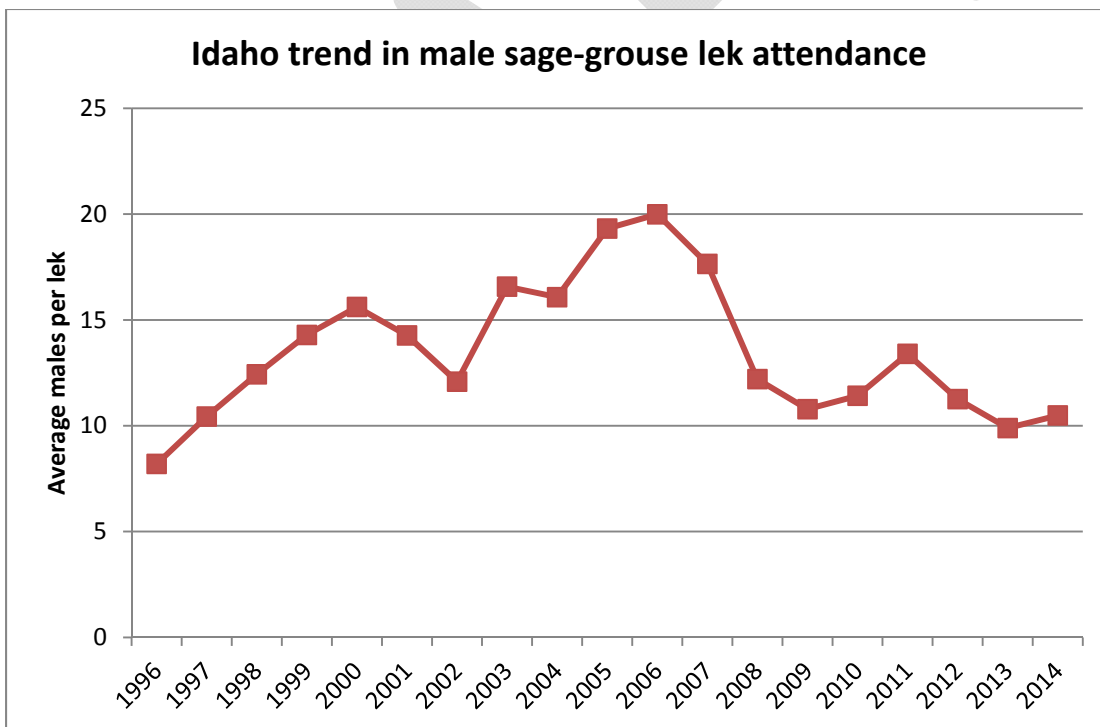
<sup>1</sup> Modeled nesting habitat is defined as those areas of Priority or Important Habitat Management Areas within 6.2 miles of 2011 active leks.

<sup>2</sup> The Utah portion of the Sawtooth National Forest is calculated separately for the Southern Conservation area.

The application of these calculations requires certain assumptions and associated baseline values which set an appropriate benchmark for future comparison.

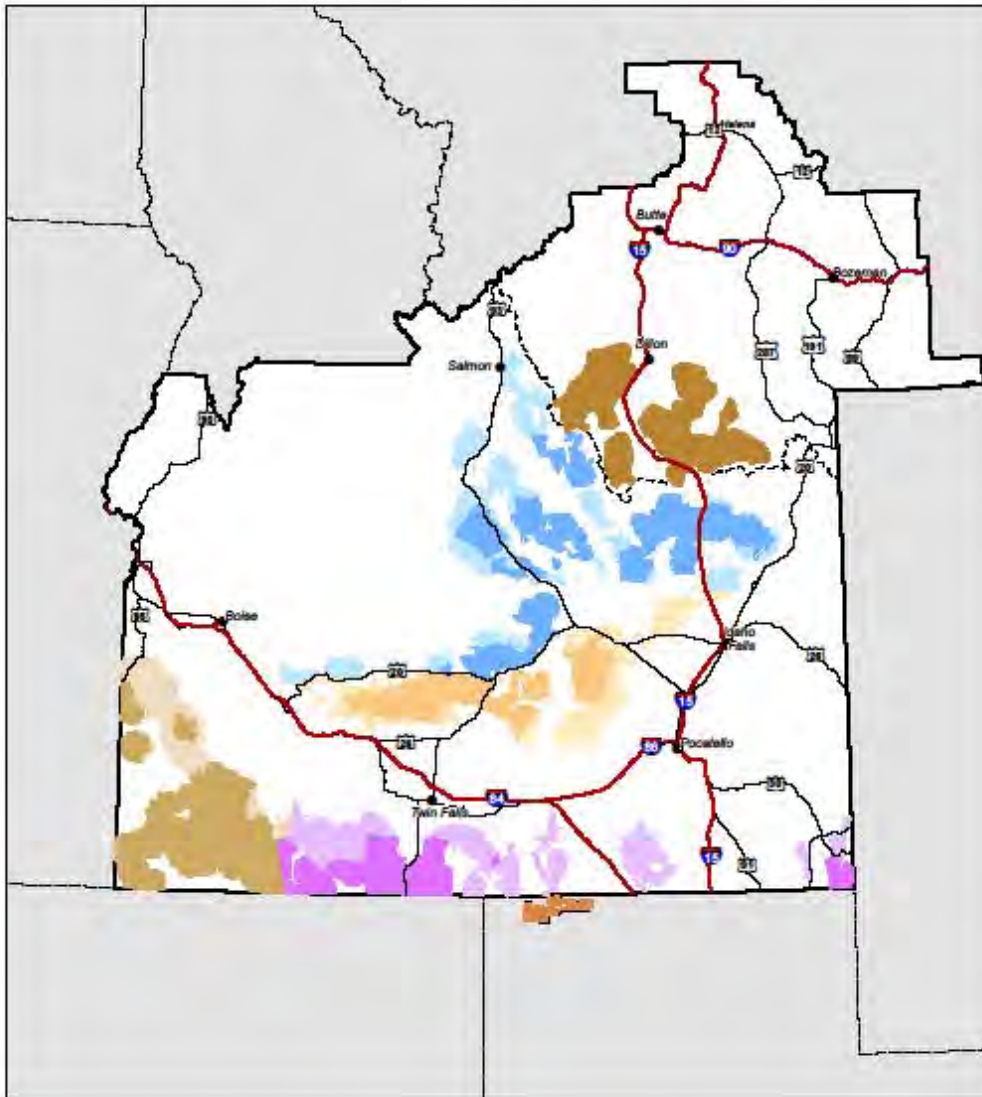
For the adaptive management evaluation in Idaho the baseline year for comparison of both the population and habitat values is set at 2011. Sage-grouse have been monitored by counting males on leks since the 1950's (IDFG files). Average male lek attendance (statewide average) reached a low point in 1996 (IDFG in file). A more consistent and intensified survey of leks began with the annual monitoring of all 78 lek routes across southern Idaho in 1996. Average male lek attendance has fluctuated since 1996 (Figure G-1) in response to favorable or unfavorable conditions (e.g. weather, habitat improvements or loss, and West Nile virus). Peaks were in 2000, 2006, and 2011 with low points in 2002 and 2009. The increase in male lek attendance after previous declines indicates that sage-grouse populations can rebound over a relatively short time frame (e.g. 5 years) given desirable conditions. The baseline was set at the 2011 average number of males because this level is approximately the medium (8 higher and 7 lower years) of the counts between 1996-2011. At the statewide scale, the 2011 baseline allows 10% and 20% population triggers to be above the second lowest point in 2009. Application of the trigger at a smaller (Conservation Area) scale is a more conservative approach that will indicate potential trends sooner than if applied at the state-wide scale.

Figure G-1. Idaho Trend in Male Sage-grouse Lek Attendance.



Map-G-1

### Biologically Significant Unit



- Idaho Desert Conservation Area - Core
- Idaho Desert Conservation Area - Important
- Idaho Mountain Valleys Conservation Area - Core
- Idaho Mountain Valleys Conservation Area - Important
- Idaho Southern Conservation Area - Core
- Idaho Southern Conservation Area - Important
- Idaho West Owyhee Conservation Area - Core
- Idaho West Owyhee Conservation Area - Important
- Raft River - Core
- SW Montana Conservation Area - Core
- Analysis Boundary

**Part II – Anthropogenic Disturbance Calculation**

The specific formula for the percent of anthropogenic disturbance is defined by:

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

The BSU in the denominator represents the total area (acreage) of the applicable area of analysis. Each BSU is tracked and evaluated separately within each of the 10 BSUs, and reaching the 3% disturbance cap in any one BSU has specific management implications both within and beyond that specific BSU as described in the Proposed Plan.

All sub-regions within the Great Basin Region will use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis and would use local data and/or more current satellite imagery if available.

Anthropogenic Disturbance included in the numerator is shown in Table G-1.

Table G-1. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
Oil and Gas Wells and Development Facilities	HIS; BLM (AFMSS)	5.0 ac
Coal Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resource Data System	Polygon Area
Wind Towers	Federal Aviation Administration	3.0 ac
Solar Fields	Platts (power plants)	7.3 ac
Geothermal Development Facilities	IHS	3.0 ac or Polygon Area
Mining (Active Locatable, Leasable and Saleable Developments)	InfoMine	5.0 ac or Polygon Area
Roads <sup>4</sup>	ESRI StreetMap Premium	40.7 ft. (surface streets) 84.0 ft. (major roads) 240.2 ft. (Interstate Hwys.)
Railroads <sup>5</sup>	Federal Railroad Administration	30.8 ft.
Powerlines <sup>6</sup>	Platts	100 ft. (1-199kV)

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

<sup>4</sup> Values described for line features – roads; railroads; powerlines – represent associated widths centered on the line feature.

<sup>5</sup> See previous note.

<sup>6</sup> See previous note.

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
		150 ft. (200-399kV) 200 ft. (400-699kV) 250 ft. (700+kV)
Communication Towers	Federal Communications Commission	2.5 ac
Other Vertical Structures	Federal Aviation Administration	2.5 ac
Additional Local Datasets (need definitions)		
Underground Pipelines		
Coal Bed Methane Ponds		
Meteorological Towers	BLM; Federal Communications Commission	2.5 ac
Nuclear Energy Facilities	As Available	Polygon Area
Airports	Federal Aviation Administration	Polygon Area
Military Ranges (ground based?)		
Hydropower plants		
Recreation Areas (Developed)	BLM data	Polygon Area

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance (see Part V for definitions):

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

**Non-Disturbance**

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.
- Linear transportation features identified as primitive routes.
- Linear disturbances.

### *Derivation of the Disturbance Formula -*

There is no definitive and scientifically proven formula to determine impact to GRSG from disturbance described in current research. However, Knick et al. (2013) did describe certain relationships between GRSG and anthropogenic disturbance that have been used, in conjunction with specific assumptions to describe a mathematical relationship between human disturbance footprint, effective GRSG habitat and effects to GRSG.

The variables in the equation are defined as:

Acres of a Biologically Significant Unit (BSU)

Acres of Anthropogenic Development within the BSU

Acres of Effective GRSG Habitat (sagebrush) within the BSU

Knick et al. (2013) defined their unit of comparison (analogous to a biologically significant unit) as an area within 5 km of the lek. Within this area they also found that 79% of this area contained sagebrush (analogous to effective GRSG habitat). Results of the study show that “Ninety-nine percent of active leks were in landscapes with <3% developed”. This shows that when areas within 5 km of a lek containing 79% sagebrush were 3% developed there was a measurable effect on the presence of GRSG – this defines a disturbance threshold of 3% at which point GRSG are affected. Knick et al. developed a habitat similarity relationship between the proportion of leks and percent of sagebrush which shows the highest proportion of leks when sagebrush percentage is between 70-90% (Knick et al. 2013, Figure 5, Connelly et al. 2000, Wisdom ???). Above 90% and below 70% the proportion of leks is reduced. This helps define the optimum range for sagebrush at between 70-90% and also indicates that the disturbance threshold of 3% is also dependent upon and varies with the percent of sagebrush present (effective habitat).

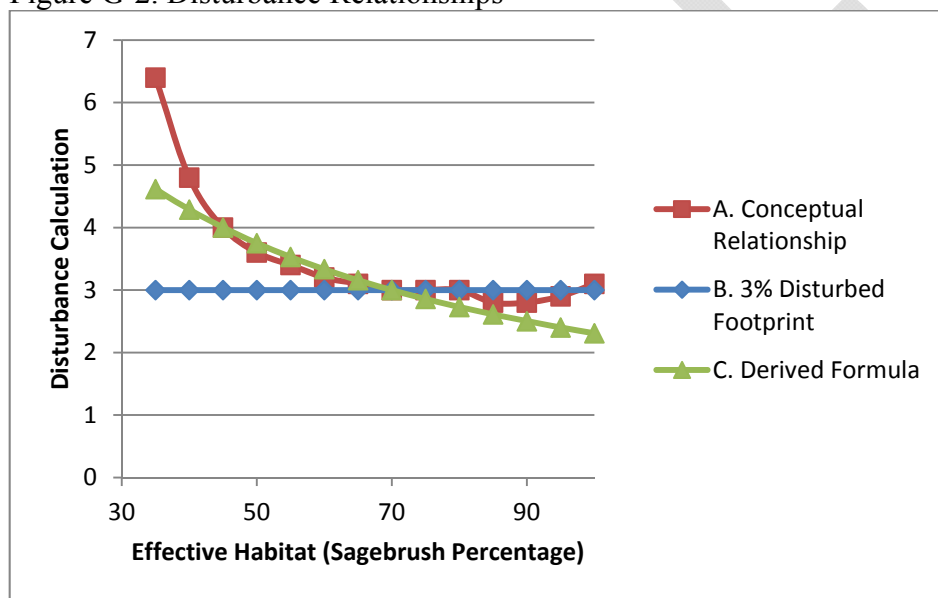
These findings from Knick et al. (2013) help define some mathematical parameters to define a modeled relationship between disturbance, effective habitat and effects to GRSG. Figure G-2 illustrates three different ‘disturbance curves’ that reflect the relationship between disturbance (y-axis) and effective habitat (sagebrush percentage) (x-axis) when the footprint disturbed is equivalent to 3% of the area. The red boxes (A) represent the conceptual relationship between disturbance and effective habitat as described and interpreted from Knick et al. (2013). The blue diamonds (B) represent a simple calculation based only on disturbance footprint, without regard to effective habitat. The green triangles (C) represent the derived formula to model the relationship.

The ‘A’ disturbance curve shows that when the disturbance footprint is 3% of the area and the sagebrush percentage is between 70-90% the disturbance calculation would be 3. When sagebrush percent falls below 70% or rises above 90%, the change in habitat, even without a change in disturbed footprint would begin to affect the presence of GRSG. As the amount of sagebrush declines while disturbance remains the same there would be an increasing effect to GRSG presence. This disturbance curve is conceptual and Knick et al. (2013) does not explicitly define this relationship, although this relationship does reflect numerical the observations described in Knick et al. (2013).

The ‘B’ disturbance curve is a straight calculation based only on disturbed footprint over a specified area. It does not account for variability of sagebrush percentage, and the only variable is the acres of disturbance. For an area that is 3% disturbed the relationship ‘curve’ is a flat line at 3, regardless of sagebrush percentage. This ‘curve’ or calculation would match the conceptual curve when sagebrush percentage is between 70 and 90%. This calculation would not account for changes in effective habitat due to loss through fire or gain through restoration and rehabilitation.

The ‘C’ disturbance curve models and approximates the conceptual relationship described in Knick et al. (2013). It accounts for changes in effective habitat that would translate into variable effects to GRSG based on loss or gain of habitat. It includes the ability to consider habitat loss such as from fire and to consider habitat gain such as from rehabilitation efforts including conifer removal. The model matched the conceptual relationship in the range of 70% sagebrush and approximates the conceptual relationship in areas with more or less sagebrush cover. The conceptual relationship assumes a more exponential relationship to GRSG effects from loss of habitat, while the derived formula assumes a more linear relationship. There are no available scientific studies that more clearly define the nature of the relationship. The derived formula and the conceptual relationship are substantially similar from 35-90% sagebrush percentage to validate the derived formula’s relative approximation of the relationship.

Figure G-2. Disturbance Relationships



**Development of the Modeled Formula:**

In order to manage and apply a defined disturbance cap it is necessary to take the findings of the appropriate scientific research and utilize them as appropriately as possible to develop management strategies and evaluation techniques consistent with the management objective. Most scientific research is not completed with the intent to develop specific management objectives or approaches; however, it is through the management approaches that the scientific findings utilized to inform management.

Development of the modeled formula began by describing the simplest relationship of disturbance across a defined area by defining the disturbance percentage as:

$$\% \text{ Disturbance} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within Area of Concern}} \right) * 100$$

This accounts for disturbance, but does not account for changes in effective habitat or sagebrush percentage as described in Knick et al. (2013). To account for effective habitat the formula needs to include a term that adjusts the resulting calculation with regard to effective habitat. This should be reflected as an adjustment to the denominator (acres within area of concern). The denominator would be weighted based on the amount of effective habitat. In mathematical terms this would give a denominator of:

$$(\text{Acres within Area of Concern}) * (\text{Adjustment Based on Effective Habitat})$$

The adjustment term must equal 1.0 when the effective habitat is somewhere between 70-90% as described in Knick et al. (2013). Assuming the adjustment term is related to the relative percentage of sagebrush or effective habitat then the *Adjustment Based on Effective Habitat* could be expressed as:

$$\frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}}$$

However, this term does not equal 1.0 when effective habitat is less than 100%. In order to meet the requirement of equaling 1.0 a constant must be added. This constant, when added to the percentage calculated in the previous term must equal 1.0 when the *Acres of Effective Habitat within the Area of Concern* is somewhere between 70-90%. In the Idaho and Southwestern Montana Subregional Plan an objective of 70% effective habitat has been defined, which is consistent with Knick et al. (2013). If the objective is 70% then the constant that must be added to this term is 0.3 in order to meet the requirement of equaling 1.0 at 70% effective habitat. This defines the following derived formula that approximates the conceptual relationship described in Knick et al. (2013).

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance within Area of Concern}}{\text{Acres within the Area of Concern} * \left( \frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}} + 0.3 \right)} \right) * 100$$

**Scale:**

The particular scale for which this formula is calculated is defined by the Area of Concern. The Knick et al. (2013) used a study area defined by the area within 5 km of an individual lek. The disturbance relationships described previously are applicable at this scale and begin to break down or lose their integrity at greater distances from the lek (18 km). This concern, coupled with limited availability of consistent data across broader areas undermines the reliability and accuracy of the calculation when including areas more distant from the lek.

From a management perspective there is a need to address concerns at the broader scale to help manage those threats before they become a concern at the site specific scale. In Idaho, nesting location data collected by Idaho Department of Fish and Game (IDFG), shows that most nesting habitat occurs



within 6.2 miles (10 km) of the lek. IDFG has also collected telemetry data on GRSG movements and used this data to help define wintering areas. Nesting and wintering areas are the most limited and seasonal habitats in Idaho and additional disturbance in those areas could have impacts to GRSG presence. For these reasons the Area of Concern, referred to as the Biologically Significant Unit have been delineated to include nesting and wintering habitats. This results in areas that include more acres than just those associated within a 5 km area of an individual lek as described by Knick et al. (2013), but that are associated (within 6.2 miles or 10 km) with leks. While the Knick et al. (2013) study did not include winter habitat, because of their relative importance they have also been included as part of the BSU since conceivably disturbances that would cause lek abandonment would also likely cause abandonment or avoidance of other seasonal habitat areas. Using other administratively defined areas not delineated or based on specific GRSG use may undermine the utility and integrity of the disturbance relationship and calculation.

This approach, built upon the findings in Knick et al. (2013), uses those findings to help inform management at a broader scale that would help determine management actions based on disturbance evaluations. Using the BSU as the Area of Concern is a scale larger than described in Knick et al. (2013), but still within the predictive bounds described in that study. The formula can be used to calculate disturbance at the BSU scale to help inform a disturbance cap, and it can also be used at the site or project scale to help inform specific project activities.

**Example 1 – Anthropogenic Disturbance**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres and the Important BSU was delineated to include 1,036,455 acres, which represent the acres of the Biologically Significant Unit to be used in the denominator. The acres of Effective Habitat in the Priority BSU are 424,656 and in the Important BSU are 447,497. This sets up two equations – one for Priority Habitat Management Areas and one for Important Habitat Management Areas.

The existing footprint acres of disturbance within the Priority BSU are 17,661 acres and the footprint acres of disturbance within the Important BSU are 12,748 acres.

This gives the following two equations to define the baseline disturbance condition in the BSUs:

$$Priority = \frac{17661}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100$$

$$Or \left( \frac{17661}{784958 * (0.54) + 0.3} \right) * 100$$

$$Or \left( \frac{17661}{784958 * (0.84)} \right) * 100$$

Yielding a percent disturbance in the Priority BSU of 2.68%

$$Important = \frac{12748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance in the Important BSU of 1.68%

If by 2015 we project additional development within the Priority BSU to be 2120 acres (a 12% increase) and development within the Important BSU to be 4000 acres (a 30% increase) then the Priority footprint acres becomes 20,161 acres and the Important footprint acres becomes 16,748 acres. The resulting evaluation for this cumulative disturbance is calculated by:

$$Priority = \frac{19781}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100 \quad Important = \frac{16748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance as: Priority = 3.00% and Important = 2.21%

In the examples, given the existing disturbance footprint it would require development of an additional 2,120 acres in the Priority BSU and an additional 10,005 acres in the Important BSU before the 3% cap would be engaged.

### Part III - Adaptive Management

#### Adaptive Management Habitat Trigger-

The specific formula for the change in habitat for the habitat trigger is defined by:

Within Idaho and Utah all factors are measured within the modeled nesting and wintering habitat within Priority or Important Habitat Management Areas (calculated separately) by Conservation Area; in Southwest Montana all factors are measured within the Priority Habitat Management Area.

In simple description the adaptive management habitat trigger calculation is the percentage of Effective Habitat (defined as areas of generally intact sagebrush that provide Greater sage-grouse habitat during some portion of the year) within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area within a particular year when compared to the Effective Habitat within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area as of the 2011 baseline. Using Effective Habitat as the metric of comparison removes non-habitat acres from the calculation. The calculation is evaluated within both Priority and Important Habitat Management Areas separately within each of the 10 BSUs.

For purposes of evaluating the adaptive management habitat triggers, Effective Habitat in Idaho is tracked using the Key Habitat Map which is updated annually by BLM in coordination with IDFG, Forest Service, US FWS and Local Working Groups and tracks the areas of generally intact sagebrush providing Greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map. Appendix F contains a description of the Key Habitat Map maintenance and update process including the inclusion of disturbances from fire and temporary disturbances and habitat restoration/rehabilitation. **For Montana and Utah Effective Habitat is based on...**

Factors: EHP(Y) – where Y is the year and EHC is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(Y) - where Y is the year and EHI is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year within the 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year (Y) within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

EHP(2011) – the Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(2011) - the Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

Formulas:

$$\text{Priority Habitat Management Area} = 100 - \left( \frac{EHP(Y) - ADP(Y)}{EHP(2011) - ADP(2011)} \right) * 100$$

$$\text{Important Habitat Management Area} = 100 - \left( \frac{EHI(Y) - ADI(Y)}{EHI(2011) - ADI(2011)} \right) * 100$$

When this calculation equals or exceeds 10 then an adaptive trigger has been engaged as per AM-7 & AM-8.

Tables 2-7 describe the acreages associated with the BSUs by Conservation Area for the Idaho and Southwestern Montana Subregion. The tables contain values for the entire BSU (Priority and Important), including all ownerships, acres of effective habitat within the BSUs and acres of anthropogenic disturbance within the BSUs.

These values will be used to provide several examples applying the anthropogenic disturbance and adaptive management habitat trigger evaluations. These are for illustrative purposes and do not represent an actual evaluation of ground conditions.

**Example 2 – Adaptive Management – Habitat**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres, of which 424,656 acres were Effective habitat; therefore EHP(2011) is equal to 424,656 acres. Development within the Effective Habitat in 2011 was measured at 10,074 acres; therefore ADP(2011) is equal to 10,074 acres.

If in 2015 we project a cumulative loss of 42,000 Effective habitat acres due to wildfire (10% loss) and an additional 1000 acres of anthropogenic development (10% increase), then

EHP(2015) is equal to 424,656 – 42,000 or 382,656 and ADP(2015) is equal to 10,074+1000 or 11,074. The evaluation for the adaptive management trigger is calculated by:

$$100 - \left( \frac{382656 - 11074}{424656 - 10074} \right) * 100$$

This simplifies to:  $100 - \left( \frac{371582}{414582} \right) * 100$

Or  $100 - (0.896 * 100)$

Or  $100 - 89.6$

Or  $10.4 - \text{equivalent to } 10.4\%$

This evaluation shows a loss of greater than 10 percent and less than 20 percent which would engage the soft habitat trigger as described in AM-8 and not the hard habitat trigger described in AM-7.

**Soft Trigger Considerations and Implementation Actions**

The Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service would utilize monitoring information to assess when triggers have been tripped. When information indicates that the soft habitat or population trigger may have been tripped, a Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service - aided by the technical expertise of IDF&G - would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to BLM possible changes in management to the PHMA. As to the IHMA, the Sage-Grouse Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state's ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Sage-Grouse Implementation Task Force analyze the secondary threats to the species and determine whether further management actions are needed.

**Adaptive Management Population Trigger**

Definition of “Significance” for Hard Population Trigger:

The Governor’s Alternative (E) did not define criteria for “significantly less than 1.0”. For purposes of the Plan, IDFG proposes to use a 90% confidence interval around the current 3-year average of  $\lambda$  to evaluate whether  $\lambda$  is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, then  $\lambda$  is significantly less than 1.0. The  $\lambda$  and variance will be calculated following Garton et al. (2011). A 90% confidence interval is justified because:

1. Under a 90% confidence interval the probability of making a false conclusion is 10%, however, the error will be on the conservative side; i.e., the error would benefit the sage-grouse population.

2. The  $\lambda$  criteria would not be used alone; as stated in the ADPP,  $\lambda$  would be used in concert with trend in maximum number of males.

Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.

### **Potential Implementation Level Actions to Consider in the Event Soft Trigger Criteria are Met**

- ✓ Increase monitoring and evaluation of sage-grouse populations in Priority Habitat Management Area (area of concern).
- ✓ Implement Priority Habitat Management Area management strategy in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Implement Priority Habitat Management Area RDFs in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Not allow any new (large) infrastructure development within the Priority Habitat Management Area (no exceptions allowed).
- ✓ Reallocate resources to focus on primary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Apply Priority Habitat Management Area criteria for all primary threats, and/or all secondary threats to the Important Habitat Management Area.
- ✓ Reallocate resources to focus on primary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).

### **If Livestock Grazing is determined to be a Causal Factor Consider the Following Measures:**

1. Employ grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.
2. When use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat, include as appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) in grazing programs.
3. If available and feasible, utilize exotic perennial grass seedings and/or annual grasslands to avoid breeding season of use of occupied sage-grouse habitat.
4. Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse.
5. Where appropriate, maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Table 5.
6. Insure that permittees are informed of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.
7. Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site. In some cases enclosure fencing

may be a viable option. However, recognize the availability and quality of desired herbaceous species may be improved by periodic grazing use of the enclosure.

8. Implement management actions (grazing decisions, allotment management plan/conservation plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. Employ proper grazing management by providing flexibility in scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives. During drought periods, prioritize evaluating effects of drought in the CMA relative to grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.
9. When using salt or mineral supplements: a) place them in existing disturbed sites, areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites—to reduce impacts to sage-grouse breeding habitat, b) where feasible use salts or mineral supplements to improve management of livestock for the benefit of sage-grouse habitat.
10. In general, avoid constructing new fences within 2 km of occupied leks. Where feasible, place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors. Careful consideration, based on local conditions, should also be given to the placement of new fences or structures near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.
11. New spring developments in sage-grouse habitat should be designed to maintain or enhance the free-flowing characteristics of springs and wet meadows. Analyze developed springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat. Make modifications where necessary, considering impacts to other water users when such considerations are neutral or beneficial to sage-grouse.
12. Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife. Do not use floating boards or similar objects, as these are too unstable and are ineffective. Use BMPs to mitigate potential impacts from West Nile virus.
13. When placing new water developments in sage-grouse breeding habitat, choose sites and designs that will provide the greatest enhancement for sage-grouse and sage-grouse habitat.
14. Avoid new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.
15. Identify and when feasible, establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas.
16. Monitor for, and treat invasive species associated with, existing range improvements.
17. Consider initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth. These projects should only be undertaken where it can be achieved without negatively impacting the species.

### **Adaptive Grazing Management Response**

BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on

allotments within the CMA that have declining sage-grouse populations. Following those permits within the CMA, resources will be further prioritized to allotments within the IMA with breeding habitats that have decreasing lek counts. Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the adaptive assessment process. The assessment/determination process for sage-grouse pursuant to Standard 8 will consider published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

Where an allotment or pasture meets one of these Categories above, the GRSG Habitat Management Objectives will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable:

- (a) due to the existing ecological condition, ecological potential or the existing vegetation; or
- (b) due to causal events unrelated to existing livestock grazing.

Allotments will only be managed for the primary seasonal habitat that it has the potential to support. Based on these habitat characteristics, BLM will conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics GRSG HMOs will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management shall not result from one year of data at a specific location within an allotment. If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics GRSG HMOs, renewed permits will include measures to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.



**Part IV – Anthropogenic Disturbance and Adaptive Management 2011 Baseline Indices**

**Table G-2 – Desert Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Desert Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-3 – Mountain Valleys Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Mountain Valleys Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-4 – Southern Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southern Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)	560,985	784,958	424,656	17,661	10,074
Important BSU (nesting and wintering)	798,691	1,036,455	447,497	12,748	6,289

**Table G-5 – West Owyhee Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>West Owyhee Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-6 – Southwest Montana Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southwest Montana Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

**Table G-7 – Raft River (Utah Portion of Sawtooth National Forest)**

				Existing Anthropogenic Disturbance	
<b>Utah portion of Sawtooth National Forest</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

## Part V - Travel and Transportation Management Definitions for Use in Anthropogenic Disturbance Calculation

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

### *Maintenance Intensities*

#### **Level 0**

##### Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

**Maintenance Objectives:**

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1****Maintenance Description:**

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

**Maintenance Objectives:**

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3****Maintenance Description:**

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

**Maintenance Objectives:**

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

**Level 5**

## Maintenance Description:

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

## Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

## Appendix G – Anthropogenic Disturbance and Adaptive Management

### Part I – Baseline Map and Description of Development

The **biologically significant units (BSUs)** are geographical/spatial areas within Greater Sage-grouse habitat that contains relevant and important habitats which is used as the basis for comparative calculations to support evaluation of changes to habitat. The BSUs include all land ownerships for evaluation, although application of the anthropogenic disturbance cap is specific only to BLM and Forest Service lands. The BSUs are used in the evaluation of anthropogenic disturbance and in the adaptive management habitat trigger.

For the Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment EIS the biologically significant units are defined as:

*Idaho: All of the modeled nesting<sup>1</sup> and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas<sup>2</sup>*

*Montana: All of the Priority Habitat Management Area*

These BSUs form the geographic basis for the calculation of anthropogenic disturbance and in the soft and hard adaptive management habitat triggers.

While the BSUs define the geographic extent and scale of the Subregion's landscape that will be considered in evaluating anthropogenic disturbance and the adaptive management habitat triggers, how disturbance and habitat triggers are calculated differ since anthropogenic disturbance and habitat loss affect Greater Sage-grouse differently (Knick et al. 2013).

The BSU is the total area (acreage) of nesting and wintering habitat within Priority or Important Habitat Management Areas, separately, by each Conservation Area. For Idaho this results in 8 BSUs, 2 each within the Idaho Conservation Areas – 1 in Priority Habitat Management Areas and 1 in Important Habitat Management Areas. There is 1 BSU in southwest Montana and 1 BSU for the Utah portion of the Sawtooth National Forest (Raft River BSU). There are a total of 10 BSUs within the Idaho and Southwestern Montana Subregion as shown in Map-G-1.

In developing these BSUs it was determined at the subregional level that data from these units must be compatible with aggregation to the PAC and WAFWA Management Zone levels, in order to meet FWS needs. In addition, BSUs must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

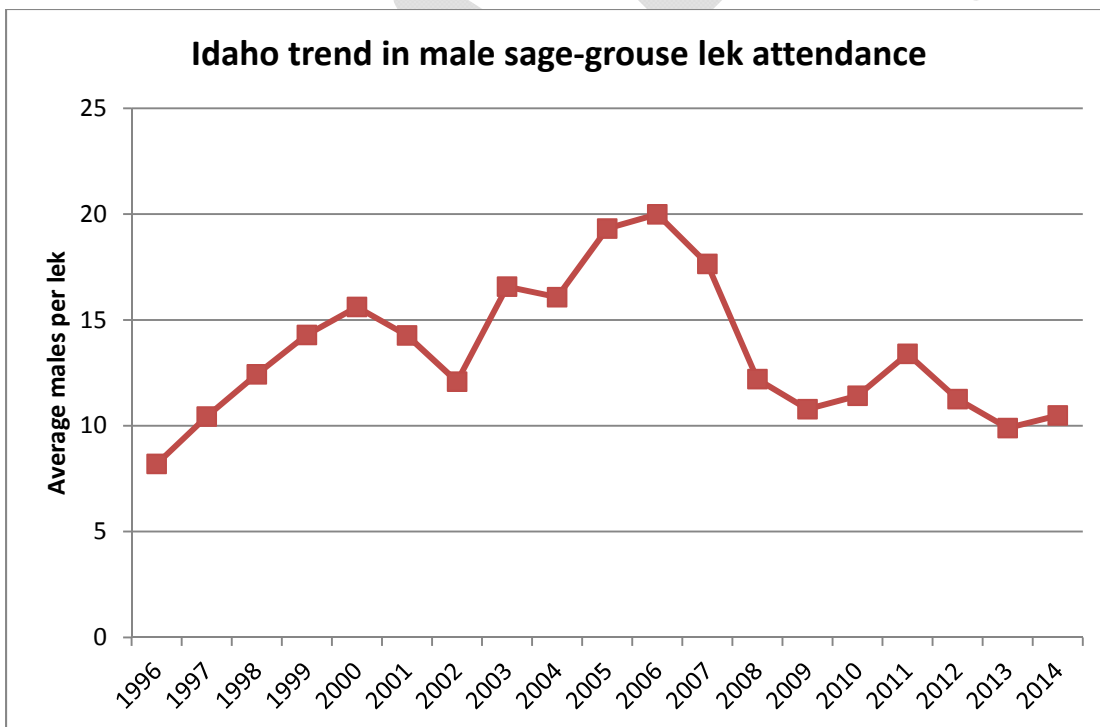
<sup>1</sup> Modeled nesting habitat is defined as those areas of Priority or Important Habitat Management Areas within 6.2 miles of 2011 active leks.

<sup>2</sup> The Utah portion of the Sawtooth National Forest is calculated separately for the Southern Conservation area.

The application of these calculations requires certain assumptions and associated baseline values which set an appropriate benchmark for future comparison.

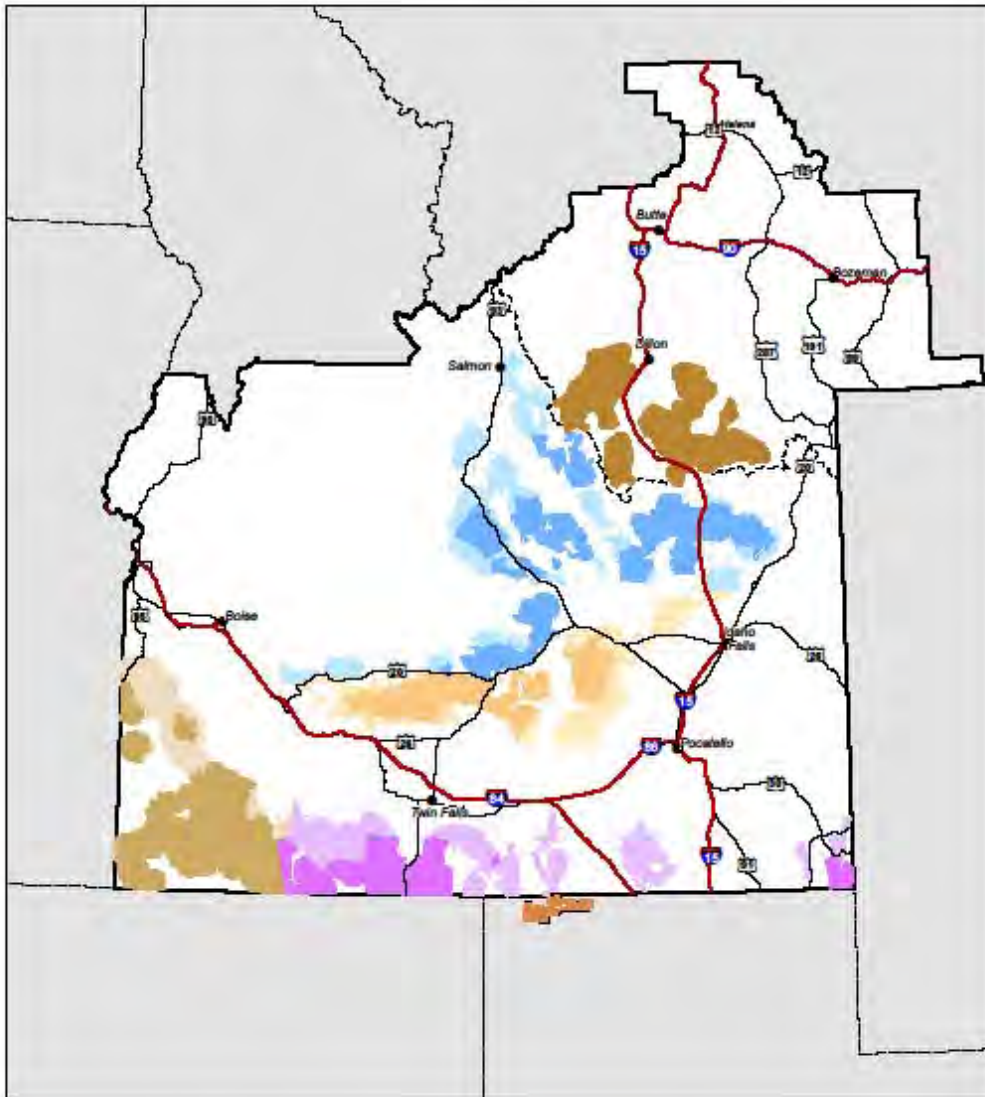
For the adaptive management evaluation in Idaho the baseline year for comparison of both the population and habitat values is set at 2011. Sage-grouse have been monitored by counting males on leks since the 1950's (IDFG files). Average male lek attendance (statewide average) reached a low point in 1996 (IDFG in file). A more consistent and intensified survey of leks began with the annual monitoring of all 78 lek routes across southern Idaho in 1996. Average male lek attendance has fluctuated since 1996 (Figure G-1) in response to favorable or unfavorable conditions (e.g. weather, habitat improvements or loss, and West Nile virus). Peaks were in 2000, 2006, and 2011 with low points in 2002 and 2009. The increase in male lek attendance after previous declines indicates that sage-grouse populations can rebound over a relatively short time frame (e.g. 5 years) given desirable conditions. The baseline was set at the 2011 average number of males because this level is approximately the medium (8 higher and 7 lower years) of the counts between 1996-2011. At the statewide scale, the 2011 baseline allows 10% and 20% population triggers to be above the second lowest point in 2009. Application of the trigger at a smaller (Conservation Area) scale is a more conservative approach that will indicate potential trends sooner than if applied at the state-wide scale.

Figure G-1. Idaho Trend in Male Sage-grouse Lek Attendance.



Map-G-1

### Biologically Significant Unit



- Idaho Desert Conservation Area - Core
- Idaho Desert Conservation Area - Important
- Idaho Mountain Valleys Conservation Area - Core
- Idaho Mountain Valleys Conservation Area - Important
- Idaho Southern Conservation Area - Core
- Idaho Southern Conservation Area - Important
- Idaho West Owyhee Conservation Area - Core
- Idaho West Owyhee Conservation Area - Important
- Raft River - Core
- SW Montana Conservation Area - Core
- Analysis Boundary



**Part II – Anthropogenic Disturbance Calculation**

The specific formula for the percent of anthropogenic disturbance is defined by:

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

The BSU in the denominator represents the total area (acreage) of the applicable area of analysis. Each BSU is tracked and evaluated separately within each of the 10 BSUs, and reaching the 3% disturbance cap in any one BSU has specific management implications both within and beyond that specific BSU as described in the Proposed Plan.

All sub-regions within the Great Basin Region will use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis and would use local data and/or more current satellite imagery if available.

Anthropogenic Disturbance included in the numerator is shown in Table G-1.

Table G-1. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
Oil and Gas Wells and Development Facilities	HIS; BLM (AFMSS)	5.0 ac
Coal Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resource Data System	Polygon Area
Wind Towers	Federal Aviation Administration	3.0 ac
Solar Fields	Platts (power plants)	7.3 ac
Geothermal Development Facilities	IHS	3.0 ac or Polygon Area
Mining (Active Locatable, Leasable and Saleable Developments)	InfoMine	5.0 ac or Polygon Area
Roads <sup>4</sup>	ESRI StreetMap Premium	40.7 ft. (surface streets) 84.0 ft. (major roads) 240.2 ft. (Interstate Hwys.)
Railroads <sup>5</sup>	Federal Railroad Administration	30.8 ft.
Powerlines <sup>6</sup>	Platts	100 ft. (1-199kV)

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

<sup>4</sup> Values described for line features – roads; railroads; powerlines – represent associated widths centered on the line feature.

<sup>5</sup> See previous note.

<sup>6</sup> See previous note.

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
		150 ft. (200-399kV) 200 ft. (400-699kV) 250 ft. (700+kV)
Communication Towers	Federal Communications Commission	2.5 ac
Other Vertical Structures	Federal Aviation Administration	2.5 ac
Additional Local Datasets (need definitions)		
Underground Pipelines		
Coal Bed Methane Ponds		
Meteorological Towers	BLM; Federal Communications Commission	2.5 ac
Nuclear Energy Facilities	As Available	Polygon Area
Airports	Federal Aviation Administration	Polygon Area
Military Ranges (ground based?)		
Hydropower plants		
Recreation Areas (Developed)	BLM data	Polygon Area

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance (see Part V for definitions):

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

**Non-Disturbance**

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.
- Linear transportation features identified as primitive routes.
- Linear disturbances.

### *Derivation of the Disturbance Formula -*

There is no definitive and scientifically proven formula to determine impact to GRSG from disturbance described in current research. However, Knick et al. (2013) did describe certain relationships between GRSG and anthropogenic disturbance that have been used, in conjunction with specific assumptions to describe a mathematical relationship between human disturbance footprint, effective GRSG habitat and effects to GRSG.

The variables in the equation are defined as:

- Acres of a Biologically Significant Unit (BSU)
- Acres of Anthropogenic Development within the BSU
- Acres of Effective GRSG Habitat (sagebrush) within the BSU

Knick et al. (2013) defined their unit of comparison (analogous to a biologically significant unit) as an area within 5 km of the lek. Within this area they also found that 79% of this area contained sagebrush (analogous to effective GRSG habitat). Results of the study show that “Ninety-nine percent of active leks were in landscapes with <3% developed”. This shows that when areas within 5 km of a lek containing 79% sagebrush were 3% developed there was a measurable effect on the presence of GRSG – this defines a disturbance threshold of 3% at which point GRSG are affected. Knick et al. developed a habitat similarity relationship between the proportion of leks and percent of sagebrush which shows the highest proportion of leks when sagebrush percentage is between 70-90% (Knick et al. 2013, Figure 5, Connelly et al. 2000, Wisdom ???). Above 90% and below 70% the proportion of leks is reduced. This helps define the optimum range for sagebrush at between 70-90% and also indicates that the disturbance threshold of 3% is also dependent upon and varies with the percent of sagebrush present (effective habitat).

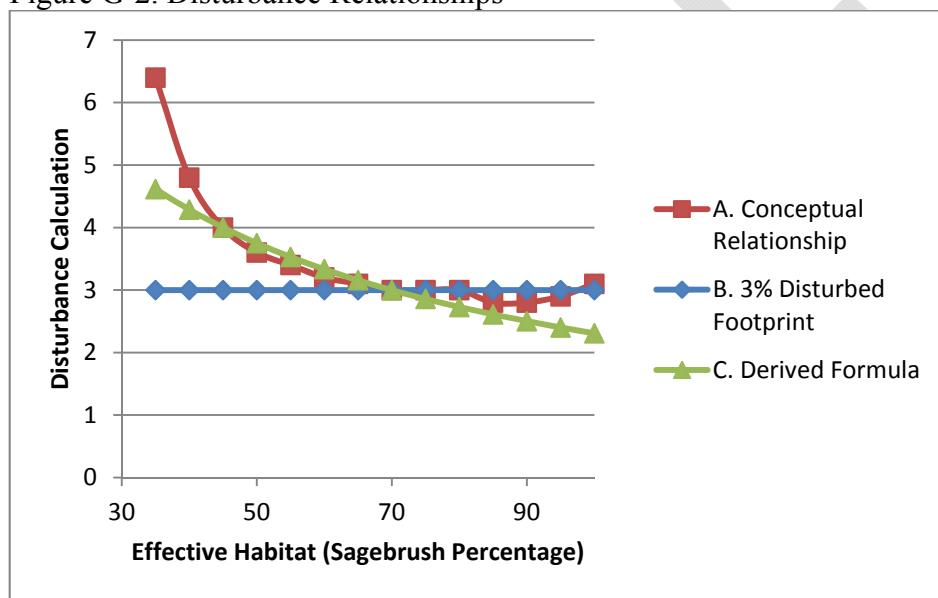
These findings from Knick et al. (2013) help define some mathematical parameters to define a modeled relationship between disturbance, effective habitat and effects to GRSG. Figure G-2 illustrates three different ‘disturbance curves’ that reflect the relationship between disturbance (y-axis) and effective habitat (sagebrush percentage) (x-axis) when the footprint disturbed is equivalent to 3% of the area. The red boxes (A) represent the conceptual relationship between disturbance and effective habitat as described and interpreted from Knick et al. (2013). The blue diamonds (B) represent a simple calculation based only on disturbance footprint, without regard to effective habitat. The green triangles (C) represent the derived formula to model the relationship.

The ‘A’ disturbance curve shows that when the disturbance footprint is 3% of the area and the sagebrush percentage is between 70-90% the disturbance calculation would be 3. When sagebrush percent falls below 70% or rises above 90%, the change in habitat, even without a change in disturbed footprint would begin to affect the presence of GRSG. As the amount of sagebrush declines while disturbance remains the same there would be an increasing effect to GRSG presence. This disturbance curve is conceptual and Knick et al. (2013) does not explicitly define this relationship, although this relationship does reflect numerical the observations described in Knick et al. (2013).

The ‘B’ disturbance curve is a straight calculation based only on disturbed footprint over a specified area. It does not account for variability of sagebrush percentage, and the only variable is the acres of disturbance. For an area that is 3% disturbed the relationship ‘curve’ is a flat line at 3, regardless of sagebrush percentage. This ‘curve’ or calculation would match the conceptual curve when sagebrush percentage is between 70 and 90%. This calculation would not account for changes in effective habitat due to loss through fire or gain through restoration and rehabilitation.

The ‘C’ disturbance curve models and approximates the conceptual relationship described in Knick et al. (2013). It accounts for changes in effective habitat that would translate into variable effects to GRSG based on loss or gain of habitat. It includes the ability to consider habitat loss such as from fire and to consider habitat gain such as from rehabilitation efforts including conifer removal. The model matched the conceptual relationship in the range of 70% sagebrush and approximates the conceptual relationship in areas with more or less sagebrush cover. The conceptual relationship assumes a more exponential relationship to GRSG effects from loss of habitat, while the derived formula assumes a more linear relationship. There are no available scientific studies that more clearly define the nature of the relationship. The derived formula and the conceptual relationship are substantially similar from 35-90% sagebrush percentage to validate the derived formula’s relative approximation of the relationship.

Figure G-2. Disturbance Relationships



**Development of the Modeled Formula:**

In order to manage and apply a defined disturbance cap it is necessary to take the findings of the appropriate scientific research and utilize them as appropriately as possible to develop management strategies and evaluation techniques consistent with the management objective. Most scientific research is not completed with the intent to develop specific management objectives or approaches; however, it is through the management approaches that the scientific findings utilized to inform management.

Development of the modeled formula began by describing the simplest relationship of disturbance across a defined area by defining the disturbance percentage as:

$$\% \text{ Disturbance} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within Area of Concern}} \right) * 100$$

This accounts for disturbance, but does not account for changes in effective habitat or sagebrush percentage as described in Knick et al. (2013). To account for effective habitat the formula needs to include a term that adjusts the resulting calculation with regard to effective habitat. This should be reflected as an adjustment to the denominator (acres within area of concern). The denominator would be weighted based on the amount of effective habitat. In mathematical terms this would give a denominator of:

$$(\text{Acres within Area of Concern}) * (\text{Adjustment Based on Effective Habitat})$$

The adjustment term must equal 1.0 when the effective habitat is somewhere between 70-90% as described in Knick et al. (2013). Assuming the adjustment term is related to the relative percentage of sagebrush or effective habitat then the *Adjustment Based on Effective Habitat* could be expressed as:

$$\frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}}$$

However, this term does not equal 1.0 when effective habitat is less than 100%. In order to meet the requirement of equaling 1.0 a constant must be added. This constant, when added to the percentage calculated in the previous term must equal 1.0 when the *Acres of Effective Habitat within the Area of Concern* is somewhere between 70-90%. In the Idaho and Southwestern Montana Subregional Plan an objective of 70% effective habitat has been defined, which is consistent with Knick et al. (2013). If the objective is 70% then the constant that must be added to this term is 0.3 in order to meet the requirement of equaling 1.0 at 70% effective habitat. This defines the following derived formula that approximates the conceptual relationship described in Knick et al. (2013).

*Disturbance Percentage*

$$= \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance within Area of Concern}}{\text{Acres within the Area of Concern} * \left( \frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}} + 0.3 \right)} \right) * 100$$

**Scale:**

The particular scale for which this formula is calculated is defined by the Area of Concern. The Knick et al. (2013) used a study area defined by the area within 5 km of an individual lek. The disturbance relationships described previously are applicable at this scale and begin to break down or lose their integrity at greater distances from the lek (18 km). This concern, coupled with limited availability of consistent data across broader areas undermines the reliability and accuracy of the calculation when including areas more distant from the lek.

From a management perspective there is a need to address concerns at the broader scale to help manage those threats before they become a concern at the site specific scale. In Idaho, nesting location data collected by Idaho Department of Fish and Game (IDFG), shows that most nesting habitat occurs

within 6.2 miles (10 km) of the lek. IDFG has also collected telemetry data on GRSG movements and used this data to help define wintering areas. Nesting and wintering areas are the most limited and seasonal habitats in Idaho and additional disturbance in those areas could have impacts to GRSG presence. For these reasons the Area of Concern, referred to as the Biologically Significant Unit have been delineated to include nesting and wintering habitats. This results in areas that include more acres than just those associated within a 5 km area of an individual lek as described by Knick et al. (2013), but that are associated (within 6.2 miles or 10 km) with leks. While the Knick et al. (2013) study did not include winter habitat, because of their relative importance they have also been included as part of the BSU since conceivably disturbances that would cause lek abandonment would also likely cause abandonment or avoidance of other seasonal habitat areas. Using other administratively defined areas not delineated or based on specific GRSG use may undermine the utility and integrity of the disturbance relationship and calculation.

This approach, built upon the findings in Knick et al. (2013), uses those findings to help inform management at a broader scale that would help determine management actions based on disturbance evaluations. Using the BSU as the Area of Concern is a scale larger than described in Knick et al. (2013), but still within the predictive bounds described in that study. The formula can be used to calculate disturbance at the BSU scale to help inform a disturbance cap, and it can also be used at the site or project scale to help inform specific project activities.

**Example 1 – Anthropogenic Disturbance**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres and the Important BSU was delineated to include 1,036,455 acres, which represent the acres of the Biologically Significant Unit to be used in the denominator. The acres of Effective Habitat in the Priority BSU are 424,656 and in the Important BSU are 447,497. This sets up two equations – one for Priority Habitat Management Areas and one for Important Habitat Management Areas.

The existing footprint acres of disturbance within the Priority BSU are 17,661 acres and the footprint acres of disturbance within the Important BSU are 12,748 acres.

This gives the following two equations to define the baseline disturbance condition in the BSUs:

$$Priority = \frac{17661}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100$$

$$Or \left( \frac{17661}{784958 * (0.54) + 0.3} \right) * 100$$

$$Or \left( \frac{17661}{784958 * (0.84)} \right) * 100$$

Yielding a percent disturbance in the Priority BSU of 2.68%

$$Important = \frac{12748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance in the Important BSU of 1.68%

If by 2015 we project additional development within the Priority BSU to be 2120 acres (a 12% increase) and development within the Important BSU to be 4000 acres (a 30% increase) then the Priority footprint acres becomes 20,161 acres and the Important footprint acres becomes 16,748 acres. The resulting evaluation for this cumulative disturbance is calculated by:

$$Priority = \frac{19781}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100 \quad Important = \frac{16748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance as: Priority = 3.00% and Important = 2.21%

In the examples, given the existing disturbance footprint it would require development of an additional 2,120 acres in the Priority BSU and an additional 10,005 acres in the Important BSU before the 3% cap would be engaged.

### Part III - Adaptive Management

#### Adaptive Management Habitat Trigger-

The specific formula for the change in habitat for the habitat trigger is defined by:

Within Idaho and Utah all factors are measured within the modeled nesting and wintering habitat within Priority or Important Habitat Management Areas (calculated separately) by Conservation Area; in Southwest Montana all factors are measured within the Priority Habitat Management Area.

In simple description the adaptive management habitat trigger calculation is the percentage of Effective Habitat (defined as areas of generally intact sagebrush that provide Greater sage-grouse habitat during some portion of the year) within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area within a particular year when compared to the Effective Habitat within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area as of the 2011 baseline. Using Effective Habitat as the metric of comparison removes non-habitat acres from the calculation. The calculation is evaluated within both Priority and Important Habitat Management Areas separately within each of the 10 BSUs.

For purposes of evaluating the adaptive management habitat triggers, Effective Habitat in Idaho is tracked using the Key Habitat Map which is updated annually by BLM in coordination with IDFG, Forest Service, US FWS and Local Working Groups and tracks the areas of generally intact sagebrush providing Greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map. Appendix F contains a description of the Key Habitat Map maintenance and update process including the inclusion of disturbances from fire and temporary disturbances and habitat restoration/rehabilitation. **For Montana and Utah Effective Habitat is based on...**

Factors: EHP(Y) – where Y is the year and EHC is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(Y) - where Y is the year and EHI is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year within the 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year (Y) within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area



EHP(2011) – the Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(2011) - the Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

Formulas:

$$\text{Priority Habitat Management Area} = 100 - \left( \frac{EHP(Y) - ADP(Y)}{EHP(2011) - ADP(2011)} \right) * 100$$

$$\text{Important Habitat Management Area} = 100 - \left( \frac{EHI(Y) - ADI(Y)}{EHI(2011) - ADI(2011)} \right) * 100$$

When this calculation equals or exceeds 10 then an adaptive trigger has been engaged as per AM-7 & AM-8.

Tables 2-7 describe the acreages associated with the BSUs by Conservation Area for the Idaho and Southwestern Montana Subregion. The tables contain values for the entire BSU (Priority and Important), including all ownerships, acres of effective habitat within the BSUs and acres of anthropogenic disturbance within the BSUs.

These values will be used to provide several examples applying the anthropogenic disturbance and adaptive management habitat trigger evaluations. These are for illustrative purposes and do not represent an actual evaluation of ground conditions.

**Example 2 – Adaptive Management – Habitat**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres, of which 424,656 acres were Effective habitat; therefore EHP(2011) is equal to 424,656 acres. Development within the Effective Habitat in 2011 was measured at 10,074 acres; therefore ADP(2011) is equal to 10,074 acres.

If in 2015 we project a cumulative loss of 42,000 Effective habitat acres due to wildfire (10% loss) and an additional 1000 acres of anthropogenic development (10% increase), then

EHP(2015) is equal to 424,656 – 42,000 or 382,656 and ADP(2015) is equal to 10,074+1000 or 11,074. The evaluation for the adaptive management trigger is calculated by:

$$100 - \left( \frac{382656 - 11074}{424656 - 10074} \right) * 100$$

This simplifies to:  $100 - \left( \frac{371582}{414582} \right) * 100$

Or  $100 - (0.896 * 100)$

Or  $100 - 89.6$

Or  $10.4 -$  equivalent to 10.4%

This evaluation shows a loss of greater than 10 percent and less than 20 percent which would engage the soft habitat trigger as described in AM-8 and not the hard habitat trigger described in AM-7.

### **Soft Trigger Considerations and Implementation Actions**

The Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service would utilize monitoring information to assess when triggers have been tripped. When information indicates that the soft habitat or population trigger may have been tripped, a Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service - aided by the technical expertise of IDF&G - would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to BLM possible changes in management to the PHMA. As to the IHMA, the Sage-Grouse Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state's ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Sage-Grouse Implementation Task Force analyze the secondary threats to the species and determine whether further management actions are needed.

### **Adaptive Management Population Trigger**

#### **Framework**

#### **Population & Habitat Trigger Justification**

##### Triggers

Because unexpected events (e.g., wildfire, West Nile Virus) may result in a substantial loss of habitat or decline in sage-grouse populations, adaptive management triggers have been

developed. These triggers are intended to improve sage-grouse population trends, protect the overall baseline population, preserve a buffer population, and conserve sage-grouse habitat.

The triggers have both population and habitat components. Population components consider population growth and change in lek size. The habitat component considers loss of breeding and/or winter habitat. Lek size has been related to population change in numerous studies (Connelly and Braun 1997, Connelly et al. 2004, Baumgart 2011, Garton et al. 2011). Garton et al. (2011) used both characteristics as well as number of active leks to assess change for sage-grouse populations throughout the west. A variety of researchers (Swensen et al. 1987, Connelly et al. 2000a, Miller et al. 2011) have shown that loss of winter or breeding habitats resulted in decreased sage-grouse populations. The adaptive management triggers set at a lambda value less than one, a 20% decline in males counted on lek routes, and a 20% loss of breeding or winter habitat as break points that would initiate a population or habitat trigger.

### Population Growth (Finite Rate of Change)

Although populations cannot be accurately estimated, lek counts of males provide a robust method for assessing population trend and estimating population growth ( $\lambda$ ) in an unbiased fashion. Calculating  $\lambda$  (finite rate of change) between successive years for a sage-grouse population is described in Garton et al. (2011). The ratio of males counted in a pair of successive years estimates the finite rate of change ( $\lambda_t$ ) at each lek site in that one-year interval. These ratios can be combined across leks within a population for each year to estimate  $\lambda_t$  for the entire population (or Conservation Zone) or combined across all leks to estimate  $\lambda_t$  for the state between successive years as:

$$\lambda(t) = \frac{\sum_{i=1}^n M_i(t+1)}{\sum_{i=1}^n M_i(t)}$$

where  $M_i(t)$  = number of males counted at lek  $i$  in year  $t$ , across  $n$  leks counted in both years  $t$  and  $t+1$ . Ratio estimation under classic probability sampling designs—simple random, stratified, cluster, and probability proportional to size (PPS)—assumes the sample units (leks counted in two successive years in this case) are drawn according to some random process but the strict requirement to obtain unbiased estimates is that the ratios measured represent an unbiased sample of the ratios (i.e., finite rates of change) from the population or other area sampled. This assumption seems appropriate for leks and the possible tendency to detect (or count) larger leks than smaller leks does not bias the estimate of  $\lambda_t$  across a population or region (Garton et al. 2011), but makes it analogous to a PPS sample showing dramatically increased precision over simple random samples (Scheaffer et al. 1996). Also precision can be estimated for  $\lambda$ .

Because small game populations (including sage-grouse) typically fluctuate among years due to weather and other environmental variables, a  $\lambda_t$  for any given year is not very meaningful. However, a series of years where  $\lambda_t$  remains at or above 1.0 indicates a stable to increasing

population. Moreover, this situation would also provide strong evidence of the effectiveness of conservation actions that may have been employed.

Definition of “Significance” for Hard Population Trigger:

The Governor’s Alternative (E) did not define criteria for “significantly less than 1.0”. For purposes of the Plan, IDFG proposes to use a 90% confidence interval around the current 3-year average of  $\lambda$  to evaluate whether  $\lambda$  is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, then  $\lambda$  is significantly less than 1.0. The  $\lambda$  and variance will be calculated following Garton et al. (2011). A 90% confidence interval is justified because:

1. Under a 90% confidence interval the probability of making a false conclusion is 10%, however, the error will be on the conservative side; i.e., the error would benefit the sage-grouse population.
2. The  $\lambda$  criteria would not be used alone; as stated in the ADPP,  $\lambda$  would be used in concert with trend in maximum number of males.

### Males Counted on Leks

Lek attendance by males has been used as an indicator of population trend in some areas since at least the early 1950s. For many years it was the only indicator used to assess status of sage-grouse populations. However, recent research has shown that male attendance at leks can be affected by severity of the previous winter, weather, timing of counts during spring, and a variety of other factors (Emmons and Braun 1984, Hupp 1987, Baumgart 2011). Baumgart (2011) indicated the probability of male sage-grouse attending leks in south-central Idaho varied among years and appeared to be tied to winter severity. Although lek data provide a powerful data set for assessing population trends over time (Garton et al. 2011), counts for a single year may not reflect trends very well. Thus using lek counts as a trigger must consider the inherent variation in these counts. Moreover, males counted on leks appear to have the most value for assessing population change when used in conjunction with other indicators of population status (e.g., finite rate of change).

Emmons and Braun (1984) reported that lek attendance rates varied from 86% for yearling males to 92% for adult males. These rates were pooled over 5 day periods and may have overestimated attendance (Connelly et al. 2011). In contrast, Walsh et al. (2004) reported average daily male attendance rates of 42% (range = 7-85%) and 19% (range = 0-38%) for adult and yearling sage-grouse, respectively but these rates were not adjusted for detection rate and were likely biased low (Connelly et al. 2011). Moreover, this study involved very small sample sizes (17 adult males, 9 yearling males over 15 leks) and only one breeding season and it was not clear whether all leks in the study area were known and sampled. Preliminary data from Utah (D. Dahlgren, personal communication) indicated that in a study area about 30 miles south of Idaho male sage-grouse lek attendance rates varied from roughly 60% at the beginning of April to about 90% at the end of the month. Recent findings in Idaho (Baumgart 2011) predicted the probability of lek attendance for an adult male following an “average” winter would range from 0.894 (SE = 0.025) on week 3 (~1 April) to 0.766 (SE = 0.040) on week 8 (~ 5 May). Published information suggests that a change in maximum number of males counted on leks of say 10-15% cannot confidently be considered a reflection of population status. However, a 20% decline in

maximum number of males counted on leks would likely not be related to lek attendance patterns but instead would reflect a population decline. Thus, the trigger was set at 20%.

Habitat Trigger

Numerous studies have documented the negative effects of habitat loss including fire and energy development on sage-grouse (Connelly et al. 2000b, Fischer et al. 1996, Nelle et al. 2000, Doherty et al. 2008), but few studies have related the amount of sagebrush habitat lost to population change. In a Montana study area with a non-migratory sage-grouse population, there was a 73% decline in breeding males after 16% of the study area was plowed (Swenson et al. 1987). Walker et al. (2007) indicated that the lowest probability for lek persistence within a landscape occurred where, within 6.4 km of a lek center, the area has < 30% sagebrush. Similarly, Wisdom et al. (2011) reported sage-grouse occupying landscapes with <27% sagebrush as dominant cover would have a low probability of persistence. Connelly et al. (2000a) showed that a fire in 1989 that removed 58% of the sagebrush cover in sage-grouse breeding and winter habitat led to an almost 95% decline in the breeding population a few years later. Similarly, a fire that removed about 30% of breeding/winter habitat resulted in substantial population declines over the next few years (J. W. Connelly, unpublished data; Table 1). A 30% loss of breeding and winter habitat is thus far the lowest amount of habitat loss for which a population response could be detected and landscapes with < 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. Idaho is taking a more conservative approach than suggested by the literature. A soft trigger is set at a 10% loss of breeding or winter habitat in Core or Important management zones of a Conservation Area, which initiates a review of the management approach. A hard trigger is set at a 20% loss of breeding or winter habitat within a Core Habitat Zone of a Conservation Area, which automatically causes a change in management status of the corresponding Important Habitat Zone.

Table 1. Nest success (%) in SE Idaho study areas before and after a fire in the Table Butte study area. The fire occurred in August 2000.

Year	Area	
	Table Butte	Upper Snake
1999	54	
2000	45	61
2001 <sup>a</sup>	18	56
2002	20	65

Literature Cited

Baumgart, J. A. 2011. Probability of attendance and sightability of greater sage-grouse on leks: relating lek-based indices to population abundance. Dissertation, University of Idaho, Moscow.

Connelly, J. W., and C. E. Braun. 1997. A review of long- term changes in sage grouse populations in western North America. *Wildlife Biology* 3:123-128.

- Connelly, J. W., C. A. Hagen, and M. A. Schroeder. 2011a. Characteristics and dynamics of greater sage-grouse populations. *Studies in Avian Biology* 38: 53-68.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies, Cheyenne, WY.
- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000a. Response of a sage grouse breeding population to fire in southeastern Idaho. *Wildlife Society Bulletin* 28:90-96.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.
- Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Emmons, S. R. and C. E. Braun. 1984. Lek attendance of male sage grouse. *Journal of Wildlife Management* 48:1023-1028.
- Fischer, R. A., K. P. Reese, and J. W. Connelly. 1996a. An investigation on fire effects within xeric sage grouse brood habitat. *Journal of Range Management* 49:194-198.
- Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.
- Hupp, J. W. 1987. Sage grouse resource exploitation and endogenous reserves in Colorado. Dissertation, Colorado State University, Fort Collins.
- Leonard, K. M., K. P. Reese, and J. W. Connelly. 2000. Distribution, movements, and habitats of sage grouse *Centrocercus urophasianus* on the Upper Snake River Plain of Idaho: changes from the 1950's to the 1990's. *Wildlife Biology* 6:265-270.
- Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. *Studies in Avian Biology* 38: 145-184.
- Nelle, P. J., K. P. Reese, and J. W. Connelly. 2000. Long-term effects of fire on sage grouse nesting and brood-rearing habitats in southeast Idaho. *Journal of Range Management* 53:586-591.
- Scheaffer, R. L., W. Mendenhall, III, and R. L. Ott. 1996. Elementary survey sampling. Wadsworth Publishing, Belmont, CA.

Swenson, J. E., C. A. Simmons, and C. D. Eustace. 1987. Decrease of sage grouse *Centrocercus urophasianus* after plowing of sagebrush steppe. *Biological Conservation* 41:125-132.

Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71:2644-2654.

Walsh, D. P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-count index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.

Wisdom, M. J., C. A. Meinke, S. T. Knick, and M. A. Schroeder. 2011. Factors associated with extirpation of sage-grouse. *Studies in Avian Biology* 38: 451--472.

### **Potential Implementation Level Actions to Consider in the Event Soft Trigger Criteria are Met**

- ✓ Increase monitoring and evaluation of sage-grouse populations in Priority Habitat Management Area (area of concern).
- ✓ Implement Priority Habitat Management Area management strategy in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Implement Priority Habitat Management Area RDFs in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Not allow any new (large) infrastructure development within the Priority Habitat Management Area (no exceptions allowed).
- ✓ Reallocate resources to focus on primary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Apply Priority Habitat Management Area criteria for all primary threats, and/or all secondary threats to the Important Habitat Management Area.
- ✓ Reallocate resources to focus on primary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).

### **If Livestock Grazing is determined to be a Causal Factor Consider the Following Measures:**

1. Employ grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.
2. When use-pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage-grouse breeding habitat, include as appropriate herding, salting, and water-source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) in grazing programs.
3. If available and feasible, utilize exotic perennial grass seedings and/or annual grasslands to avoid breeding season of use of occupied sage-grouse habitat.

4. Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage-grouse.
5. Where appropriate, maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Table 5.
6. Insure that permittees are informed of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.
7. Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site. In some cases enclosure fencing may be a viable option. However, recognize the availability and quality of desired herbaceous species may be improved by periodic grazing use of the enclosure.
8. Implement management actions (grazing decisions, allotment management plan/conservation plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. Employ proper grazing management by providing flexibility in scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives. During drought periods, prioritize evaluating effects of drought in the CMA relative to grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority sage-grouse habitat areas.
9. When using salt or mineral supplements: a) place them in existing disturbed sites, areas with reduced sagebrush cover—e.g., seedings or cheatgrass sites—to reduce impacts to sage-grouse breeding habitat, b) where feasible use salts or mineral supplements to improve management of livestock for the benefit of sage-grouse habitat.
10. In general, avoid constructing new fences within 2 km of occupied leks. Where feasible, place new, taller structures, such as corrals, loading facilities, water-storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors. Careful consideration, based on local conditions, should also be given to the placement of new fences or structures near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.
11. New spring developments in sage-grouse habitat should be designed to maintain or enhance the free-flowing characteristics of springs and wet meadows. Analyze developed springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitat. Make modifications where necessary, considering impacts to other water users when such considerations are neutral or beneficial to sage-grouse.
12. Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife. Do not use floating boards or similar objects, as these are too unstable and are ineffective. Use BMPs to mitigate potential impacts from West Nile virus.
13. When placing new water developments in sage-grouse breeding habitat, choose sites and designs that will provide the greatest enhancement for sage-grouse and sage-grouse habitat.
14. Avoid new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.
15. Identify and when feasible, establish strategically located forage reserves focusing on areas unsuitable for sage-grouse habitat restoration or lower priority habitat restoration areas.
16. Monitor for, and treat invasive species associated with, existing range improvements.



17. Consider initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth. These projects should only be undertaken where it can be achieved without negatively impacting the species.

### **Adaptive Grazing Management Response**

BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage-grouse. Allocation of resources should be concentrated on allotments within the CMA that have declining sage-grouse populations. Following those permits within the CMA, resources will be further prioritized to allotments within the IMA with breeding habitats that have decreasing lek counts. Sage-grouse populations that are stable or trending upward will be a lower priority for permit renewal and the adaptive assessment process. The assessment/determination process for sage-grouse pursuant to Standard 8 will consider published characteristics of sage-grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage-grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage-grouse habitat.

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage-grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage-grouse habitat.

Where an allotment or pasture meets one of these Categories above, the GRSG Habitat Management Objectives will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable:

- (a) due to the existing ecological condition, ecological potential or the existing vegetation; or
- (b) due to causal events unrelated to existing livestock grazing.

Allotments will only be managed for the primary seasonal habitat that it has the potential to support. Based on these habitat characteristics, BLM will conduct fine and site scale-habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics GRSG HMOs will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management shall not result from one year of data at a specific location within an allotment. If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics GRSG HMOs, renewed permits will include measures to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.

**Part IV – Anthropogenic Disturbance and Adaptive Management 2011 Baseline Indices**

**Table G-2 – Desert Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Desert Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-3 – Mountain Valleys Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Mountain Valleys Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-4 – Southern Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southern Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)	560,985	784,958	424,656	17,661	10,074
Important BSU (nesting and wintering)	798,691	1,036,455	447,497	12,748	6,289

**Table G-5 – West Owyhee Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>West Owyhee Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-6 – Southwest Montana Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
<b>Southwest Montana Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

**Table G-7 – Raft River (Utah Portion of Sawtooth National Forest)**

				Existing Anthropogenic Disturbance	
<b>Utah portion of Sawtooth National Forest</b>	BLM & FS Acres	Total Acres	Effective Habitat	Within BSU	Within Effective Habitat
Priority BSU (nesting and wintering)					

## Part V - Travel and Transportation Management Definitions for Use in Anthropogenic Disturbance Calculation

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

### *Maintenance Intensities*

#### **Level 0**

##### Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

**Maintenance Objectives:**

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1****Maintenance Description:**

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

**Maintenance Objectives:**

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3****Maintenance Description:**

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

**Maintenance Objectives:**

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

**Level 5****Maintenance Description:**

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

**Maintenance Objectives:**

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

## Appendix G – Anthropogenic Disturbance and Adaptive Management

### Part I – Baseline Map and Description of Development

The **biologically significant units (BSUs)** are geographical/spatial areas within Greater Sage-grouse habitat that contains relevant and important habitats which is used as the basis for comparative calculations to support evaluation of changes to habitat. The BSUs include all land ownerships for evaluation, although application of the anthropogenic disturbance cap is specific only to BLM and Forest Service lands. The BSUs are used in the evaluation of anthropogenic disturbance and in the adaptive management habitat trigger.

For the Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment EIS the biologically significant units are defined as:

***Idaho: All of the modeled nesting<sup>1</sup> and delineated winter habitat, which is based on 2011 data, occurring within Priority and/or Important Habitat Management Areas within individual Conservation Areas<sup>2</sup>***

***Montana: All of the Priority Habitat Management Area***

These BSUs form the geographic basis for the calculation of anthropogenic disturbance and in the soft and hard adaptive management habitat triggers.

While the BSUs define the geographic extent and scale of the Subregion's landscape that will be considered in evaluating anthropogenic disturbance and the adaptive management habitat triggers, how disturbance and habitat triggers are calculated differ since anthropogenic disturbance and habitat loss affect Greater Sage-grouse differently (Knick et al. 2013).

The BSU is the total area (acreage) of nesting and wintering habitat within Priority or Important Habitat Management Areas, separately, by each Conservation Area. For Idaho this results in 8 BSUs, 2 each within the Idaho Conservation Areas – 1 in Priority Habitat Management Areas and 1 in Important Habitat Management Areas. There is 1 BSU in southwest Montana and 1 BSU for the Utah portion of the Sawtooth National Forest (Raft River BSU). There are a total of 10 BSUs within the Idaho and Southwestern Montana Subregion as shown in Map-G-1.

In developing these BSUs it was determined at the subregional level that data from these units must be compatible with aggregation to the PAC and WAFWA Management Zone levels, in order to meet FWS needs. In addition, BSUs must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

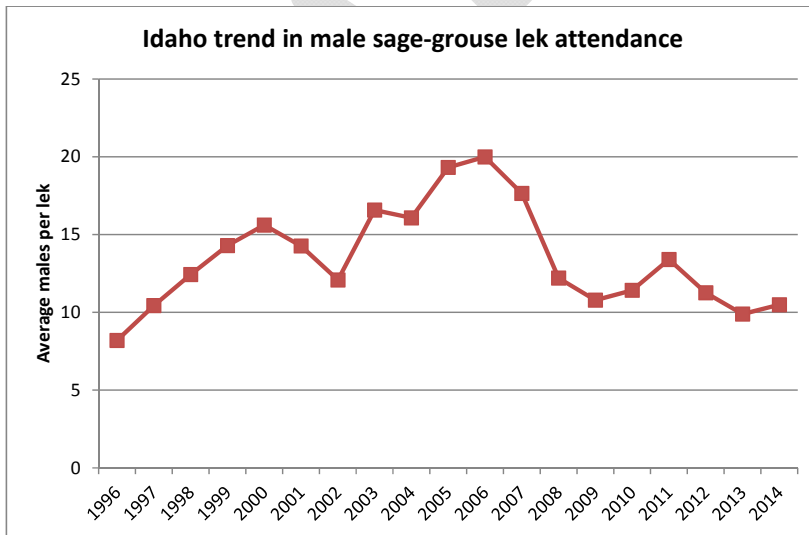
<sup>1</sup> Modeled nesting habitat is defined as those areas of Priority or Important Habitat Management Areas within 6.2 miles of 2011 active leks.

<sup>2</sup> The Utah portion of the Sawtooth National Forest is calculated separately for the Southern Conservation area.

The application of these calculations requires certain assumptions and associated baseline values which set an appropriate benchmark for future comparison.

For the adaptive management evaluation in Idaho the baseline year for comparison of both the population and habitat values is set at 2011. Sage-grouse have been monitored by counting males on leks since the 1950's (IDFG files). Average male lek attendance (statewide average) reached a low point in 1996 (IDFG in file). A more consistent and intensified survey of leks began with the annual monitoring of all 78 lek routes across southern Idaho in 1996. Average male lek attendance has fluctuated since 1996 (Figure G-1) in response to favorable or unfavorable conditions (e.g. weather, habitat improvements or loss, and West Nile virus). Peaks were in 2000, 2006, and 2011 with low points in 2002 and 2009. The increase in male lek attendance after previous declines indicates that sage-grouse populations can rebound over a relatively short time frame (e.g. 5 years) given desirable conditions. The baseline was set at the 2011 average number of males because this level is approximately the medium (8 higher and 7 lower years) of the counts between 1996-2011. At the statewide scale, the 2011 baseline allows 10% and 20% population triggers to be above the second lowest point in 2009. Application of the trigger at a smaller (Conservation Area) scale is a more conservative approach that will indicate potential trends sooner than if applied at the state-wide scale.

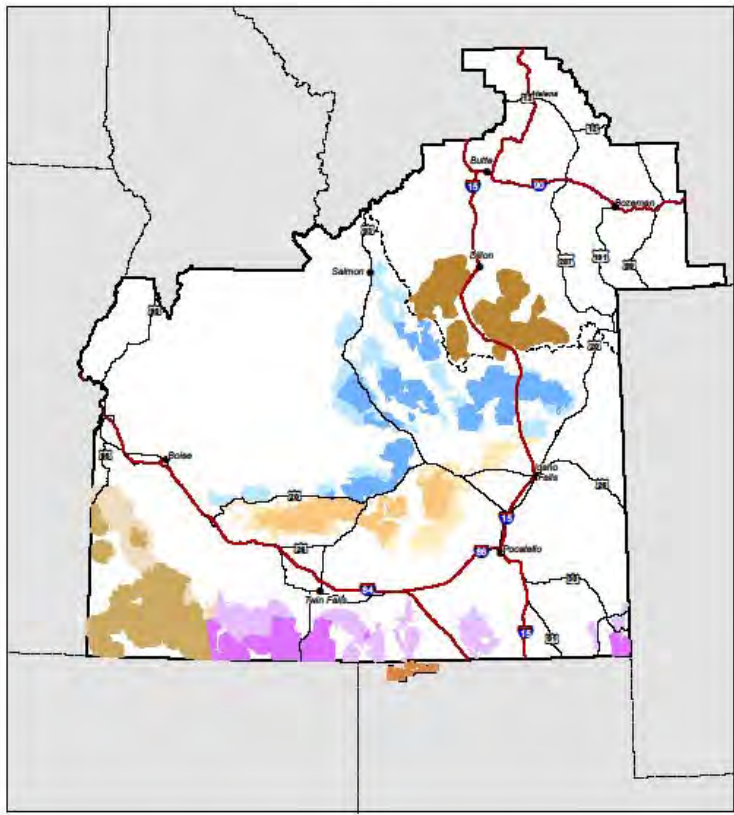
Figure G-1. Idaho Trend in Male Sage-grouse Lek Attendance.





Map-G-1

Biologically Significant Unit



- Idaho Desert Conservation Area - Core
- Idaho Desert Conservation Area - Important
- Idaho Mountain Valleys Conservation Area - Core
- Idaho Mountain Valleys Conservation Area - Important
- Idaho Southern Conservation Area - Core
- Idaho Southern Conservation Area - Important
- Idaho West Owyhee Conservation Area - Core
- Idaho West Owyhee Conservation Area - Important
- Raft River - Core
- SW Montana Conservation Area - Core
- Analysis Boundary

**Commented [BER1]:** Gary Wright - Radio telemetry information collected in 2011 and 2012 from sage-grouse collared in the vicinity of a winter concentration area located about 3.5 miles east of Magic Reservoir near Wedge Butte (Idaho Desert Conservation Area) reveals sage-grouse conduct nesting and brood-rearing activities up to 30 miles north and east of the Wedge Butte area shown as Idaho Mountain and Valleys Conservation Area. Incorporating the adjacent Idaho Mountain and Valleys area occurring within a 30-mile radius of Wedge Butte and north of Hwy 20 and 93 into the Idaho Desert area would result in a more accurate representation of the use area for some of the sage-grouse population wintering in the Idaho Desert area.

**Commented [BER2]:** Tara Anderson - It is hard to discern from the BSU map whether or not the southern boundary of the Idaho Desert Conservation Area of Importance excludes the portion of the Craters of the Moon National Monument and Preserve referred to as the "gap", just north of the Wapi Lava Flow. If so, please consider including this biologically significant area within the Idaho Desert Conservation Area of Importance. Observation data and recent radio-telemetry studies indicate that sage-grouse are consistently utilizing this area for lekking, nesting, brood-rearing, and wintering. This area contains several large and active sage-grouse leks and likely provides connectivity for the local sage-grouse population. Although the area lacks continuous sagebrush cover, significant patches of sagebrush occur both on the rangelands and adjacent lava that support sage-grouse year-round. Also, large portions of the area have been seeded with sagebrush and recovery is evident.

**Part II – Anthropogenic Disturbance Calculation**

The specific formula for the percent of anthropogenic disturbance is defined by:

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within the BSU} * \left( \frac{\text{Acres of Effective Habitat within the BSU}}{\text{Acres within the BSU}} + 0.3 \right)} \right) \times 100$$

The BSU in the denominator represents the total area (acreage) of the applicable area of analysis. Each BSU is tracked and evaluated separately within each of the 10 BSUs, and reaching the 3% disturbance cap in any one BSU has specific management implications both within and beyond that specific BSU as described in the Proposed Plan.

All sub-regions within the Great Basin Region will use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis and would use local data and/or more current satellite imagery if available.

Anthropogenic Disturbance included in the numerator is shown in Table G-1.

Table G-1. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
Oil and Gas Wells and Development Facilities	HIS; BLM (AFMSS)	5.0 ac
Coal Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resource Data System	Polygon Area
Wind Towers	Federal Aviation Administration	3.0 ac
Solar Fields	Platts (power plants)	7.3 ac
Geothermal Development Facilities	IHS	3.0 ac or Polygon Area
Mining (Active Locatable, Leasable and Saleable Developments)	InfoMine	5.0 ac or Polygon Area
Roads <sup>4</sup>	ESRI StreetMap Premium	40.7 ft. (surface streets) 84.0 ft. (major roads) 240.2 ft. (Interstate Hwys.)
Railroads <sup>5</sup>	Federal Railroad Administration	30.8 ft.
Powerlines <sup>6</sup>	Platts	100 ft. (1-199kV)

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

<sup>4</sup> Values described for line features – roads; railroads; powerlines – represent associated widths centered on the line feature.

<sup>5</sup> See previous note.

<sup>6</sup> See previous note.

Datasets as Described in the Monitoring Framework <sup>3</sup>	Source	Spatial Extent
		150 ft. (200-399kV) 200 ft. (400-699kV) 250 ft. (700+kV)
Communication Towers	Federal Communications Commission	2.5 ac
Other Vertical Structures	Federal Aviation Administration	2.5 ac
<b>Additional Local Datasets (need definitions)</b>		
Underground Pipelines		
Coal Bed Methane Ponds		
Meteorological Towers	BLM; Federal Communications Commission	2.5 ac
Nuclear Energy Facilities	As Available	Polygon Area
Airports	Federal Aviation Administration	Polygon Area
Military Ranges (ground based?)		
Hydropower plants		
Recreation Areas (Developed)	BLM data	Polygon Area

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance (see Part V for definitions):

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

**Non-Disturbance**

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.
- Linear transportation features identified as primitive routes.
- Linear disturbances.

### *Derivation of the Disturbance Formula -*

There is no definitive and scientifically proven formula to determine impact to GRSG from disturbance described in current research. However, Knick et al. (2013) did describe certain relationships between GRSG and anthropogenic disturbance that have been used, in conjunction with specific assumptions to describe a mathematical relationship between human disturbance footprint, effective GRSG habitat and effects to GRSG.

The variables in the equation are defined as:

- Acres of a Biologically Significant Unit (BSU)
- Acres of Anthropogenic Development within the BSU
- Acres of Effective GRSG Habitat (sagebrush) within the BSU

Knick et al. (2013) defined their unit of comparison (analogous to a biologically significant unit) as an area within 5 km of the lek. Within this area they also found that 79% of this area contained sagebrush (analogous to effective GRSG habitat). Results of the study show that “Ninety-nine percent of active leks were in landscapes with <3% developed”. This shows that when areas within 5 km of a lek containing 79% sagebrush were 3% developed there was a measurable effect on the presence of GRSG – this defines a disturbance threshold of 3% at which point GRSG are affected. Knick et al. developed a habitat similarity relationship between the proportion of leks and percent of sagebrush which shows the highest proportion of leks when sagebrush percentage is between 70-90% (Knick et al. 2013, Figure 5, Connelly et al. 2000, Wisdom ???). Above 90% and below 70% the proportion of leks is reduced. This helps define the optimum range for sagebrush at between 70-90% and also indicates that the disturbance threshold of 3% is also dependent upon and varies with the percent of sagebrush present (effective habitat).

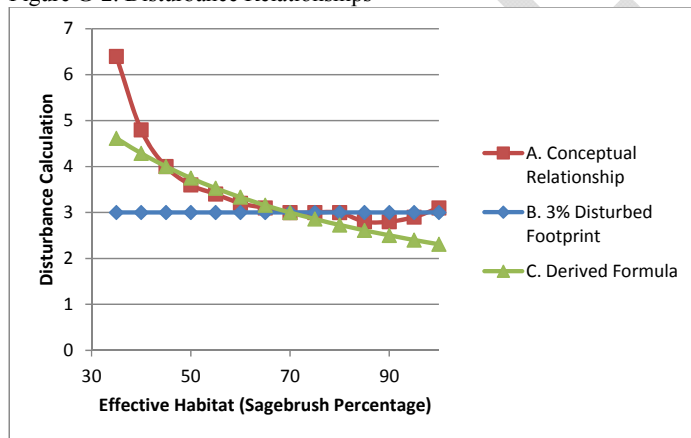
These findings from Knick et al. (2013) help define some mathematical parameters to define a modeled relationship between disturbance, effective habitat and effects to GRSG. Figure G-2 illustrates three different ‘disturbance curves’ that reflect the relationship between disturbance (y-axis) and effective habitat (sagebrush percentage) (x-axis) when the footprint disturbed is equivalent to 3% of the area. The red boxes (A) represent the conceptual relationship between disturbance and effective habitat as described and interpreted from Knick et al. (2013). The blue diamonds (B) represent a simple calculation based only on disturbance footprint, without regard to effective habitat. The green triangles (C) represent the derived formula to model the relationship.

The ‘A’ disturbance curve shows that when the disturbance footprint is 3% of the area and the sagebrush percentage is between 70-90% the disturbance calculation would be 3. When sagebrush percent falls below 70% or rises above 90%, the change in habitat, even without a change in disturbed footprint would begin to affect the presence of GRSG. As the amount of sagebrush declines while disturbance remains the same there would be an increasing effect to GRSG presence. This disturbance curve is conceptual and Knick et al. (2013) does not explicitly define this relationship, although this relationship does reflect numerical the observations described in Knick et al. (2013).

The 'B' disturbance curve is a straight calculation based only on disturbed footprint over a specified area. It does not account for variability of sagebrush percentage, and the only variable is the acres of disturbance. For an area that is 3% disturbed the relationship 'curve' is a flat line at 3, regardless of sagebrush percentage. This 'curve' or calculation would match the conceptual curve when sagebrush percentage is between 70 and 90%. This calculation would not account for changes in effective habitat due to loss through fire or gain through restoration and rehabilitation.

The 'C' disturbance curve models and approximates the conceptual relationship described in Knick et al. (2013). It accounts for changes in effective habitat that would translate into variable effects to GRSG based on loss or gain of habitat. It includes the ability to consider habitat loss such as from fire and to consider habitat gain such as from rehabilitation efforts including conifer removal. The model matched the conceptual relationship in the range of 70% sagebrush and approximates the conceptual relationship in areas with more or less sagebrush cover. The conceptual relationship assumes a more exponential relationship to GRSG effects from loss of habitat, while the derived formula assumes a more linear relationship. There are no available scientific studies that more clearly define the nature of the relationship. The derived formula and the conceptual relationship are substantially similar from 35-90% sagebrush percentage to validate the derived formula's relative approximation of the relationship.

Figure G-2. Disturbance Relationships



**Development of the Modeled Formula:**

In order to manage and apply a defined disturbance cap it is necessary to take the findings of the appropriate scientific research and utilize them as appropriately as possible to develop management strategies and evaluation techniques consistent with the management objective. Most scientific research is not completed with the intent to develop specific management objectives or approaches; however, it is through the management approaches that the scientific findings utilized to inform management.

Development of the modeled formula began by describing the simplest relationship of disturbance across a defined area by defining the disturbance percentage as:

$$\% \text{ Disturbance} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance}}{\text{Acres within Area of Concern}} \right) * 100$$

This accounts for disturbance, but does not account for changes in effective habitat or sagebrush percentage as described in Knick et al. (2013). To account for effective habitat the formula needs to include a term that adjusts the resulting calculation with regard to effective habitat. This should be reflected as an adjustment to the denominator (acres within area of concern). The denominator would be weighted based on the amount of effective habitat. In mathematical terms this would give a denominator of:

$$(\text{Acres within Area of Concern}) * (\text{Adjustment Based on Effective Habitat})$$

The adjustment term must equal 1.0 when the effective habitat is somewhere between 70-90% as described in Knick et al. (2013). Assuming the adjustment term is related to the relative percentage of sagebrush or effective habitat then the *Adjustment Based on Effective Habitat* could be expressed as:

$$\frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}}$$

However, this term does not equal 1.0 when effective habitat is less than 100%. In order to meet the requirement of equaling 1.0 a constant must be added. This constant, when added to the percentage calculated in the previous term must equal 1.0 when the *Acres of Effective Habitat within the Area of Concern* is somewhere between 70-90%. In the Idaho and Southwestern Montana Subregional Plan an objective of 70% effective habitat has been defined, which is consistent with Knick et al. (2013). If the objective is 70% then the constant that must be added to this term is 0.3 in order to meet the requirement of equaling 1.0 at 70% effective habitat. This defines the following derived formula that approximates the conceptual relationship described in Knick et al. (2013).

$$\text{Disturbance Percentage} = \left( \frac{\text{Footprint Acres from Anthropogenic Disturbance within Area of Concern}}{\text{Acres within the Area of Concern} * \left( \frac{\text{Acres of Effective Habitat within the Area of Concern}}{\text{Acres within the Area of Concern}} + 0.3 \right)} \right) * 100$$

**Scale:**

The particular scale for which this formula is calculated is defined by the Area of Concern. The Knick et al. (2013) used a study area defined by the area within 5 km of an individual lek. The disturbance relationships described previously are applicable at this scale and begin to break down or lose their integrity at greater distances from the lek (18 km). This concern, coupled with limited availability of consistent data across broader areas undermines the reliability and accuracy of the calculation when including areas more distant from the lek.

From a management perspective there is a need to address concerns at the broader scale to help manage those threats before they become a concern at the site specific scale. In Idaho, nesting location data collected by Idaho Department of Fish and Game (IDFG), shows that most nesting habitat occurs

within 6.2 miles (10 km) of the lek. IDFG has also collected telemetry data on GRSG movements and used this data to help define wintering areas. Nesting and wintering areas are the most limited and seasonal habitats in Idaho and additional disturbance in those areas could have impacts to GRSG presence. For these reasons the Area of Concern, referred to as the Biologically Significant Unit have been delineated to include nesting and wintering habitats. This results in areas that include more acres than just those associated within a 5 km area of an individual lek as described by Knick et al. (2013), but that are associated (within 6.2 miles or 10 km) with leks. While the Knick et al. (2013) study did not include winter habitat, because of their relative importance they have also been included as part of the BSU since conceivably disturbances that would cause lek abandonment would also likely cause abandonment or avoidance of other seasonal habitat areas. Using other administratively defined areas not delineated or based on specific GRSG use may undermine the utility and integrity of the disturbance relationship and calculation.

This approach, built upon the findings in Knick et al. (2013), uses those findings to help inform management at a broader scale that would help determine management actions based on disturbance evaluations. Using the BSU as the Area of Concern is a scale larger than described in Knick et al. (2013), but still within the predictive bounds described in that study. The formula can be used to calculate disturbance at the BSU scale to help inform a disturbance cap, and it can also be used at the site or project scale to help inform specific project activities.

**Example 1 – Anthropogenic Disturbance**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres and the Important BSU was delineated to include 1,036,455 acres, which represent the acres of the Biologically Significant Unit to be used in the denominator. The acres of Effective Habitat in the Priority BSU are 424,656 and in the Important BSU are 447,497. This sets up two equations – one for Priority Habitat Management Areas and one for Important Habitat Management Areas.

The existing footprint acres of disturbance within the Priority BSU are 17,661 acres and the footprint acres of disturbance within the Important BSU are 12,748 acres.

This gives the following two equations to define the baseline disturbance condition in the BSUs:

$$Priority = \frac{17661}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100$$

$$Or \left( \frac{17661}{784958 * (0.54) + 0.3} \right) * 100$$

$$Or \left( \frac{17661}{784958 * (0.84)} \right) * 100$$

Yielding a percent disturbance in the Priority BSU of 2.68%

$$Important = \frac{12748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance in the Important BSU of 1.68%

If by 2015 we project additional development within the Priority BSU to be 2120 acres (a 12% increase) and development within the Important BSU to be 4000 acres (a 30% increase) then the Priority footprint acres becomes 20,161 acres and the Important footprint acres becomes 16,748 acres. The resulting evaluation for this cumulative disturbance is calculated by:

$$Priority = \frac{19781}{(784958 * (\frac{424656}{784958}) + 0.3)} * 100 \quad Important = \frac{16748}{(1036455 * (\frac{447497}{1036455}) + 0.3)} * 100$$

Yielding the percent disturbance as: Priority = 3.00% and Important = 2.21%

In the examples, given the existing disturbance footprint it would require development of an additional 2,120 acres in the Priority BSU and an additional 10,005 acres in the Important BSU before the 3% cap would be engaged.



### Part III - Adaptive Management

#### Adaptive Management Habitat Trigger-

The specific formula for the change in habitat for the habitat trigger is defined by:

Within Idaho and Utah all factors are measured within the modeled nesting and wintering habitat within Priority or Important Habitat Management Areas (calculated separately) by Conservation Area; in Southwest Montana all factors are measured within the Priority Habitat Management Area.

In simple description the adaptive management habitat trigger calculation is the percentage of Effective Habitat (defined as areas of generally intact sagebrush that provide Greater sage-grouse habitat during some portion of the year) within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area within a particular year when compared to the Effective Habitat within modeled nesting and wintering areas within Priority or Important Habitat Management Areas by Conservation Area as of the 2011 baseline. Using Effective Habitat as the metric of comparison removes non-habitat acres from the calculation. The calculation is evaluated within both Priority and Important Habitat Management Areas separately within each of the 10 BSUs.

For purposes of evaluating the adaptive management habitat triggers, Effective Habitat in Idaho is tracked using the Key Habitat Map which is updated annually by BLM in coordination with IDFG, Forest Service, US FWS and Local Working Groups and tracks the areas of generally intact sagebrush providing Greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map. Appendix F contains a description of the Key Habitat Map maintenance and update process including the inclusion of disturbances from fire and temporary disturbances and habitat restoration/rehabilitation. For Montana and Utah Effective Habitat is based on...

Factors: EHP(Y) – where Y is the year and EHC is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(Y) - where Y is the year and EHI is the acres of Effective Habitat for that year within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year within the 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(Y) – where Y is the year and AD is the acres of anthropogenic disturbance within Effective Habitat for that year (Y) within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

EHP(2011) – the Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

EHI(2011) - the Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

ADP(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Priority Habitat Management Area by Conservation Area

ADI(2011) – the acres of anthropogenic disturbance within Effective Habitat within the baseline 2011 nesting and wintering areas within the Important Habitat Management Area by Conservation Area

Formulas:

$$\text{Priority Habitat Management Area} = 100 - \left( \frac{EHP(Y) - ADP(Y)}{EHP(2011) - ADP(2011)} \right) * 100$$

$$\text{Important Habitat Management Area} = 100 - \left( \frac{EHI(Y) - ADI(Y)}{EHI(2011) - ADI(2011)} \right) * 100$$

When this calculation equals or exceeds 10 then an adaptive trigger has been engaged as per AM-7 & AM-8.

Tables 2-7 describe the acreages associated with the BSUs by Conservation Area for the Idaho and Southwestern Montana Subregion. The tables contain values for the entire BSU (Priority and Important), including all ownerships, acres of effective habitat within the BSUs and acres of anthropogenic disturbance within the BSUs.

These values will be used to provide several examples applying the anthropogenic disturbance and adaptive management habitat trigger evaluations. These are for illustrative purposes and do not represent an actual evaluation of ground conditions.

**Example 2 – Adaptive Management – Habitat**

In the Southern Conservation Area the Priority BSU was delineated to include 784,958 acres, of which 424,656 acres were Effective habitat; therefore EHP(2011) is equal to 424,656 acres. Development within the Effective Habitat in 2011 was measured at 10,074 acres; therefore ADP(2011) is equal to 10,074 acres.

If in 2015 we project a cumulative loss of 42,000 Effective habitat acres due to wildfire (10% loss) and an additional 1000 acres of anthropogenic development (10% increase), then

EHP(2015) is equal to 424,656 – 42,000 or 382,656 and ADP(2015) is equal to 10,074+1000 or 11,074. The evaluation for the adaptive management trigger is calculated by:

$$100 - \left( \frac{382656 - 11074}{424656 - 10074} \right) * 100$$

This simplifies to:  $100 - \left( \frac{371582}{414582} \right) * 100$

Or  $100 - (0.896 * 100)$

Or  $100 - 89.6$

Or  $10.4 - \text{equivalent to } 10.4\%$

This evaluation shows a loss of greater than 10 percent and less than 20 percent which would engage the soft habitat trigger as described in AM-8 and not the hard habitat trigger described in AM-7.

#### **Soft Trigger Considerations and Implementation Actions**

The Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service would utilize monitoring information to assess when triggers have been tripped. When information indicates that the soft habitat or population trigger may have been tripped, a Sage-Grouse Implementation Task Force, in coordination with BLM and Forest Service - aided by the technical expertise of IDF&G - would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to BLM possible changes in management to the PHMA. As to the IHMA, the Sage-Grouse Implementation Team may review the causes for decline and potential management changes only to the extent those factors significantly impair the state's ability to meet the overall management objective. It is anticipated IDF&G will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where the monitoring information indicates the cause(s) of the decline is not a primary threat will the Sage-Grouse Implementation Task Force analyze the secondary threats to the species and determine whether further management actions are needed.

#### **Adaptive Management Population Trigger**

##### **Framework**

##### **Population & Habitat Trigger Justification**

##### Triggers

Because unexpected events (e.g., wildfire, West Nile Virus) may result in a substantial loss of habitat or decline in sage-grouse populations, adaptive management triggers have been

developed. These triggers are intended to improve sage-grouse population trends, protect the overall baseline population, preserve a buffer population, and conserve sage-grouse habitat.

The triggers have both population and habitat components. Population components consider population growth and change in lek size. The habitat component considers loss of breeding and/or winter habitat. Lek size has been related to population change in numerous studies (Connelly and Braun 1997, Connelly et al. 2004, Baumgart 2011, Garton et al. 2011). Garton et al. (2011) used both characteristics as well as number of active leks to assess change for sage-grouse populations throughout the west. A variety of researchers (Swensen et al. 1987, Connelly et al. 2000a, Miller et al. 2011) have shown that loss of winter or breeding habitats resulted in decreased sage-grouse populations. The adaptive management triggers set at a lambda value less than one, a 20% decline in males counted on lek routes, and a 20% loss of breeding or winter habitat as break points that would initiate a population or habitat trigger.

Population Growth (Finite Rate of Change)

Although populations cannot be accurately estimated, lek counts of males provide a robust method for assessing population trend and estimating population growth ( $\lambda$ ) in an unbiased fashion. Calculating  $\lambda$  (finite rate of change) between successive years for a sage-grouse population is described in Garton et al. (2011). The ratio of males counted in a pair of successive years estimates the finite rate of change ( $\lambda_t$ ) at each lek site in that one-year interval. These ratios can be combined across leks within a population for each year to estimate  $\lambda_t$  for the entire population (or Conservation Zone) or combined across all leks to estimate  $\lambda_t$  for the state between successive years as:

$$\lambda(t) = \frac{\sum_{i=1}^n M_i(t+1)}{\sum_{i=1}^n M_i(t)}$$

where  $M_i(t)$  = number of males counted at lek  $i$  in year  $t$ , across  $n$  leks counted in both years  $t$  and  $t+1$ . Ratio estimation under classic probability sampling designs—simple random, stratified, cluster, and probability proportional to size (PPS)—assumes the sample units (leks counted in two successive years in this case) are drawn according to some random process but the strict requirement to obtain unbiased estimates is that the ratios measured represent an unbiased sample of the ratios (i.e., finite rates of change) from the population or other area sampled. This assumption seems appropriate for leks and the possible tendency to detect (or count) larger leks than smaller leks does not bias the estimate of  $\lambda_t$  across a population or region (Garton et al. 2011), but makes it analogous to a PPS sample showing dramatically increased precision over simple random samples (Scheaffer et al. 1996). Also precision can be estimated for  $\lambda$ .

Because small game populations (including sage-grouse) typically fluctuate among years due to weather and other environmental variables, a  $\lambda_t$  for any given year is not very meaningful. However, a series of years where  $\lambda_t$  remains at or above 1.0 indicates a stable to increasing

population. Moreover, this situation would also provide strong evidence of the effectiveness of conservation actions that may have been employed.

Definition of “Significance” for Hard Population Trigger:

The Governor’s Alternative (E) did not define criteria for “significantly less than 1.0”. For purposes of the Plan, IDFG proposes to use a 90% confidence interval around the current 3-year average of  $\lambda$  to evaluate whether  $\lambda$  is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, then  $\lambda$  is significantly less than 1.0. The  $\lambda$  and variance will be calculated following Garton et al. (2011). A 90% confidence interval is justified because:

1. Under a 90% confidence interval the probability of making a false conclusion is 10%, however, the error will be on the conservative side; i.e., the error would benefit the sage-grouse population.
2. The  $\lambda$  criteria would not be used alone; as stated in the ADPP,  $\lambda$  would be used in concert with trend in maximum number of males.

#### Males Counted on Leks

Lek attendance by males has been used as an indicator of population trend in some areas since at least the early 1950s. For many years it was the only indicator used to assess status of sage-grouse populations. However, recent research has shown that male attendance at leks can be affected by severity of the previous winter, weather, timing of counts during spring, and a variety of other factors (Emmons and Braun 1984, Hupp 1987, Baumgart 2011). Baumgart (2011) indicated the probability of male sage-grouse attending leks in south-central Idaho varied among years and appeared to be tied to winter severity. Although lek data provide a powerful data set for assessing population trends over time (Garton et al. 2011), counts for a single year may not reflect trends very well. Thus using lek counts as a trigger must consider the inherent variation in these counts. Moreover, males counted on leks appear to have the most value for assessing population change when used in conjunction with other indicators of population status (e.g., finite rate of change).

Emmons and Braun (1984) reported that lek attendance rates varied from 86% for yearling males to 92% for adult males. These rates were pooled over 5 day periods and may have overestimated attendance (Connelly et al. 2011). In contrast, Walsh et al. (2004) reported average daily male attendance rates of 42% (range = 7-85%) and 19% (range = 0-38%) for adult and yearling sage-grouse, respectively but these rates were not adjusted for detection rate and were likely biased low (Connelly et al. 2011). Moreover, this study involved very small sample sizes (17 adult males, 9 yearling males over 15 leks) and only one breeding season and it was not clear whether all leks in the study area were known and sampled. Preliminary data from Utah (D. Dahlgren, personal communication) indicated that in a study area about 30 miles south of Idaho male sage-grouse lek attendance rates varied from roughly 60% at the beginning of April to about 90% at the end of the month. Recent findings in Idaho (Baumgart 2011) predicted the probability of lek attendance for an adult male following an “average” winter would range from 0.894 (SE = 0.025) on week 3 (~1 April) to 0.766 (SE = 0.040) on week 8 (~ 5 May). Published information suggests that a change in maximum number of males counted on leks of say 10-15% cannot confidently be considered a reflection of population status. However, a 20% decline in

maximum number of males counted on leks would likely not be related to lek attendance patterns but instead would reflect a population decline. Thus, the trigger was set at 20%.

Habitat Trigger

Numerous studies have documented the negative effects of habitat loss including fire and energy development on sage-grouse (Connelly et al. 2000b, Fischer et al. 1996, Nelle et al. 2000, Doherty et al. 2008), but few studies have related the amount of sagebrush habitat lost to population change. In a Montana study area with a non-migratory sage-grouse population, there was a 73% decline in breeding males after 16% of the study area was plowed (Swenson et al. 1987). Walker et al. (2007) indicated that the lowest probability for lek persistence within a landscape occurred where, within 6.4 km of a lek center, the area has < 30% sagebrush. Similarly, Wisdom et al. (2011) reported sage-grouse occupying landscapes with <27% sagebrush as dominant cover would have a low probability of persistence. Connelly et al. (2000a) showed that a fire in 1989 that removed 58% of the sagebrush cover in sage-grouse breeding and winter habitat led to an almost 95% decline in the breeding population a few years later. Similarly, a fire that removed about 30% of breeding/winter habitat resulted in substantial population declines over the next few years (J. W. Connelly, unpublished data; Table 1). A 30% loss of breeding and winter habitat is thus far the lowest amount of habitat loss for which a population response could be detected and landscapes with < 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. Idaho is taking a more conservative approach than suggested by the literature. A soft trigger is set at a 10% loss of breeding or winter habitat in Core or Important management zones of a Conservation Area, which initiates a review of the management approach. A hard trigger is set at a 20% loss of breeding or winter habitat within a Core Habitat Zone of a Conservation Area, which automatically causes a change in management status of the corresponding Important Habitat Zone.

Table 1. Nest success (%) in SE Idaho study areas before and after a fire in the Table Butte study area. The fire occurred in August 2000.

Year	Area	
	Table Butte	Upper Snake
1999	54	
2000	45	61
2001 <sup>a</sup>	18	56
2002	20	65

Literature Cited

Baumgart, J. A. 2011. Probability of attendance and sightability of greater sage-grouse on leks: relating lek-based indices to population abundance. Dissertation, University of Idaho, Moscow.

Connelly, J. W., and C. E. Braun. 1997. A review of long-term changes in sage grouse populations in western North America. *Wildlife Biology* 3:123-128.

- Connelly, J. W., C. A. Hagen, and M. A. Schroeder. 2011a. Characteristics and dynamics of greater sage-grouse populations. *Studies in Avian Biology* 38: 53-68.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies, Cheyenne, WY.
- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000a. Response of a sage grouse breeding population to fire in southeastern Idaho. *Wildlife Society Bulletin* 28:90-96.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000b. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.
- Doherty, K. E., D. E. Naugle, B. L. Walker, and J. M. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. *Journal of Wildlife Management* 72:187-195.
- Emmons, S. R. and C. E. Braun. 1984. Lek attendance of male sage grouse. *Journal of Wildlife Management* 48:1023-1028.
- Fischer, R. A., K. P. Reese, and J. W. Connelly. 1996a. An investigation on fire effects within xeric sage grouse brood habitat. *Journal of Range Management* 49:194-198.
- Garton, E. O., J. W. Connelly, J. S. Horne, C. A. Hagen, A. Moser, and M. A. Schroeder. 2011. Greater sage-grouse population dynamics and probability of persistence. *Studies in Avian Biology* 38: 293-382.
- Hupp, J. W. 1987. Sage grouse resource exploitation and endogenous reserves in Colorado. Dissertation, Colorado State University, Fort Collins.
- Leonard, K. M., K. P. Reese, and J. W. Connelly. 2000. Distribution, movements, and habitats of sage grouse *Centrocercus urophasianus* on the Upper Snake River Plain of Idaho: changes from the 1950's to the 1990's. *Wildlife Biology* 6:265-270.
- Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. *Studies in Avian Biology* 38: 145-184.
- Nelle, P. J., K. P. Reese, and J. W. Connelly. 2000. Long-term effects of fire on sage grouse nesting and brood-rearing habitats in southeast Idaho. *Journal of Range Management* 53:586-591.
- Scheaffer, R. L., W. Mendenhall, III, and R. L. Ott. 1996. Elementary survey sampling. Wadsworth Publishing, Belmont, CA.

- Swenson, J. E., C. A. Simmons, and C. D. Eustace. 1987. Decrease of sage grouse *Centrocercus urophasianus* after plowing of sagebrush steppe. *Biological Conservation* 41:125-132.
- Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71:2644-2654.
- Walsh, D. P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-count index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.
- Wisdom, M. J., C. A. Meinke, S. T. Knick, and M. A. Schroeder. 2011. Factors associated with extirpation of sage-grouse. *Studies in Avian Biology* 38: 451--472.

**Potential Implementation Level Actions to Consider in the Event Soft Trigger Criteria are Met**

- ✓ Increase monitoring and evaluation of sage-grouse populations in Priority Habitat Management Area (area of concern).
- ✓ Implement Priority Habitat Management Area management strategy in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Implement Priority Habitat Management Area RDFs in corresponding Important Habitat Management Area of the same Conservation Area.
- ✓ Not allow any new (large) infrastructure development within the Priority Habitat Management Area (no exceptions allowed).
- ✓ Reallocate resources to focus on primary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Priority Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Apply Priority Habitat Management Area criteria for all primary threats, and/or all secondary threats to the Important Habitat Management Area.
- ✓ Reallocate resources to focus on primary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).
- ✓ Reallocate resources to focus on secondary threats in the Important Habitat Management Area (e.g. direct resources from other parts of the state to the area of concern).

**~~If Livestock Grazing is determined to be a Causal Factor Consider the Following Measures:~~**

- ~~1. Employ grazing management systems that ensure adequate nesting and early brood rearing habitat within the breeding landscape.~~
- ~~2. When use pattern mapping or monitoring demonstrates an opportunity to adjust livestock distribution to benefit occupied sage grouse breeding habitat, include as appropriate herding, salting, and water source management (e.g., turning troughs/pipelines on/off, extending pipelines/moving troughs) in grazing programs.~~
- ~~3. If available and feasible, utilize exotic perennial grass seedings and/or annual grasslands to avoid breeding season of use of occupied sage grouse habitat.~~



4. Modify authorized seasons of use within grazing permits to provide greater flexibility in managing livestock for the benefit of sage grouse.
5. Where appropriate, maintain residual herbaceous vegetation at the end of the growing/grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Table 5.
6. Insure that permittees are informed of management and movement requirements related to avoidance of recent burns, rehabilitation seedings or other restoration sites.
7. Manage grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetative structure and composition appropriate to the site. In some cases enclosure fencing may be a viable option. However, recognize the availability and quality of desired herbaceous species may be improved by periodic grazing use of the enclosure.
8. Implement management actions (grazing decisions, allotment management plan/conservation plan development, or other agreements) to modify grazing management to meet seasonal sage grouse habitat requirements. Employ proper grazing management by providing flexibility in scheduling the intensity, timing, duration and frequency of grazing use over time that best promotes management objectives. During drought periods, prioritize evaluating effects of drought in the CMA relative to grouse needs for food and cover. Ensure that post-drought management allows for vegetation recovery that meets sage grouse needs in priority sage grouse habitat areas.
9. When using salt or mineral supplements: a) place them in existing disturbed sites, areas with reduced sagebrush cover — e.g., seedings or cheatgrass sites — to reduce impacts to sage grouse breeding habitat, b) where feasible use salts or mineral supplements to improve management of livestock for the benefit of sage grouse habitat.
10. In general, avoid constructing new fences within 2 km of occupied leks. Where feasible, place new, taller structures, such as corrals, loading facilities, water storage tanks, windmills, etc., at least 2 km from occupied leks to reduce opportunities for perching raptors. Careful consideration, based on local conditions, should also be given to the placement of new fences or structures near other important seasonal habitats (winter-use areas, movement corridors etc.) to reduce potential impacts.
11. New spring developments in sage grouse habitat should be designed to maintain or enhance the free-flowing characteristics of springs and wet meadows. Analyze developed springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage grouse habitat. Make modifications where necessary, considering impacts to other water users when such considerations are neutral or beneficial to sage grouse.
12. Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage grouse and other wildlife. Do not use floating boards or similar objects, as these are too unstable and are ineffective. Use BMPs to mitigate potential impacts from West Nile virus.
13. When placing new water developments in sage grouse breeding habitat, choose sites and designs that will provide the greatest enhancement for sage grouse and sage grouse habitat.
14. Avoid new water developments in higher quality native breeding/early brood habitats that have not had significant prior grazing use except in situations in which water developments may aid in better livestock distribution across the allotment and will not adversely impact the species.
15. Identify and when feasible, establish strategically located forage reserves focusing on areas unsuitable for sage grouse habitat restoration or lower priority habitat restoration areas.
16. Monitor for, and treat invasive species associated with, existing range improvements.

17. Consider initiating vegetative manipulation projects where sagebrush canopy cover exceeds optimal characteristics to promote grass and forb understory growth. These projects should only be undertaken where it can be achieved without negatively impacting the species.

### **Adaptive Grazing Management Response**

Improperly managed livestock grazing generally affects seasonal sage-grouse habitat at the site level. Therefore, the specific issues contributing to tripping an adaptive management trigger would need to be defined. Generally, these might be nesting cover from perennial grasses in breeding/nesting habitat, condition and forb availability in brood rearing habitat, and possibly sagebrush cover in winter habitat.

BLM would focus resources to accelerate land health assessments and/or assessment of specific habitat metrics in the areas where deficiencies in site-level habitat metrics are suspected to be a causal factor in tripping a soft or hard trigger. If it is determined that one or more site-level habitat objectives is not being met due to livestock, and an imminent likelihood of resource damage may occur from continued grazing, decisions could be issued in accordance with 4110.3-3(b) to provide immediate protection of resources while a full review of the grazing allotments and grazing permits is conducted. BLM would then focus resources at the state level to accelerate the grazing permit renewal in the area where the trigger has been tripped in order to expedite progress towards meeting land health standards.

BLM will individually analyze those allotments and pastures within the relevant Conservation Area. Given limited agency resources, prioritization will be given to areas that have the potential to provide the greatest benefit to sage grouse. Allocation of resources should be concentrated on allotments within the CMA that have declining sage grouse populations. Following those permits within the CMA, resources will be further prioritized to allotments within the IMA with breeding habitats that have decreasing lek counts. Sage grouse populations that are stable or trending upward will be a lower priority for permit renewal and the adaptive assessment process. The assessment/determination process for sage grouse pursuant to Standard 8 will consider published characteristics of sage grouse habitat and the Ecological Site Descriptions, existing vegetation, habitat inventories/assessments (Stiver et al. 2010), and where available, state and transition models that describe vegetation and other physical attributes for sage grouse. The related characteristics within the categories shown below will also be included. These characteristics indicate the ability of a given area to provide sage grouse habitat:

Category 1: The grazing allotment (or any pasture/significant area therein) has the existing vegetation and existing ecological condition (seral state) to provide sage grouse habitat

Category 2: The grazing allotment (or any pasture/significant area therein) has the ecological potential to provide sage grouse habitat.

Where an allotment or pasture meets one of these Categories above, the GRSG Habitat Management Objectives will be incorporated into relevant resource management plans as the desired conditions with the understanding that these desired conditions may not be achievable:

- (a) due to the existing ecological condition, ecological potential or the existing vegetation; or
- (b) due to causal events unrelated to existing livestock grazing.

Allotments will only be managed for the primary seasonal habitat that it has the potential to support. Based on these habitat characteristics, BLM will conduct fine and site scale habitat assessments to help inform grazing management. Where necessary, a determination of factors causing any failure to achieve the habitat characteristics GRSG HMOs will be conducted at a resolution sufficient to document the habitat condition. This determination will include consideration of local spatial and inter-annual variability. A determination of issues attributable to livestock grazing management shall not result from one year of data at a specific location within an allotment. If the process and conditions outlined above demonstrate that livestock grazing is limiting achievement of the habitat characteristics GRSG HMOs, renewed permits will include measures to achieve desired habitat conditions. These measures must be tailored to address the specific management issues associated with seasonal habitat limitations identified in the fine-scale assessments.





**Part IV – Anthropogenic Disturbance and Adaptive Management 2011 Baseline Indices**

**Table G-2 – Desert Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Desert Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-3 – Mountain Valleys Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Mountain Valleys Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-4 – Southern Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Southern Conservation Area</b>					
Priority BSU (nesting and wintering)	560,985	784,958	424,656	17,661	10,074
Important BSU (nesting and wintering)	798,691	1,036,455	447,497	12,748	6,289

**Table G-5 – West Owyhee Conservation Area Baseline Indices**

	BLM & FS Acres	Total Acres	Effective Habitat	Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>West Owyhee Conservation Area</b>					
Priority BSU (nesting and wintering)					
Important BSU (nesting and wintering)					

**Table G-6 – Southwest Montana Conservation Area Baseline Indices**

				Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Southwest Montana Conservation Area</b>	BLM & FS Acres	Total Acres	Effective Habitat		
Priority BSU (nesting and wintering)					

**Table G-7 – Raft River (Utah Portion of Sawtooth National Forest)**

				Existing Anthropogenic Disturbance	
				Within BSU	Within Effective Habitat
<b>Utah portion of Sawtooth National Forest</b>	BLM & FS Acres	Total Acres	Effective Habitat		
Priority BSU (nesting and wintering)					

**Part V - Travel and Transportation Management Definitions for Use in Anthropogenic Disturbance Calculation**

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

***Maintenance Intensities***

**Level 0**

Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.



Maintenance Objectives:

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

**Level 1**

Maintenance Description:

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Maintenance Objectives:

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

**Level 3**

Maintenance Description:

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives:

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

**Level 5**

Maintenance Description:

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

## Appendix H – Anthropogenic Disturbance

### Disturbance Density Calculation

#### GRSG Local/Site Disturbance Calculation

- **All sub-regions:** Agreed to use the same types of disturbances for fine/site scale monitoring as were used for broad and mid-scale analysis. Would use local data and/or more current satellite imagery if available. Recognize that site specific data, where available, provide a more accurate measure of land cover, disturbance and conifer encroachment than Landfire. In the long-term, ensure fine/site scale monitoring provides results that can be used across the GRSG range and “rolled up” for reporting purposes. In the short term (<5 years), locally derived vegetation data may not be available or easily rolled up, so use of seamless land cover data such as Sagestitch is recommended.

Great Basin sub-regions agreed to use the same type of data sets as used for broad and mid-scale to monitor local/site level conditions. Supplement with local data where available and/or more accurate. The following data layers or local surrogate would be used.

1. Energy (oil and gas wells and development facilities) Based on local info, actual footprint; see NOC language for certain exceptions.
2. Energy (coal mines) Actual footprint
3. Energy (wind towers) Based on local info, actual footprint
4. Energy (solar fields) Based on local info, actual footprint
5. Energy (geothermal) Based on local info, actual footprint
6. Mining (active developments; locatable, leasable, saleable) Based on local info, actual footprint
7. Infrastructure (roads) actual footprint; see road attachment for specific guidance
8. Infrastructure (railroads) abandoned railroads are NOT a disturbance
9. Infrastructure (power lines) Using NOC guidance, apply these widths:
  - <100 kV: use ROW width
  - 100-199kV: 100 ft
  - 200-399kV:150 ft
  - 400-699kV: 200 ft
  - 700-799kV: 250 ft
10. Infrastructure (communication towers, fire lookouts, met towers) Based on local info, actual footprint
11. Other developed rights-of-ways

The National Monitoring Framework lists the data sets by threat. These are:

<b>FWS Listing Decision Threat</b>	<b>Sagebrush Habitat Availability</b>	<b>Habitat Degradation (Human Activities)</b>	<b>Density of Energy and Mining Facilities</b>
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X*		
Invasive Species	X*		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and salable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights of ways		X*	

The following data sets would *not* be used to calculate anthropogenic disturbance, but would be used in the habitat baseline to estimate habitat availability or the amount of sagebrush on the landscape within biologically significant units. Use best available data, where Landfire or Sagestitch could be used for biophysical setting (bps), compared to existing vegetation type.

1. Habitat treatments
2. Wildfire
3. Invasive plants
4. Conifer encroachment
5. Agriculture
6. Urbanization, Ex-urban and rural development

**Biologically Significant Unit:**

- Idaho proposes use of Priority and Important Habitat Management Areas that generally match PACs, but also anticipates assessing disturbance at other scales including nesting and winter habitat, 5 km lek neighborhood, Conservation Areas and/or at the project-scale, depending on need.
- For all subregions, data from these units would be rolled up to the PAC and WAFWA Management Zone, to meet FWS needs. In addition, units must be edge matched/aligned with neighboring states. All sub-regions acknowledge there may be locally important biologically significant units smaller than PACs which may or may not be rolled up to PAC level. The Subregions also acknowledge that assessing disturbance at larger scales such as certain PACs, or via rollup of data, provides a baseline metric for future comparison, but dilution may likely mask disturbance concerns occurring at more local scales.

***Travel and Transportation Disturbance in Sage-Grouse Habitat***

The following would count as disturbance:

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

**Non-Disturbance**

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.

Linear transportation features identified as primitive routes.  
Linear disturbances.

DRAFT

***Travel and Transportation Management Definitions***

**Roads** are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

**Primitive Roads** are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

**Trails** are linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Linear Disturbances** are human-made linear features that are not part of the designated transportation network are identified as “Transportation Linear Disturbances.” These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM’s transportation system.

**Primitive Routes** are any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Temporary routes** are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

**Administrative routes** are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring

***Maintenance Intensities***

**Level 0**

Maintenance Description:

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Maintenance Objectives:

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

### **Level 1**

#### Maintenance Description:

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

#### Maintenance Objectives:

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

### **Level 3**

#### Maintenance Description:

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

#### Maintenance Objectives:

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

### **Level 5**

#### Maintenance Description:



Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

Maintenance Objectives:

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

## Appendix J – Mitigation

### Part I – Regional Mitigation Strategy

The BLM/USFS will achieve no net unmitigated loss for authorized land uses within greater sage-grouse priority and general habitat. No net unmitigated loss means that impacts from authorized land uses will be fully offset to benefit the species. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g. avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts to greater sage-grouse or its habitat from authorized land uses remain after applying avoidance and minimization measures (i.e. residual impacts), then compensatory mitigation projects will be used to fully offset those residual impacts in order to achieve the no net unmitigated loss standard. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see glossary).

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy that will inform the NEPA decision making process including the application of the mitigation hierarchy to address impacts within that Zone. A robust and transparent Regional Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to greater sage-grouse and its habitat.

The BLM's Regional Mitigation Manual MS-1794 serves as a framework for developing and implementing a Regional Mitigation Strategy. The following sections provide additional guidance specific to the development and implementation of a WAFWA Management Zone Regional Mitigation Strategy.

#### Developing a WAFWA Management Zone Regional Mitigation Strategy

The BLM/USFS, via the WAFWA Management Zone Greater Sage-Grouse Conservation Team, will develop a WAFWA Management Zone Regional Mitigation Strategy to guide the application of the mitigation hierarchy to address impacts within that Zone. The Strategy should consider any State-level greater sage-grouse mitigation guidance that is consistent with the requirements identified in this Appendix. The Regional Mitigation Strategy should be developed in a transparent manner, based on the best science available and standardized metrics.

As described in Chapter 2, the BLM/USFS will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of greater sage-grouse, within 90 days of the issuance of the Record of Decision. The Strategy will be developed within one year of the issuance of the Record of Decision.

The Regional Mitigation Strategy should include mitigation guidance on avoidance, minimization, and compensation, as follows:

- Avoidance

- Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans, Forest Plans, State Plans); and,
- Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.
- **Minimization**
  - Include minimization actions (e.g. required design features, best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and,
  - Include any potential, additional minimization actions (e.g. additional minimization best management practices) with regard to greater sage-grouse conservation.
- **Compensation**
  - Include discussion of impact/project valuation, compensatory mitigation options, siting, compensatory project types and costs, monitoring, reporting, and program administration. Each of these topics is discussed in more detail below.
    - **Residual Impact and Compensatory Mitigation Project Valuation Guidance**
      - A common standardized method should be identified for estimating the value of the residual impacts and value of the compensatory mitigation projects.
      - This method should consider the quality of habitat, scarcity of the habitat, and the size of the impact/project.
      - For compensatory mitigation projects, consideration of durability (see glossary), timeliness (see glossary), and the potential for failure may require an upward adjustment of the valuation.
      - The resultant compensatory mitigation project will, after application of the above guidance, result in proactive conservation measures for Greater Sage-grouse (consistent with BLM Manual 6840 – Special Status Species Management, section .02).
    - **Compensatory Mitigation Options**
      - Options for implementing compensatory mitigation should be identified, such as:
        - Utilizing certified mitigation/conservation bank or credit exchanges.
        - Contributing to an existing mitigation/conservation fund.
        - Authorized-user conducted mitigation projects.
      - For any compensatory mitigation project, the investment must be additional (i.e. additionality: the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).
    - **Compensatory Mitigation Siting**
      - Sites should be in areas that have the potential to yield the greatest conservation benefit to the greater sage-grouse, regardless of land ownership.
      - Sites should be durable (see glossary).
      - Sites identified by existing plans and strategies (e.g. fire restoration plans, invasive species strategies, healthy land focal areas) should be

considered, if those sites have the potential to yield the greatest benefit to greater sage-grouse and are durable.

- **Compensatory Mitigation Project Types and Costs**
  - Project types should be identified that help reduce threats to greater sage-grouse (e.g. protection, conservation, and restoration projects).
  - Each project type should have a goal and measurable objectives.
  - Each project type should have associated monitoring and maintenance requirements, for the duration of the impact.
  - To inform contributions to a mitigation/conservation fund, expected costs for these project types (and their monitoring and maintenance), within the WAFWA Management Zone, should be identified.
- **Compensatory Mitigation Compliance and Monitoring**
  - Mitigation projects should be inspected to ensure they are implemented as designed, and if not, there should be methods to enforce compliance.
  - Mitigation projects should be monitored to ensure that the goals and objectives are met and that the benefits are effective for the duration of the impact.
- **Compensatory Mitigation Reporting**
  - Standardized, transparent, scalable, and scientifically-defensible reporting requirements should be identified for mitigation projects.
  - Reports should be compiled, summarized, and reviewed in the WAFWA Management Zone in order to determine if greater sage-grouse conservation has been achieved and/or to support adaptive management recommendations.
- **Compensatory Mitigation Program Implementation Guidelines**
  - Guidelines for implementing the State-level compensatory mitigation program should include holding and applying compensatory mitigation funds, operating a transparent and credible accounting system, certifying mitigation credits, and managing reporting requirements.

### Incorporating the Regional Mitigation Strategy into Land Use Authorization Analyses

The BLM/USFS will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for authorized land uses that may impact greater sage-grouse or its habitat.

### Implementing a Compensatory Mitigation Program

The BLM/USFS need to ensure that compensatory mitigation is strategically implemented to achieve the greatest conservation benefit, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be managed at a State-level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g. Federal, Tribal, and State agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/USFS will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the Record of Decision. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/USFS will remain responsible for making decisions that affect Federal lands.

## Glossary Terms

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (BLM Manual Section 1794).

**Avoidance mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g. may also include avoiding the impact by moving the proposed action to a different time or location.)

**Compensatory mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory mitigation projects:** Specific, on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements).

**Compensatory mitigation sites:** The durable areas where compensatory mitigation projects will occur.

**Durability (protective and ecological):** The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist. (BLM Manual Section 1794).

**Minimization mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (40 CFR 1508.20 (b))

**Residual impacts:** Impacts from an authorized land use that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Timeliness:** The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun. (BLM Manual Section 1794).

## **Part II – Idaho Mitigation Framework**

### **FRAMEWORK FOR MITIGATION OF IMPACTS FROM INFRASTRUCTURE PROJECTS ON SAGE-GROUSE AND THEIR HABITATS**

**Sage-Grouse Mitigation Subcommittee of the Idaho Sage-Grouse State Advisory Committee<sup>1</sup>  
December 6, 2010**

#### **INTRODUCTION**

The Conservation Plan for Greater Sage-grouse in Idaho (Idaho Sage-Grouse Advisory Committee 2006; as amended in 2009) calls for the development of a “proposal for a mitigation and crediting program for sagebrush steppe habitats in Idaho and recommendations for policy consideration” (Measure 6.2.4.). In early 2010, the Idaho Sage-grouse Advisory Committee (SAC) established the Mitigation Subcommittee to complete this task.<sup>1</sup> The Mitigation Subcommittee met several times from the late spring, through the fall of 2010 and found broad areas of agreement among its diverse participants.

This report presents the Mitigation Subcommittee’s consensus recommendations for the creation of an Idaho-based program to compensate for the impacts of infrastructure projects on sagegrouse and their habitats. This program – called the Mitigation Framework – would serve as a science-based “mitigation module” that project developers and government regulators could use to achieve compensatory mitigation objectives called for in project plans and permits. While compensatory mitigation may help offset certain impacts arising from infrastructure projects, mitigation should not be considered a substitute for first avoiding and then minimizing impacts.

In addition, it is important to recognize that federal and state regulatory or land-management agencies, and county or local governments may also require additional stipulations, conditions of approval or other requirements as well as on-site mitigation, in accordance with applicable law, regulation or policy.

This document proposes a general outline or “skeleton” of policies and procedures for such a program. The Mitigation Framework is designed to be transparent, inclusive, and accountable to defined objectives. The Subcommittee’s purpose is to describe the program in enough detail to foster a dialogue among SAC members, spot important issues and points of agreement, and assess the level of support for developing a functioning mitigation program for Idaho sagegrouse and their habitats.

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<sup>1</sup> Subcommittee participants: John Robison and Lara Rozzelle, Idaho Conservation League; Brett Dumas, Idaho Power Company; Paul Makela and Tom Rinkes, BLM; Don Kemner, Idaho Department of Fish and Game; Will Whelan and Trish Klahr, The Nature Conservancy; Rich Rayhill, Ridgeline Energy, LLC; Lisa LaBolle and Kirsten Sikes, Idaho Office of Energy Resources; Nate Fisher, Idaho Office of Species Conservation; John Romero, Citizen at Large.

## **EXECUTIVE SUMMARY**

The state of Idaho is seeing an increasing number of infrastructure projects, such as transmission lines and wind energy facilities, proposed in the state's sagebrush steppe ecosystems. Where federal permits are required, the environmental review process for these projects will analyze how these projects affect sage-grouse and will consider a range of potential mitigation measures to avoid, minimize, or offset any impacts. It is likely that the environmental review process will lead at least some developers and agencies to implement compensatory mitigation.

Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For sage-grouse, this would include, among other things, protecting and restoring sagebrush habitats to offset habitat losses and other effects of infrastructure projects.

This framework describes the general outline for a sage-grouse compensatory mitigation program in Idaho. This program would employ an "in-lieu fee" approach to compensatory mitigation through which a project developer would pay funds into an account managed by the mitigation program for performance of mitigation actions that provide measureable benefits for sage-grouse and their habitats within Idaho.

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, it offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions. It should be emphasized that this program would not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts through appropriate project siting, design and implementation.

Although the initial focus is on sage-grouse, the Mitigation Framework can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associated species. The suitability of the Framework for other species and natural features has not been evaluated.

The objectives of the Mitigation Framework include:

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by actions that benefit the affected species and habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset the impacts of project development and operation on sage-grouse and sage-grouse habitat, and provide a consistent mechanism to offset impacts to the species that can be evaluated in future reviews of the species' status; and
- Evaluate issues based on best available scientific information, while acknowledging and responding to scientific uncertainty.

The Mitigation Framework would be established through a memorandum of agreement (MOA) among entities that have the capacity and commitment to assist in its implementation. Such parties

may include land and wildlife management agencies, counties, tribes, participating private infrastructure development companies, and non-governmental organizations. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program.

The Mitigation Framework envisions a program with the following attributes: (1) a Mitigation Team and program administrator to steer the mitigation program and ensure strong oversight; (2) technically sound and transparent guidelines for estimating compensatory mitigation costs; (3) a science-based statewide strategy to guide the selection of mitigation actions that will receive funding; (4) provisions that the costs of operating the program will be borne by infrastructure developers that use the Mitigation Framework to deliver compensatory mitigation; (5) monitoring the implementation and effectiveness of mitigation actions funded by the Mitigation Framework program; (6) a system to track benefits provided by the Mitigation Framework to sage-grouse habitat in Idaho; and (7) periodic evaluation and adaptation of the Mitigation Framework program.

This framework provides only a general outline of a proposed Idaho-based compensatory mitigation program. It is intended to assess the level of support for crafting the agreements and completing the technical tasks needed to bring the Mitigation Framework into being.

## **DISCUSSION**

### **I. The Role of Compensatory Mitigation in Infrastructure Development and Sage-grouse Conservation**

#### **A. Mitigation Basics**

Broadly defined, “mitigation” refers to a wide range of measures that are taken to avoid, minimize, rectify, reduce, or compensate for the adverse impacts of actions affecting the environment. See 40 C.F.R. § 1508.20 (definition of “mitigation” in National Environmental Policy Act (NEPA) rules). In this general sense, mitigation should be an integral part of all phases of project planning and implementation.

The focus of this report is on compensatory mitigation – also known as “biodiversity offsets” or “offsite mitigation.” Compensatory mitigation consists of compensating for residual project impacts that are not avoided or minimized by providing substitute resources or habitats, often at a different location than the project area. For instance, a project developer may fund the restoration of a particular type of habitat in order to replace or “offset” similar habitat that is lost as a result of project construction.

This Framework adopts an “in-lieu fee” approach to compensatory mitigation. Under this approach, a project developer provides funding to a compensatory mitigation program administrator who then distributes the funds to the appropriate government agency, foundation or other organization for performance of mitigation actions. In an in-lieu fee program, the responsibility for actually delivering the compensatory mitigation is transferred from the developer to the program administrator once the developer provides the necessary funds to the in-lieu fee program. It is important to emphasize that compensatory mitigation does not relieve project developers and permitting agencies of their obligation to avoid and minimize environmental impacts. This Framework endorses the principle known as the



“mitigation hierarchy,” which holds that decision makers should consider the elements of environmental mitigation in the following order of priority:

1. Avoid environmental impacts through project siting and design;
2. Minimize the impacts during construction, operation, maintenance, and decommissioning by implementing appropriate conservation measures related to timing and conduct of project activities;
3. Restore areas that have been disturbed or otherwise rectify on-site project-related impacts to the greatest extent practicable; and
4. Compensate for residual impacts (direct and indirect effects that are not mitigated on-site) by providing replacement habitats or other benefits.

This means that compensatory mitigation is addressed only after efforts to avoid, minimize, and mitigate the impacts have been addressed. It also should be noted that significant impacts to habitat areas that support special functions and values for sage-grouse may simply not be replaceable through mitigation and therefore the best course may be to avoid those areas altogether.

### **B. Need for an Idaho Compensatory Mitigation Program**

In recent years, the state of Idaho has seen an increase in the number of major infrastructure projects proposed in the state’s sagebrush steppe ecosystems. Several current proposals involve high voltage transmission lines that would cross over hundreds of miles of sage-grouse habitat. Large scale energy infrastructure projects such as wind farms may also affect large areas of sagegrouse habitat. Where these projects are located at least partially on federally managed public lands they will be required by federal law to go through an extensive environmental review process under NEPA before relevant federal permits are issued. The NEPA process requires the permitting agencies to consider the projects’ environmental effects (both positive and negative), alternatives, and potential mitigation measures. Impacts on sage-grouse will be one of the topics analyzed in the NEPA process.

Even after efforts are taken to avoid and minimize impacts, it is possible that some of these infrastructure projects will degrade some sage-grouse habitat, cause direct sage-grouse mortality, or lead to indirect effects such as avoidance of previously occupied habitat. The extent to which project developers and regulators adopt compensatory mitigation as a means to offset these impacts is not fully known. However, it is likely that at least some developers and regulators will seek to implement compensatory mitigation to benefit sage-grouse and their habitats. Energy companies and other developers face daunting challenges in carrying out compensatory mitigation for sage-grouse habitat. Just identifying specific mitigation actions requires a major effort. Actually implementing sagebrush restoration and enhancement projects is even more difficult and expensive – typically involving years of effort and a significant risk of failure. Delivering this type of technically complex environmental mitigation may be well outside the core business of many infrastructure developers.

### **C. Advantages of the Mitigation Framework**

The Mitigation Framework proposes to respond to these challenges by creating a statewide program to deliver scientifically sound compensatory mitigation for multiple projects. Project developers and regulators would no longer have to design, fund and implement their own mitigation programs. Instead, they would have the option of contributing money to a central fund overseen by agencies with expertise in habitat management and non-governmental partners with similar experience. This approach to compensatory mitigation offers three major advantages. The first advantage stems from the increased efficiency of an Idaho-wide mitigation program compared with fragmented, project-by-project mitigation programs. Mitigation efforts require a significant investment in planning, administration, project oversight, and monitoring. The Mitigation Framework would consolidate these functions, thus avoiding needless duplication. The second advantage is that a state mitigation fund can be used for sage-grouse conservation more strategically and at a greater scale than project-by-project mitigation. As described in more detail below, the Mitigation Framework would fund sage-grouse habitat protection and restoration projects in accordance with a statewide strategy that uses landscape-scale analyses to identify the specific measures and habitats that will provide the greatest benefit for Idaho sagegrouse populations. This Idaho-based mitigation strategy will be integrated with other conservation strategies throughout the range of sage-grouse to ensure that actions taken in Idaho benefit the species as a whole. Third, this method can engage the capacity and competence of natural resources agencies, local governments, private companies, and non-governmental organizations. The Mitigation Framework proposes to enlist these entities in shaping Idaho's strategy, developing criteria for use of the fund, and proposing and implementing habitat protection and restoration projects. The benefits of the Mitigation Framework can be summarized as follows:

*Benefits for Project Developers:*

An efficient and reliable mechanism for meeting compensatory mitigation objectives and permit conditions; and Increased certainty regarding project costs.

*Benefits for Regulatory Agencies:*

Increased certainty that in-lieu fees will result in strategic "on-the-ground" mitigation actions that benefit sage-grouse.

*Benefits for Sage-Grouse:*

Increased certainty that scientifically sound mitigation actions that benefit sage-grouse and offset impacts and habitat losses associated with infrastructure development will be implemented.

#### **D. Ensuring Accountability**

In-lieu fee compensatory mitigation does pose one potentially significant drawback that must be acknowledged and addressed: a poorly designed program may lack accountability for delivering meaningful on-the-ground benefits for sage-grouse. Simply having a project developer contribute to an in-lieu fee mitigation account does not by itself compensate for the sage-grouse impacts caused by the project. Actual mitigation is possible only after well-conceived habitat protection and restoration projects are planned, funded, implemented,

monitored, and successful in achieving stated objectives. The Mitigation Framework seeks to ensure accountability by adopting a series of rigorous and transparent procedures. As described below, the Framework would: (1) ensure that program administration and monitoring functions are adequately funded; (2) provide technically sound guidelines for estimating the costs of delivering compensatory mitigation; (3) establish a sciencebased statewide strategy to guide the program; (4) develop project selection criteria and a request for proposals based on the strategy; (5) require monitoring of the implementation and effectiveness of mitigation actions funded by the program; (6) track benefits the Mitigation

Framework program provides to sage-grouse in Idaho; and (7) require periodic evaluation of the program. Taken together, these procedures provide a high degree of certainty that the Mitigation Framework will be able to turn in-lieu fee payments into tangible, lasting compensatory mitigation for sage-grouse. As described in greater detail in Section E, below, project developers that seek to use the Mitigation Framework will need to show two things. First, they will need to show that their projects' impacts on sage-grouse and their habitats have been evaluated using a scientifically sound process. Second, they will need to show that their contributions to the mitigation fund reflect the Mitigation Framework's compensation guidelines to ensure that funding will be adequate to offset project impacts. Having demonstrated those things, the project developers should then be able to rely on their in-lieu fee contribution to the mitigation account as satisfying their compensatory mitigation objectives or obligations.

## **II. Core Elements of Idaho Sage-Grouse Mitigation Program**

### **A. Program Objectives**

- Provide a credible, efficient, transparent, and flexible mechanism to implement compensatory mitigation;
- Ensure that sage-grouse impacts are offset by mitigation actions that benefit the sage-grouse and their habitats;
- Provide increased certainty for developers and agencies;
- Involve private and public partners in crafting solutions;
- Provide developers the opportunity to offset project impacts on sage-grouse and sage-grouse habitat, and provide a consistent mitigation mechanism that can be evaluated in future reviews of the species' status; and
- Evaluate issues based on best available scientific information while acknowledging and responding to scientific uncertainty.

### **B. Scope**

The Mitigation Framework proposes to mitigate for impacts to Idaho sage-grouse and their habitats in Idaho. The initial focus of the Mitigation Framework is on sage-grouse. However, this program can be readily adapted to provide compensatory mitigation for other sagebrush obligate and associate species, such as pygmy rabbits, if project developers and regulators call for such mitigation.

Whether this Framework is suited for mitigation of impacts to a broader suite of species or natural features has not been evaluated. It should be noted that some subcommittee members expect to advocate in other forums that compensatory mitigation should extend beyond sagegrouse. The Mitigation Framework focuses on infrastructure projects because this type of development is the most likely to give rise to compensatory mitigation under existing environmental policies. As used here, the term “infrastructure” refers to building structures that significantly disturb sage-grouse habitat, including but not limited to projects for electricity transmission, energy generation, pipeline conveyance, transportation, communications, and similar purposes. The Mitigation Framework is not intended to apply to existing projects that are not changing in scope or to the renewal of on-going activities, such as grazing permits. In addition, the Framework is not suited to projects with minor impacts because their contributions to the mitigation program would be too small to justify the effort needed to establish and administer inlieu fee payments.

### **C. Integration with Environmental Review Procedures**

The Mitigation Framework does not alter the legal standards or procedures for review and approval of infrastructure projects. Rather, the Framework offers an option that project developers and/or regulators may choose for implementing mitigation plans and agency permit conditions. The Mitigation Framework is intended to complement the environmental review process conducted pursuant to NEPA and other federal environmental laws as well as county land use planning authorities. Many energy and other infrastructure projects undergo review and approval at the county level. The issues examined and the level of environmental analysis varies widely among individual counties and individual developers. If a county or developer decides to address sage-grouse impacts, it will be able to use the Mitigation Framework as a mechanism for meeting compensatory mitigation objectives that may arise from the county permitting process.

### **D. Mitigation Strategy**

The next step focuses on the Mitigation Team’s task of developing a statewide, science-based strategy that will guide the use of the mitigation fund. The mitigation program strategy would establish priorities for the use of compensatory mitigation funding based on factors/risks identified in the U.S. Fish and Wildlife Service’s 12-Month Findings for Petitions to List Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (USFWS 2010) and in the Conservation Plan for Greater Sage-grouse in Idaho (2006). The strategy sets mitigation priorities with a landscape view of sage-grouse needs and highlights mitigation opportunities in Idaho based on best available science. In setting priorities, the strategy considers species and community size, landscape condition, and regional context. The strategy is responsive to the threats and risks described in the sage-grouse 12-month findings. The strategy will also generally describe the types of mitigation actions, project specifications, and best practices that are likely to produce measureable benefits for sage-grouse habitat. Finally, the strategy addresses both implementation and effectiveness monitoring requirements for mitigation actions funded through the program. The Mitigation Framework’s strategy will draw heavily from the State of Idaho’s sage-grouse conservation plan but has a narrower focus. It is intended to provide the specific guidance on program priorities, accepted mitigation measures, and geographic areas of emphasis that potential mitigation project sponsors will need to know when they apply for funds. The strategy plays a crucial role in steering mitigation funding to those activities and places that can provide the most effective benefits for Idaho sage-grouse populations consistent

with strategies to increase the viability of the species throughout its range. To this end, the strategy will address one of the major policy questions that arise in the design of compensatory mitigation systems: how closely should the mitigation actions be linked to the type and location of the habitat that was originally affected by the infrastructure project. Stated in the alternative, does removal of the mitigation action from the area of impact improve the effectiveness of or benefit from the action. Some compensatory mitigation systems place a heavy emphasis on this link by favoring “in-kind” and “on-site” compensatory mitigation over “out-of-kind” and “off-site” compensatory mitigation. The subcommittee members generally favor an approach that allows funding to flow to the projects and locations within Idaho that will provide the greatest overall positive impact on sage-grouse populations. The Mitigation Framework calls for a monitoring program that would assess habitat gains provided by mitigation actions and compare them with the mitigation objectives of the participating infrastructure projects. The nature and purpose of this monitoring is described more fully in Mitigation Program Step 4, below.

Once the strategy is complete, the Mitigation Team will develop project ranking criteria and procedures that will guide the selection of the mitigation actions that will receive funding. The goal is to fund projects that provide high quality, lasting benefits based on landscape scale analyses that actually compensate for project impacts.

### **E. Compensation Guidelines**

The Mitigation Framework Program will develop guidelines that may be used by developers and/or regulators to determine the cost of meeting their compensatory mitigation objectives. These compensatory mitigation objectives determine the extent of compensatory mitigation for each project and are generally incorporated into project plans or permits. The compensation guidelines will provide transparent, technically sound principles for determining how much it costs to deliver habitat mitigation for sage-grouse. In other words, the guidelines will represent best estimates of the true cost of implementing the mitigation actions needed to meet each project’s compensatory mitigation objectives. The guidelines may be used by the project developer and the Mitigation Framework Program Administrator to establish the in-lieu fee that the developer will contribute to the mitigation fund. Specific valuation methods will be developed at a later time and will likely draw from compensatory mitigation systems used elsewhere in the West. Although the details have yet to be worked out, the following outline illustrates the core concepts and principles (shown in bold lettering) that are likely to be employed by the MOA parties in setting the Mitigation Framework’s in-lieu fee structure.

- A common unit of measurement would be established for describing and tracking both the project impacts and the benefits of any compensatory mitigation actions. This unit of measurement can be a physical unit such as “acres impacted” or more specifically “acres of summer brood rearing habitat impacted” or “habitat units” lost.
- While the “common unit of measurement” noted above addresses the area of habitat impacted and mitigated, habitat compensation ratios are used to address the quality of the habitat affected by the infrastructure project. These ratios could specify the number of acres of mitigation required per acre of impacted habitat based on the size, habitat quality/condition and function of the impacted habitat; for more critical or important habitat, more mitigation acres might be required. Thus, habitats with higher quality and importance could have higher compensation ratios.

- Several factors are taken into account in calculating how much it will cost to actually compensate for the acres or habitat units. The recommended approach is to evaluate on the costs of implementing a conceptual portfolio of potential mitigation actions or offset activities that provide benefits for sage-grouse. This portfolio of model projects would include a balanced mix of accepted habitat protection and restoration measures reflecting the types of projects expected to be funded by the mitigation program (in accordance with the strategy discussed above). Examples of projects in this portfolio may include such actions as restoring sagebrush canopy and a native understory on recently burned land, improving riparian areas and wet meadows in early brood-rearing habitat, conservation easements to prevent habitat loss, and land management practices that improve sage-grouse habitat. Project costs include the full range of expenses needed to complete all phases of the mitigation action, including administration and monitoring. The average costs of these model mitigation actions per acre or habitat unit is the foundation of the in-lieu fee calculation.
- In addition, the in-lieu fee should also be adjusted to take into consideration the issue of lag time –the time between when habitat is lost at the impacted site relative to when habitat functions are gained at the compensation site.
- The fee also needs to account for contingencies associated with delivering compensatory mitigation, including an estimate of the risk of failure (i.e., the probability that offsite mitigation will not result in any measureable conservation outcomes) for each mitigation site or project.
- In addition to the fee calculated above, costs for establishing and operating the program, including travel, technical consultation and monitoring of program effectiveness must be included. This overhead fee could range from 5-15% depending on the size and complexity of the proposed mitigation program.

## **F. Program Structure and Oversight**

The Mitigation Framework would be established through a memorandum of agreement (MOA) among the entities that would participate in its implementation. The MOA would define the specific roles and responsibilities, procedures, and tasks needed to operate an Idaho-based compensatory mitigation program. The MOA would serve as a joint powers agreement for state and local government parties. The MOA would establish the following administrative structure for the Mitigation Framework:

1. **Core Team:** A core group would oversee the Mitigation Framework program and provide policy-level guidance for the Science Team and Fund Administrator, described below. The Core Team would be composed of three to seven representatives of diverse perspectives among the MOA signatories.
2. **Science Team:** A team of experts drawn from MOA signatories and other targeted organizations will administer the science-based and technical aspects of the program. The Science Team would consist of several individuals with expertise in relevant areas such as habitat protection and restoration, landscape ecology/spatial analysis, wildlife biology, sage-grouse ecology, project development, and mitigation policy.

The Team would focus on developing the policies and statewide strategy that will guide the program, making requests for mitigation project proposals (RFPs), ranking mitigation proposals that will receive funding, tracking monitoring reports and project benefits, and evaluating program success.

3. Program Administrator: A program administrator will be responsible for fund management and administrative tasks. The program administrator will provide administrative support for the Mitigation Team, manage the mitigation account, and administer grants, contracts, and other agreements.

4. Advisory Committee: A broader advisory committee consisting of agencies, companies and organizations with the skills and commitment that will provide useful advice to the Core Team regarding the implementation of the Mitigation Framework. The specific make up of each of these groups will be determined at a later time. Potential participants in the Mitigation Framework include but are not limited to representatives of:

***State of Idaho:***

Department of Fish and Game  
Management  
Office of Energy Resources  
Office of Species Conservation  
Idaho Department of Lands  
Service

***United States:***

Bureau of Land  
U.S. Fish and Wildlife Service  
U.S. Forest Service  
Natural Resources Cons.

***Energy Companies:***

Idaho Power  
Ridgeline Energy  
Conservancy  
Idaho Tribes  
Idaho Sage-Grouse Advisory Committee  
Sage-Grouse Local Working Groups

***Non-Governmental Organizations:***

Idaho Conservation League  
The Nature  
Idaho Counties  
Public Land Users (e.g., grazing

interests)

**G. Funding the Mitigation Program**

The costs of administering the program will be sustained by the project developers that seek compensatory mitigation. Therefore, a portion of the in-lieu fee that project developers contribute to the mitigation account will be applied for program administration. As noted above, protecting and restoring sagebrush habitats are time consuming and expensive undertakings. Ensuring that these activities are conducted with strong oversight should be viewed as an exceptionally wise investment.

**III. Mitigation Program Steps**

The Mitigation Framework envisions a five-step process for developing, implementing, and monitoring compensatory mitigation.

### **A. Step 1 – Assessment of Project Impacts and Development of Mitigation Objectives**

Assessment of project impacts should be undertaken by the project developers proposing new infrastructure projects and the government agencies that conduct environmental reviews of those projects. Although the Mitigation Framework process is not responsible for this step, it is nevertheless crucial to the integrity of the mitigation program. Specifically, the Framework's success in achieving its goal of offsetting major infrastructure project impacts on sage-grouse depends on an accurate accounting of those impacts. For many projects, this analysis will be done as part of the environmental review procedures required by NEPA. As noted above, NEPA requires federal agencies to address the full range of direct, indirect and cumulative impacts of the proposed project, alternatives to the proposed action, and potential mitigation before they act on permit applications. Once impacts have been assessed and compensatory mitigation objectives set, the project developer is ready to engage the Mitigation Framework, starting with determining the developer's in-lieu fee contribution.

### **B. Step 2 – Determine the In-lieu Fee Contribution**

The goal of Step 2 is to use valuation techniques, such as the guidelines presented above, to convert the complex range of project impacts, including direct, indirect and cumulative impacts, into monetary terms that become the basis for the in-lieu fee payment. The accepted in-lieu fee compensatory mitigation plan could be a condition of the instrument approving the project (FONSI, ROD, right-of-way grant, conditional use permit, etc.) and thus legally requires the project developer comply with the approved mitigation plan.

### **C. Step 3 – Commitment of Mitigation Funds by Project Developer**

Infrastructure project developers can employ the Mitigation Framework by entering into an agreement with the program administrator with regard to a specific infrastructure project. This project agreement sets forth the parties' respective responsibilities, including the project developer's commitment to pay the in-lieu fee. Importantly, the agreement provides that the project developer's funds can only be used for the purposes set forth in the Mitigation Framework. The agreement may also include "conditions" as requested by regulatory agencies or project developers. For instance, the agreement might provide that the in lieu fee will be used to fund mitigation actions in specific geographic areas in order to meet permit requirements. The program administrator, based on consultation with the MOA parties, may decline to enter into an agreement that is inconsistent with the Mitigation Framework principles or includes conditions that are burdensome or unworkable. Once the agreement specifying the payment structure and schedule is signed, the project developer makes the required in-lieu fee deposits to an interest bearing account managed by the program administrator. After the completion of this step, the project developer is no longer engaged in the Mitigation Framework – unless it has decided to participate as a MOA party.

### **D. Step 4 – Issue Request for Proposals (RFP) and Select, Implement, and Monitor Mitigation Actions**



At least at annual intervals, the Mitigation Team will issue an RFP that invite private companies, non-governmental organizations, and agencies to submit proposals for sage-grouse habitat protection, restoration, and/or enhancement actions. The RFP will provide guidance to mitigation project sponsors on program priorities and criteria. These priorities and criteria will be drawn from the mitigation program strategy including identification of geographic areas where mitigation might provide the greatest benefits as well as identification of the threats that present the highest risk to the species or its core habitat. The Mitigation Team should also reach out to federal, state, and local agencies, non-governmental organizations and the general public in order to facilitate discussion, engage stakeholders, raise awareness of the program and generate responses to the RFP. The RFP will solicit project proposals that contain an operation or implementation plan and address at least the following elements:

- Geographic area;
- Threats addressed and how the mitigation action project will offset impacts resulting from those threats;
- An analysis of current sage-grouse conditions in the area;
- Resource goals and objectives the mitigation action project will seek to provide;
- A description of any coordination with federal, state, tribal and local resource management and regulatory authorities or other stakeholder involvement required to complete the mitigation action (e.g., requirement for NEPA compliance or county permit);
- A description of recent or proposed projects and events in the vicinity of the proposed project, if any, such as fire rehabilitation treatments, restoration or enhancement treatments or other activities that complement the effectiveness or intent of the proposed, mitigation action;
- A description of the long term protection, management, stewardship for the project being implemented, and the entity responsible for these activities; and
- A commitment to periodic evaluation and reporting on the progress of the project in meeting stated goals and objectives, including a process for adaptively redirecting the project if necessary.

When selecting projects, the Mitigation Team will estimate the biological benefits of the projects activities, the likely success of those activities, the duration of benefit expected and measure those benefits in relation to the strategy and RFP objectives. Mitigation Team and the program administrator will work together on continuing program administration and oversight including annual reporting of program activities, expenditures, and benefits. An annual program report will describe program activities, budget, and assessment of whether the mitigation strategy and associated projects are benefitting sage-grouse and at what level or scale. The Mitigation Team and/or Program Administrator should implement a monitoring program to measure and validate whether project-specific objectives have been met. Monitoring is required of all compensatory mitigation actions to determine if the project is meeting its performance standards and objectives. As mentioned above, at regular intervals, the total habitat and/or population gains provided by the programs will be compared with the habitat/population losses associated with the participating infrastructure projects. The purpose of this comparison is to evaluate the mitigation program and make

any necessary program adjustments – particularly if the monitoring shows that the mitigation benefits are not compensating for habitat losses. This comparison will not be a basis for imposing new, unexpected requirements on the infrastructure project developers.

## **CONCLUSION**

The framework of policies, principles and procedures outlined above are meant to start a dialogue among parties engaged in sage-grouse conservation and infrastructure development. If these parties agree with the Mitigation Subcommittee that there is great value in establishing an Idaho-based compensatory mitigation program, then this framework will mark the beginning of an inclusive effort to fill in the details and complete the tasks needed to bring such a program into being. We have confidence in our collective ability to create a compensatory mitigation program that will benefit infrastructure developers, agencies, conservation interests, and – not least – Idaho's sage-grouse.

DRAFT

**Part III –****IDAHO AND SOUTHWESTERN MONTANA SUBREGION-NO NET UNMITIGATED LOSS PROCESS****Introduction**

The No Net Unmitigated Loss strategy is a means of assuring that proposed anthropogenic activities, when approved and implemented will not result in long-term degradation of Greater Sage-Grouse habitat or population and will have a net conservation benefit to the species. The attached ‘flow chart’ identifies a screening process for review of proposed anthropogenic activities. The goal of the process is to provide a consistent approach regardless of the administrative location of the project and to ensure that authorization of these projects will not contribute to the decline of the species. Though the initial Steps (1-6) are done prior to initiating the NEPA process, the authorized officer must ensure that appropriate documentation regarding the rationale and conclusion for each is included in the administrative record.

The flow chart provides for a sequential screening of proposals. However, Steps 2-6 can be done concurrently. Steps 7-12 are related to project implementation.

**Step 1**

This screening process is initiated upon formal submittal of a proposal for authorization for use of federal lands (BLM or Forest Service). The actual documentation would include, at a minimum, a description of the location, scale of the project, and timing of the disturbance and would be consistent with existing protocol and procedures for the specific type of use. It is anticipated that the proposals would be submitted by a third party.

**Step 2**

This initial review would evaluate whether the proposal would be allowed as prescribed in the Greater-Sage-Grouse Land Use Plan Amendment. For example, certain activities are prohibited in suitable habitat, such as wind or solar energy development. If the proposal is an activity that is specific prohibited, the submitter would be informed that the proposal is being rejected since it would not be consistent with the Land Use Plan, regardless of the design of the project.

In addition to consistency with program allocations, the Land Use Plan identifies a limit on the amount of disturbance that is allowed within a ‘biological significant unit’ (BSU). If current disturbance within the affected unit exceeds this threshold, the project should be deferred until such time as the amount of disturbance within the area has been reduced, through restoration or other management actions.

**Step 3**

In reviewing a proposal, determine if the project will have a direct or indirect impact on population or habitat (PPH or PGH). This can be done by:

1. Reviewing Greater Sage-Grouse Habitat maps.
2. Reviewing the 'Base Line Environment Report' (USGS) which identifies the area of direct and indirect effects for various anthropogenic activities.
3. Consultation with agency, Fish and Wildlife Service, or State Agency wildlife biologist.
4. Reviewing the standard and guidelines in the plan amendments (such as buffer distances for the proposed activity).
5. Other methods

If the proposal will not have a direct or indirect impact on either the habitat or population, proceed with the appropriate process for review, decision, and implementation of the project.

#### **Step 4**

If the project could have a direct or indirect impact of sage-grouse habitat or population, evaluate whether the proposal can be relocated so as to not have the indirect or direct impact and still achieve the intent of the proposal. This Step does not consider redesign of the project as a means of not having direct or indirect impacts but rather authorization of the project in a physical location that will not impact Greater Sage-grouse. If the project can be relocated so as to not have an impact on sage-grouse and still achieve objectives of the proposal, inform applicant and proceed with the appropriate process for review, decision, and implementation of the relocated project.

#### **Step 5**

If the preliminary review of the proposal concludes that there may be impacts to sage-grouse habitat and/or population, and the project cannot be effectively relocated to eliminate these impacts; evaluate whether the agency has the authority to modified or deny the project. If the agency does NOT have the discretionary authority to modify or deny the proposal, proceed with the authorization process (NEPA) and include appropriate mitigation requirements that minimize impacts to sage-grouse habitat and populations. Mitigations could include a combination of actions such as timing of disturbance, design modifications of the proposal, site disturbance restoration, and compensatory mitigation actions.

#### **Step 6**

If the agency has the discretionary authority to deny the project and after careful screening of the proposal (Steps 1-4) has determined that direct and indirect cannot be eliminated, evaluate the proposal to determine if the adverse impacts can be mitigated. If the impacts cannot be effectively mitigated within the BSU, reject or defer the proposal. The criteria for determining this situation would include but not limited to:

- Natural disturbance within the BSU is significant and additional activities within the area would adversely impact the species.
- The current trend within the BSU is down and additional impacts, whether mitigated or not, could lead to further decline of the species or habitat.

- The proposed mitigation has proven to be ineffective or is unproven in terms of science based approach.
- The additional impacts, after applying effective mitigation, would exceed the disturbance threshold for the BSU.
- The project would impact habitat that has been determined, through monitoring, to be a limiting factor for species sustainability within the BSU.
- Other site specific criteria that determined the project would lead to a downward trend to the current species population or habitat with the BSU.

If the project can be mitigated to provide for a net conservation benefit to the species, proceed with the design of the mitigation plan and authorization (NEPA) of the Project. The authorization process could identify issues that may require additional mitigation or denial/deferring of the project based on site specific impacts to the Greater Sage-grouse.

**Appendix K – Lands No Longer Available for Disposal**

The following public land parcels have been previously identified through the land use planning process as available for sale in conformance with the criteria described in the Federal Lands Policy and Management Act. These lands may be considered for exchange as described in the Proposed Plan but are no longer available for sale.

**Upper Snake Field Office**

<b>Legal Description</b>	<b>Acres</b>
T 12 NR 38 E 028 NENW	40
T 11 NR 39 E 019 SENE	40
T 11 NR 39 E 019 NESE	40
T 11 NR 39 E 019 SESE	40
T 12 NR 37 E 027 NWSW	40
T 11 NR 37 E 020 NWNE	40
T 10 NR 37 E 028 SWSW	40
T 10 NR 37 E 034 NWSW	40
T 10 NR 37 E 034 NESW	40
T 10 NR 37 E 033 SENE	40
T 10 NR 37 E 034 SENE	40
T 10 NR 37 E 034 SWSW	40
T 10 NR 37 E 034 SESW	40
T 11 NR 36 E 017 SWSE	40
T 11 NR 36 E 017 SESE	40
T 11 NR 34 E 014 NENE	40
T 11 NR 35 E 014 NENE	40
T 11 NR 34 E 015 SWNE	40
T 11 NR 35 E 013 SWNW	40
T 11 NR 35 E 013 SENW	40
T 11 NR 34 E 014 SWSW	40
T 11 NR 35 E 017 SESW	40
T 11 NR 34 E 022 NWNW	40
T 11 NR 35 E 020 NENE	40
T 11 NR 36 E 020 NWNE	40
T 11 NR 36 E 020 NENE	40
T 11 NR 35 E 021 SESW	40
T 11 NR 36 E 019 SWSW	25.31
T 11 NR 36 E 030 NWNW	25.52
T 11 NR 36 E 030 SENE	40
T 11 NR 36 E 030 NWSE	40

**Upper Snake Field Office**

T 11 NR 36 E 030 NESE	40
T 11 NR 34 E 026 SESE	40
T 11 NR 36 E 030 SESE	40
T 11 NR 34 E 035 NENE	40
T 11 NR 35 E 034 NWNW	40
T 11 NR 35 E 034 NWSW	40
T 11 NR 34 E 035 SENE	40
T 11 NR 35 E 034 SWNW	40
T 11 NR 34 E 035 SWSW	40
T 11 NR 34 E 035 SESW	40
T 10 NR 36 E 005 SWNW	40
T 10 NR 35 E 003 NENW	38.86
T 10 NR 36 E 030 NWNE	40
T 10 NR 36 E 030 NENE	40
T 10 NR 36 E 006 SENE	40
T 10 NR 36 E 006 SWSW	35.22
T 10 NR 35 E 001 NESW	40
T 10 NR 35 E 029 SWSW	40
T 10 NR 36 E 029 SWSW	40
T 10 NR 36 E 030 SWNE	40
T 10 NR 35 E 031 NENE	40
T 10 NR 35 E 031 SENE	40
T 10 NR 35 E 034 SWSW	40
T 10 NR 35 E 031 NWSE	40
T 10 NR 35 E 031 NESE	40
T 10 NR 35 E 034 NWSW	40
T 10 NR 36 E 032 NESW	40
T 10 NR 36 E 035 NESW	40
T 10 NR 36 E 035 NESE	40
T 09 NR 35 E 005 SENW	40
T 09 NR 35 E 005 NENW	39.04
T 09 NR 36 E 005 NWNE	40.7
T 12 NR 33 E 017 SESW	40
T 12 NR 33 E 019 NENE	40
T 10 NR 32 E 012 SWSW	40
T 10 NR 32 E 013 NENW	40
T 01 NR 29 E 009 SENW	40
T 02 SR 29 E 019 SWNE	40
T 03 SR 29 E 004 NESW	40

**Upper Snake Field Office**

T 02 NR 40 E 012 SENE	40
T 02 NR 41 E 035 SENW	40
T 03 NR 41 E 034 SWSE	40
T 13 NR 39 E 035 SENW	40
T 13 NR 39 E 035 SWNE	40
T 12 NR 39 E 009 SENW	40
T 12 NR 39 E 009 SWSE	40
T 12 NR 38 E 019 SENE	40
T 05 NR 35 E 002 SENW	38.64
T 05 NR 35 E 002 SWNE	38.52
T 07 NR 36 E 034 NESW	40
T 05 NR 35 E 002 NESW	40
T 05 NR 35 E 002 NWSE	40
T 05 NR 35 E 002 SWSW	40
T 05 NR 35 E 002 SESW	40
T 05 NR 35 E 002 SWSE	40
T 05 NR 35 E 010 NWNE	40
T 05 NR 35 E 010 NENE	40
T 05 NR 35 E 011 NWNW	40
T 05 NR 35 E 011 NENW	40
T 05 NR 35 E 011 NWNE	40
T 05 NR 35 E 010 SENE	40
T 04 NR 36 E 009 NENE	40
T 04 NR 36 E 015 SWNW	40
T 04 NR 36 E 015 SENW	40
T 04 NR 36 E 009 NESE	40
T 04 NR 36 E 010 NWSW	40
T 04 NR 36 E 010 NESW	40
T 04 NR 36 E 010 NWSE	40
T 04 NR 36 E 010 NESE	40
T 04 NR 36 E 010 NWNW	40
T 04 NR 36 E 010 NENW	40
T 04 NR 36 E 010 NWNE	40
T 04 NR 36 E 010 NENE	40
T 04 NR 36 E 011 NWNW	40
T 04 NR 36 E 009 SENE	40
T 04 NR 36 E 010 SWNW	40
T 04 NR 36 E 010 SENW	40
T 04 NR 36 E 010 SWNE	40



**Upper Snake Field Office**

T 04 NR 36 E 010 SENE	40
T 04 NR 36 E 011 SWNW	40
T 04 NR 36 E 009 SESE	40
T 04 NR 36 E 010 SWSW	40
T 04 NR 36 E 010 SESW	40
T 04 NR 36 E 010 SWSE	40
T 04 NR 36 E 010 SESE	40
T 04 NR 36 E 015 NWNW	40
T 04 NR 36 E 015 NENW	40
T 04 NR 35 E 032 SWSW	40
T 04 NR 35 E 032 SESW	40
T 13 NR 36 E 004 SWSE	40
T 01 NR 31 E 006 SWNE	23.69
T 01 NR 31 E 006 SENE	23.15
T 01 NR 31 E 005 SWNW	22.9
T 01 NR 31 E 005 SENW	22.93
T 01 NR 31 E 005 SWNE	22.97
T 01 NR 31 E 005 SENE	23
T 01 NR 31 E 004 SWNW	22.94
T 01 NR 31 E 004 SENW	22.78
T 01 NR 31 E 004 SWNE	22.62
T 01 NR 31 E 004 SENE	22.46
T 01 NR 31 E 003 SWNW	22.47
T 01 NR 31 E 003 SENE	23.03
T 01 NR 31 E 002 SWNW	23.15
T 01 NR 31 E 002 SENW	23.21
T 01 NR 31 E 005 NWSE	40
T 01 NR 31 E 004 NWSW	40
T 01 NR 31 E 005 SWSE	40
T 01 NR 31 E 004 SWSW	40

**Challis Field Office**

<b>Legal Description</b>	<b>Acres</b>
7N 24E E2SE NE	40
7N 24E E2SE NE	41
7N 24E E2SE NE	41
7N 24E E2SE	41
7N 24E E2SE	41
7N 24E S21NENW	40
7N 24E NE	40
7N 24E NE	40
7N 24E NE	40
7N 24E NE	40
7N 24E S 17 NWNW	40
8N 21E S2 SENE	40
8N 21E S15 NENE	39
8N 23E S 25 NENE	10
8N 23E S 25 NENE	30
8N 23E S 25 SWSE	40
8N 23E S 25 SESW	40
8N 24E S31 Lot 3	19
8N 24E S31 Lot 4	19
8N 24E S31 Lot 10	19
7N 22E S3 NESE	41
7N 22E S11 NENW	40
7N 22E S11 NWNW	40
8N 21E S9 NWNE	40
7N 23E S5 NESE	39
8N 21E S9 E2NWSW	20
8N 21E S9 E2SWNW	20
8N 23E S30 Lot 6	2
7N 24E S 7 E2NW	52
7N 24E S 7 E2NW	51
7N 24E S 7 NESW	47
7N 24E S 7 Lot 2	48
7N 24E S 9 S2SW	40
7N 24E S 9 S2SW	40
7N 24E S 17 NE	40
8N 24E S31 Lot 9	19
7N 22E S3 Lot 2	41
8N 23E S26 NESE	40
8N 24E S31 Lot 7	40
8N 22E S17 NENE	40
8N 22E S13 Lot 4	40
8N 22E S13 Lot 2	40

**Challis Field Office**

8N 22E S12 Lot 6	40
7N 24E S24 SESE	40
7N 24E S25 NENE	41
7N 25E S30 Lot 1	51
7N 25E S30 Lot 2	46
9N 22E S32 SWSW	40
10N 18E S13 NWSESW	10
12N 20E S23 E2E2E2SW	8
12N 20E S23 E2E2E2SW	8
12N 20E S26 E2E2E2NW	8
12N 20E S26 E2E2E2NW	8
12N 20E S26 NESW	40
7N 25E S30 E2SW	23
7N 25E S30 SE	7
7N 25E S30 SE	41
7N 25E S30 SE	41
7N 24E S25 S2S2N2	15
7N 24E S25 S2S2N2	11
7N 24E S25 S2S2N2	8
7N 24E S25 S2S2N2	3
7N 25E S30 SE	1
8N 21E S2 SWSW	41
8N 21E S2 SESW	40
8N 22E S3 NWSW	41
8N 22E S13 N2SE	40
8N 23E S18 lot 7	7
8N 23E S18 lot 7	32
8N 23E S18 lot 7	0
8N 23E S19 SWSE	41
8N 23E S19 Lot 9	31
8N 23E S19 Lot 5	17
8N 23E S19 Lot 10	5
8N 23E S19 Lot 13	18
8N 23E S 29 Lot 2	4
7N 20E S9 SW4	40
7N 20E S17 NE4	40
8N 22E S2 Lot 8	39
8N 21 E S1 SWSW	40
7N 23E S9 SW4	40
7N 23E S9 SW4	40
7N 23E S9 SW4	40
7N 20E S17 NE4	40
7N 20E S17 NE4	40

**Challis Field Office**

7N 20E S17 NE4	40
8N 21E S11 NENW	41
8N 21E S11NESW	40
8N 21E S11 N2SE	40
8N 21E S11 N2SE	40
8N 21E 20S NWSW	40
8N 23E S 29 Lot 2	2
8N 23E S30 NWNE	11
8N 23E S30 NWNE	29
8N 22E S13 N2SE	40
8N 22E S13 SESE	40
8N 22E S12 Lot 2	41
8N 22E S11 Lot 2	40
10N 18E S12 NESENW	9
10N 18E S13 SESENWNW	3
11N 18E S12 NWNWNWNW	1
11N 18E S35 NESESW	10
12N 20E Lot 2	32
12N 20E S4 Lot 8	36
12N 20E S4 Lot 5	15
12N 20E S4 Lot 2	8
12N 20 S10 Lot 2	21
12N 20 S10 Lot 3	2
13N 20E S20 Lot 2	7
13N 20E S29 Lot 2	2
13N 20E S29 Lot 3	8
13N 20E S33 Lot 2	10
13N 23E S19 NENE	40
13N 23E S34 NENE	40
14N 22E S6 SWNE	40
14N 22E S6 E2NE	41
14N 22E S6 E2NE	40
15N 21E S13 S2SW	40
15N 21E S13 S2SW	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S14 S2 (Below Road)	40
15N 21E S15 (South of County Road)	7
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	26
15N 21E S15 (South of County Road)	5
15N 21E S15 (South of County Road)	40

**Challis Field Office**

15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	39
15N 21E S15 (South of County Road)	22
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	40
15N 21E S15 (South of County Road)	41
15N 21E S15 (South of County Road)	41
15N 21E S22 W2NE	40
15N 21E S22 W2NE	40
15N 21E S22 SENW	40
15N 21E S23 N2NE	40
15N 21E S23 N2NE	40
15N 21E S24 N2NW	40
15N 21E S24 N2NW	40
15N 22E S31 W2W2W2E2SE	9
16N 20E S26 S2NENW	19
16N 20E S27 E2E2SE	37
10N 18E S12 SENENW	9
10N 18E S32 SWSWNWSE	2
10N 18E S32 SESENESW	2
13N 20E S18 SWSE	40
14N 23E S34 NESW	40
15N 22E parts S19	40
15N 22E parts S19	40
15N 22E parts S19	40
15N 22E parts S20	40
15N 22E parts S20	40
15N 22E parts S29	40
15N 22E S32 Lot 2	40
13N 19E S21 Lot 10	12
8N 22E S2 Lot 9	10
8N 22E S2 Lot 5	2
7N 25E S30 SE	31
15N 21E S22 SENW	40
16N 20E S23 S2S2SE	24
16N 20E S23 S2S2SE	8
11N 18E S22 pending survey	28
11N 18E S22 pending survey	39
11N 18E S22 pending survey	37
11N 18E S22 pending survey	23
11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	30

**Challis Field Office**

11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	29
8N 22E S11 lot 3	36
8N 22E S12 lot 3	4
8N 22E S13 lot 5	25
8N 23 E S32 Lot 2	37
8N 23E S 33 Lot 2	10
8N 23E S 33 Lot 3	35
8N 23E S 33 Lot 8	27
8N 23E S 33 Lot 6	11
12N 18E S3 Lot 18	4
13N 19E S10 SESENESE	1
14N 18E S2 Lot 4	36
15N 21E S7 NENWNW	9
16N 20E S24 (East of Hwy 93)	37
11N 17E S24 S2 East of patented 3144A	40
11N 17E S24 S2 East of patented 3144A	16
11N 17E S24 S2 East of patented 3144A	22
11N 17E S24 S2 East of patented 3144A	16
11N 17E S24 S2 East of patented 3144A	40
11N 17E S24 S2 East of patented 3144A	34
11N 17E S24 S2 East of patented 3144A	1
11N 17E S24 S2 East of patented 3144A	<1
11N 17E S24 S2 East of patented 3144A	<1
11N 17E S25 N2NE North of Salmon River	19
11N 17E S25 N2NE North of Salmon River	12
11N 17E S25 N2NE North of Salmon River	9
11N 17E S25 N2NE North of Salmon River	2
11N 17E S25 N2NE North of Salmon River	<1
11N 18E S2 NENESENE	1
11N 18E S30 SWNWSWNE	3
13N 19E S4 SESW	40
13N 19E S4 E2NWSW	20
13N 19E S4 W2NESW	20
13N 19E S5 Lot 9	37
14N 18E S35 SESESESW	1
13N 19E S4 Lot 9	1
13N 19E S4 Lot 15	1
13N 19E S4 Lot 18	10
13N 19E S4 Lot 19	<1
13N 19E S4 Lot 19	16
13N 19E S4 SESW	1

**Challis Field Office**

13N 19E S4 Lot 14	6
11N 18E S22 pending survey	6
11N 18E S22 pending survey	37
11N 18E S22 pending survey	39
11N 18E S22 pending survey	40
11N 18E S22 pending survey	6
11N 18E S22 pending survey	2
11N 18E S22 pending survey	2
11N 18E S22 pending survey	3
11N 18E S22 pending survey	6
11N 18E S22 pending survey	11
11N 18E S22 pending survey	40
11N 18E S22 pending survey	40
11N 18E S22 pending survey	26
11N 18E S22 pending survey	3
16N 20E S35 lot 9	4
16N 20E S35 lot 10	3
11N 18E S22 pending survey	<1
11N 18E S22 pending survey	<1
11N 18E S22 pending survey	<1
13N 19E S9 Lot 1	3

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**Dillon Field Office**

T. 3S; R.1W;	Section 3:	Lot 1	43.02
		Lot 2	43.04
	Section 7:	Lot 6	18.68
		Lot 7	2.10
		SE1/4 SE1/4 SW1/4 NW1/4	2.50
		NE1/4 SE1/4 SE1/4 NW1/4	2.50
	Section 18:	Segregated Survey within Lot 8	1.21
	Section 31:		9.10
	Section 32:	Lot 4	1.16
		Lot 5	1.21
		Lot 8	0.59
		Lot 10	0.02
		Lot 11	20.79
T. 4S; R.1W;	Section 2:	SW1/4 NE1/4 and NW1/4 SE1/4	80.00
T. 8S; R. 1W;	Section 33:		121.38
T. 9S; R.1W;	Section 4:	Lot 1	47.34
T. 3S; R. 2W;	Sections 2, 12 and 13:	All segregated surveys	180.26
	Section 13:	Lot 1	10.39
T.4S; R.2W;	Section 10:		20.90
	Section 35:	SE1/4 NW1/4	40.00
T. 5S; R. 2W;	Section 18:	S1/2 SE1/4	80.00
T.13S; R. 2W;	Section 17:	NE1/4 NE1/4	40.00
T. 2S; R. 3W;	Section 23:	Lot 7	24.79
T. 6S; R. 3W;	Section 1:	S1/2 SW1/4	80.00
	Section 2:	Lot 2	41.30
	Section 7:	Lot 5	9.24
	Section 8:	Lot 1	21.87
		Lot 2 unpatented portion	13.55
		NW1/4 NE1/4 SW1/4	10.00
	Section 13:	SW1/4 SW1/4	40.00
	Section 14:	S1/2 NE1/4	80.00
	Section 17:	SW1/4 NW1/4 NE1/4	10.00
	Sections 29 and 32:		21.60
T. 4S; R. 4W;	Section 19:	W1/2 NW1/4 SE1/4	15.46



Section 31:	SE1/4	160.00	
T. 6S; R. 4W;	Section 13:	S1/2 S1/2 NW1/4 NE1/4	10.00
	Section 14:	N1/2 SW1/4 NW1/4 NE1/4	5.00
		S1/2 S1/2 N1/2 NE1/4	20.00
		SE1/4 NE1/4	40.00
		SE1/4 SE1/4	40.00
	Section 24:	W1/2 NW1/4	80.00
T. 4S; R.5W;	Section 13:	NW1/4 SE1/4	40.00
T. 7S; R.6W;	Section 21:	Lot 21	0.06
		Lot 22	7.15
		Lot 23	1.69
		Lot 24	0.29
Section 28:		Lot 7	3.61
T.9S; R.6W;	Section 27:	SW1/4 SW1/4	40.00
T. 12S; R.6W;	Section 4:	NW1/4 SE1/4	40.00
T. 13S; R.6W;	Section 7:	NE1/4 SW1/4	40.00
T. 6S; R.7W;	Section 34:	NW1/4 NE1/4	40.00
T. 7S; R 7W;	Section 2:	NE1/4 SE1/4	40.00
	Section 26:	SE1/4 SW1/4	40.00
	Section 27:	NW1/4 SE1/4	40.00
	Section 35:	NW1/4 NW1/4	40.00
T. 3S; R.8W;	Section 19:	NE1/4 SW1/4 and NW1/4 SE1/4	80.00
	Section 30:	NE1/4 SW1/4	40.00
T. 4S; R.8W;	Section 2:	Lot 1	46.42
T. 12S; R. 8W;	Section 26:	NW1/4 NE1/4	40.00
	Section 35:	SE1/4 NE1/4	40.00
T. 14S; R. 8W;	Section 9:	NW1/4 SE1/4	40.00
T. 9S; R. 9W;	Section 21:	NW1/4 NE1/4	40.00
T. 14S; R. 9W;	Section 25:	SE1/4 NW1/4	40.00
T. 6S; R. 10W;	Section 29:	Lot 11	0.06
		Lot 12	0.02
	Section 30:	Lot 7	1.05
		Lot 11	0.11
		Lot 12	0.23
T. 9S; R.10W;	Section 20:	NE1/4 NW1/4	40.00

Section 27:	W1/2 SW1/4	80.00
T. 10S; R.10W; Section 23:	SW1/4 NE1/4	40.00
T. 14S; R.10W; Section 10:	E1/2 SW1/4 SE1/4	20.00
T. 7S; R.11W; Section 33:	Lot 2	0.13
T. 6S; R. 12W; Section 8:		1.8
T.10S; R.12W; Section 19:	Lot 1	38.37
Section 31:	Lot 2	38.15
	Lot 3	38.42
T. 5S; R.14W; Section 20:	SE1/4 NE1/4	40.00
Section 32:	SE1/4 SW1/4	40.00
T. 9S; R.14W; Section 1:	Lot 1	39.87
T. 3S; R.16W Section 3:	NE1/4 NE1/4	40.00
T. 3S; R.1E; Section 5:	Segregated survey bound by Lots 5&6	11.60
T. 14S; R.1E; Section 23:	NW1/4 NE1/4	40.00

**Appendix L – Travel Management Planning Guidelines:**

- Among other designation criteria from 43 CFR 8342.1(b), “areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- During subsequent travel management planning, all routes would undergo a route evaluation to determine its purpose and need and the potential resource and/or user conflicts from motorized travel. Where resource and/or user conflicts outweigh the purpose and need for the route, the route would be considered for closure or considered for relocation outside of sensitive GRSG habitat.
- During implementation-level travel planning, threats to GRSG and their habitat would be considered when evaluating route designations and/or closures.
- During subsequent travel management planning, routes that do not have a purpose or need would be considered for closure.
- During subsequent travel management planning, routes that are duplicative, parallel, or redundant would be considered for closure.
- During subsequent travel management planning, seasonal restrictions on OHV use would be considered in important seasonal habitats where OHV use is a threat.
- During subsequent travel management planning, OHV timing limitations would be considered in important seasonal habitats where OHV use is a threat.
- During subsequent travel management planning, consider limiting over snow vehicle (OSV) travel to designated routes, consider seasonal closures in GRSG wintering areas from November 1 through March 31 or define Designation Criteria (i.e. minimization criteria) to regulate over snow vehicle traffic.
- During subsequent travel management planning, routes not required for public access or recreation with a current administrative/agency purpose or need would be evaluated for administrative access only.
- During subsequent travel management planning, consider prioritizing restoration of routes not designated in a Travel Management Plan.
- During subsequent travel management planning, consider using seed mixes or transplant techniques that will maintain or enhance GRSG habitat when rehabilitating linear disturbances.
- During subsequent travel management planning, consider scheduling road maintenance to avoid disturbance during sensitive periods and times to the extent practicable. Consider using time of day limits (After 10:00 AM to 7:00 PM) to reduce impacts on GRSG during breeding and nesting periods.

Over-snow vehicle – a motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

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**Appendix M – Functioning of Boards**

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## Appendix X – Development of Proposed Plan Map (Alternative G) Map Differences between Draft EIS Preferred Alternatives and Proposed Plan (Alternative G)

**Overview:** The preparation of the Alternative D (BLM/FS Alternative) GRSG map involved modeling of Preliminary Priority and Preliminary General Habitat (PPH/PGH) by Idaho BLM using available GRSG lek data, Breeding Bird Density and Lek Connectivity Models, available winter habitat and additional refinements using available land use or vegetation data (e.g., agriculture, timber), and as well as expert opinion and additional local data. The Southwest Montana GRSG areas were refined by Montana BLM based on modeling and map refinements previously completed by Montana Fish, Wildlife and Parks, based on their Core area designations. For the Utah portion of the Sawtooth National Forest, BLM/FS adopted Utah BLM’s designation for that area.

For Alternative E, the Idaho Governor’s Sage-Grouse Task Force re-configured the initial BLM PPH/PGH data to create three categories of Management Zones (Core, Important, General), using additional population and habitat information, to support an adaptive management strategy focused on GRSG conservation.

During review of the DEIS, concerns were expressed by agency personnel and others that due to the broad scale nature of the initial analysis, certain portions of the Alt D and/or E maps still encompassed some areas of non-habitat, such as timber or farm lands; or they were missing some areas of potential restoration or other locally definable areas or habitat; or were designated inappropriately as Core and/or Important.

In preparation for the Proposed Plan, BLM, FS, FWS and the State of Idaho worked together to refine the GRSG Habitat Management Area map. To resolve map disparities between Alternatives D and E, and to provide more recognizable boundaries of Habitat Management Areas on the ground, BLM and FS worked closely with field personnel in December 2013, using the State’s Alternative E map as a starting point, but informed with Alt D as well as local expertise. This process had not occurred during preparation of either the Alt D or E maps for the DEIS, due to time limitations. During the winter and spring of 2014 BLM and FS also worked closely with the State of Idaho and U.S. Fish and Wildlife Service (Idaho Fish and Wildlife Office, Boise) in re-evaluating the Core, Important or General Management Zone designations of Alt E, in order to move forward with a map for the Proposed Plan (Alternative G) that met BLM and FS objectives for habitat and State of Idaho and FWS objectives for populations. The final Proposed Plan map is the result of a number of adjustments to the Alternative D or E map, identified in Table 1, displayed in Map 1 and summarized as follows:

- Some additional areas in south-central Idaho, Mountain Home and the Weiser area were added as General Habitat Management Areas (approximately 488,018 acres; these areas contain the similar habitat characteristics as for previously identified General areas and were recognized during the map refinement process between draft and final EIS), that were not reflected in the Alt D or E maps in the DEIS. These generally were annual grassland areas, from the Idaho “Key Habitat Map” that had been previously excluded from the initial PPH/PGH model; or were based on additional imagery. These areas have restoration potential to GRSG habitat, or involve past or

ongoing restoration efforts therefore were incorporated into the Alternative G map, based on recommendations from the field.

- “Donut holes” of habitat inside of a larger matrix were classified the same as the surrounding matrix (approximately 6746 acres).
- Snapping of Priority, Important, or General Habitat Management Areas to meaningful edges or features (canyons, allotment/pasture boundaries, roads etc.) was completed at the field level to facilitate use of the map designations at the field level.
- Changes in Management Area designations for portions of certain Priority, Important or General Habitat Management Areas from Alternative E. Priority Areas for Conservation boundaries in the 2013 Conservation Objectives Team Report were provided by the State of Idaho and comprised Core and Important Management Zones as displayed in Alternative E. The revised mapping of Priority and Important Habitat Management Areas for Alternative G contain additional areas than those identified as PACs. Based on these considerations the revised Priority and Important Habitat Management Areas would be forwarded to USFWS as refined PAC area if any adjustment to existing PAC boundaries were considered by USFWS for Idaho GRSG habitat areas in the future.

**Table 1. Specific Details by Geographic Area:**

<b>Conservation Area</b>	<b>Geographic Area</b>	<b>Initial Recommendation (BLM/FS field)</b>	<b>Final Decision and Rationale</b>	<b>Location and Acres</b>
<b>WEST OWYHEE</b>				
	Mountain tops in the Owyhee Mtns.	Field recommended including the top of mountains, previously mapped as non-habitat, as General. Some local records of bird use; likely some summer use	Left mountain tops as <u>non-habitat</u> . Difficult to justify as General based on nominal bird use and limited other information. No known lek or winter habitat.	A = 127,468 acres  Is the total of non-habitat mountain tops
	Juniper encroachment surrounding Owyhee mountains	Field recommended classifying as Important due to potential for juniper control efforts and habitat improvement. No leks or winter habitat in vicinity.	Kept as <u>General</u> . Difficult to justify as “Important” due to general lack of leks/nest habitat or winter habitat in that zone. Juniper work should probably focus on juniper encroachment in adjacent Core areas. General designation does not preclude restoration work, if otherwise justified.	B = 229,290 acres  Is the total number of GHMA in this area
	Owyhee front	This was a large oblong area recommended by the field to be changed from Important (as in Alt E) to Core, along the Owyhee Front. The majority of the area is overlain by recently modeled winter habitat and also encompasses a number of occupied and undetermined status leks and nesting habitat. BLM also had concerns with	Multiple discussions with the State and US FWS led to a delineation where much of the Owyhee Front remained as Important, with an additional area of Core (~25,000 ac) identified that overlaid a cluster of leks and nesting/winter habitat. Area maintained as Important has fewer and smaller leks.	C1 = 554,026 acres  Total Area of IHMA in the Owyhee Front  C2 = 70,827 Acres of PHMA Total in the Owyhee Front



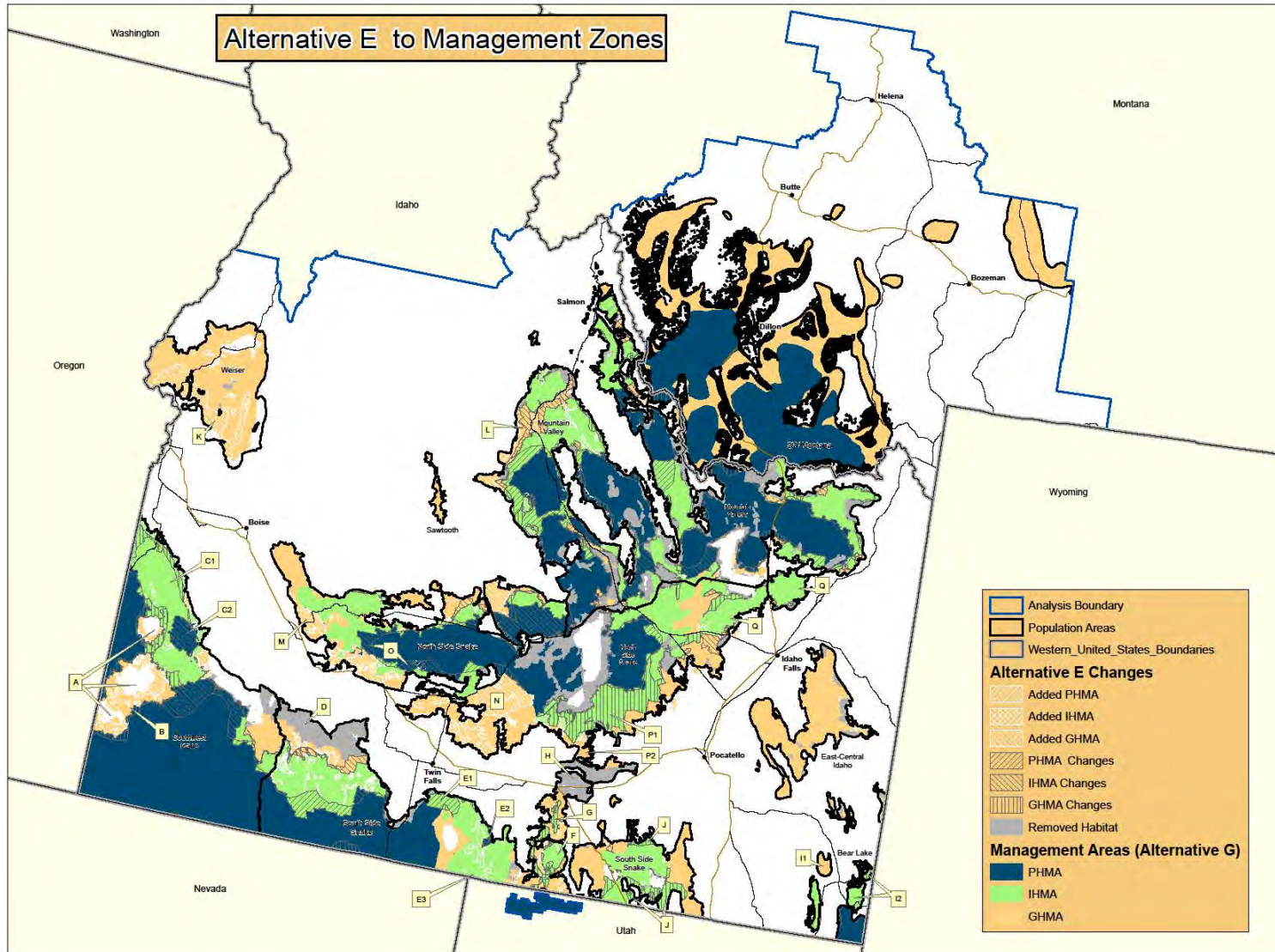
Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres
		protecting connectivity.		
<b>SOUTHERN</b>				
	Jarbidge FO	Field recommended removal of General habitat at north end of FO that burns repeatedly and modification of some Core to Important in southern 1/3 of the area.	Adopted recommendation for final map.	D = 232,331 acres GHMA Removed
	Burley FO-South Hills	Field recommended changing Core in west half or so of the South Hills to Important, based on existing infrastructure, recreation activity. Also included and important area of winter habitat west of Oakley as Core and added some General to Middle Mountain area.	Adopted recommendations a noted. Also retained Goose Creek area as <u>Important</u> as in Alt E.	E1 = 39,260 acres South Hills E2 = 5,283 acres Priority E3 = 26,174 acres Goose Creek Area as IHMA
	Burley FO-Jim Sage	Field recommended making part of Jim Sage Core; additional edits to Important and General.	Majority of Jim Sage mapped as Important. Proposed Core was small area not readily implementable.	F = 47,629 acres IHMA in Jim Sage
	Burley FO-Cotterel	Field added some Important patches to top of Cotterels.	Adopted recommendation.	G = 14,279 acres IHMA on Cotterel Mountains
	Burley FO-No Mans/Basalt; North of	Field recommended removing the General habitat that extends from the north end of the Cotterels to	Adopted recommendation.	H = 137,827 acres Total of non-habitat

<b>Conservation Area</b>	<b>Geographic Area</b>	<b>Initial Recommendation (BLM/FS field)</b>	<b>Final Decision and Rationale</b>	<b>Location and Acres</b>
	Interstate area.	Lake Walcott. There has been no known GRSG use for many years.		
	Pocatello FO-Bear Lake	Field cleaned up slivers and added some Core. Recommended dropping the larger “U” shaped area of General. Recommended two smaller polygons of I and G north of Bear Lake be Core.	Retained the U shaped area as General habitat as there are two leks just to south. The polygons north of Bear Lake were designated “Important”.	I1 = 23,448 acres I2 = 39,249 acres IHMA N of bear lake
	Pocatello FO-Curlew area	Some additions/revisions to I and G.	Adopted recommendations.	J = 74,820 Habitat change from G to IHMA
<b>MOUNTAIN VALLEY</b>				
	Weiser	Field recommended adding substantial areas of Core and Important as well as additional, previously unmapped General based on additional scrutiny of imagery and lek information.	Keep <u>entire area as General</u> as shown in Alt E. Added in some additional General in SW portion based on imagery and adjacency to existing habitat. Size and number of leks did not justify proposed designation.	K = 181,308 acres GHMA added in the South
	Challis	Field did extensive, detailed work edge snapping. Added some new General; changed a large area from Important (Alt E) to Core, per leks,	Adopted the edge snapping and addition of General. Uniqueness and isolated nature is not a characteristic considered in the classification.	L = 135,608 acres Total GHMA habitat in the area

Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres
		uniqueness/isolated nature of area and connectivity with Moyer Basin to north.		
<b>DESERT</b>				
	Mountain Home	Field recommended certain “Restoration Type 2” (cheatgrass) areas shown on the “Key Habitat Map” be classified as Important. No leks. Adjacent to Interstate. Nesting habitat and winter habitat (in north half).	Adopted the addition of the R2 but classified as <u>General</u> . Since it is R2 (cheatgrass), it was difficult to justify as Important without more compelling information.	M = 44,939 acres GHMA added
	Wild Horse	Large area not on Alt D or E maps, but currently mapped as R2 (annual grassland) per the Key habitat map has ongoing restoration focus by Shoshone Field Office. Field recommended this area be added as Important. No significant lek presence (only one, small to south); majority is in between mapped winter areas.	Adopted addition of the R2 areas, but classified as <u>General</u> . Could be upgraded in future if restoration efforts show progress and GRSG use, but not justified as Important at this time.	N = 188,475 acres GHMA Added
	Core area in Shoshone FO	Some additional Core added by edge snapping exercise.	Adopted recommendation.	O = 79,687 acres
	Southern Big Desert area	Field recommended adding southern Big Desert area as Core due to leks, connectivity with Craters Nat. Monument core to the west and northern Big Desert Core. Also cut out	Adopted S. Big Desert area as Important, adding to the overall area of PACs. Number and size of leks did not warrant Core designation.  Also designated <u>Important</u> for the areas generally adjacent to southern	P1 = 363,818 Total acres of IHMA in the South Desert and Brigham Point Area

Conservation Area	Geographic Area	Initial Recommendation (BLM/FS field)	Final Decision and Rationale	Location and Acres
		some edge habitat that interfaced with agricultural land, lava.	<p>end of the Craters of the Moon National Monument lava in the Brigham Point Area etc. This added a small acreage to the overall are of initial PACs.</p> <p>Areas to the south of Power lines and east/south side of the Wapi flow were designated <u>General</u>.</p>	P2 = 61,175 total of GHMA acres
	Idaho Falls/Roberts	<p>Field recommended adding some areas of Core per snapping efforts around the edges.</p> <p>Added two small patches of Core near the Interstate; Added moderate sized Core area near Howe (but low lek density, no wintering habitat mapped).</p>	Retained as Important. Changing the small patches near the Interstate to Core would create doughnut holes of different classification not implementable on the ground.	<p>Q = 50,223 acres</p> <p>Stayed IHMA habitat</p>

Map 1. Proposed Plan Map Changes from Draft



## Idaho and Southwestern Montana Recommendation for Proposed Plan Amendment

### 1. Summary Description of the Proposed Plan (Plan)

The Proposed Plan represents a management strategy to address Greater Sage-grouse, their habitat and associated threats within the Idaho and Southwestern Montana Subregion. The Plan has been developed through a coordinated partnership of BLM, Forest Service, the States of Idaho and Montana and the US FWS.

The Plan incorporates appropriate conservation measures to conserve, enhance, and restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Plan is also consistent with the objectives described in the USFWS Conservation Objectives Team Report (USFWS 2013) to: ‘Conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future...’ through ‘Maintaining viable, connected, and well-distributed populations and habitats across [the range of GRSG], through threat amelioration, conservation of key habitats, and restoration activities’.

To achieve these objectives the Plan includes a combination of: Goals and Objectives including vegetation/habitat management objectives to be applied during project development and implementation (Table 3); land allocation decisions (Table 1); delineation of five Conservation Areas (Map 1) to support evaluation of the adaptive management strategy and 3% anthropogenic disturbance cap; delineation of Priority, Important and General Habitat Management Areas (Map 2) with associated program management direction; a mitigation framework and strategy; development of Wildfire and Invasive Species Assessments; and associated monitoring to support these decisions.

**Table 1. Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary<sup>1</sup>**

Solar/Wind/Nuclear/Hydropower – Map 3		
Priority	Important	General
BLM: Exclusion (LR-2) FS: Exclusion	BLM: Avoidance (LR-2) FS: Exclusion	BLM: Open (LR-2) FS: Avoidance
Commercial Service Airports – Map 4		
Priority	Important	General
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
Landfills – Map 4		
Priority	Important	General
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
Utility Corridors – Map 5		
Priority	Important	General
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain “open” (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as Priority (LR-7)	Same as Priority (LR-7)
Rights-of-Way and Land Use Authorizations/Permits – Map 6		
Priority	Important	General

**Commented [BER1]:** Ethan Ellsworth - 1. Table 1. The selected land-use decisions for General Habitat are inconsistent with the stated goal of conserving GRSG habitat. In particular, the decision to leave General Habitat “Open” to solar, wind, nuclear, hydropower, commercial service airports, landfills, and ROW has potential to degrade GRSG habitat. The decision to leave general habitat open to these uses is problematic because a significant amount of general habitat contains GRSG active leks and other important seasonal habitats. Moreover, general habitat is not considered in the Adaptive Management approach to anthropogenic disturbance. Thus, there is very little protection afforded from disturbance impacts within general habitat, which could have negative impacts on local GRSG populations that use these areas for breeding or other seasonal habitat. My recommendation is to either include all habitat that includes active leks as Important or Priority (I realize, it’s not going to happen) or increase General habitat protections to the same level as Important habitat.

<sup>1</sup> The Idaho and Southwestern Montana Subregion includes portions of Idaho, Montana and Utah. Where differences exist between direction for Idaho and Montana or between BLM and Forest Service, those are noted in the table and within the management action section. The lands within Utah are part of the Sawtooth National Forest and are managed as such; therefore direction for these lands in Utah is the same as that described for the Sawtooth National Forest in Idaho.

**\*\* ADMINISTRATIVE DRAFT PROPOSED PLAN**

September 29,  
2014 November 4, 2014

Avoidance (LR-1)	Avoidance (LR-1)	BLM: Open (LR-1) FS: Avoidance
<b>Land Tenure Adjustments – Map 7</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Retention with exceptions for exchange; available for exchange with no net loss of GRSG Key habitat within Priority and Important. Not available for disposal. (LR-13)	Same as Priority (LR-13)	Available for exchange subject to existing land use plan conformance (No Action)
<b>Fluid Mineral Resource Allocation (Includes Geothermal) – Maps 8 &amp; 9</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Idaho: Open subject to No Surface Occupancy with a limited exception.  Montana: Open subject to No Surface Occupancy with a limited exception. (FLM-1)	Idaho: Open subject to No Surface Occupancy with a limited exception. Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to Controlled Surface Use and Timing Limitations (FLM-1)
<b>Locatable Minerals – Map 10</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.
<b>Non-Energy Leasables – Map 11</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Known Phosphate Leasing Areas (KPLAs) are Open subject to standard leasing stipulations. Closed to leasing outside KPLAs (NEL-1)	KPLAs are Open subject to standard leasing stipulations. Areas outside KPLAs are Open subject to standard and greater sage-grouse stipulations (required design features, seasonal timing restrictions). (NEL-1)	Open to leasing with standard and greater sage-grouse stipulations (required design features and seasonal timing restrictions) (NEL-1)
<b>Mineral Materials (Salable Minerals) – Map 12</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>

**Commented [BER2]:** Ethan Ellsworth - 2. Table 1. Regarding Fluid Mineral Resource Allocation, there should be a foot-note to explain what it means that Priority Habitat in Idaho is open subject to NSO with a limited exception (similar to Montana).

**Commented [BER3]:** Montana and Idaho are the same. Priority and Important are the same as priority.



**\*\* ADMINISTRATIVE DRAFT PROPOSED PLAN**

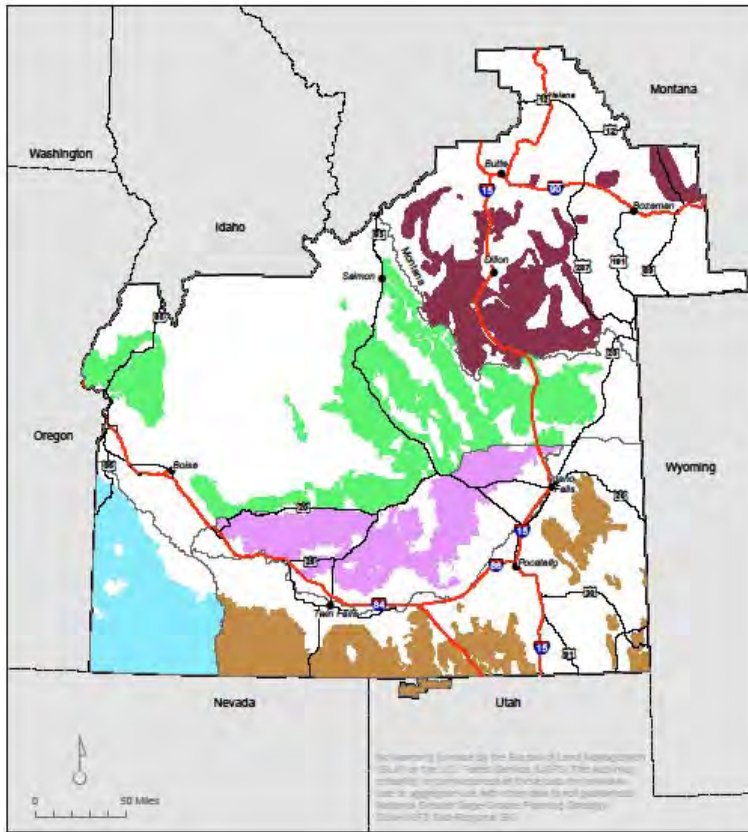
September 29,  
2014 November 4, 2014

Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to criteria. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
<b>Travel Management – Map 13</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
BLM <a href="#">Idaho</a> : Limited to Existing (TM-1) <a href="#">BLM Montana: Limited to Designated</a> FS: Limited to Designated	BLM: Limited to Existing (TM-1) FS: Limited to Designated	BLM: Limited to Existing (TM-1) <a href="#">BLM Montana: Limited to Designated</a> FS: Limited to Designated

**Commented [BER4]:** Include appropriate management action in Travel Management Section.

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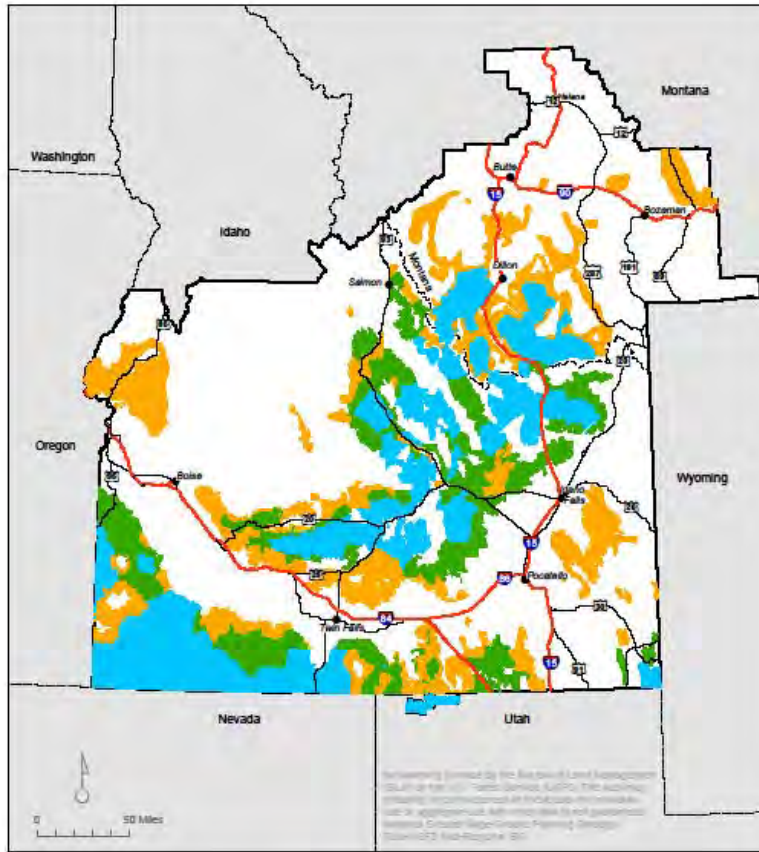
Map 1. Conservation Areas within Idaho and Southwestern Montana Subregion



- |   |                            |
|---|----------------------------|
| <b>Conservation Area with Management Zone</b> | Conservation Area Boundary |
| Idaho Desert Conservation Area                | Analysis Boundary          |
| Idaho Mountain Valleys Conservation Area      |                            |
| Idaho Southern Conservation Area              |                            |
| Idaho West Owyhee Conservation Area           |                            |
| SW Montana Conservation Area                  |                            |

Commented [BER5]: Mike Kuyper - 1) The maps require some changes: they all have "core habitat" which I believe is now "priority habitat"

Map 2. Management Areas within Idaho and Southwestern Montana Subregion

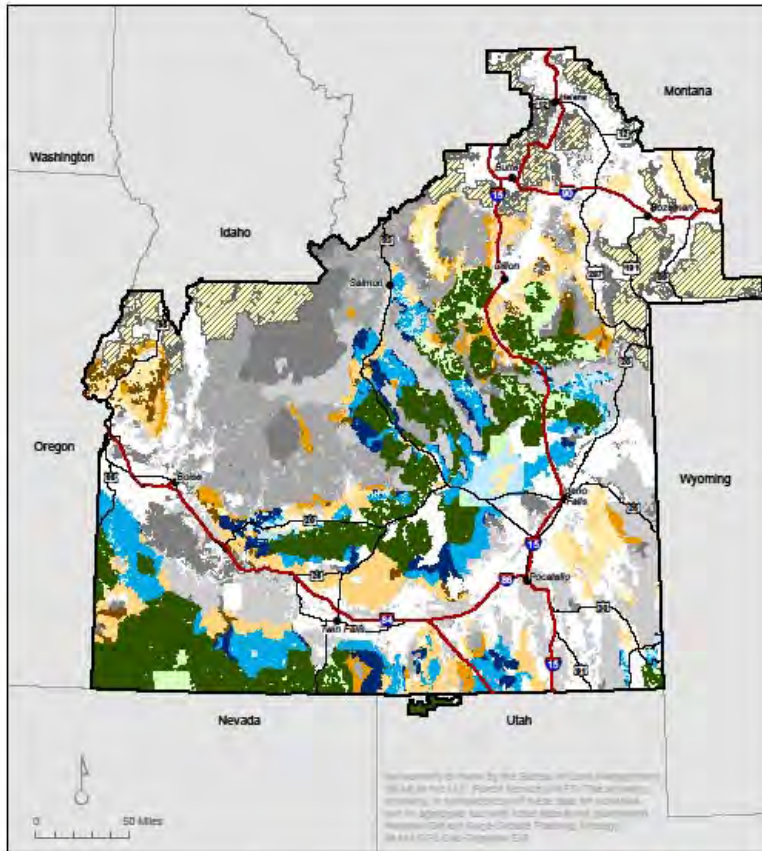


- Management Zone**
- Core
  - Important
  - General
  - Analysis Boundary

Map 3. Wind and Solar Development Allocations
---

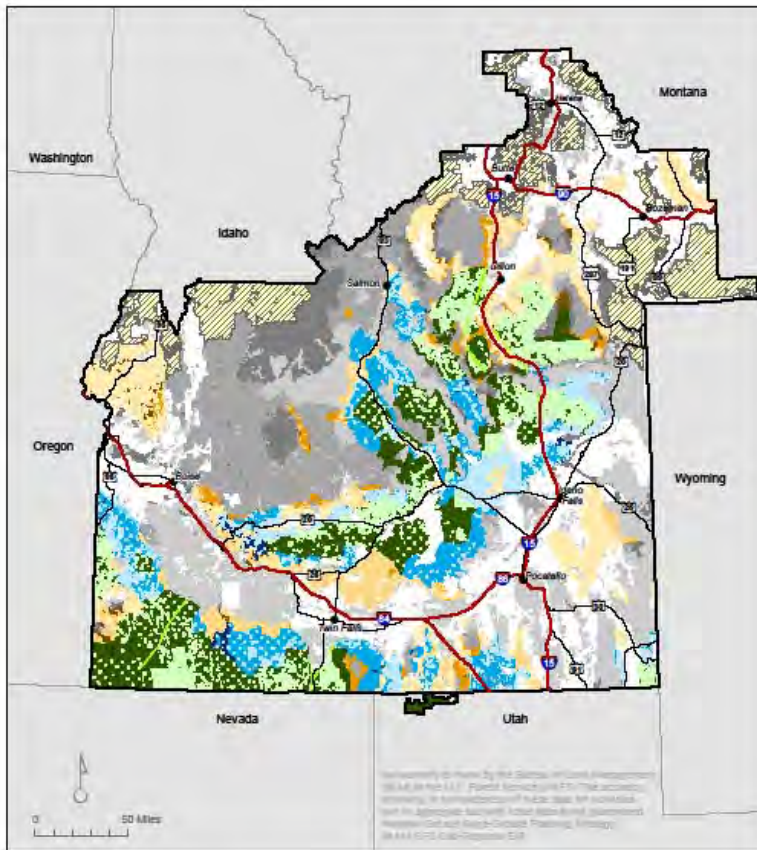
DRAFT

Alternative G: Wind and Solar Constraints



Map 4. Commercial Service Airport and Landfill Development Allocations

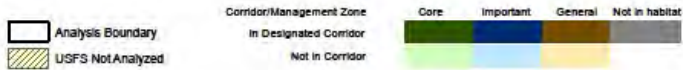
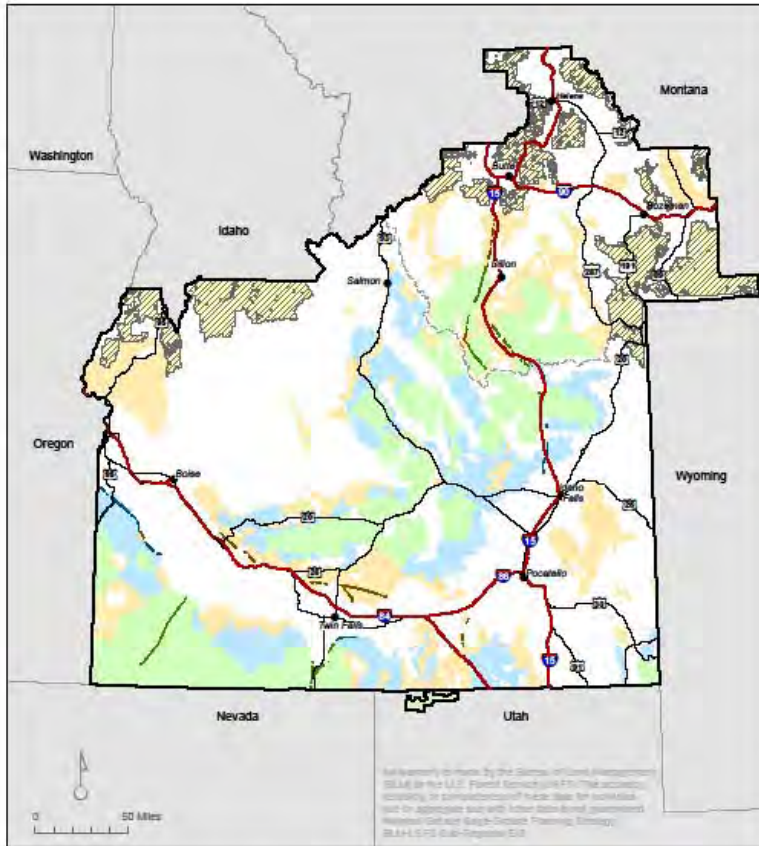
**Alternative G: Commercial Service Airports and Landfills Constraints**



Map 5. Utility Corridor Designations
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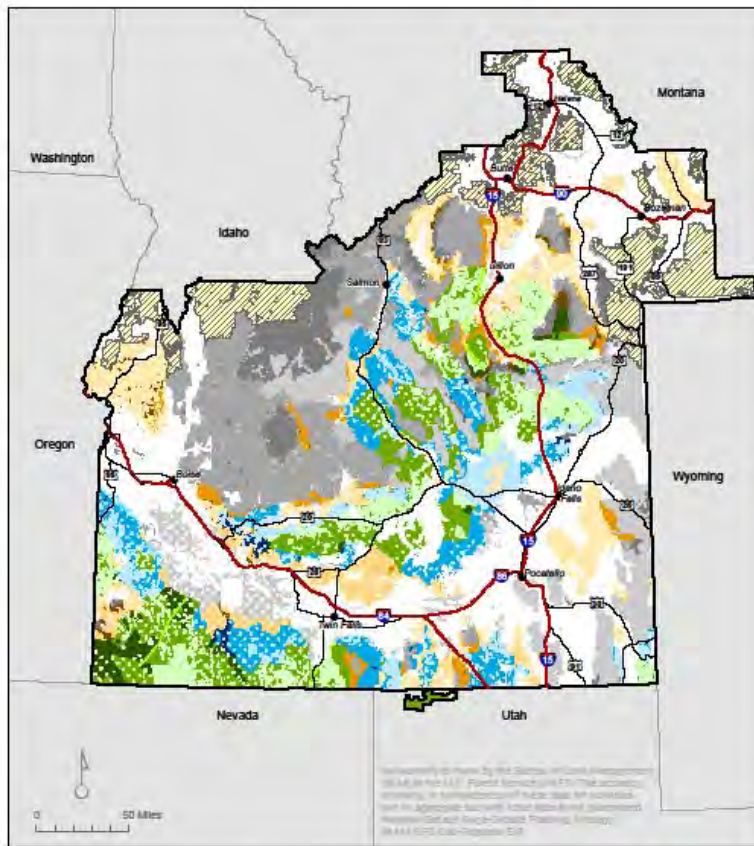
### Alternative G: Designated ROW Corridors





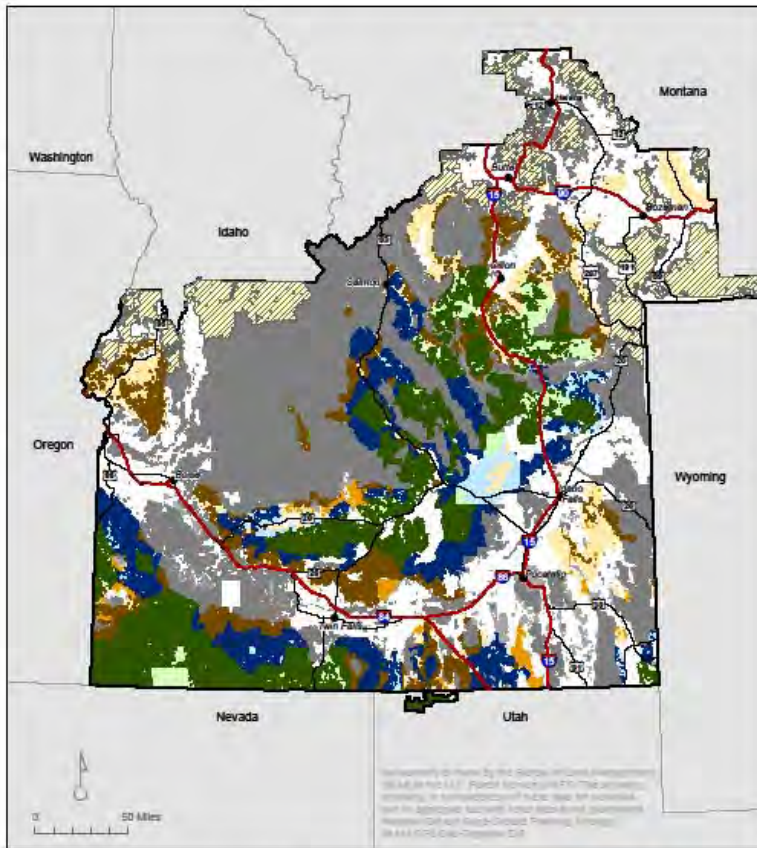
Map 6. Right-of-Way Development Allocations

Alternative G: Major and Minor ROW Constraints



Map 7. Land Tenure Designations

Alternative G: Land Tenure Adjustments

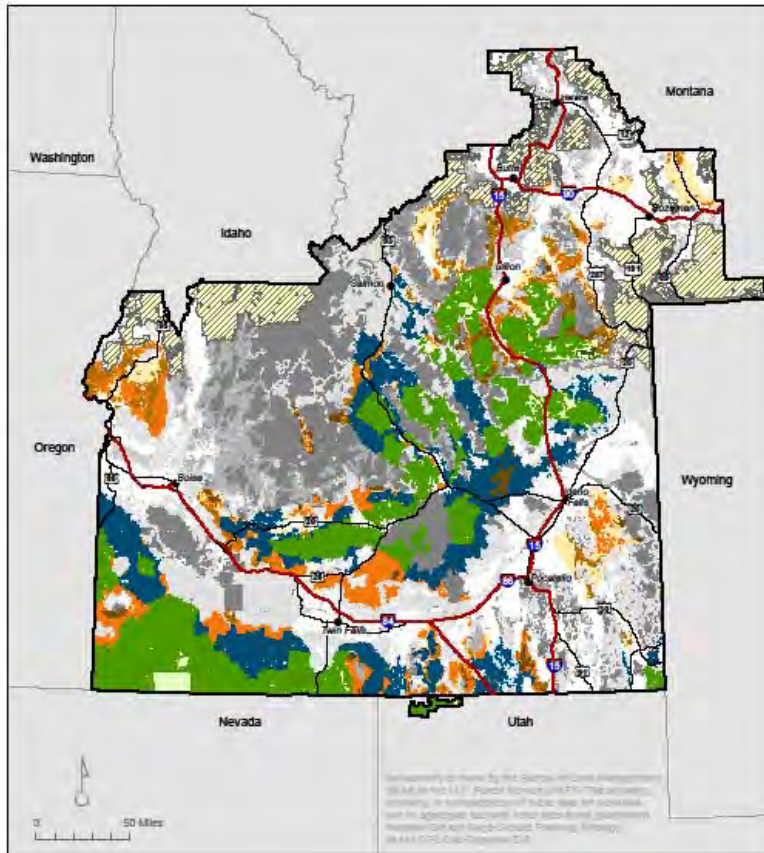


Analysis Boundary	Tenure/Management Zone			
	Core	Important	General	Not in habitat
USFS Not Analyzed	Retention	Disposal	Retention	Disposal
	Not BLM/USFS Managed Lands	Not BLM/USFS Managed Lands	Not BLM/USFS Managed Lands	Not BLM/USFS Managed Lands

**Map 8. Fluid Mineral Resource Allocations – Oil and Gas**

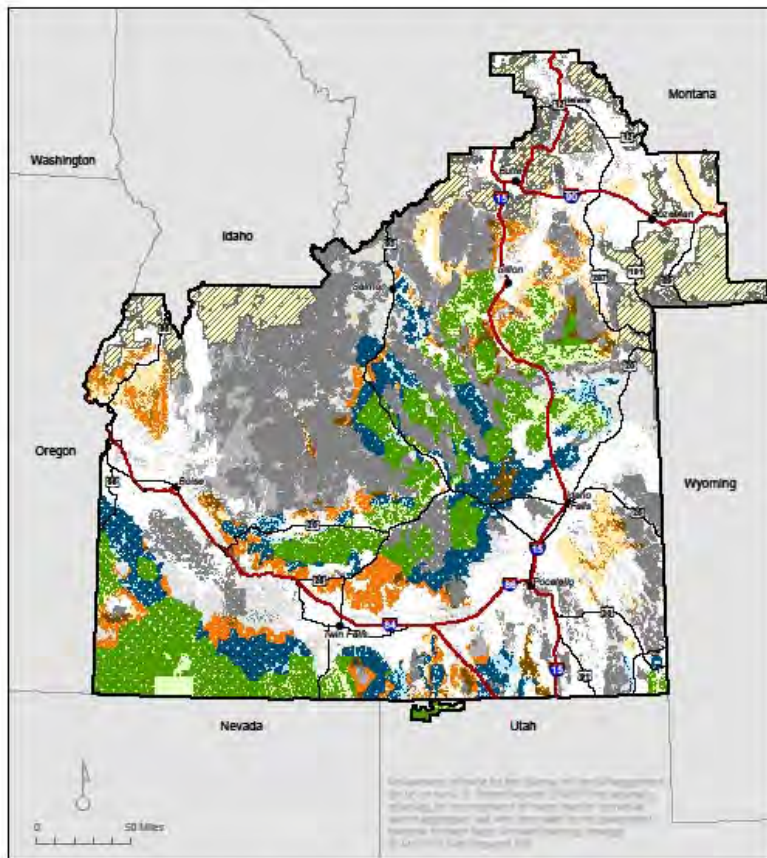
DRAFT

Alternative G: Oil and Gas Constraints



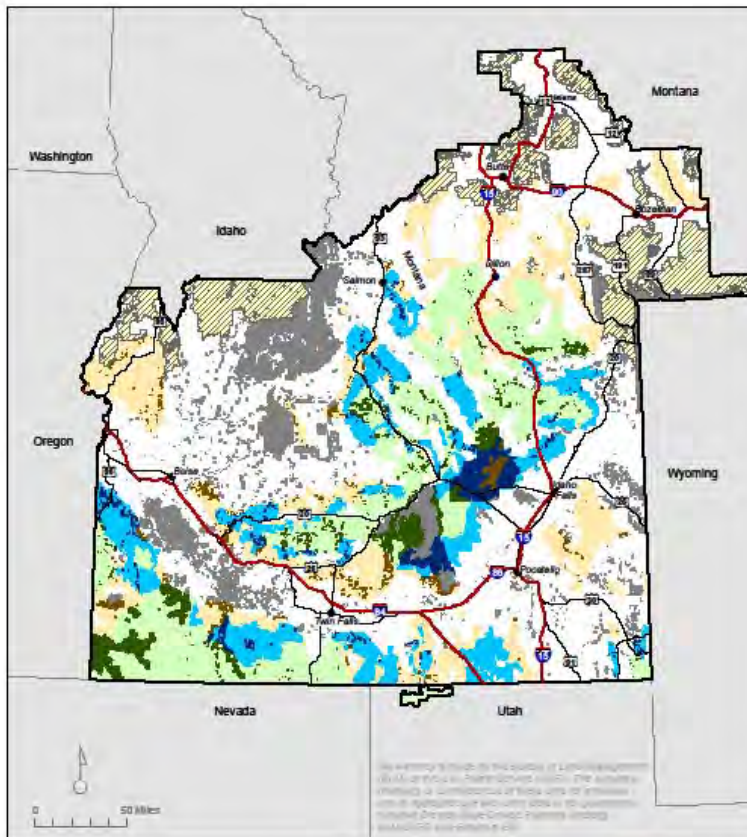
**Map 9. Fluid Mineral Resource Allocations - Geothermal**

**Alternative G: Geothermal Constraints**



Map 10. Locatable Minerals Withdrawals

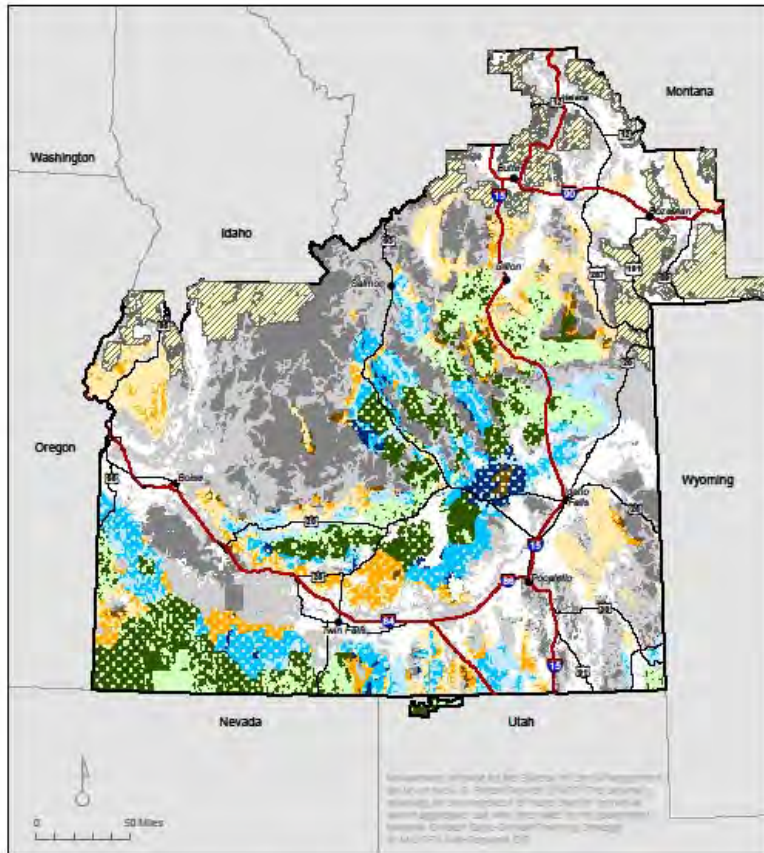
Alternative G: Areas Withdrawn from Locatable Mineral Entry



Map 11. Non-Energy Leasable Resource Allocations
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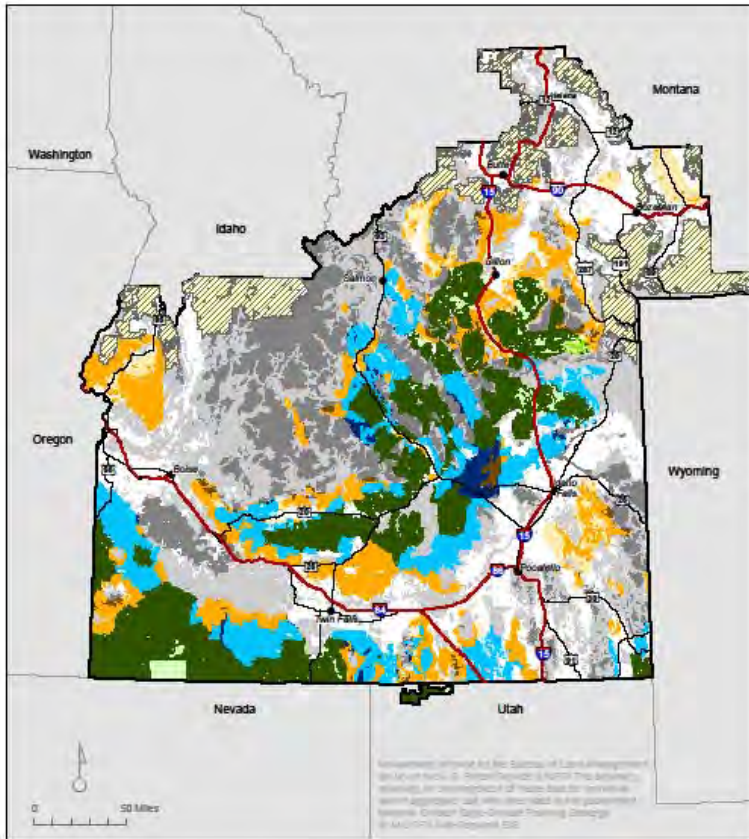
### Alternative G: Phosphate Constraints





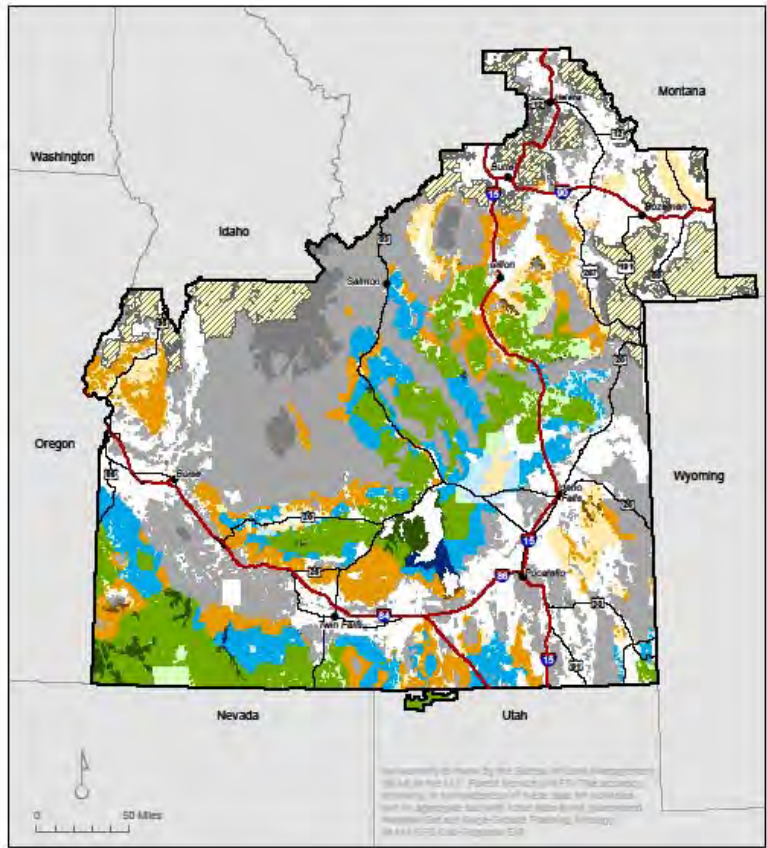
Map 12. Minerals Materials Allocations

Alternative G: Mineral Material Constraints



Map 13. Travel Management Allocations

Alternative G: Travel Management



Analysis Boundary  
USFS Not Analyzed

Designation/Management Zone  
Closed to Travel  
Limited Travel  
Open to Travel  
Not BLM/USFS Managed Lands

Core	Important	General	Not in habitat
Dark Green	Blue	Orange	Grey
Light Green	Light Blue	Light Orange	Light Grey

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## 2. Goals and Objectives

- 2.1. GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
- 2.2. GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies' direction for multiple use and sustained yield as described in FLPMA and the NFMA.
- 2.3. GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.
- 2.4. GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and USFS management actions.
- 2.5. Management Area (MA) - Objective (OBJ)-1: Maintain a resilient population of GRSG in Idaho and Southwestern Montana.
- 2.6. MA-OBJ-2: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.
- 2.7. MA-OBJ-3: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.
- 2.8. Vegetation (VEG)-OBJ-1: Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.
- 2.9. VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:
  - a. Increasing canopy cover and average patch size of sagebrush in perennial grasslands.
  - b. Increasing the amount, condition and connectivity of seasonal habitats.
  - c. Protecting or improving GRSG migration/movement corridors.
  - d. Reducing conifer encroachment within GRSG seasonal habitats.
  - e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
  - f. Reducing the extent of annual grasslands within and adjacent to Priority and Important Habitat Management Areas.Decadal treatment objectives by population area are identified in Table 2.
- 2.10. Habitat Management (HM)-OBJ-1: Maintain or make progress toward at least 70% of lands within PHMAs and IHMAs capable of producing sagebrush at 10-30% canopy cover and conifers absent to uncommon within 1.86 miles of occupied leks.
- 2.11. HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 3) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species; unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:  
A specific objective is not applicable to the site-specific conditions of the project or activity;

Commented [BER6]: Objectives or desired conditions? In relation to the HAF.

An alternative objective is determined to provide equal or better protection for GRSG or its habitat (based on appropriate scientific findings); or Analysis concludes that following a specific objective would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

- 2.12. FUEL-OBJ-1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.
- 2.13. WHB-OBJ-1: Manage wild horse and burro population levels within the established AML ranges to maintain or enhance GRSG habitat.

**Table 2. Acres of Treatment within a 10-Year Period to Achieve Vegetation Objectives<sup>2</sup>**

Population Area	Mechanical Conifer Treatment	Mechanical Sage	Prescribed Fire	Annual Grass Treatment
Bear Lake Plateau		1000		
East Idaho Uplands	6000		9000	1000
S Central Idaho/N Snake River and Mountain Valleys	4000	14000	11000	162000
Weiser				13000
SW Idaho	48000	4000	10000	444000
SW Montana	50	50	1200	

**Commented [BER7]:** Ethan Ellsworth - 3. Table 2. I am not convinced that there is appropriate justification for mechanical sage treatment or prescribed fire at the levels proposed, particularly in the S Central Idaho and Mt valley population. Moreover, this table will certainly raise some eyebrows, given that the impacts of livestock grazing are only superficially addressed in this plan. Perhaps we should think about a more subtle way to couch this table...

**Commented [BER8]:** Double check management actions for prescribed fire in high elevation areas. Footnote direction regarding use of fire in Wyoming sagebrush.

**Commented [BER9]:** Check with Rob and Kelly on numbers for Montana.

**Commented [BER10]:** Ethan Ellsworth - 4. Table 2. I recommend adding, changing or addressing the following – see me to discuss/references

- a. Nesting:
  - i. Annual grass cover (%) < 5
  - ii. Remove the sagebrush height maximum. Weak evidence that sagebrush height is a major habitat attribute, and may be in conflict with objectives for winter habitat in cases where nesting and winter habitat overlap.
  - iii. Perennial grass height < 7 inches
  - iv. Conifer encroachment (%) < 5
  - v. Consider increasing sagebrush canopy cover from a max of 25% to account for variation in GRSG populations. Perhaps relate to ecological site. Some recent studies in Nevada indicate that dense stands of sage (as high as 40% cover) are of greater value to nesting GRSG, and there are likely portions of Idaho that this holds true as well.
- b. Brood-Rearing/Summer
  - i. Remove the sagebrush height maximum
  - ii. Managing for PFC is what we are already managing for at riparian sites. Thus, this plan fails to address or outline a plan to improve an important GRSG habitat component that is, in many cases, in poor condition. Thus, the plan should be designed to be more specific to desired habitat conditions. For example, specify 1) riparian area/meadow interspersed with adjacent sagebrush (perimeter to area ratio of 0.15 within 159 buffer of the microhabitat plot, and 2) forb availability at riparian sites; e.g. > 5 species present.
  - c. Winter
    - i. It should be explained that the desired condition is that >10% of sage canopy should be >10 inches above snow. As it stands now, these two components are separate so it could be misinterpreted.

**Commented [BER11]:** How are these implemented – if not met what happens?

**Table 3. Seasonal Habitat Desired Conditions for Greater Sage-Grouse**

ATTRIBUTE	INDICATOR	DESIRED CONDITION
<b>BREEDING HABITAT (LEK AND NESTING/EARLY BROOD REARING)</b>		
Lek Security	Proximity of trees <sup>7,13</sup>	Trees (i.e., in Idaho mainly juniper, conifers, and does not include old growth juniper, pinyon pine and mountain mahogany; in Montana mainly Douglas-fir) absent or

<sup>2</sup> These acreage figures represent an objective for treatment over a ten-year (decadal) timeframe to support achievement or progress toward vegetation and habitat objectives. This accounts for variations in yearly funding availability and does not reflect a maximum acreage for treatment should funding and site specific conditions allow for more or less treatment than described in order to meet vegetation and habitat objectives.

		uncommon on shrub/grassland ecological sites within 1.86 miles (3 km) of occupied leks.
	Proximity of sagebrush to leks <sup>13</sup>	Adjacent protective sagebrush cover within 328 ft (100 m) of an occupied lek
<b>NESTING/EARLY BROOD REARING<sup>5,10,12,13,14</sup></b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).
	Sagebrush canopy cover <sup>2,8,9,11</sup>	15-25%
	Sagebrush height <sup>8</sup>	
	Arid sites <sup>3</sup>	12-31 inches (30-80cm)
	Mesic sites <sup>4</sup>	16-31 inches (40-80cm)
	Predominant sagebrush shape <sup>13</sup>	Predominantly spreading shape <sup>5</sup>
	Perennial grass cover <sup>2,8,13</sup>	
Arid sites <sup>3</sup>	≥10%	
Mesic sites <sup>4</sup>	≥15%	
Perennial grass height <sup>8,9,11,13</sup>	<u>Adequate nest cover</u>	
Perennial forb cover <sup>2,8</sup>		
Arid sites <sup>3</sup>	≥5%	
Mesic sites <sup>4</sup>	≥10%	
Perennial forb availability <sup>13</sup>	Preferred forbs are common with several species present <sup>6</sup>	
<b>LATE BROOD-REARING/SUMMER<sup>1</sup> (July-October)<sup>1</sup> (Apply to all habitat outside of nesting/breeding and winter)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to ecological site potential, etc.)
	Sagebrush canopy cover <sup>2,8</sup>	10-25%
	Sagebrush height <sup>8</sup>	16 to 32 inches (40-80cm)
	Perennial grass canopy cover <sup>2,8</sup>	>15%
	Upland and riparian perennial forb availability <sup>2,13</sup>	Preferred forbs are common with several preferred species present <sup>6</sup> .
	Riparian meadow habitat condition	Proper Functioning Condition <sup>13</sup>
<b>WINTER<sup>1</sup> November-March<sup>1</sup> (Apply to areas of known or likely winter-use)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).
	Sagebrush canopy cover above snow <sup>2,8,13</sup>	>10%
	Sagebrush height above snow <sup>8</sup>	>10 inches (>25cm)
<b>NOTES AND REFERENCES</b>		
<sup>1</sup> Seasonal dates can be adjusted by local unit according to geographic region.		
<sup>2</sup> Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to		

**Commented [BER12]:** Mike Kuyper - 2) One of the reasons for completing this EIS is to ensure "regulatory certainty". On page 20 in Table 3, the term "Adequate nest cover" is used. How does using such terms (adequate) promote "regulatory certainty"?

other species present.

<sup>3</sup> Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>4</sup> Mesic corresponds to the  $\geq 12$  inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>5</sup> Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.

<sup>6</sup> Preferred forbs are listed in Stiver et al. *In press*. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

<sup>7</sup> Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving sage-grouse from trees.

<sup>8</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.

<sup>9</sup> Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.

<sup>10</sup> Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.

<sup>11</sup> Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. *Wildlife Biology* 13 (Supplement 1):42-50.

<sup>12</sup> Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107:742-752.

<sup>13</sup> Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference XXXX-X. U.S. Bureau of Land Management, Denver, Colorado.

<sup>14</sup> Connelly, J. W., A. Moser, and D. Kemner. 2013. Greater Sage-Grouse breeding habitats: Landscape-based comparisons. *Grouse News* 45. Research Reports.

### 3. Coordination

- 3.1. CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non-governmental organizations.
- 3.2. CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, FS and Task Team. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's forthcoming sage-grouse conservation strategy.
- 3.3. CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.
- 3.4. CC-4: The BLM and Forest Service would coordinate with the State of Idaho and Montana and the Idaho Sage-Grouse Implementation Task Force and Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and livestock grazing (Appendix O).
- 3.5. CC-5: Upon completion of the Record of Decision the BLM will develop an Implementation Guide for BLM District and Field Offices to define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan.
- 3.6. CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate recommendations for GRSG conservation at broader scales.
- 3.7. CC-7: At the state level, BLM and Forest Service would coordinate with appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.
- 3.8. CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

Commented [BER13]: Use specific title and citation.

Commented [BER14]: Need to clarify what is strictly Idaho. Applies to XX and does not apply t

Commented [BER15]: Break into Montana and Idaho pieces. In support of the MOU in CC-2. Dillon will draft MT portion of Appendix O.



#### 4. Greater Sage-Grouse Management Areas

- 4.1. Management Area (MA)-1: Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in Map 1. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, and includes habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan Karas Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry’s Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon and Butte BLM Field Office boundaries. (the Butte RMP is not being amended and since there are limited GRSG federal General Habitat Management Areas management actions do not apply in the Butte Field Office).

Additionally, sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to topography, elevational and land use differences.

- 4.2. MA-2: Within each Conservation Area (CA) designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (Map 2). **Priority Habitat Management Areas (PHMAs)** focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. The PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. Priority Habitat

**Commented [BER16]:** Include a description in the introduction (Chapter 1) why Butte is not being amended.

**Commented [BER17]:** Ethan Ellsworth - Portions of this section are not clear to me. For example it is stated that “PHMAS focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations that have the highest likelihood of long-term persistence...” To strengthen the discussion, the following questions should be addressed:

- Which are the two key meta-populations?
- What evidence is there that any sage-grouse in Idaho exist in a meta-population?
- What evidence is there that these particular “interconnected breeding subpopulations” have the highest likelihood of persistence?

Management Areas include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Habitat Management Areas (IHMAs)** contain additional high value habitat and populations that provide a management buffer for the PHMA, connect patches of PHMA. The IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some CAs includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). The IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. There are no IHMAs designated within the Southwestern Montana CA. **General Habitat Management Areas (GHMAs)** encompass habitat that is outside of PHMAs or IHMAs. It is generally characterized by more marginal habitat and few, if any, occupied leks or other important seasonal use areas.

- 4.3. MA-3: Delineate PHMA and IHMA to encompass 90% of the breeding males in Idaho.
- 4.4. MA-4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.
- 4.5. MA-5: Prioritize activities and mitigation to protect, enhance and restore GRSG habitats (i.e. suppression activities, fuels management activities, vegetation treatments, invasive species treatments, etc.) first by Conservation Area, if appropriate (CA under adaptive management or at risk of engaging adaptive management), followed by Priority Habitat Management Areas, then Important Habitat Management Areas then General Habitat Management Areas within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in Appendix D. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat. Priority restoration and mitigation areas are restoration areas identified on the Key Habitat map (R1, R2, R3 and Recent Burn) within nesting and wintering areas in Priority and Important Habitat Management Areas.
- 4.6. MA-6: The management area map and biologically significant unit baseline map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust Priority, Important or General Habitat Management Areas or the habitat baseline. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map. [Results from the Wildfire and Invasive Species Assessments, such as identified focal or emphasis areas would also be used to help inform mapping adjustments during this evaluation.](#)
- 4.7. MA-7: The functionality and capability of GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management area designations (Priority, Important, General) and appropriate updates to the Key Habitat map would occur. Areas without the potential and capability to provide GRSG habitat would be identified, areas with the potential to provide GRSG habitat

**Commented [BER18]:** Ethan Ellsworth - It is stated that "General Habitat ... is characterized by more marginal habitat and few, if any occupied leks or other important seasonal use areas." This should be restated to reflect the biological parameters that were used to define general habitat. For example, rather than saying that general habitat has "few if any occupied leks" (by the way the "if any" part is misleading because we know that several leks do exist in general habitat) we could say something to the effect that "General Habitat is characterized by habitat that 1) is dominated by invasive species, 2) has incurred substantial and frequent fire, 3) has low levels of documented sage-grouse use, and 4) has few active leks (although "few" is pretty subjective). In addition, if PHMA and IMHA encompass 90% of the breeding males, then another part of the definition could be that general habitat encompasses only 10% of breeding males

**Commented [BER19]:** Remapping for Idaho. May need to include an action for remapping in Montana.

**Commented [BER20]:** Ethan Ellsworth - Add "late brood-rearing" areas to the last sentence in the paragraph describing Priority restoration and mitigation areas.

**Commented [BER21]:** Ethan Ellsworth - The last sentence is a bit confusing and open-ended. Does this mean that adjustments could occur only after a plan amendment? Is the plan re-evaluation process well-defined?

**Commented [BER22]:** Define terms – what does these mean – do we all know and have the same understanding?

- would be appropriately classified on the Key Habitat map. Project proposals and their effects would be evaluated based on the habitat and values affected.
- 4.8. MA-87: Idaho BLM will annually update the Key Habitat map as described in Appendix F, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies indicate that sage-grouse are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, sage-grouse Local Working Groups (LWG), or agency partners in sage-grouse conservation.
- 4.9. MA-98: Areas of habitat outside of delineated management areas identified during the Key habitat update process would be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix A), seasonal timing restrictions (Appendix B) and buffers (Appendix C) would be included as part of project design. These areas would be further evaluated during plan evaluation to determine whether they should be included as Priority, Important or General Habitat Management Areas.

## 5. Adaptive Management

- 5.1. Adaptive Management (AM)-1: Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.
- 5.2. AM-2: Utilize monitoring information collected through the Monitoring Framework Plan (Appendix E) to determine when adaptive regulatory triggers have been met.
- 5.3. AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the FS and Idaho Department of Fish and Game (IDFG), using the process described in Appendix F.
- 5.4. AM-4: BLM and Forest Service would utilize population information collected and maintained by the Idaho Department of Fish and Game to track and identify population changes to assess the population trigger in the adaptive management approach.
- 5.5. AM-5: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management criteria have been met.
- 5.6. AM-6: Adaptive regulatory triggers would be individually calculated across all ownerships within the biologically significant units (BSU). The BSU is defined as the Idaho Department of Fish and Game modeled nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area. The sagebrush component of the BSU is represented by the key habitat within the BSU.
- 5.7. AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:
  - A 20 percent loss of Key Habitat within the biologically significant unit (BSU) (Appendix G) of the PHMA of a CA when compared to the 2011 baseline (the BSU is defined as the nesting and wintering habitat within a Priority and Important Habitat Management Areas (separately) within a Conservation Area, inclusive of all ownerships); or
  - A 20 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.8. AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:
  - A 10 percent loss of Key Habitat within the BSU of the PHMA of a CA when compared to the 2011 baseline; or
  - A 10 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.9. AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:
  - A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within PHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline; or
  - A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within IHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline. [Significance for the finite rate of change is defined by the 90% confidence interval around the current 3-year average of finite rate of change to evaluate whether the finite](#)

**Commented [BER23]:** Jim Klott - "Why is the scale different (i.e. Biological Significant Unit vs Conservation Area) when monitoring acres of habitat vs. population monitoring? If there is a substantial (20%) reduction of sage-grouse population in a biological significant unit, this may be a sign of a somewhat localized problem and should be address or at least monitored. Hitting the trigger in a Biological Significant Unit(s) could represent a loss of connection between other units. The time to take action would be before the entire population in the conservation area declines significantly."

**Commented [BER24]:** Ethan Ellsworth - Seems the BSU should include brood-rearing habitat where it does not overlap nesting and winter.

**Commented [BER25]:** Ethan Ellsworth - As far as I can tell, the hard adaptive management trigger for a BSU is based independently on 20% in PMHA and 20% in IMHA. Instead, the triggers should be calculated based on a cumulative 20% for the CA overall. Otherwise a CA could reach an overall disturbance of up to 38% without a trigger being tripped.

**Commented [BER26]:** Mike Kuyper - 3) I was able to discover the following terms used to describe sage-grouse habitat.  
- Biological Significant Units (BSU)  
- Core habitat  
- Priority habitat management area  
- Important habitat management area (IHMA)  
- Key habitat  
- General habitat management area  
- Conservation Area (CA)  
Priority Area for Conservation  
On page 26, four of these descriptions of habitat were used in 1 sentence "A 20 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline. I do not know about "regulatory certainty", but it certainly is confusing. Could the number of different sage-grouse habitats be reduced in the document?"

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rate of change is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, than the finite rate of change is significantly less than 1.0. The finite rate of change and variance will be calculated following Garton et al. (2011).

- 5.10. AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:
  - A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within PHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011; or
  - A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within IHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011.
- 5.11. AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities Appendix G.
- 5.12. AM-12: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met then PHMA management actions would be applied to the IHMA within that CA.
- 5.13. AM-13: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in Appendix G.
- 5.14. AM-14: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of baseline values within the associated CA.
- 5.15. Montana Adaptive Management:

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Commented [BER27]: Ethan Ellsworth - There should be some language to explain that the adaptive management response should not be removed based solely on adjustment to the baseline values (key habitat acreage) within the CA. In other words, if a 5 year review reduces the amount of key habitat within a CA that has reached the threshold for the trigger, the trigger should not be removed.

Commented [BER28]: John and Kelly to write up and send ☺

## 6. Anthropogenic Disturbance

- 6.1. Anthropogenic Disturbance (AD)-1: Limit anthropogenic disturbance to 3 percent as calculated within the biologically significant unit (BSU) (Map 3). The BSU is defined as the nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area, inclusive of all ownerships for evaluation. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes activities described in Table X. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (powerlines, pipelines and roads). For Montana this disturbance is measured utilizing the Disturbance Density Calculation Tool process described in Appendix H.
- 6.2. AD-2: New anthropogenic disturbances within Priority or Important Habitat Management Areas within a CA where the disturbance cap is already exceeded from any source or where the proposed development would result in the cap being exceeded would not be allowed until enough habitat has been restored to maintain the area under this cap (subject to valid existing rights).
- 6.3. AD-3: Priority Habitat Management Area: Anthropogenic Disturbance Exception Criteria. In order to avoid surface-disturbing activities in Priority Habitat Management Areas, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of Priority Habitat Management Areas. When authorizing development in Priority Habitat Management Areas, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. In addition to the Priority and Important Habitat Management Area Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the project screening and assessment process:
- a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations would not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments would be substantially the same as the existing development);
  - b. The development with associated mitigation would not result in a net loss of GRSG Key habitat and mitigation would provide a net conservation benefit to the respective Priority Habitat Management Area;
  - c. The project would not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA (the project would be outside Key habitat in areas not meeting desired habitat conditions or the project would provide a benefit to habitat areas that are functioning in a limited way as habitat);
  - d. Cannot be reasonably accomplished outside of the Priority Habitat Management Area; or can be either: 1) developed pursuant to a valid existing authorization; 2) is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade); or 3) is co-located within the footprint of existing infrastructure (i.e. powerlines) (proposed actions would not increase the 2011

Commented [BER29]: Ethan Ellsworth - Once again, evaluate whether BSU should include brood-rearing habitat.

- e. authorized footprint and associated impacts more than fifty percent (50%), depending on industry practice.
  - e. Development could be implemented adhering to the required design features (RDF) described in Appendix A;
  - f. The project would not exceed the disturbance cap (AD-1).
  - g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.
- 6.4.** AD-4: Priority and Important Habitat Management Areas: Anthropogenic Disturbance Development Criteria – the following criteria must be met in the screening and assessment process:
- a. The project cannot reasonably be achieved, technically or economically, outside of this management area; and
  - b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co-location within the footprint for existing infrastructure, to the extent practicable; and
  - c. The project does not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA; and
  - d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and
  - e. The project complies with the applicable RDFs as described in Appendix A.
  - f. The project would not exceed the disturbance cap (AD-1).
- 6.5.** AD-5: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as:
- Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.
- Electrical Lines – Installation of new rights-of-way (ROWs) adjacent to current ROWs boundaries, not necessarily placed on the same power poles.
- Other Rights-of-Way – The installation of new rights-of-way (ROWs) within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary.
- Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.
- 6.6.** AD-6: Incorporate required design features (RDFs) as described in Appendix A in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be

- demonstrated and documented in the NEPA analysis associated with the specific project:
- A specific RDF is not applicable to the site-specific conditions of the project or activity;
  - A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or
  - Analysis concludes that following a specific RDF would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.
- 6.7. AD-7: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix B.
- 6.8. AD-8: Required Design Features and seasonal habitat restrictions would not be required for emergency or short-term activities necessary to protect and preserve human life or property.
- 6.9. AD-9: Incorporate appropriate buffers into implementation and project design to avoid and minimize impacts to GRSG described in Appendix C.
- 6.9-6.10. [AD-10: Incorporate appropriate conservation measures for slickspot peppergrass \(\*Lepidium papilliferum\*\) as described in the 2014 Conservation Agreement \(as updated, amended or reauthorized\) into implementation and project design within slickspot peppergrass habitat in the Jarbidge and Four Rivers Field Offices to avoid and minimize impacts to slickspot peppergrass. The 2014 Conservation Agreement is included as Appendix ??.](#)

Table X. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>
Oil and Gas Wells and Development Facilities
Coal Mines
Wind Towers
Solar Fields
Geothermal Development Facilities
Mining (Active Locatable, Leasable and Saleable Developments)
Roads
Railroads
Powerlines
Communication Towers
Other Vertical Structures
Additional Local Datasets (need definitions)
Underground Pipelines
Coal Bed Methane Ponds
Meteorological Towers

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.



Nuclear Energy Facilities
Airports
Military Ranges (ground based?)
Hydropower plants
Recreation Areas (Developed)

DRAFT

## 7. Mitigation

~~7.1.~~ Mitigation (MIT)-1: BLM and USFS would establish an inter-agency WAFWA Management Zone GRSG Conservation TeamBoard at the state level (both Idaho and Montana) to help guide conservation of oversee-GRSG, within 90 days of the issuance of the Record of Decision. ~~Conservation.~~

**Commented [BER30]:** Compensatory – these actions are appropriate for compensatory mitigation but not avoid and minimize

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~~7.2-7.1.~~ MIT-2: The BLM and USFS, in coordination with the GRSG Conservation TeamBoard would develop a State Mitigation Strategy within one year of the issuance of the Record of Decision. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (Appendix I).

~~7.3-7.2.~~ MIT-3: Mitigate impacts from anthropogenic developments (Appendix G Table G-1) to GRSG habitats to a net conservation benefit (~~benefits more birds~~) by first avoidance of impacts, minimizing impacts and then compensating for impacts. A net conservation benefit to GRSG would be achieved by implementing restoration conservation actions, applying a no net unmitigated loss standard for authorized uses in all GRSG habitat with PHMA, IHMA and GHMA; and strategically siting compensatory mitigation actions, consistent with the WAFWA Management Zone Regional Mitigation Strategy as part of a mitigation program in order to achieve cumulative benefits (as outlined in Appendix I).

~~7.4-7.3.~~ MIT-4: Mitigate anthropogenic development (Appendix G Table G-1) impacts to a no net loss of Key habitat standard (Appendix I) through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I), referred to as no unmitigated loss. No net unmitigated loss means that impacts from implementation level actions would fully offset to benefit the species. This would be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.

**Commented [BER31]:**

~~7.5-7.4.~~ MIT-5: Mitigate anthropogenic development (Appendix G Table G-1) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I).

~~7.5.~~ MIT-6: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in Table 3.

~~7.6.~~

**Commented [BER32]:** Include within PHMA, etc.

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## **8. Wildfire Preparedness/Prevention**

- 8.1. Wildfire Preparedness (WFP)-1: Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.
- 8.2. WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).
- 8.3. WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in Appendix D, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.
- 8.4. WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.
- 8.5. WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.
- 8.6. WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.
- 8.7. WFP-7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the Priority or Important Habitat Management Areas. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.
- 8.8. WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.
- 8.9. WFP-9: Implement activities identified within the FIAT Assessments.

## 9. Wildfire Suppression

- 9.1. WFS-1: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within Appendix D and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of **focal and emphasis priority** areas/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify priority areas and describe strategies for fuels management, suppression and restoration activities.
- 9.2. WFS-2: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within Priority and Important Habitat Management Areas or on those fires that have the potential to impact Priority and Important Habitat Management Areas. Incorporate findings into Unit Initial Attack program
- 9.3. WFS-3: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.
- 9.4. WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.
- 9.5. WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in General Habitat Management Areas when suppression resources are available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.
- 9.6. WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.
- 9.7. WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.

## **10. Fuels Management**

- 10.1.** FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.
- 10.2.** FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.
- 10.3.** FM-3: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into Priority Habitat Management Areas or WUI.
- 10.4.** FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in Appendix D.
- 10.5.** FM-5: When developing the fuels management strategy as part of the FIAT Assessment described in Appendix D consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.
- 10.6.** FM-6: Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.
- 10.7.** FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).
- 10.8.** FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings) or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.

- 10.9. FM-9: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments..
- 10.10. FM-10: Protect seeding efforts from subsequent fire events.
- 10.11. FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of unwanted wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.
- 10.12. FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:
- Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
  - Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
  - Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations
- 10.13. FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.
- 10.14. FM-14: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.

**Commented [BER33]:** Ethan Ellsworth - I strongly suggest adding a line stating that targeted grazing should only be conducted in habitat dominated by invasive annual grasses. The long-term impact of intensive grazing on native grasses is counter to GRSG objectives.

**11. Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation**

- 11.1. ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in Appendix D to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (FS) actions after fire.
- 11.2. ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.
- 11.3. ESR-3: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species. New seedlings should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ES&R objectives.
- 11.4. ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.

## **12. Habitat Restoration and Vegetation Management**

- 12.1. VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.
- 12.2. VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to sage-grouse seasonal habitats.
- 12.3. VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.
- 12.4. VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.
- 12.5. VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.
- 12.6. VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of Priority or Important Habitat Management Areas to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.
- 12.7. VEG-7: During land health assessments evaluate the compatibility of existing nonnative seedings for GRSG habitat to keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak (Davies et al. 2011) or during restoration development. If nonnative seedings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, evaluate the nonnative seedings in and adjacent to PHMA to determine if they should be diversified with or converted to native grasses, forbs, and shrubs, including sagebrush.



- 12.8. VEG-8: Utilize conifer (juniper) removal treatments to reduce the extent of conifer encroachment areas in sagebrush habitats. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDTT and FIAT assessments to help refine the location for specific priority areas to be treated. Refrain from using prescribed fire and conducting removal projects in old-growth juniper stands. Old-growth juniper trees are characterized by rounded tops and spreading canopies, often containing dead limbs and/or spike tops, large branches near the base of the tree, as well as furrowed, fibrous bark, and are typically host to arboreal lichens. Leader growth in the upper quarter of the tree is usually less than one inch. These trees are generally distributed on rock outcrop or rubble land soils, or other soils with coarse fragments in the soil-surface and/or slopes over 12-25%, where juniper vegetation type is the climax plant community (IDFG 2000; Miller et al 2005; USDI and USGS 2007).
- 12.9. VEG-9: Avoid using prescribed fire in Greater Sage-Grouse habitat unless evaluation of site-specific conditions demonstrate that there would be a net benefit for sage-grouse. If prescribed fire is used in Greater Sage-Grouse habitat, include an analysis in the NEPA document that indicates how Greater Sage-Grouse goals and objectives will be addressed and met by its use, why alternative techniques were not selected, and a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized.
- If prescribed fire is to be used at the implementation level, at a minimum, the burn plan will indicate how land use plan objectives would be addressed and met and why alternative techniques were not selected.
  - Avoid prescribed fire as a vegetation or fuels treatment in Wyoming big sagebrush or other xeric sagebrush species, or in areas with a potential for post-fire exotic annual dominance. However, after other treatment opportunities have been explored and as site-specific variables allow, prescribed fire could be used in these areas to meet specific fuels objectives that would maintain, improve, or restore Greater Sage-Grouse habitat (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities).
  - Allow no treatments in areas only providing known winter seasonal habitat unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality.

Commented [BER34]: Paul has new verbiage.

### **13. Invasive Species**

- 13.1. Invasive Species (INV)-1: Incorporate results of the FIAT Assessments into projects and activities addressing invasive species.
- 13.2. INV-2: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.
- 13.3. INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.
- 13.4. INV-4: Require project proponent (projects described in Table X and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years.

#### **14. Lands and Realty / Infrastructure**

- 14.1. Lands and Realty (LR)-1: Priority: Designate and manage Priority Habitat Management Areas as ROW avoidance areas, consistent with AD-3 and subject to RDFs, buffers and seasonal timing restrictions (Appendix A, B & C). Important: Designate and manage Important Habitat Management Areas as ROW avoidance areas, consistent with AD-4 and subject to RDFs, buffers and seasonal timing restrictions. General: Designate and manage General Habitat Management Areas as open with proposals subject to RDFs, buffers and seasonal timing restrictions.
- 14.2. LR-2: Priority: Designate and manage Priority Habitat Management Areas as exclusion areas for utility scale (20 MW) Wind and Solar testing and development, nuclear and hydropower energy development. Important: Designate and manage Important Habitat Management Areas as avoidance areas for Wind and Solar testing and development, nuclear and hydropower development. General: Designate and manage General Habitat Management Areas as open for Wind and Solar testing and development and nuclear and hydropower development subject to RDFs, buffers and seasonal timing restrictions.
- 14.3. LR-3: Priority: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.4. LR-4: Priority: Development of new or expansion of existing landfills would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.5. LR-5: Consistent with LR-2, LR-3 and LR-4, Rights-of-way for development of new or amended ROWs and land use authorizations in PHMA would only be considered when consistent with the Anthropogenic Disturbance Exception Criteria (AD-3); Rights-of-way for development of new or amended ROWs and land use authorizations in IHMA could be considered consistent with the Important Habitat Management Area Anthropogenic Disturbance Development Criteria. (AD-4). General: New ROW and land use authorizations could be considered.
- 14.6. LR-6: If the project is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade) - the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized.
- 14.7. LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open (subject to the ongoing settlement agreement).
- 14.8. LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Areas within which it is located and the RDFs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and rehabilitating the habitat.

- 14.9. LR-9: Land use authorizations that are temporary (less than 3 years) in nature would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.
- 14.10. LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be allowed on a case-by-case bases subject to RDFs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.
- 14.11. LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).
- 14.12. LR-12: Work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix A.
- 14.12.1. LR-13: Lands within Priority, Important or General Habitat Management Areas for Greater Sage-Grouse will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation benefit to the Greater Sage-Grouse or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse. Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:
- a. Lands within Priority, Important and General Habitat Management Areas would not be available for disposal through sale (Appendix J).
  - b. Acquire habitat within Priority and Important Habitat Management Areas, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if a land exchange would allow for additional or more contiguous federal ownership patterns.
  - c. Lands within Priority, Important and General Habitat Management Areas would be retained unless exchange of those lands would increase the extent or provide for connectivity of Priority or Important Habitat Management Areas.
  - d. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of Priority Habitat Management Areas. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within Priority Habitat Management Areas currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the Priority and Important Habitat Management Areas.

e. Identify lands for acquisition that increase the extent of or provide for connectivity of Priority Habitat Management Areas.

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## 15. Minerals

### 15.1. Fluid Minerals

- 15.1.1. Fluid Minerals (FLM)-1: Idaho and Montana: Areas within Priority Habitat Management Areas and Important Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to no surface occupancy with a limited exception (FLM-3). General Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations. ~~Montana: Areas within Priority Habitat Management Areas would be open to leasing subject to no surface occupancy. No waivers, exceptions or modifications would be allowed unless approved by the State Director. General Habitat Management Areas would be open to leasing subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.~~
- 15.1.2. FLM-2: ~~FLM-7~~: Parcels nominated for lease in Priority or Important Habitat Management Areas would be evaluated prior to lease offering to determine if development is feasible when buffers and seasonal timing restrictions are applied. ~~Parcels that could not be developed when these buffers and restrictions are applied would not be offered for lease, which do not meet the criteria would not be offered for lease.~~
- 15.1.3. FLM-3: Priority and Important Habitat Management Areas: A lease waiver, exception or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-greater sage-grouse habitat, the area is not used by Greater sage-grouse, or it would not have direct, indirect or cumulative effects to Greater sage-grouse or its habitat. The determination would be made by a team of interagency Greater sage-grouse experts, including an expert from the state wildlife agency, USFWS and the BLM. Waivers, by regulation, require a 30-day public review (43 CFR ????.??). All exceptions must be approved by the State Director. In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

#### **Waivers, Exceptions and Modifications (WEMs) (Source IM-2008-032)**

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers require a 30-day public review and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the lease to which the restrictive criteria are applied.

- 15.1.4. FLM-4: Incorporate required design features and best management practices appropriate to the management area as conditions of approval when post leasing activity is proposed into any post-lease authorizations. ▲

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15.1.5. FLM-5: Prior to leasing conduct a Master Leasing Plan process when all four of the following criteria are met:

· A substantial portion of the area to be analyzed in the MLP is not currently leased.

· There is a majority Federal mineral interest.

· The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.

· Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are:  
o multiple-use or natural/cultural resource conflicts;  
o impacts to air quality;  
o impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness area, as determined after consultation or coordination with the NPS, the FWS, or the ES; or

15.1.4. o impacts on other specially designated areas. – analyzing likely development scenarios and varying mitigation levels.

15.1.5.15.1.6. FLM-5: Complete a Master Development Plan, consistent with plan development guide, on leases where a producing field is proposed to be developed.

15.1.6.15.1.7. FLM-6: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.

15.1.7.15.1.8. FLM-7: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations or habitat.

**15.2. Locatable Minerals**

**15.2.1.** Locatable Minerals (LOC)-1: Lands would remain open to locatable mineral entry in all management areas.

**15.2.2.** LOC-2: Apply reasonable and appropriate required design features and best management practices as Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or FS approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).

**15.3. Salable Minerals**

**15.3.1.** Salable Minerals (SAL)-1: Priority: No new site authorizations would be approved. Important: New site authorizations could be considered provided the Anthropogenic Disturbance Development Criteria (AD-4) can be met, and subject to RDFs, buffers and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. General: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions.

**15.3.2.** SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.

**15.3.3.** SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this would not apply to

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free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).

**15.4. Non-Energy Solid Mineral Leasable Minerals**

**15.4.1. Non Energy Leasables (NEL)-1: Priority, Important and General Habitat Management Areas:** Areas within Know Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA areas outside KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. General Habitat Management Areas: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily) and standard stipulations.

**15.4.2. NEL-2:** Require seasonal and daily timing restrictions in undeveloped non-energy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as conditions of approval.

**15.4.3. NEL-3:** Include RDFs as conditions of approval to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.

**15.5. Mineral Split Estate**

**15.5.1. Mineral Split Estate (MSE)-1: BLM Owns Mineral Estate – non-federal surface owner:** ~~Where the federal government owns the mineral estate in PHMAs, IHMAs, and GHMAs, and the surface is in non-federal ownership, in coordination with surface owner, apply the same stipulations, COAs, and/or conservation measures, and RDFs design features consistent with those applied if the mineral estate is developed on to BLM- and Forest Service-administered lands in the management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.~~

**15.5.2. MSE-2: BLM owns surface – non-federal mineral estate owner:** ~~In coordination with Recommend to the state regulatory entity and mineral estate owner apply appropriate surface use that timing restrictions, COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities in PHMA, IHMA, and GHMA, and buffer restriction be applied around occupied leks, when concurring to the approval of authorizations for mineral related surface disturbance on lands with GRSG habitat.~~

**Commented [BER36]:** Ethan Ellsworth - Seems to me that if the BLM owns the surface land and must authorize any mineral extraction that the BLM can Require rather than Recommend GRSG stipulations.



## 16. Range Management/Livestock Grazing

- 16.1. Range Management (RM)-1: Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.
- 16.2. RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.
- 16.3. RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.
- 16.4. RM-4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat objectives including riparian and lentic areas (HM-Obj-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.
- 16.5. RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.
- 16.6. RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following consultation, cooperating and coordination with permittees and interested publics, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:
- 1) Season or timing of use;
  - 2) Numbers of livestock;
  - 3) Distribution of livestock use;
  - 4) Duration and/or level of use;
  - 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011);
  - 6) Voluntary measures such as temporary non-use; and
  - 7) Grazing schedules (including rest or deferment).
- 16.7. RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in sage-grouse habitat areas.
- 16.8. RM-8: PHMA, & IHMA & GHMA - When an allotment, or portion thereof, becomes vacant or grazing preference is relinquished, consider ~~voluntary~~ retirement

**Commented [BER37]:** Ethan Ellsworth - I've had discussions with Nika about adding a section titled "Guidelines for Establishing Allowable Use Levels if Not Meeting (or making progress toward) GRSG Objectives, similar to a section in the Nevada DEIS (Table 2.7 below). These guidelines would set triggers for livestock removal (e.g., upland utilization levels and stubble height). I understand that the state would not be amenable (among others), but I believe it is a valuable mechanism to hold livestock grazers accountable, so worth a discussion. I thought I'd put it out there... As it stands now, there are very few substantial differences between current management and the proposed plan (in regards to the grazing section).

Table 2-7  
Guidelines for Establishing Allowable Use Levels if Not Meeting (or Not Making Progress Toward) Greater Sage Grouse Objectives  
Community Type-Key Species Percent Utilization of Key Species Notes Terms and Conditions  
Mountain Big sage <45% herbaceous species;  
<35% shrub species . Holocheck 1998  
Mixed in with a lot of other species . Livestock removed in 3-5 days of reaching utilization level  
Wyoming and Basin Big sage . <35% herbaceous species;  
<35% shrub species . Livestock removed in 3-5 days of reaching utilization level  
Black sage . <35% herbaceous species;  
<35% shrub species Winter sheep forage Livestock removed in 3-5 days of reaching utilization level  
Riparian and wet meadows . As Applicable:  
<50% herbaceous species;  
<35% woody species or  
Average stubble height of at least four to six inches (4-6") (depending on site capability and potential) for herbaceous riparian vegetation. Monitoring would be conducted using accepted protocols (including but not limited to: Burton et al. 2011; USDI, BLM 1996; Platts 1990). Average stubble height 4-6" - Livestock removed in 3-5 days of reaching utilization level based on site. Or (sequential action)  
No grazing from May 15-Aug 30 in brood rearing habitat.

**Commented [BER38]:** Ethan Ellsworth - Consider adding an action concerning drought. For example, "Initiate emergency management measures during times of drought to protect sage-grouse PHMA and IHMA. Implement post-drought management to allow for vegetation recovery that meets sage-grouse life cycle needs."

**Commented [BER39]:** Ethan Ellsworth - I would add an 8th option - consider retiring grazing permits and making grazing unavailable.

**Commented [BER40]:** Ethan Ellsworth - Add a sentence describing what a forage reserve would look like. Is it an area with no grazing?

- of the allotment ~~or grazing preference, or portion thereof, or grazing preference in whole or in part,~~ or converting the area to a forage reserve (a.k.a. reserve common allotment)/buffer when doing so would maintain or enhance sage-grouse habitat ~~as described in subsequent site specific NEPA analysis.~~ GHMA ~~When an allotment becomes vacant or grazing preference is relinquished, consider converting it to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere, when such actions would result in a net benefit to GRSG habitat and other priority resources.~~
- 16.9. RM-9: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.
- 16.10. RM-10: Evaluate the locations where salt/supplements are placed. In coordination with the permittee, have salt/supplements placed in areas which would reduce impacts to GRSG habitat (e.g., existing disturbed areas).
- 16.11. RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service-administered lands in the spring. Work with permittees in locating over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.
- 16.12. RM-12: Design any new structural range improvements, following cooperation, consultation and coordination with permittees, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements are subject to RDFs (Appendix A). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.
- 16.13. RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.
- 16.14. RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following cooperation, consultation and coordination with permittees to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).

**17. Wild Horses and Burros**

- 17.1. Wild Horse and Burro (WHB)-1: Develop or amend BLM Herd Management Area Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs) and Forest Service Wild Horse Territories.
- 17.2. WHB-2: When evaluating AML on HMAs within PHMA and IHMA, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.
- 17.3. WHB-3: Utilize interdisciplinary land health assessments in HMAs containing GRSG habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.
- 17.4. WHB-4: PHMA: Do not expand HMAs. IHMA: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts on GRSG habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of PHMA and IHMA.
- 17.5. WHB-5: Prioritize gathers and population growth suppression techniques in HMAs within Priority and Important Habitat Management Areas, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Additional prioritization would be given for HMAs that are near AML or where a reduction would serve the most beneficial purpose.

## 18. Travel Management

- 18.1. **Travel Management (TM) -1:** Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.
- An off-highway vehicle is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) Any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) Vehicles in official use where official use is use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0 5).

- 18.2. **TM-2:** Temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).

Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.

- 18.3. **TM-3:** Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (Appendix K).

- 18.4. **TM-4:** During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize harassment of wildlife or significant disruption of wildlife habitats. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, and creation of new routes to help protect

**Commented [BER41]:** Ethan Ellsworth - Perhaps specify the types of trails where motorized travel would be allowed (e.g., established OHV routes).

**Commented [BER42]:** Ethan Ellsworth - In the sentence beginning "Allow for..." add timing restrictions, or seasonal closure to the list of actions.

habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within Priority Habitat Management Areas would be placed on having a neutral or positive effect on GRSG habitat. Individual route designations would occur during subsequent travel management planning efforts.

- 18.5.** TM-5: Conduct road maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

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**19. Recreation**

- 19.1. REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.
- 19.2. REC-2: Do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within PHMAs and IHMAs unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities as in TM-4, or unless the development is required for visitor safety or resource protection.

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**20. Monitoring**

- 20.1. Monitoring (MON)-1: Once FIAT Assessments are complete a Annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.
- 20.2. MON-2: Annually monitor the effectiveness of fuels treatment projects.
- 20.3. MON-3: Monitor invasive vegetation post vegetation management treatment
- 20.4. MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.
- 20.5. MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.
- 20.6. MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in Appendix F.
- 20.7. MON-7: Monitor GRSG habitat as described in the monitoring framework plan (Appendix E) in coordination with IDFG and MT FWP.

Commented [BER43]: Ethan Ellsworth - What about adding a bullet (20.8) for RHE monitoring?

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## Appendices

- Appendix A – Required Design Features
- Appendix B – Seasonal Timing Restrictions
- Appendix C – Application of Buffers
- Appendix D – Wildfire and Invasive Species Assessments/FIAT Team
- Appendix E – Monitoring Framework Plan
- Appendix F – Idaho Key Habitat Map Update Process
- Appendix G – Idaho Anthropogenic Disturbance and Adaptive Management
- Appendix H – Montana Anthropogenic Disturbance [and Adaptive Management Process](#)
- Appendix I – Mitigation
- Appendix J – Lands No Longer Available for Disposal
- Appendix K – Travel Management Planning Guidelines
- Appendix L – Functioning of Boards

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Commented [BER45]: Pat is working on Montana section.



## Idaho and Southwestern Montana Recommendation for Proposed Plan Amendment

### 1. Summary Description of the Proposed Plan (Plan)

The Proposed Plan represents a management strategy to address Greater Sage-grouse, their habitat and associated threats within the Idaho and Southwestern Montana Subregion. The Plan has been developed through a coordinated partnership of BLM, Forest Service, the States of Idaho and Montana and the US FWS.

The Plan incorporates appropriate conservation measures to conserve, enhance, and restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Plan is also consistent with the objectives described in the USFWS Conservation Objectives Team Report (USFWS 2013) to: ‘Conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future...’ through ‘Maintaining viable, connected, and well-distributed populations and habitats across [the range of GRSG], through threat amelioration, conservation of key habitats, and restoration activities’.

To achieve these objectives the Plan includes a combination of: Goals and Objectives including vegetation/habitat management objectives to be applied during project development and implementation (Table 3); land allocation decisions (Table 1); delineation of five Conservation Areas (Map 1) to support evaluation of the adaptive management strategy and 3% anthropogenic disturbance cap; delineation of Priority, Important and General Habitat Management Areas (Map 2) with associated program management direction; a mitigation framework and strategy; development of Wildfire and Invasive Species Assessments; and associated monitoring to support these decisions.

Commented [BER1]: Anne Halford – There is a dearth of information on where spatially what other non-federal entities are doing or have done to move toward meeting vegetation objectives.

**Table 1. Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary<sup>1</sup>**

<b>Solar/Wind/Nuclear/Hydropower – Map 3</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
BLM: Exclusion (LR-2) FS: Exclusion	BLM: Avoidance (LR-2) FS: Exclusion	BLM: Open (LR-2) FS: Avoidance
<b>Commercial Service Airports – Map 4</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
<b>Landfills – Map 4</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
<b>Utility Corridors – Map 5</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain “open” (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as Priority (LR-7)	Same as Priority (LR-7)
<b>Rights-of-Way and Land Use Authorizations/Permits – Map 6</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>

**Commented [BER2]:** Ethan Ellsworth - 1. Table 1. The selected land-use decisions for General Habitat are inconsistent with the stated goal of conserving GRSG habitat. In particular, the decision to leave General Habitat “Open” to solar, wind, nuclear, hydropower, commercial service airports, landfills, and ROW has potential to degrade GRSG habitat. The decision to leave general habitat open to these uses is problematic because a significant amount of general habitat contains GRSG active leks and other important seasonal habitats. Moreover, general habitat is not considered in the Adaptive Management approach to anthropogenic disturbance. Thus, there is very little protection afforded from disturbance impacts within general habitat, which could have negative impacts on local GRSG populations that use these areas for breeding or other seasonal habitat. My recommendation is to either include all habitat that includes active leks as Important or Priority (I realize, it’s not going to happen) or increase General habitat protections to the same level as Important habitat.

<sup>1</sup> The Idaho and Southwestern Montana Subregion includes portions of Idaho, Montana and Utah. Where differences exist between direction for Idaho and Montana or between BLM and Forest Service, those are noted in the table and within the management action section. The lands within Utah are part of the Sawtooth National Forest and are managed as such; therefore direction for these lands in Utah is the same as that described for the Sawtooth National Forest in Idaho.

**\*\* ADMINISTRATIVE DRAFT PROPOSED PLAN**

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Avoidance (LR-1)	Avoidance (LR-1)	BLM: Open (LR-1) FS: Avoidance
<b>Land Tenure Adjustments – Map 7</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Retention with exceptions for exchange; available for exchange with no net loss of GRSG Key habitat within Priority and Important. Not available for disposal. (LR-13)	Same as Priority (LR-13)	Available for exchange subject to existing land use plan conformance (No Action)
<b>Fluid Mineral Resource Allocation (Includes Geothermal) – Maps 8 &amp; 9</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Idaho: Open subject to No Surface Occupancy with a limited exception.  Montana: Open subject to No Surface Occupancy with a limited exception. (FLM-1)	Idaho: Open subject to No Surface Occupancy with a limited exception. Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to Controlled Surface Use and Timing Limitations (FLM-1)
<b>Locatable Minerals – Map 10</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.
<b>Non-Energy Leasables – Map 11</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Known Phosphate Leasing Areas (KPLAs) are Open subject to standard leasing stipulations. Closed to leasing outside KPLAs (NEL-1)	KPLAs are Open subject to standard leasing stipulations. Areas outside KPLAs are Open subject to standard and greater sage-grouse stipulations (required design features, seasonal timing restrictions). (NEL-1)	Open to leasing with standard and greater sage-grouse stipulations (required design features and seasonal timing restrictions) (NEL-1)
<b>Mineral Materials (Salable Minerals) – Map 12</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>

**Commented [BER3]:** Elena Shaw - Under the decision summary for Land Tenure Adjustments in General Habitat, there is no mention of other disposal actions (land sale or R&PP. Should this be included in the sentence, e.g. – “Available for exchange...but not sale....”

**Commented [BER4]:** Ethan Ellsworth - 2. Table 1. Regarding Fluid Mineral Resource Allocation, there should be a foot-note to explain what it means that Priority Habitat in Idaho is open subject to NSO with a limited exception (similar to Montana).

**Commented [BER5]:** Montana and Idaho are the same. Priority and Important are the same as priority.

**\*\* ADMINISTRATIVE DRAFT PROPOSED PLAN**

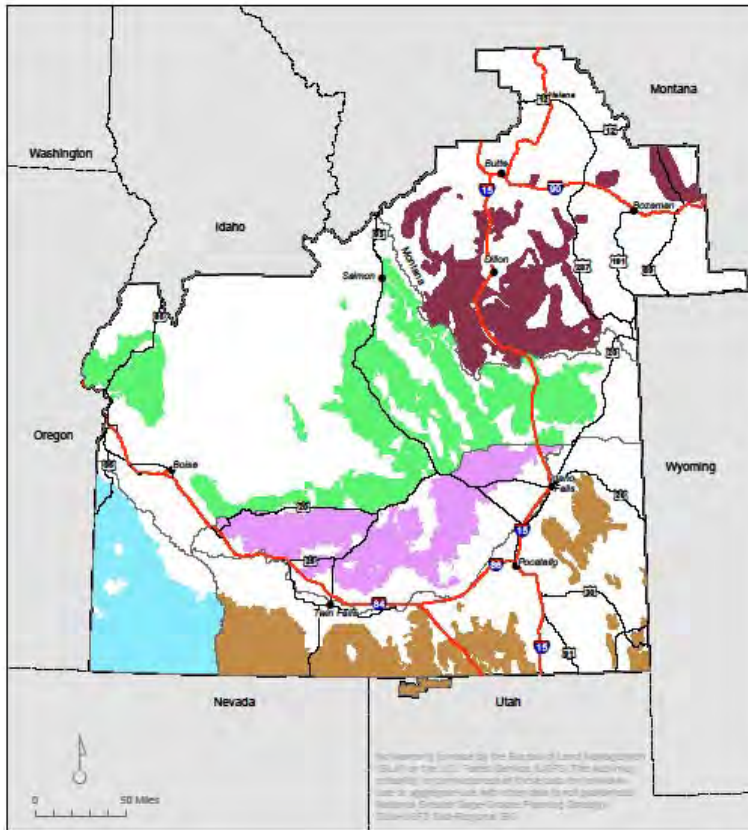
September 29,  
2014 November 5, 2014

Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to criteria. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
<b>Travel Management – Map 13</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
BLM <u>Idaho</u> : Limited to Existing (TM-1) <u>BLM Montana: Limited to Designated</u> FS: Limited to Designated	BLM: Limited to Existing (TM-1) FS: Limited to Designated	BLM: Limited to Existing (TM-1) <u>BLM Montana: Limited to Designated</u> FS: Limited to Designated

**Commented [BER6]:** Include appropriate management action in Travel Management Section.

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Map 1. Conservation Areas within Idaho and Southwestern Montana Subregion



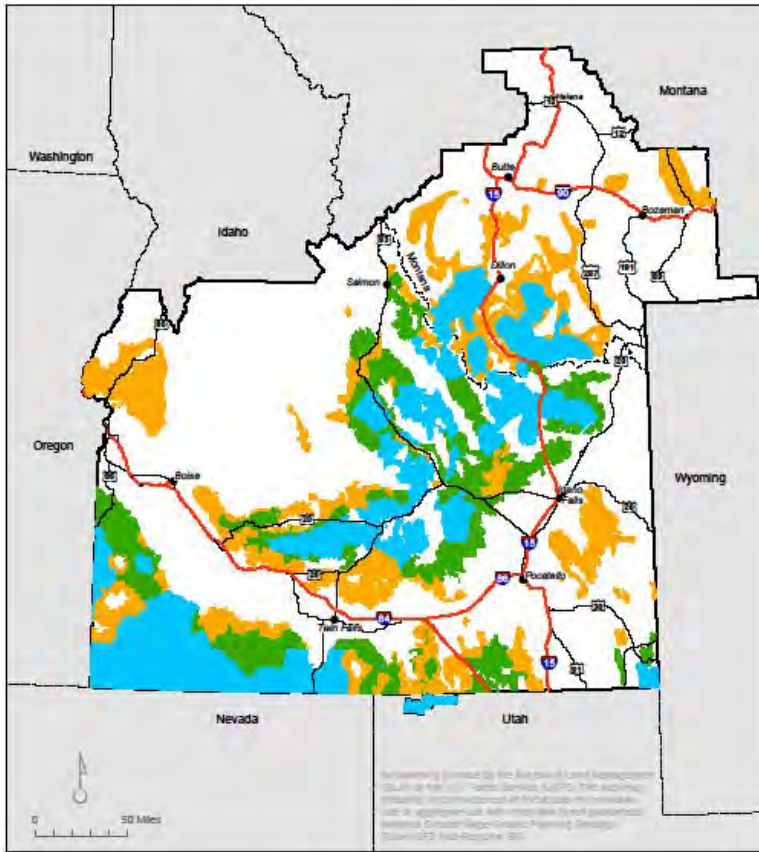
- |   |                            |
|---|----------------------------|
| <b>Conservation Area with Management Zone</b> | Conservation Area Boundary |
| Idaho Desert Conservation Area                | Analysis Boundary          |
| Idaho Mountain Valleys Conservation Area      |                            |
| Idaho Southern Conservation Area              |                            |
| Idaho West Owyhee Conservation Area           |                            |
| SW Montana Conservation Area                  |                            |

Commented [BER7]: Paul Makela - Update all maps with the recent updates to Upper Snake.

Commented [BER8]: Mike Kuyper - 1) . The maps require some changes: they all have "core habitat" which I believe is now "priority habitat"

Map 2. Management Areas within Idaho and Southwestern Montana Subregion

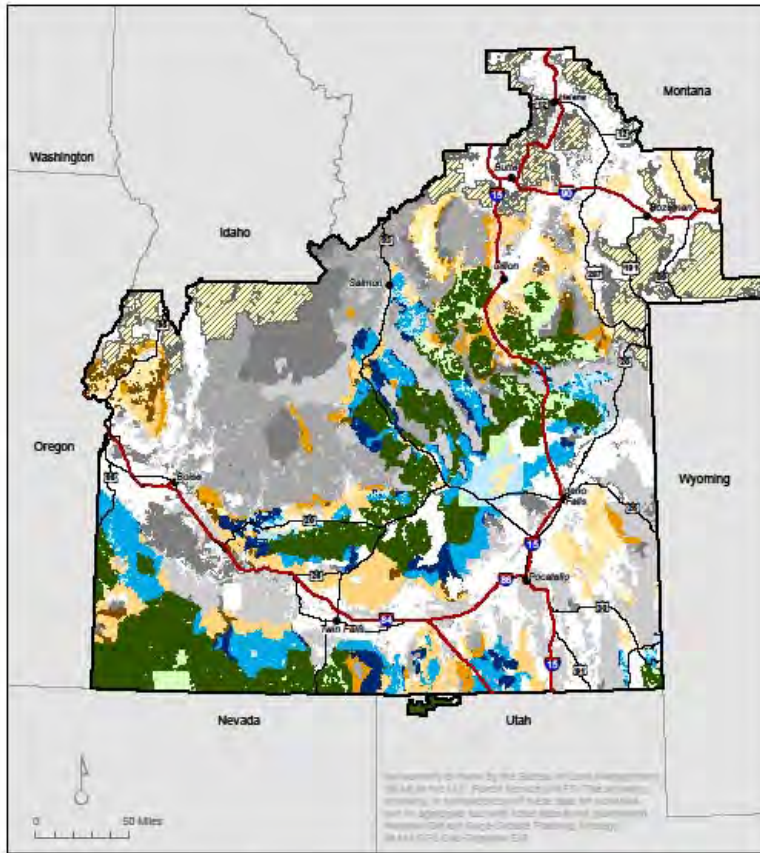
Commented [BER9]: Todd Kuck - Map 2 stills lists one management zone as "Core" where I think this should be identified as "Priority"



<b>Map 3. Wind and Solar Development Allocations</b>
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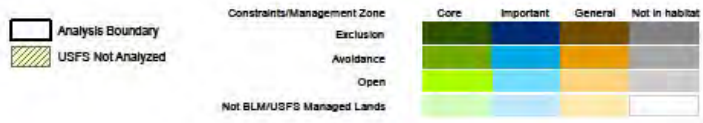
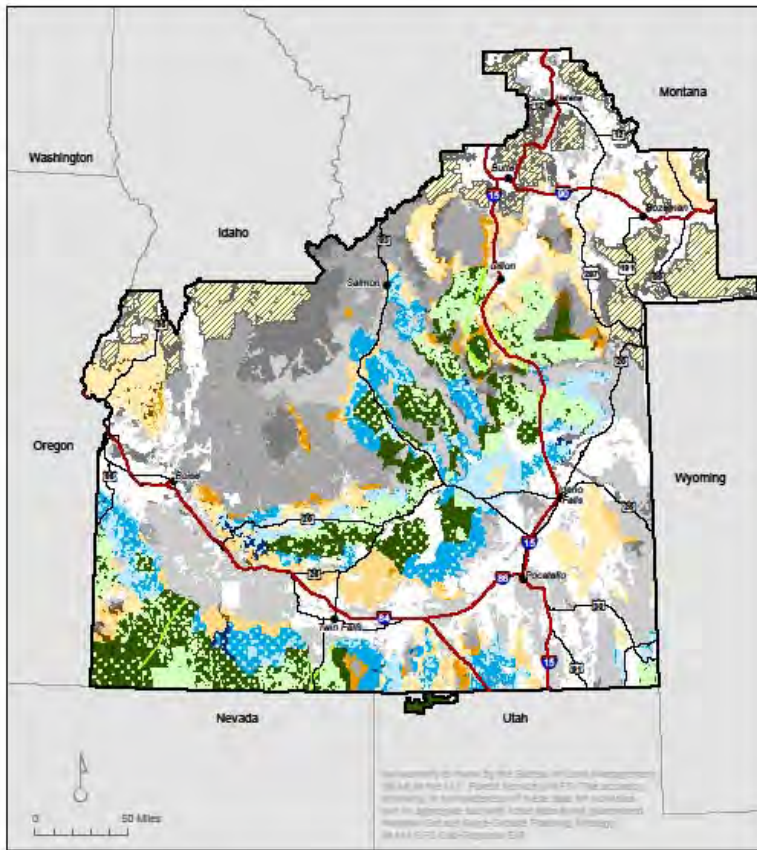
**Alternative G: Wind and Solar Constraints**





**Map 4. Commercial Service Airport and Landfill Development Allocations**

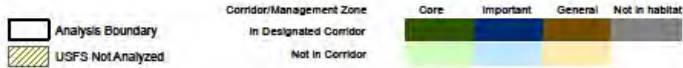
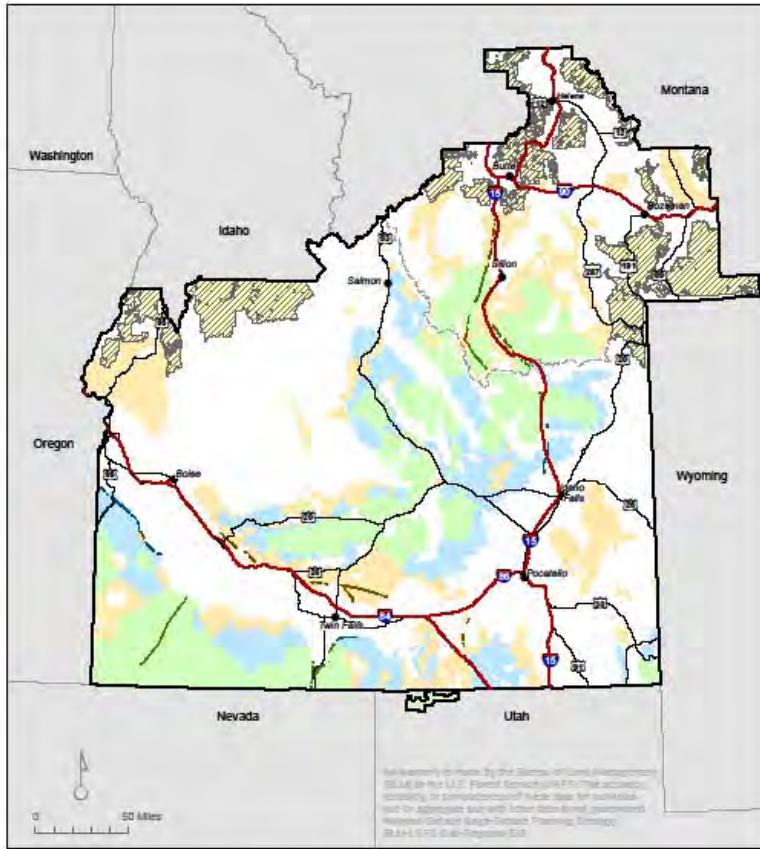
**Alternative G: Commercial Service Airports and Landfills Constraints**



Map 5. Utility Corridor Designations
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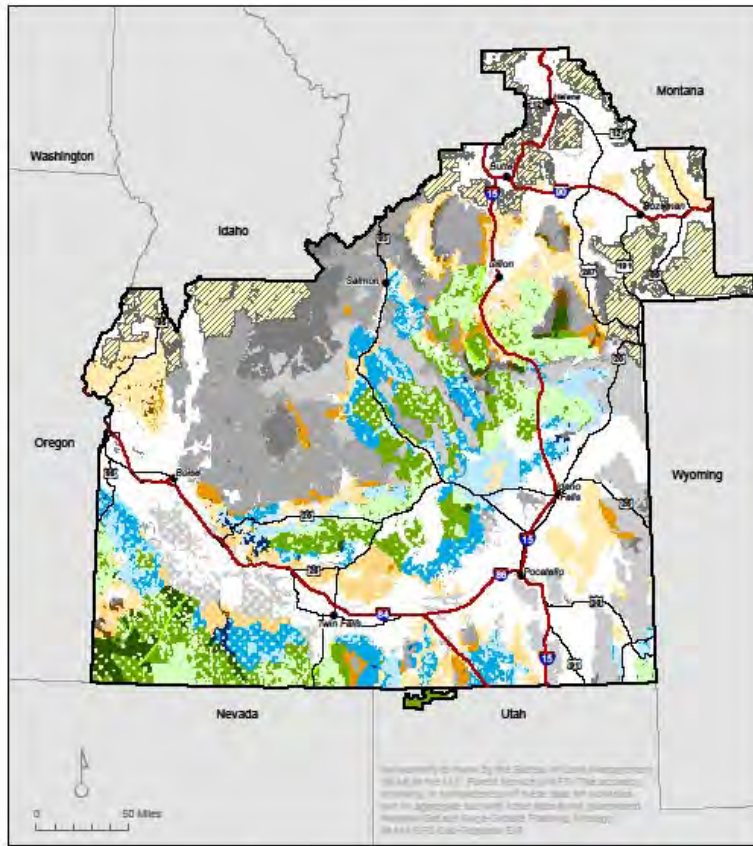
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### Alternative G: Designated ROW Corridors



Map 6. Right-of-Way Development Allocations

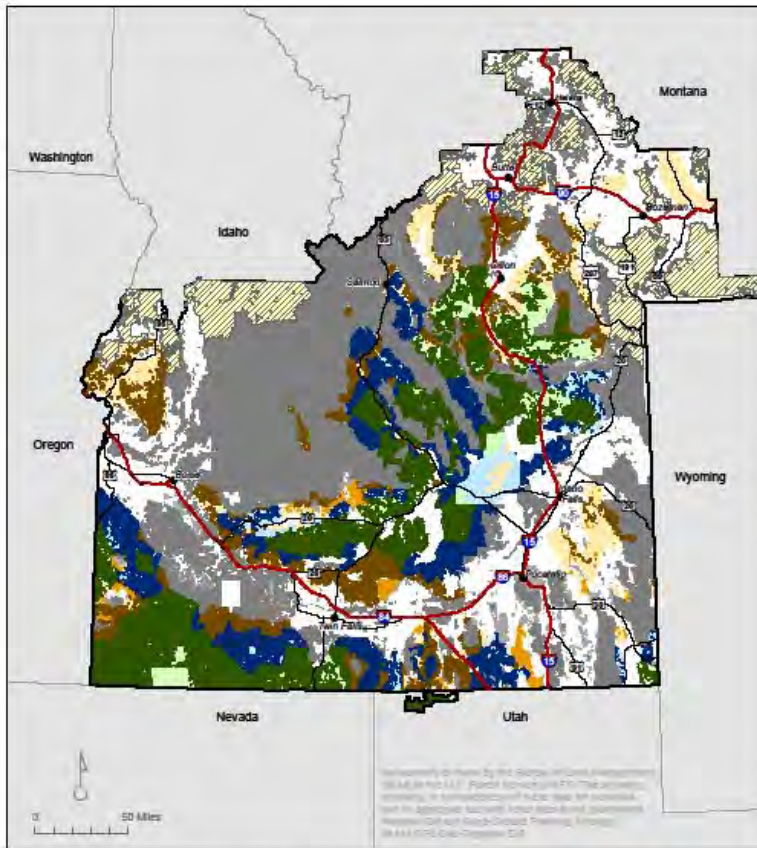
Alternative G: Major and Minor ROW Constraints



Commented [BER10]: Elena Shaw - All the legends still refer to Priority as Core. Also the Map on page 6 uses blue for Core and green for Important while all other maps have the colors reversed (green for Core and blue for Important).

**Map 7. Land Tenure Designations**

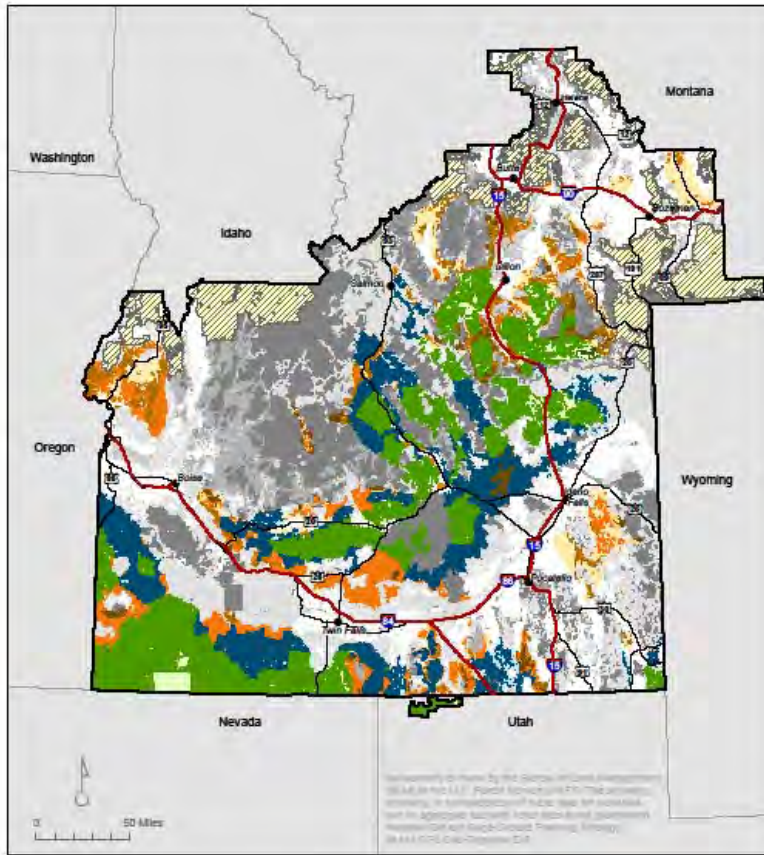
**Alternative G: Land Tenure Adjustments**



**Map 8. Fluid Mineral Resource Allocations – Oil and Gas**

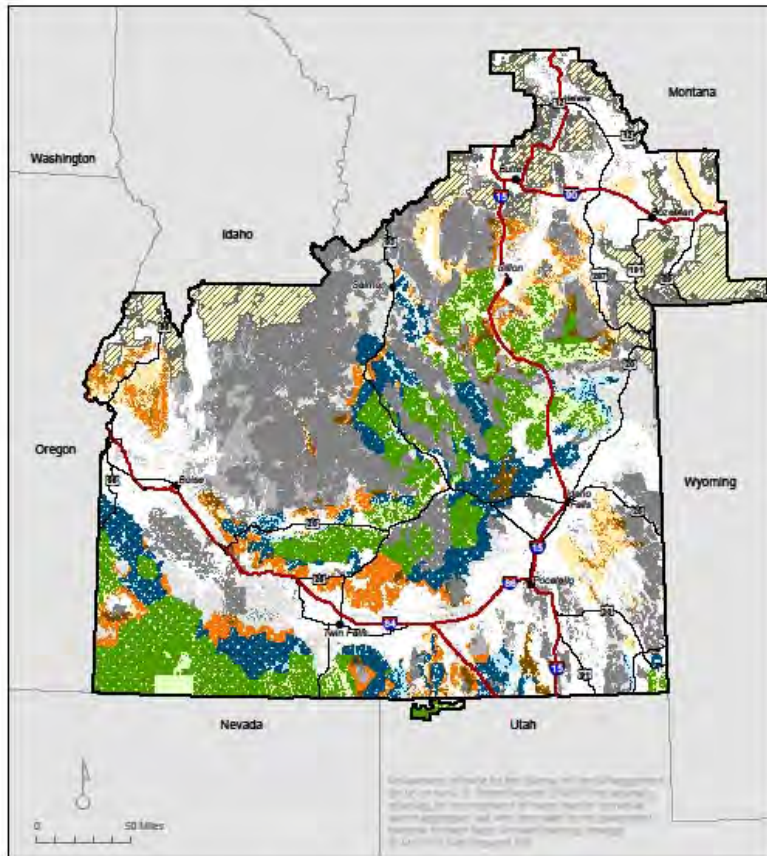
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Alternative G: Oil and Gas Constraints



**Map 9. Fluid Mineral Resource Allocations - Geothermal**

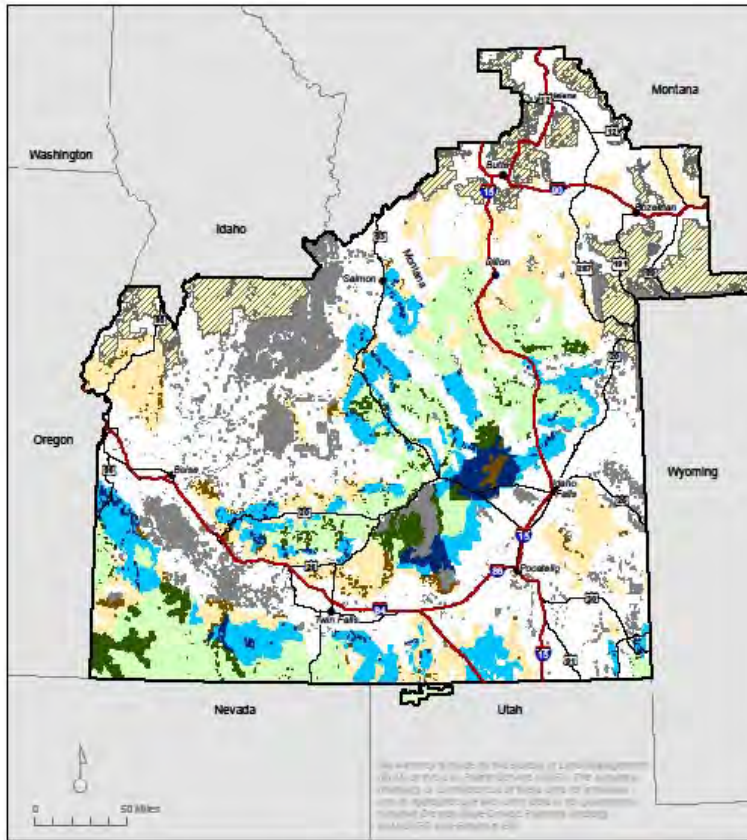
**Alternative G: Geothermal Constraints**





Map 10. Locatable Minerals Withdrawals

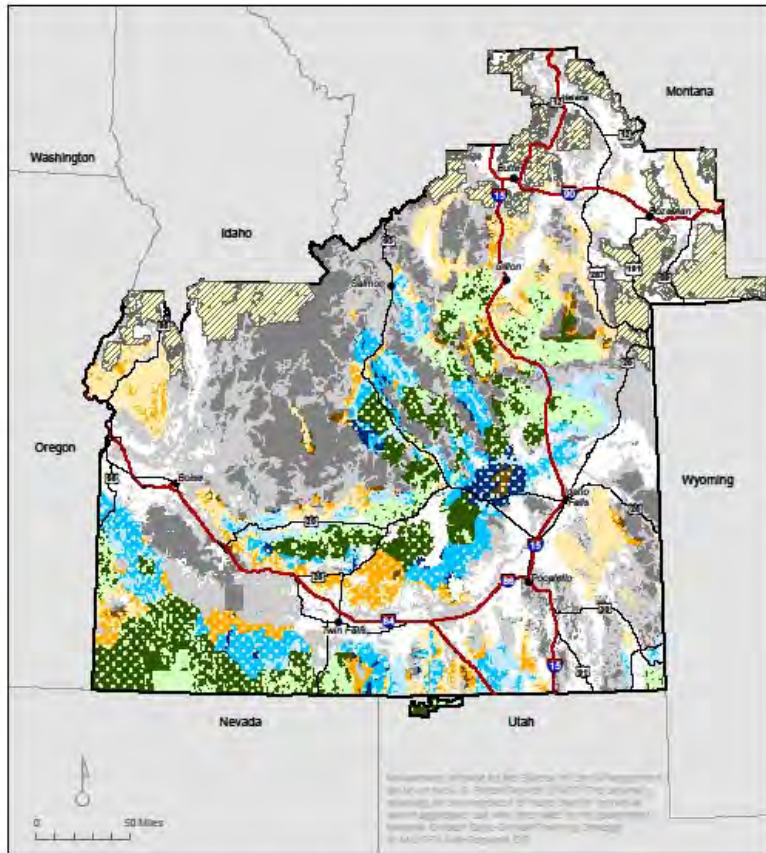
Alternative G: Areas Withdrawn from Locatable Mineral Entry



Map 11. Non-Energy Leasable Resource Allocations
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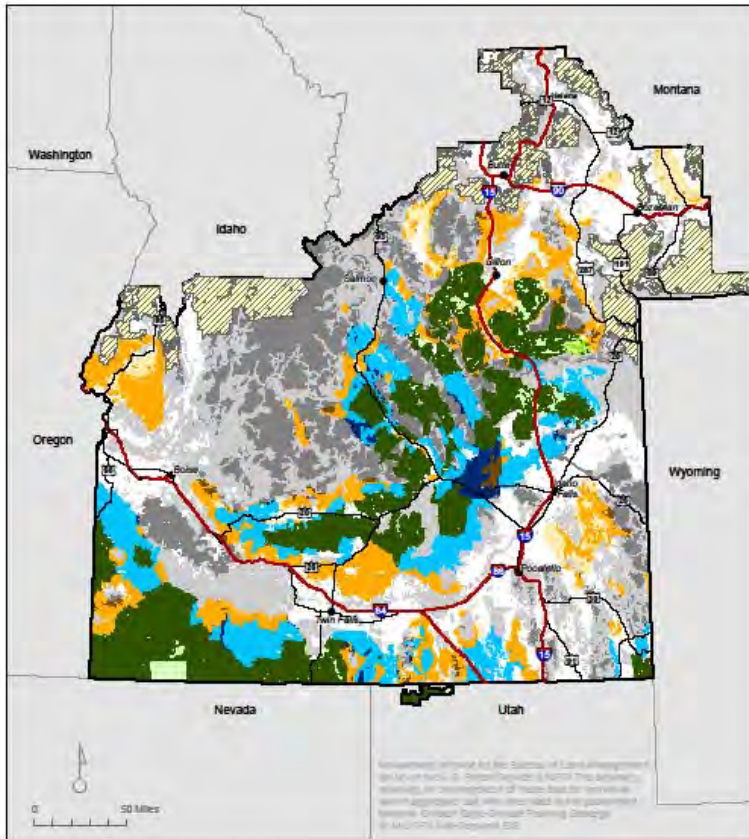
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### Alternative G: Phosphate Constraints



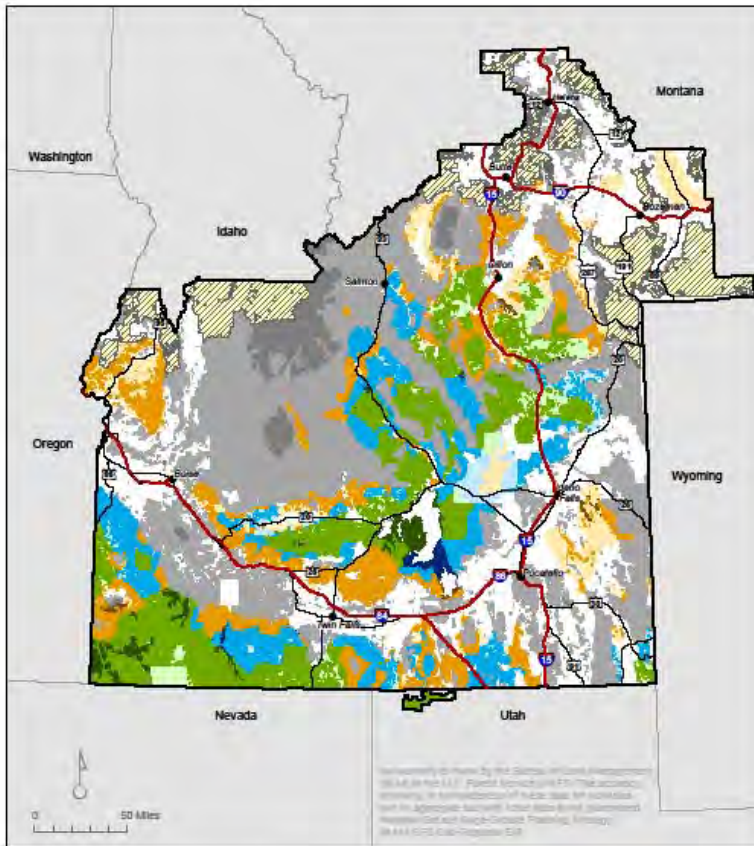
Map 12. Minerals Materials Allocations

Alternative G: Mineral Material Constraints



**Map 13. Travel Management Allocations**

**Alternative G: Travel Management**



Analysis Boundary  
 USFS Not Analyzed

Designation/Management Zone

Closed to Travel  
 Limited Travel  
 Open to Travel

Not BLM/USFS Managed Lands

Core	Important	General	Not in habitat
Dark Green	Blue	Orange	Grey
Light Green	Light Blue	Light Orange	Light Grey

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## 2. Goals and Objectives

- 2.1. GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
- 2.2. GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies' direction for multiple use and sustained yield as described in FLPMA and the NFMA.
- 2.3. GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.
- 2.4. GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and USFS management actions.
- 2.5. Management Area (MA) - Objective (OBJ)-1: Maintain a resilient population of GRSG in Idaho and Southwestern Montana.
- 2.6. MA-OBJ-2: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.
- 2.7. MA-OBJ-3: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.
- 2.8. Vegetation (VEG)-OBJ-1: Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.
- 2.9. VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:
  - a. Increasing canopy cover and average patch size of sagebrush in perennial grasslands.
  - b. Increasing the amount, condition and connectivity of seasonal habitats.
  - c. Protecting or improving GRSG migration/movement corridors.
  - d. Reducing conifer encroachment within GRSG seasonal habitats.
  - e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
  - f. Reducing the extent of annual grasslands within and adjacent to Priority and Important Habitat Management Areas.Decadal treatment objectives by population area are identified in Table 2.
- 2.10. Habitat Management (HM)-OBJ-1: Maintain or make progress toward at least 70% of lands within PHMAs and IHMAs capable of producing sagebrush at 10-30% canopy cover and conifers absent to uncommon within 1.86 miles of occupied leks.
- 2.11. HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 3) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species; unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:  
A specific objective is not applicable to the site-specific conditions of the project or activity;

**Commented [BER11]:** Paul Makela - Why limit to Per Grasslands? Shouldn't this apply anywhere within the three mgt areas or within Conservation Areas?

**Commented [BER12]:** Bart Zwetzig - Incorporating GRSG Seasonal Habitat Objectives into the design of most projects is going to take resources to accomplish. Monitoring for these Objectives could be significant base on work load and type of projects. Those projects that remove vegetation or move soil could require all 5 types of sage-grouse habitat assessments done to be able to say if the GRSG Seasonal Habitat Objectives are being met or not.

**Commented [BER13]:** Paul Makela - Item 2.11 needs to be broken into several sentences. Hard to read.

**Commented [BER14]:** Objectives or desired conditions? In relation to the HAF.

An alternative objective is determined to provide equal or better protection for GRSG or its habitat (based on appropriate scientific findings); or Analysis concludes that following a specific objective would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

- 2.12. FUEL-OBJ-1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.
- 2.13. WHB-OBJ-1: Manage wild horse and burro population levels within the established AML ranges to maintain or enhance GRSG habitat.

**Table 2. Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives<sup>2</sup>**

Population Area	Mechanical Conifer Treatment	Mechanical Sage	Prescribed Fire	Annual Grass Treatment
Bear Lake Plateau		1000		
East Idaho Uplands	6000		9000	1000
S Central Idaho/N Snake River and Mountain Valleys	4000	14000	11000	162000
Weiser				13000
SW Idaho	48000	4000	10000	444000
SW Montana	50	50	1200	

**Table 3. Seasonal Habitat Desired Conditions for Greater Sage-Grouse**

ATTRIBUTE	INDICATOR	DESIRED CONDITON
<b>BREEDING HABITAT (LEK AND NESTING/EARLY BROOD REARING)</b>		
Lek Security	Proximity of trees <sup>7,13</sup>	Trees (i.e., in Idaho mainly juniper, conifers, and does not include old growth juniper, pinyon pine and mountain mahogany; in

<sup>2</sup> These acreage figures represent an objective for treatment over a ten-year (decadal) timeframe to support achievement or progress toward vegetation and habitat objectives. This accounts for variations in yearly funding availability and does not reflect a maximum acreage for treatment should funding and site specific conditions allow for more or less treatment than described in order to meet vegetation and habitat objectives.

**Commented [BER15]:** Ethan Ellsworth - 3. Table 2. I am not convinced that there is appropriate justification for mechanical sage treatment or prescribed fire at the levels proposed, particularly in the S Central Idaho and Mt valley population. Moreover, this table will certainly raise some eyebrows, given that the impacts of livestock grazing are only superficially addressed in this plan. Perhaps we should think about a more subtle way to couch this table...

**Commented [BER16]:** Anne Halford – This table outlines proactive treatments but another table should be developed that addresses on-going actions that may or may not contribute to attainment of key vegetation objectives. For instance yearly ES&R and fuels treatments may or may not use appropriate tools and plant species that meet vegetation objectives specific to GRSG habitat. Since these treatments often are imposed at landscape level it is critical that strategies to significantly increase the efficacy of ES&R and fuel treatment are discussed/analyzed. For instance depending on where the treatment sites are on the resistance/resilience continuum as well as site disturbance legacy – stabilization treatments that emphasize the use of competitive non-native species often inhibits sagebrush seeding success as does not using the correct sagebrush seed provenance and subspecies. The use of passive restoration (Pyke) is important as well and is particularly applicable if fires occur within the high end of the RR continuum. These are sites where extant native vegetation often persists and can recover post-fire which should be leveraged via appropriate post-fire management of livestock grazing, versus heavy handed landscape manipulations or treatments that could compromise the recovery of extant native vegetation.

**Commented [BER17]:** Elena Shaw - Will the acres shown in the table be the same as the FIAT assessment? Will they change once the FIAT is done?

**Commented [BER18]:** Double check management actions for prescribed fire in high elevation areas. Footnote direction regarding use of fire in Wyoming sagebrush.

**Commented [BER19]:** Paul Makela - This 4000 ac decadal figure seems low considering the amount of juniper in SC Idaho in Burley FO and Twin Falls RD of Sawtooth.

**Commented [BER20]:** Check with Rob and Kelly on numbers for Montana.

**Commented [BER21]:** Ethan Ellsworth - 4. Table 2. I recommend adding, changing or addressing the following – see me to discuss/references

- a. Nesting:
  - i. Annual grass cover (%) < 5
  - ii. Remove the sagebrush height maximum. Weak evidence that sagebrush height is a major habitat attribute, and may be in conflict with objectives for winter habitat in cases where nesting and winter habitat overlap.
  - iii. Perennial grass height < 7 inches
  - iv. Conifer encroachment (%) < 5
  - v. Consider increasing sagebrush canopy cover from a max of 25% to account for variation in GRSG populations. Perhaps relate to ecological site. Some recent studies in Nevada indicate that ... [1]

**Commented [BER22]:** How are these implemented – if not met what happens?

**Commented [BER23]:** Elena Shaw - Is there a distinction between perennial grass cover and perennial grass canopy cover (nesting vs. late brood rearing), if so might want to footnote the difference for the casual reader or use same terminology.



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		Montana mainly Douglas-fir) absent or uncommon on shrub/grassland ecological sites within 1.86 miles (3 km) of occupied leks.
	Proximity of sagebrush to leks <sup>13</sup>	Adjacent protective sagebrush cover within 328 ft (100 m) of an occupied lek
<b>NESTING/EARLY BROOD REARING<sup>5,10,12,13,14</sup></b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).
	Sagebrush canopy cover <sup>2,8,9,11</sup>	15-25%
	Sagebrush height <sup>8</sup>	
	Arid sites <sup>3</sup>	12-31 inches (30-80cm)
	Mesic sites <sup>4</sup>	16-31 inches (40-80cm)
	Predominant sagebrush shape <sup>13</sup>	Predominantly spreading shape <sup>5</sup>
	Perennial grass cover <sup>2,8,13</sup>	
	Arid sites <sup>3</sup>	≥10%
Mesic sites <sup>4</sup>	≥15%	
Perennial grass height <sup>8,9,11,13</sup>	<u>Adequate nest cover</u>	
Perennial forb cover <sup>2,8</sup>		
Arid sites <sup>3</sup>	≥5%	
Mesic sites <sup>4</sup>	≥10%	
Perennial forb availability <sup>13</sup>	Preferred forbs are common with several species present <sup>6</sup>	
<b>LATE BROOD-REARING/SUMMER<sup>1,15</sup> (July-October)<sup>1</sup> (Apply to all habitat outside of nesting/breeding and winter late brood-rearing areas, such as riparian, meadows, springs, higher elevation mesic uplands, etc. may occur within other mapped seasonal habitat areas. Apply late brood rearing/summer habitat desired conditions locally as appropriate.)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to ecological site potential, etc.)
	Sagebrush canopy cover <sup>2,8</sup>	10-25%
	Sagebrush height <sup>8</sup>	16 to 32 inches (40-80cm)
	Perennial grass canopy cover <sup>2,8</sup>	>15%
	Upland and riparian perennial forb availability <sup>2,13</sup>	Preferred forbs are common with several preferred species present <sup>6</sup> .
	Riparian meadow habitat condition	Proper Functioning Condition <sup>13</sup>
<b>WINTER<sup>1</sup> November-March<sup>1</sup> (Apply to areas of known or likely winter-use)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).
	Sagebrush canopy cover above snow <sup>2,8,13</sup>	>10%
	Sagebrush height above snow <sup>8</sup>	>10 inches (>25cm)
<b>NOTES AND REFERENCES</b>		
<sup>1</sup> Seasonal dates can be adjusted by local unit according to geographic region.		
<sup>2</sup> Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is		

**Commented [BER24]:** Mike Kuyper - 2) One of the reasons for completing this EIS is to ensure "regulatory certainty". On page 20 in Table 3, the term "Adequate nest cover" is used. How does using such terms (adequate) promote "regulatory certainty"?

**Commented [BER25]:** Jim Klott - The example - "e.g., sagebrush, preferred forbs" implies that only sagebrush and preferred forbs determine suitability while it is actually determined by considering all the attributes in the table. Might be clearer to state "Because the shrub canopy can overlay grasses, forbs, or biological crusts actual cover can exceed 100%."

reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to other species present. Manage areas not currently within a mapped seasonal habitat based on case-by case, site specific analysis arising from habitat assessments, telemetry, research or site specific NEPA.

<sup>3</sup> Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>4</sup> Mesic corresponds to the  $\geq 12$  inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>5</sup> Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.

<sup>6</sup> Preferred forbs are listed in Stiver et al. *In press*. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

<sup>7</sup> Baruch-Mordol, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving sage-grouse from trees.

<sup>8</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.

<sup>9</sup> Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.

<sup>10</sup> Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.

<sup>11</sup> Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. *Wildlife Biology* 13 (Supplement 1):42-50.

<sup>12</sup> Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107:742-752.

<sup>13</sup> Stiver, S. J., E. T. Rinke, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference XXXX-X. U.S. Bureau of Land Management, Denver, Colorado.

<sup>14</sup> Connelly, J.W., A. Moser, and D. Kemner. 2013. Greater Sage-Grouse breeding habitats: Landscape-based comparisons. *Grouse News* 45. Research Reports.

<sup>15</sup> Some late brood habitat occurs at higher elevations outside of mapped nesting habitat and some is embedded within nesting landscapes especially areas such as wet meadows, riparian areas, springs and seeps.

**Commented [BER26]:** Jim Klott - The citation for Baruch-Morod, et al. is incomplete; it does not say where it can be found (e.g. journal, conference proceedings, etc.)

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### 3. Coordination

- 3.1. CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non-governmental organizations.
- 3.2. CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, FS and ~~State of Idaho Task Team~~. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's ~~forthcoming~~ sage-grouse conservation strategy.
- 3.3. ~~CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.~~
- 3.4. CC-4: The BLM and Forest Service would coordinate with the State of Idaho and Montana and the Idaho Sage-Grouse Implementation Task Force and Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and livestock grazing (Appendix O).
- 3.5. CC-5: Upon completion of the Record of Decision the BLM will develop an initial Implementation Guide for BLM District and Field Offices within a year of issuance of the Record of Decision. This Guide would ~~to~~ define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan and would be updated and expanded as needed to respond to issues and concerns.
- 3.6. CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate regional recommendations for GRSG conservation at broader scales.
- 3.7. CC-7: At the state level, BLM and Forest Service would coordinate with the appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.
- 3.8. CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

Commented [BER27]: Use specific title and citation.

Commented [BER28]: Need to clarify what is strictly Idaho. Applies to XX and does not apply t

Commented [BER29]: Break into Montana and Idaho pieces. In support of the MOU in CC-2. Dillon will draft MT portion of Appendix O.

#### 4. Greater Sage-Grouse Management Areas

- 4.1. Management Area (MA)-1: Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in Map 1. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, and includes habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan Karas Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry’s Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon and Butte BLM Field Office boundaries. (the Butte RMP is not being amended and since there are limited GRSG federal General Habitat Management Areas management actions do not apply in the Butte Field Office).

Additionally, sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to topography, elevational and land use differences.

- 4.2. MA-2: Within each Conservation Area (CA) designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (Map 2). Priority Habitat Management Areas (PHMAs) focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. The PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. Priority Habitat

**Commented [BER30]:** Bart Zwetzig - Mountain and Valleys Conservation Area seems lacking in its description. A descriptor sentence stating that the valleys up to and including Challis and Salmon would help with describing the northern extent of this area.

**Commented [BER31]:** Include a description in the introduction (Chapter 1) why Butte is not being amended.

**Commented [BER32]:** Jim Klott - Recommend describing what is meant by “land use differences”. For example, is it different land uses on public lands versus private lands?

**Commented [BER33]:** Ethan Ellsworth - Portions of this section are not clear to me. For example it is stated that “PHMAs focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations that have the highest likelihood of long-term persistence...” To strengthen the discussion, the following questions should be addressed:

- a. Which are the two key meta-populations?
- b. What evidence is there that any sage-grouse in Idaho exist in a meta-population?
- c. What evidence is there that these particular “interconnected breeding subpopulations” have the highest likelihood of persistence?

Management Areas include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Habitat Management Areas (IHMA)s** contain additional high value habitat and populations that provide a management buffer for the PHMA and to connect patches of PHMA. The IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some CAs includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). The IHMA's are typically adjacent to PHMA's but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. There are no IHMA's designated within the Southwestern Montana CA. **General Habitat Management Areas (GHMA)s** encompass habitat that is outside of PHMA's or IHMA's. It is generally characterized by more marginal habitat and few, if any, occupied leks or other important seasonal use areas.

- 4.3. MA-3: Delineate PHMA and IHMA to encompass 90% of the breeding males in Idaho.
- 4.4. MA-4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.
- 4.5. MA-5: Prioritize activities and mitigation to protect, enhance and restore GRSG habitats (i.e. fire suppression activities, fuels management activities, vegetation treatments, invasive species treatments, etc.) first by Conservation Area, if appropriate (CA under adaptive management or at risk of engaging adaptive management), followed by Priority Habitat Management Areas, then Important Habitat Management Areas then General Habitat Management Areas within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in Appendix D. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat. Priority restoration and mitigation areas are restoration areas identified on the Key Habitat map (R1, R2, R3 and Recent Burn) within nesting and wintering areas in Priority and Important Habitat Management Areas.
- 4.6. MA-6: The management area map and biologically significant unit baseline map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust Priority, Important or General Habitat Management Areas or the habitat baseline. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map. Results from the Wildfire and Invasive Species Assessments, such as identified focal or emphasis areas would also be used to help inform mapping adjustments during this evaluation.
- 4.7. MA-7: The functionality and capability of GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management area designations (Priority, Important, General) and appropriate annual updates to the Key Habitat map would occur. Areas without the potential and capability to provide GRSG habitat would be identified, areas with the potential to provide GRSG habitat

**Commented [BER34]:** Ethan Ellsworth - It is stated that "General Habitat ... is characterized by more marginal habitat and few, if any occupied leks or other important seasonal use areas." This should be restated to reflect the biological parameters that were used to define general habitat. For example, rather than saying that general habitat has "few if any occupied leks" (by the way the "if any" part is misleading because we know that several leks do exist in general habitat) we could say something to the effect that "General Habitat is characterized by habitat that 1) is dominated by invasive species, 2) has incurred substantial and frequent fire, 3) has low levels of documented sage-grouse use, and 4) has few active leks (although "few" is pretty subjective). In addition, if PHMA and IMHA encompass 90% of the breeding males, then another part of the definition could be that general habitat encompasses only 10% of breeding males

**Commented [BER35]:** Remapping for Idaho. May need to include an action for remapping in Montana.

**Commented [BER36]:** Ethan Ellsworth - Add "late brood-rearing" areas to the last sentence in the paragraph describing Priority restoration and mitigation areas.

**Commented [BER37]:** Ethan Ellsworth - The last sentence is a bit confusing and open-ended. Does this mean that adjustments could occur only after a plan amendment? Is the plan re-evaluation process well-defined?

**Commented [BER38]:** Define terms – what does these mean – do we all know and have the same understanding?

- would be appropriately classified on the Key Habitat map. Project proposals and their effects would be evaluated based on the habitat and values affected.
- 4.8. MA-87: Idaho BLM will annually update the Key Habitat map as described in Appendix F, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies indicate that sage-grouse are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, sage-grouse Local Working Groups (LWG), or agency partners in sage-grouse conservation.
- 4.9. MA-98: Areas of habitat outside of delineated management areas identified during the Key habitat update process would be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix A), seasonal timing restrictions (Appendix B) and buffers (Appendix C) would be included as part of project design. These areas would be further evaluated during plan evaluation and the 5-year update to the management areas, to determine whether they should be included as Priority, Important or General Habitat Management Areas.

## 5. Adaptive Management

- 5.1. Adaptive Management (AM)-1: Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.
- 5.2. AM-2: Utilize monitoring information collected through the Monitoring Framework Plan (Appendix E) to determine when adaptive regulatory triggers have been met.
- 5.3. AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the FS and Idaho Department of Fish and Game (IDFG), using the process described in Appendix F.
- 5.4. AM-4: BLM and Forest Service would utilize population information collected and maintained by the Idaho Department of Fish and Game to track and identify population changes to assess the population trigger in the adaptive management approach.
- 5.5. AM-5: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management triggers/criteria have been met.
- 5.6. AM-6: Adaptive regulatory triggers would be individually calculated across all ownerships within the biologically significant units (BSU). The BSU is defined as the Idaho Department of Fish and Game modeled nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area. The sagebrush component of the BSU is represented by the key habitat within the BSU.
- 5.7. AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:
- A 20 percent loss of Key Habitat within the biologically significant unit (BSU) (Appendix G) of the PHMA of a CA when compared to the 2011 baseline (the BSU is defined as the nesting and wintering habitat within a Priority and Important Habitat Management Areas (separately) within a Conservation Area, inclusive of all ownerships); or
  - A 20 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.8. AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:
- A 10 percent loss of Key Habitat within the BSU of the PHMA of a CA when compared to the 2011 baseline; or
  - A 10 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.9. AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:
- A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within PHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline; or
  - A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within IHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline. Significance for the finite rate of change is defined by the 90% confidence interval around the current 3-year average of finite rate of change to evaluate whether the finite

**Commented [BER39]:** Paul Makela - What about MT and UT portions?

**Commented [BER40]:** Bart Zwetzig - Will population information be codified through state office and disseminated out to field offices? Is the Field Office of State Office responsible for assessing if population triggers have been met? Who will review applicable monitoring information twice a year? Who's is responsible for calculating adaptive regulatory triggers? Recommend appointing a sage-grouse czar to do these duties on a regional level.

**Commented [BER41]:** Jim Klott - "Why is the scale different (i.e. Biological Significant Unit vs Conservation Area) when monitoring acres of habitat vs. population monitoring? If there is a substantial (20%) reduction of sage-grouse population in a biological significant unit, this may be a sign of a somewhat localized problem and should be address or at least monitored. Hitting the trigger in a Biological Significant Unit(s) could represent a loss of connection between other units. The time to take action would be before the entire population in the conservation area declines significantly."

**Commented [BER42]:** Ethan Ellsworth - Seems the BSU should include brood-rearing habitat where it does not overlap nesting and winter.

**Commented [BER43]:** Ethan Ellsworth - As far as I can tell, the hard adaptive management trigger for a BSU is based independently on 20% in PMHA and 20% in IMHA. Instead, the triggers should be calculated based on a cumulative 20% for the CA overall. Otherwise a CA could reach an overall disturbance of up to 38% without a trigger being tripped.

**Commented [BER44]:** Mike Kuyper - 3) I was able to discover the following terms used to describe sage-grouse habitat.

- Biological Significant Units (BSU)
- Core habitat
- Priority habitat management area
- Important habitat management area (IHMA)
- Key habitat
- General habitat management area
- Conservation Area (CA)
- Priority Area for Conservation

On page 26, four of these descriptions of habitat were used in 1 sentence "A 20 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline. I do not know about "regulatory certainty", but it certainly is confusing. Could the number of different sage-grouse habitats be reduced in the document?"

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rate of change is significantly less than 1.0. If the 90% confidence interval is less than and does not include 1.0, then the finite rate of change is significantly less than 1.0. The finite rate of change and variance will be calculated following Garton et al. (2011).

- 5.10. AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:
- A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within PHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011; or
  - A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within IHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011.
- 5.11. AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities Appendix G.
- 5.12. AM-12: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met then PHMA management actions would be applied to the IHMA within that CA.
- 5.13. AM-13: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in Appendix G.
- 5.14. AM-14: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of baseline values within the associated CA.
- 5.15. Montana Adaptive Management:

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Commented [BER45]: Ethan Ellsworth - There should be some language to explain that the adaptive management response should not be removed based solely on adjustment to the baseline values (key habitat acreage) within the CA. In other words, if a 5 year review reduces the amount of key habitat within a CA that has reached the threshold for the trigger, the trigger should not be removed.

Commented [BER46]: John and Kelly to write up and send ☺



6. Anthropogenic Disturbance

- 6.1. Anthropogenic Disturbance (AD)-1: Limit anthropogenic disturbance to 3 percent as calculated within the biologically significant unit (BSU) (Map 3). The BSU is defined as the currently mapped nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area, inclusive of all ownerships for evaluation. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes activities described in Table X. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (powerlines, pipelines and roads). For Montana this disturbance is measured utilizing the Disturbance Density Calculation Tool process described in Appendix H.
- 6.2. AD-2: New anthropogenic disturbances within Priority or Important Habitat Management Areas within a CA where the disturbance cap is already exceeded from any source or where the proposed development would result in the cap being exceeded would not be allowed until enough habitat has been restored to maintain the area under this cap (subject to valid existing rights).
- 6.3. AD-3: Priority Habitat Management Area: Anthropogenic Disturbance Exception Criteria. In order to avoid surface-disturbing activities in Priority Habitat Management Areas, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of Priority Habitat Management Areas. When authorizing development in Priority Habitat Management Areas, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. In addition to the Priority and Important Habitat Management Area Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the project screening and assessment process:
  - a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations would not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments would be substantially the same as the existing development);
  - b. The development with associated mitigation would not result in a net loss of GRSG Key habitat and mitigation would provide a net conservation benefit to the respective Priority Habitat Management Area;
  - c. The project and associated impacts would not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA (the project would be outside Key habitat in areas not meeting desired habitat conditions or the project would provide a benefit to habitat areas that are functioning in a limited way as habitat);
  - d. Cannot be reasonably accomplished outside of the Priority Habitat Management Area; or can be either: 1) developed pursuant to a valid existing authorization; 2) is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade) ; or 3) is co-located within the footprint of existing infrastructure (i.e. powerlines) (proposed actions would not increase the 2011

**Commented [BER47]:** Anne Halford – Not including anthropogenic disturbances such as livestock grazing especially in post-fire landscapes as well as ES&R and fuel treatments is a red flag – these activities comprise a significant amount of historic and current vegetation manipulations and depending on what kinds of post fire or treatment management occurs, the type of rehab equipment used, seed mixes as well as the spatial location of treatments along the site disturbance continuum all effects where and how well vegetation objectives are met.

**Commented [BER48]:** Ethan Ellsworth - Once again, evaluate whether BSU should include brood-rearing habitat.

**Commented [BER49]:** Elena Shaw - How will development/disturbance be monitored on private land? Should we explain how this will be accomplished so the public is aware and is not surprised later?

**Commented [BER50]:** Jim Klott - Map 3 shows Wind and Solar Development Allocations not BSUs. Map 1 shows the Conservation Areas but not BSUs. Maybe add BSUs to this map or provide a separate map? Also, it is well known anthropogenic impacts may extend well beyond the "direct foot print" of a project (see research on changes to sage-grouse habitat use in areas with gas/oil development in Wyoming), how are these impacts addressed?

**Commented [BER51]:** Elena Shaw - Recommend clarifying that no new disturbance would be allowed in the CA (rather than in the specific habitat management area or the BSU) if the disturbance cap has been met anywhere in the CA.

**Commented [BER52]:** Jim Klott - Because sage-grouse populations are somewhat cyclic, 3 years may not be a long enough time span. It would be better to compare the populations at peaks or troughs in the long term data.

- e. authorized footprint and associated impacts more than fifty percent (50%), depending on industry practice.
  - e. Development could be implemented adhering to the required design features (RDF) described in Appendix A;
  - f. The project would not exceed the disturbance cap (AD-1).
  - g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.
- 6.4.** AD-4: Priority and Important Habitat Management Areas: Anthropogenic Disturbance Development Criteria – the following criteria must be met in the screening and assessment process:
- a. The project cannot reasonably be achieved, technically or economically, outside of this management area; and
  - b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co-location within the footprint for existing infrastructure, to the extent practicable; and
  - c. The project does not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA; and
  - d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and
  - e. The project complies with the applicable RDFs as described in Appendix A.
  - f. The project would not exceed the disturbance cap (AD-1).
- 6.5.** AD-5: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as:
- Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.
- Electrical Lines – Installation of new rights-of-way (ROWs) adjacent to current ROWs boundaries, not necessarily placed on the same power poles.
- Other Rights-of-Way – The installation of new rights-of-way (ROWs) within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary.
- Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.
- 6.6.** AD-6: Incorporate required design features (RDFs) as described in Appendix A in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be

**Commented [BER53]:** Elean Shaw - How do these two criteria differ? If no difference should if only be mentioned in section 6.4.e.?

- demonstrated and documented in the NEPA analysis associated with the specific project:
- A specific RDF is not applicable to the site-specific conditions of the project or activity;
  - A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or
  - Analysis concludes that following a specific RDF would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.
- 6.7. AD-7: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix B.
- 6.8. AD-8: Required Design Features and seasonal habitat restrictions would not be required for emergency or short-term activities necessary to protect and preserve human life or property.
- 6.9. AD-9: Incorporate appropriate buffers into implementation and project design to avoid and minimize impacts to GRSG described in Appendix C.
- 6.9-6.10. AD-10: Incorporate appropriate conservation measures for slickspot peppergrass (*Lepidium papilliferum*) as described in the 2014 Conservation Agreement (as updated, amended or reauthorized) into implementation and project design within slickspot peppergrass habitat in the Jarbidge and Four Rivers Field Offices to avoid and minimize impacts to slickspot peppergrass. The 2014 Conservation Agreement is included as Appendix ??.

Table X. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>
Oil and Gas Wells and Development Facilities
Coal Mines
Wind Towers
Solar Fields
Geothermal Development Facilities
Mining (Active Locatable, Leasable and Saleable Developments)
Roads
Railroads
Powerlines
Communication Towers
Other Vertical Structures
Additional Local Datasets (need definitions)
Underground Pipelines
Coal Bed Methane Ponds
Meteorological Towers (e.g., wind energy testing)

Commented [BER54]: Paul Makela - NOC has been working on white paper?

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

Nuclear Energy Facilities
Airports
Military Ranges ( <u>G</u> round based facilities.?)
Hydropower plants
Recreation Areas ( <u>F</u> acilities and <u>i</u> nfrastructure <u>D</u> eveloped)

DRAFT

## 7. Mitigation

~~7.1.~~ Mitigation (MIT)-1: BLM and USFS would establish an inter-agency WAFWA Management Zone GRSG Conservation TeamBoard at the state level (both Idaho and Montana) to help guide conservation of oversee GRSG, within 90 days of the issuance of the Record of Decision. ~~Conservation.~~

**Commented [BER55]:** Compensatory – these actions are appropriate for compensatory mitigation but not avoid and minimize

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~~7.2-7.1.~~ MIT-2: The BLM and USFS, in coordination with the GRSG Conservation TeamBoard would develop a State Mitigation Strategy within one year of the issuance of the Record of Decision. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (Appendix I).

~~7.3-7.2.~~ MIT-3: Mitigate impacts from anthropogenic developments (Appendix G Table G-1) to GRSG habitats to a net conservation benefit (~~benefits more birds~~) by first avoidance of impacts, minimizing impacts and then compensating for impacts. A net conservation benefit to GRSG would be achieved by implementing restoration conservation actions, applying a no net unmitigated loss standard for authorized uses in all GRSG habitat with PHMA, IHMA and GHMA; and strategically siting compensatory mitigation actions, consistent with the WAFWA Management Zone Regional Mitigation Strategy as part of a mitigation program in order to achieve cumulative benefits (as outlined in Appendix I).

~~7.4-7.3.~~ MIT-4: Mitigate anthropogenic development (Appendix G Table G-1) impacts to a no net loss of Key habitat standard (Appendix I) through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I), referred to as no unmitigated loss. No net unmitigated loss means that impacts from implementation level actions would fully offset to benefit the species. This would be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.

**Commented [BER56]:** Jim Klott - How is the "no net loss" determined? If habitat is restored it may take 20 years before the restoration provides functional habitat. This would not mitigate the immediate loss of "key" habitat due to a project. In some cases, loss of high elevation habitat cannot be mitigated by restoration of low elevation habitat.

**Commented [BER57]:** Paul Makela - I still do not see how we get to no net loss of key habitat (= sage cover at least 10%) if mitigation takes 20 +years to take hold. Maybe this no-net loss standard should apply over the long term, over the subregion, recognizing there will be a need for short term losses locally? Or maybe it is a goal but not a standard?

~~7.5-7.4.~~ MIT-5: Mitigate anthropogenic development (Appendix G Table G-1) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I).

~~7.5.~~ MIT-6: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in Table 3.

~~7.6.~~

**Commented [BER58]:** Include within PHMA, etc.

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## 8. Wildfire Preparedness/Prevention

- 8.1. Wildfire Preparedness (WFP)-1: Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.
- 8.2. WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).
- 8.3. WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in Appendix D, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.
- 8.4. WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.
- 8.5. WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.
- 8.6. WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.
- 8.7. WFP-7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the Priority or Important Habitat Management Areas. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.
- 8.8. WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.
- 8.9. WFP-9: Implement activities identified within the FIAT Assessments.

Commented [BER59]: Paul Makela - Does this need a due date?

## 9. Wildfire Suppression

- 9.1. WFS-1: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within Appendix D and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of ~~focal and emphasis priority habitats/areas~~/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify ~~focal and emphasis priority habitats/areas~~ and describe strategies for fuels management, suppression and restoration activities. Focal and Emphasis Habitats identified through the FIAT Assessment to further refine priority areas for treatments to reduce the threats posed by wildfire, invasive annual grass and conifer expansion.
- 9.2. WFS-2: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within Priority and Important Habitat Management Areas or on those fires that have the potential to impact Priority and Important Habitat Management Areas. Incorporate findings into Unit Initial Attack program
- 9.3. WFS-3: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.
- 9.4. WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.
- 9.5. WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in General Habitat Management Areas when suppression resources are available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.
- 9.6. WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.
- 9.7. WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.

## 10. Fuels Management

- 10.1. FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.
- 10.2. FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.
- 10.3. FM-3: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into Priority Habitat Management Areas or WUI.
- 10.4. FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in Appendix D.
- 10.5. FM-5: When developing the fuels management strategy as part of the FIAT Assessment described in Appendix D consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.
- 10.6. FM-6: Fuel treatments will be designed though an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.
- 10.7. FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).
- ~~10.8.~~10.7.1. FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings), rocky areas or other appropriate topography or features or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.

**Commented [BER60]:** Jim Klott - Recommend addressing the use of non-palatable species such as Secar bluebunch wheatgrass. Secar has been planted throughout the District and although it looks nice nothing really eats it leaving 2 or more years of dead vegetation in the plants increasing fuel loads.

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- ~~40-9-10.8.~~ FM-9: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments..
- ~~40-10-10.9.~~ FM-10: Protect seeding efforts from subsequent fire events.
- ~~40-11-10.10.~~ FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of ~~unwanted~~ wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.
- ~~40-12-10.11.~~ FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:
- Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
  - Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
  - Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations
- ~~40-13-10.12.~~ FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.
- ~~40-14-10.13.~~ FM-14: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.

**Commented [BER61]:** Jim Klott - Recommend specifying what seedings will be protected (e.g. seedings, future seedings, sagebrush seedings, native or non-native seedings).

**Commented [BER62]:** Jim Klott - The last sentence under 10.11 says that targeted grazing would be done separate from existing grazing authorizations and permits while the third bullet under 10.12 appears to allow for targeted grazing within the confines of the grazing permit.

**Commented [BER63]:** Ethan Ellsworth - I strongly suggest adding a line stating that targeted grazing should only be conducted in habitat dominated by invasive annual grasses. The long-term impact of intensive grazing on native grasses is counter to GRSG objectives.

**Commented [BER64]:** Paul Makela - Change "allow" to "Ensure"? This is something we have to conform with. Allow is kind of ambiguous.

**11. Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation**

- 11.1. ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in Appendix D to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (FS) actions after fire.
- 11.2. ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.
- 11.3. ESR-3: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species. New seedings should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ES&R objectives.
- 11.4. ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.

**Commented [BER65]:** Elena Shaw - Recommend being clear about the type of new seeding being referred to in the action (e.g. does the two growing seasons rest include sagebrush aerial seedings/shrub plantings?).

**Commented [BER66]:** Paul Makela - Add something about long term management "Once seedings are established, ensure that livestock grazing management practices promote the long-term objectives for the seeding and relevant seasonal habitat."

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## 12. Habitat Restoration and Vegetation Management

- 12.1. VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.
- 12.2. VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to sage-grouse seasonal habitats.
- 12.3. VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.
- 12.4. VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.
- 12.5. VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.
- 12.6. VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of Priority or Important Habitat Management Areas to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.
- 12.7. VEG-7: During land health assessments, evaluate the relative value of existing nonnative seeding within GRSG habitat as: 1) a component of a grazing system allowing improvement of adjacent native vegetation, 2) development of a forage reserve, 3) incorporation into a fuel break system (Davies et al. 2011) or 4) restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits to GRSG habitat outweigh the other potential uses of the non-native seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation. During land health assessments evaluate the compatibility of existing nonnative seedings for GRSG habitat to

**Commented [BER67]:** Jim Klott - Several actions refer to "maintain, increase, or enhance habitat" for greater sage-grouse. In some cases (e.g. fuel breaks, prescribed fire) the action may reduce and/or fragment habitat. Would these actions also have a mitigation component to replace habitat that is altered? If not, how are these actions consistent with the "no net loss" strategy?

keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak (Davies et al. 2011) or during restoration development. If nonnative seedings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, evaluate the nonnative seedings in and adjacent to PHMA to determine if they should be diversified with or converted to native grasses, forbs, and shrubs, including sagebrush.

12.8. VEG-8: Utilize conifer (juniper) removal treatments to reduce the extent of conifer encroachment areas in sagebrush habitats. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDTT and FIAT assessments to help refine the location for specific priority areas to be treated. Refrain from using prescribed fire and conducting removal projects in old-growth juniper stands. Old-growth juniper trees are characterized by rounded tops and spreading canopies, often containing dead limbs and/or spike tops, large branches near the base of the tree, as well as furrowed, fibrous bark, and are typically host to arboreal lichens. Leader growth in the upper quarter of the tree is usually less than one inch. These trees are generally distributed on rock outcrop or rubble land soils, or other soils with coarse fragments in the soil-surface and/or slopes over 12-25%, where juniper vegetation type is the climax plant community (IDFG 2000; Miller et al 2005; USDI and USGS 2007).

12.9. VEG-9: Avoid using prescribed fire in Greater Sage-Grouse habitat unless evaluation of site-specific conditions demonstrate that there would be a net benefit for sage-grouse. If prescribed fire is used in Greater Sage-Grouse habitat, include an analysis in the NEPA document that indicates how Greater Sage-Grouse goals and objectives will be addressed and met by its use, why alternative techniques were not selected, and a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized.

- If prescribed fire is to be used at the implementation level, at a minimum, the burn plan will indicate how land use plan objectives would be addressed and met and why alternative techniques were not selected.
- Avoid prescribed fire as a vegetation or fuels treatment in Wyoming big sagebrush or other xeric sagebrush species, or in areas with a potential for post-fire exotic annual dominance. However, after other treatment opportunities have been explored and as site-specific variables allow, prescribed fire could be used in these areas to meet specific fuels objectives that would maintain, improve, or restore Greater Sage-Grouse habitat or vegetation (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods (such as chemical) to combat annual grasses and restore native plant communities).
- Allow no treatments in areas only providing known winter seasonal habitat range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and/or would protect, maintain, increase, or enhance winter range habitat quality.

**Commented [BER68]:** Paul Makale - I think this should read "If nonnative seedings in or near PHMA or IHMA do not contribute to a grazing system, are not suitable for a forage reserve and are not suitable fuelbreaks, evaluate the seedings to determine if they should be diversified with or converted to native grasses, forbs, and shrubs, including sagebrush. Allowing sagebrush to establish and expand should also be considered. (rationale is that we may not have \$\$ to fully restore but allowing sage to infill at least would add to extent of sagebrush).

**Commented [BER69]:** Paul Makela - unless steps are taken to retain the trees with old growth characteristics. (We can discuss, but what post settlement juniper has infilled around much of the "old growth" putting it at risk as well. What if we have landscape mechanical projects where we can improve GRSG habitat as well as OG juniper stands? As written, we would not be able to enter the OG stand.

**Commented [BER70]:** Paul Makela - What is this paper?

**Commented [BER71]:** Bart Zwertzig - The last bullet statement says to not allow any treatments in winter range. In the CFO winter range overlaps approximately 40 – 45% of the other seasonal habitat types. If this is limited to prescribed fire treatments only as stated in the opening sentence of 12.9, then there is no problem. If it applies to all treatments types, then it would greatly limit the areas in which sage-grouse habitat improvement treatments could be done. A limitation as to a percentage sagebrush removal within a treatment or per specific winter area would still provide for sage-grouse habitat improvement projects and for maintenance of winter habitats.

**Commented [BER72]:** Paul has new verbiage.

**Commented [BER73]:** Paul Makela - Change "and" to "and/or". My rationale is that we may want to do juniper control in or near winter range. As written, this would seem to be disallowed, or at least a hard-sell. Also, maybe this should say Discourage treatments in GRSG winter range...or Be cautious with...since "Allow no unless..." seems kind of ambiguous.

### 13. Invasive Species

- 13.1. Invasive Species (INV)-1: Incorporate results of the FIAT Assessments into projects and activities addressing invasive species.
- 13.2. INV-2: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.
- 13.3. INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.
- 13.4. INV-4: Require project proponent (projects described in Table X and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years.

**Commented [BER74]:** Elena Shaw - Shouldn't we require permit holders to treat weeds throughout the term of the permit, unless we are specifically addressing weed establishment caused by project construction. If that is the case need to add "as a result of project construction" to the sentence.

**Commented [BER75]:** Paul Makela - Change to "Require project proponent...to ensure that noxious weeds and invasive species established following initial project disturbance or construction are treated for at least 3 years and monitored and treated during the life of the project. (Rationale is proponent should have to take care of weeds beyond 3 years).

**14. Lands and Realty / Infrastructure**

- 14.1. Lands and Realty (LR)-1: Priority: Designate and manage Priority Habitat Management Areas as ROW avoidance areas, consistent with AD-3 and subject to RDFs, buffers and seasonal timing restrictions (Appendix A, B & C). Important: Designate and manage Important Habitat Management Areas as ROW avoidance areas, consistent with AD-4 and subject to RDFs, buffers and seasonal timing restrictions. General: Designate and manage General Habitat Management Areas as open with proposals subject to RDFs, buffers and seasonal timing restrictions.
- 14.2. LR-2: Priority: Designate and manage Priority Habitat Management Areas as exclusion areas for utility scale (20 MW) Wind and Solar testing and development, nuclear and hydropower energy development. Important: Designate and manage Important Habitat Management Areas as avoidance areas for Wind and Solar testing and development, nuclear and hydropower development. General: Designate and manage General Habitat Management Areas as open for Wind and Solar testing and development and nuclear and hydropower development subject to RDFs, buffers and seasonal timing restrictions.
- 14.3. LR-3: Priority: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.4. LR-4: Priority: Development of new or expansion of existing landfills would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.5. LR-5: Consistent with LR-2, LR-3 and LR-4, Rights-of-way for development of new or amended ROWs and land use authorizations in PHMA would only be considered when consistent with the Anthropogenic Disturbance Exception Criteria (AD-3); Rights-of-way for development of new or amended ROWs and land use authorizations in IHMA could be considered consistent with the Important Habitat Management Area Anthropogenic Disturbance Development Criteria. (AD-4). General: New ROW and land use authorizations could be considered.
- 14.6. LR-6: If the project is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade) - the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized.
- 14.7. LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open (subject to the ongoing settlement agreement).
- 14.8. LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Areas within which it is located and the RDFs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and rehabilitating the habitat.

**Commented [BER76]:** Jim Klott - A term and condition of the ROW should be eradication of noxious weeds and invasive species within the project ROW. If the ROW is not renewed, the applicant should restore the ROW and associated maintenance roads. Project inspection/maintenance crews should ensure vehicles are free of invasive or noxious weed seeds in all habitat mgmt. areas.

**Commented [BER77]:** Elean Shaw - Should we add that energy corridors will remain open in all habitat management areas?

- 14.9. LR-9: Land use authorizations that are temporary (less than 3 years) in nature and are not otherwise excluded or restricted would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.
- 14.10. LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be allowed on a case-by-case bases subject to RDFs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.
- 14.11. LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).
- 14.12. LR-12: As opportunities and priorities indicate work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix A.
- 14.12.1. LR-13: Lands within Priority, Important or General Habitat Management Areas for Greater Sage-Grouse will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation benefit to the Greater Sage-Grouse or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse. Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:
- Lands within Priority, Important and General Habitat Management Areas would not be available for disposal through sale (Appendix J).
  - Acquire habitat within Priority and Important Habitat Management Areas, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if a land exchange would allow for additional or more contiguous federal ownership patterns.
  - Lands within Priority, Important and General Habitat Management Areas would be retained unless exchange of those lands would increase the extent or provide for connectivity of Priority or Important Habitat Management Areas.
  - Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of Priority Habitat Management Areas. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within Priority Habitat Management Areas currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the Priority and Important Habitat Management Areas (i.e., areas with fragmented or less in-tact sagebrush).

**Commented [BER78]:** Todd Kuck - talks about retaining lands within all management areas unless the disposal of lands will provide a benefit to sage grouse, or there would be no direct or indirect adverse impacts, etc. And section (a.) say no lands in these areas would be available for disposal through sale. My comment on this is I think some flexibility to the manager would be useful, specifically why not allow land sales, especially in general habitat, if the goal of not having any adverse impacts can still be met? For example, a sale of a small parcel that is low quality sagebrush habitat could occur if other mitigation results in overall benefits to sage grouse, such as habitat restoration on other parcels of higher quality sagebrush habitat or improving connectivity, etc.

**Commented [BER79]:** Elena Shaw - In Table 1 under Priority and Important habitat mgmt. areas it states that lands are not available for disposal. Under this action it says that they are available if certain criteria are met, but that they are not available for disposal through sale. Suggest changing Table 1 to say disposal through sale is not allowed. What about disposal through R&PP?

e. Identify lands for acquisition that increase the extent of or provide for connectivity of Priority Habitat Management Areas.

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## 15. Minerals

### 15.1. Fluid Minerals

- 15.1.1. Fluid Minerals (FLM)-1: Idaho and Montana: Areas within Priority Habitat Management Areas and Important Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to no surface occupancy with a limited exception (FLM-3). General Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations. ~~Montana: Areas within Priority Habitat Management Areas would be open to leasing subject to no surface occupancy. No waivers, exceptions or modifications would be allowed unless approved by the State Director. General Habitat Management Areas would be open to leasing subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.~~
- 15.1.2. FLM-2: ~~FLM-7~~: Parcels nominated for lease in Priority or Important Habitat Management Areas would be evaluated prior to lease offering to determine if development is feasible when buffers and seasonal timing restrictions are applied. Parcels that could not be developed when these buffers and restrictions are applied would not be offered for lease, which do not meet the criteria would not be offered for lease.
- 15.1.3. FLM-3: Priority and Important Habitat Management Areas: A lease waiver, exception or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-greater sage-grouse habitat, the area is not used by Greater sage-grouse, or it would not have direct, indirect or cumulative effects to Greater sage-grouse or its habitat. The determination would be made by a team of interagency Greater sage-grouse experts, including an expert from the state wildlife agency, USFWS and the BLM. Waivers, by regulation, require a 30-day public review (43 CFR ????.??). All exceptions must be approved by the State Director. In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

#### **Waivers, Exceptions and Modifications (WEMs)** (Source IM-2008-032)

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers, by regulation, require a 30-day public review if the authorized officer has determined, prior to lease issuance, that a stipulation involves an issue of major concern to the public (43 CFR 3101.4) ~~Waivers require a 30-day public review~~ and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the lease to which the restrictive criteria are applied.

15.1.4. FLM-4: Incorporate required design features and best management practices appropriate to the management area as conditions of approval when post leasing activity is proposed into any post-lease authorizations.

15.1.5. FLM-5: Prior to leasing conduct a Master Leasing Plan process when all four of the following criteria are met:

· A substantial portion of the area to be analyzed in the MLP is not currently leased.

· There is a majority Federal mineral interest.

· The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.

· Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are:

o multiple-use or natural/cultural resource conflicts;

o impacts to air quality;

o impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness area, as determined after consultation or coordination with the NPS, the FWS, or the FS; or

15.1.4. o impacts on other specially designated areas. – analyzing likely development scenarios and varying mitigation levels.

15.1.5-15.1.6. FLM-5: Complete a Master Development Plan, consistent with plan development guide, on leases where a producing field is proposed to be developed.

15.1.6-15.1.7. FLM-6: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.

15.1.7-15.1.8. FLM-7: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations or habitat.

## 15.2. Locatable Minerals

15.2.1. Locatable Minerals (LOC)-1: Lands would remain open to locatable mineral entry in all management areas.

15.2.2. LOC-2: Apply reasonable and appropriate required design features and best management practices as Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or FS approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).

## 15.3. Salable Minerals

15.3.1. Salable Minerals (SAL)-1: Priority: No new site authorizations would be approved. Important: New site authorizations could be considered provided the Anthropogenic Disturbance Development Criteria (AD-4) can be met, and subject to RDFs, buffers and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. General: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions.

15.3.2. SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.

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Commented [BER80]: John has language

Commented [BER81]: Karen Porter – This management action doesn't seem appropriate for a plan amendment.

Commented [BER82]: Elena Shaw - Would we still allow locatable minerals if the anthropogenic disturbance cap is not met or will not be met with the action? Might be confusing to the public since we mention it under salable and non-energy solid mineral leasable minerals but not under locatable minerals.

- 15.3.3. SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).
- 15.4. **Non-Energy Solid Mineral Leasable Minerals**
- 15.4.1. Non Energy Leasables (NEL)-1: Priority, Important and General Habitat Management Areas: Areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA areas outside KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. General Habitat Management Areas: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily) and standard stipulations.
- 15.4.2. NEL-2: Require seasonal and daily timing restrictions in undeveloped non-energy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as conditions of approval.
- 15.4.3. NEL-3: Include RDFs as conditions of approval to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.
- 15.5. **Mineral Split Estate**
- 15.5.1. Mineral Split Estate (MSE)-1: **BLM Owns Mineral Estate – non-federal surface owner:** ~~Where the federal government owns the mineral estate in PHMAs, IHMAs, and GHMAs, and the surface is in non-federal ownership, in coordination with surface owner, apply the same stipulations, COAs, and/or conservation measures, and RDFs design features consistent with those applied if the mineral estate is developed on to BLM and Forest Service administered lands in the management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.~~
- 15.5.2. ~~MSE-2: BLM owns surface – non-federal mineral estate owner. In coordination with Recommend to the state regulatory entity and mineral estate owner apply appropriate surface use that timing restrictions, COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities in PHMA, IHMA, and GHMA. and buffer restriction be applied around occupied leks, when concurring to the approval of authorizations for mineral related surface disturbance on lands with GRSG habitat.~~

**Commented [BER83]:** Ethan Ellsworth - Seems to me that if the BLM owns the surface land and must authorize any mineral extraction that the BLM can Require rather than Recommend GRSG stipulations.

**16. Range Management/Livestock Grazing**

- 16.1. Range Management (RM)-1: Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.
- 16.2. RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.
- 16.3. RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.
- 16.4. RM-4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat objectives including riparian and lentic areas (HM-OBJ-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.
- 16.5. RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.
- 16.6. RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination with permittees and interested parties, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:
  - 1) Season or timing of use;
  - 2) Numbers of livestock;
  - 3) Distribution of livestock use;
  - 4) Duration and/or level of use;
  - 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011);
  - 6) ~~Voluntary measures such as temporary non-use~~; and
  - 7) Grazing schedules (including rest or deferment).
- 16.7. RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in sage-grouse habitat areas.
- 16.8. RM-8: PHMA, & IHMA, & GHMA - When an allotment, or portion thereof, becomes vacant or grazing preference is relinquished, consider ~~voluntary~~ retirement

**Commented [BER84]:** Ethan Ellsworth - I've had discussions with Nika about adding a section titled "Guidelines for Establishing Allowable Use Levels if Not Meeting (or making progress toward) GRSG Objectives, similar to a section in the Nevada DEIS (Table 2.7 below). These guidelines would set triggers for livestock removal (e.g., upland utilization levels and stubble height). I understand that the state would not be amenable (among others), but I believe it is a valuable mechanism to hold livestock grazers accountable, so worth a discussion. I thought I'd put it out there... As it stands now, there are very few substantial differences between current management and the proposed plan (in regards to the grazing section).

Table 2-7  
Guidelines for Establishing Allowable Use Levels if Not Meeting (or Not Making Progress Toward) Greater Sage Grouse Objectives  
Community Type-Key Species Percent Utilization of Key Species Notes Terms and Conditions  
Mountain Big sage <45% herbaceous species;  
<35% shrub species . Holocheck 1998  
Mixed in with a lot of other species . Livestock removed in 3-5 days of reaching utilization level  
Wyoming and Basin Big sage <35% herbaceous species;  
<35% shrub species . Livestock removed in 3-5 days of reaching utilization level  
Black sage . <35% herbaceous species;  
<35% shrub species Winter sheep forage Livestock removed in 3-5 days of reaching utilization level  
Riparian and wet meadows . As Applicable:  
<50% herbaceous species;  
<35% woody species or  
Average stubble height of at least four to six inches (4-6 ") (depending on site capability and potential) for herbaceous riparian vegetation. Monitoring would be conducted using accepted protocols (including but not limited to: Burton et al. 2011; USDI, BLM 1996; Platts 1990). Average stubble height 4-6" – Livestock removed in 3-5 days of reaching utilization level based on site. Or (sequential action)  
No grazing from May 15-Aug 30 in brood rearing habitat.

**Commented [BER85]:** Ethan Ellsworth - Consider adding an action concerning drought. For example, "Initiate emergency management measures during times of drought to protect sage-grouse PHMA and IHMA. Implement post-drought management to allow for vegetation recovery that meets sage-grouse life cycle needs."

**Commented [BER86]:** Ethan Ellsworth - I would add an 8th option – consider retiring grazing permits and making grazing unavailable.

**Commented [BER87]:** Ethan Ellsworth - Add a sentence describing what a forage reserve would look like. Is it an area with no grazing?

- of the allotment ~~or grazing preference, or portion thereof, or grazing preference in whole or in part,~~ or converting the area to a forage reserve (a.k.a. reserve common allotment)/buffer when doing so would maintain or enhance sage-grouse habitat ~~as described in subsequent site specific NEPA analysis.~~ ~~GHMA - When an allotment becomes vacant or grazing preference is relinquished, consider converting it to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere, when such actions would result in a net benefit to GRSG habitat and other priority resources.~~
- 16.9. RM-9: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.
- 16.10. RM-10: Evaluate the locations where salt/supplements are placed. ~~C~~~~In coordination with the permittee, have salt/supplements placement~~~~in areas which would to~~ reduce impacts to GRSG habitat (e.g., existing disturbed areas).
- 16.11. RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service -administered lands in the spring. Work with permittees in locating over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.
- 16.12. ~~RM-12: Design any new structural range improvements, following appropriate cooperation, consultation and coordination with permittees, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements are subject to RDFs (Appendix A). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.~~
- 16.13. RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.
- 16.14. RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following appropriate cooperation, consultation and coordination ~~with permittees~~ to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).

**Commented [BER88]:** Jim Klott - Recommend adding a statement that new water pipelines or other infrastructure will be placed along existing disturbance corridors to the extent practical. New troughs, corrals could be placed in areas previously used for salting/supplement or other high disturbance areas to the extent practical.

## 17. Wild Horses and Burros

- ~~17.1.~~ Wild Horse and Burro (WHB)-1: Develop or amend herd management area plans (HMAPs) to incorporate GRSG habitat objectives and management considerations for all herd management areas within GRSG habitat, with emphasis placed on PHMA. Develop or amend BLM Herd Management Area Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs) and Forest Service Wild Horse Territories.
- ~~17.2.~~17.1. WHB-2: Prioritize gathers and population growth suppression techniques in HMAs in GRSG habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Additional prioritization would be given for HMAs that are near AML or where reduction would serve the most beneficial purpose. Herd Areas occupied by wild horses and burros managed for zero wild horses and burros. When evaluating AML on HMAs within PHMA and IHMA, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.
- ~~17.3.~~17.2. WHB-3: In PHMAs and IHMAs, monitor the effects of WHB use in relation to GRSG seasonal habitat objectives on an annual basis to help inform future management actions. Utilize interdisciplinary land health assessments in HMAs containing GRSG habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.
- ~~17.4.~~17.3. WHB-4: Utilize interdisciplinary land health assessments in HMAs containing GRSG habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives. The priorities for completing assessments are: 1) PHMA, 2) IHMA, 3) GHMA. PHMA: Do not expand HMAs. IHMA: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts on GRSG habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of PHMA and IHMA.
- ~~17.5.~~ WHB-5: When evaluating AML on HMAs within PHMA and IHMA, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives. In PHMAs and IHMAs, assess and adjust AMLs through the NEPA process within HMAs when wild horse use within established AML is identified as a significant causal factor in not meeting land health standards. Prioritize gathers and population growth suppression techniques in HMAs within Priority and Important Habitat Management Areas, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Additional prioritization would be given for HMAs that are near AML or where a reduction would serve the most beneficial purpose.
- ~~17.4.~~ WHB-6: Consider removals or exclusion of WHB during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.
- ~~17.5.~~ WHB-7: When conducting NEPA analysis for wild horse/burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.
- ~~17.6.~~ WHB-8: Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g.,

population growth suppression, inventory techniques, and telemetry) for implementing the WHB program.

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## 18. Travel Management

18.1. Travel Management (TM) -1: Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.

An off-highway vehicle is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) Any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) Vehicles in official use where official use is use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0 5).

18.2. TM-2: Temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).

Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.

18.3. TM-3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (Appendix K).

18.4. TM-4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize harassment of wildlife or significant disruption of wildlife habitats. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, and creation of new routes to help protect

**Commented [BER89]:** Ethan Ellsworth - Perhaps specify the types of trails where motorized travel would be allowed (e.g., established OHV routes).

**Commented [BER90]:** Elena Shaw - All other sections describing proposed actions focus on sage-grouse habitat while sage-grouse are only mentioned once in action 18.4. Seems that we are doing business as usual rather than developing management action with sage-grouse as our driver.

**Commented [BER91]:** Ethan Ellsworth - In the sentence beginning "Allow for..." add timing restrictions, or seasonal closure to the list of actions.

**Commented [BER92]:** Elena Shaw - Recommend changing second sentence to "...having a neutral or positive effect on GRSG habitat and populations."



habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within Priority Habitat Management Areas would be placed on having a neutral or positive effect on GRSG habitat. Individual route designations would occur during subsequent travel management planning efforts.

- 18.5. TM-5: Conduct road maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

**Commented [BER93]:** Elena Shaw - Should we add other road activities to this action such as road upgrades or construction?

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**19. Recreation**

- 19.1. REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.
- 19.2. REC-2: Do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within PHMAs and IHMAs unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities as in TM-4, or unless the development is required for visitor safety or resource protection.

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**20. Monitoring**

- 20.1. Monitoring (MON)-1: Once FIAT Assessments are complete a Annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.
- 20.2. MON-2: Annually monitor the effectiveness of fuels treatment projects.
- 20.3. MON-3: Monitor invasive vegetation post vegetation management treatment
- 20.4. MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.
- 20.5. MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.
- 20.6. MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in Appendix F.
- 20.7. MON-7: Monitor GRSG habitat as described in the monitoring framework plan (Appendix E) in coordination with IDFG and MT FWP.

**Commented [BER94]:** Ethan Ellsworth - What about adding a bullet (20.8) for RHE monitoring?

**Commented [BER95]:** Karen Rice - Annually monitor the effectiveness of fuels treatment projects. Suggest 'Annually monitor the effectiveness of fuels treatment projects until monitoring determines the projects' goals have been met'

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## Appendices

Appendix A – Required Design Features

Appendix B – Seasonal Timing Restrictions

Appendix C – Application of Buffers

Appendix D – Wildfire and Invasive Species Assessments/FIAT Team

Appendix E – Monitoring Framework Plan

Appendix F – Idaho Key Habitat Map Update Process

Appendix G – Idaho Anthropogenic Disturbance and Adaptive Management

Appendix H – Montana Anthropogenic Disturbance and Adaptive Management Process

Appendix I – Mitigation

Appendix J – Lands No Longer Available for Disposal

Appendix K – Travel Management Planning Guidelines

Appendix L – Functioning of Boards

Commented [BER96]: John working on.

Commented [BER97]: Karen Rice - Upper Snake, Challis, and Dillon FOs are the only units that LUP identified disposal parcels within GR5G habitat?

Commented [BER98]: Pat is working on Montana section.

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Ethan Ellsworth - 4. Table 2. I recommend adding, changing or addressing the following – see me to discuss/references

a. Nesting:

- i. Annual grass cover (%) < 5
- ii. Remove the sagebrush height maximum. Weak evidence that sagebrush height is a major habitat attribute, and may be in conflict with objectives for winter habitat in cases where nesting and winter habitat overlap.
- iii. Perennial grass height < 7 inches
- iv. Conifer encroachment (%) < 5
- v. Consider increasing sagebrush canopy cover from a max of 25% to account for variation in GRSG populations. Perhaps relate to ecological site. Some recent studies in Nevada indicate that dense stands of sage (as high as 40% cover) are of greater value to nesting GRSG, and there are likely portions of Idaho that this holds true as well.

b. Brood-Rearing/Summer

- i. Remove the sagebrush height maximum
- ii. Managing for PFC is what we are already managing for at riparian sites. Thus, this plan fails to address or outline a plan to improve an important GRSG habitat component that is, in many cases, in poor condition. Thus, the plan should be designed to be more specific to desired habitat conditions. For example, specify 1) riparian area/meadow interspersed with adjacent sagebrush (perimeter to area ratio of 0.15 within 159 buffer of the microhabitat plot, and 2) forb availability at riparian sites; e.g. > 5 species present.

c. Winter

- i. It should be explained that the desired condition is that >10% of sage canopy should be >10 inches above snow. As it stands now, these two components are separate so it could be misinterpreted.

## **Idaho and Southwestern Montana Recommendation for Proposed Plan Amendment**

### **1. Summary Description of the Proposed Plan (Plan)**

The Proposed Plan represents a management strategy to address Greater Sage-grouse, their habitat and associated threats within the Idaho and Southwestern Montana Subregion. The Plan has been developed through a coordinated partnership of BLM, Forest Service, the States of Idaho and Montana and the US FWS.

The Plan incorporates appropriate conservation measures to conserve, enhance, and restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Plan is also consistent with the objectives described in the USFWS Conservation Objectives Team Report (USFWS 2013) to: ‘Conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future...’ through ‘Maintaining viable, connected, and well-distributed populations and habitats across [the range of GRSG], through threat amelioration, conservation of key habitats, and restoration activities’.

To achieve these objectives the Plan includes a combination of: Goals and Objectives including vegetation/habitat management objectives to be applied during project development and implementation (Table 3); land allocation decisions (Table 1); delineation of five Conservation Areas (Map 1) to support evaluation of the adaptive management strategy and 3% anthropogenic disturbance cap; delineation of Priority, Important and General Habitat Management Areas (Map 2) with associated program management direction; a mitigation framework and strategy; development of Wildfire and Invasive Species Assessments; and associated monitoring to support these decisions.

**Table 1. Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary<sup>1</sup>**

<b>Solar/Wind/Nuclear/Hydropower – Map 3</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
BLM: Exclusion (LR-2) FS: Exclusion	BLM: Avoidance (LR-2) FS: Exclusion	BLM: Open (LR-2) FS: Avoidance
<b>Commercial Service Airports – Map 4</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
<b>Landfills – Map 4</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
<b>Utility Corridors – Map 5</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain “open” (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as Priority (LR-7)	Same as Priority (LR-7)
<b>Rights-of-Way and Land Use Authorizations/Permits – Map 6</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>

<sup>1</sup> The Idaho and Southwestern Montana Subregion includes portions of Idaho, Montana and Utah. Where differences exist between direction for Idaho and Montana or between BLM and Forest Service, those are noted in the table and within the management action section. The lands within Utah are part of the Sawtooth National Forest and are managed as such; therefore direction for these lands in Utah is the same as that described for the Sawtooth National Forest in Idaho.

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Avoidance (LR-1)	Avoidance (LR-1)	BLM: Open (LR-1) FS: Avoidance
<b>Land Tenure Adjustments – Map 7</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Retention with exceptions for exchange; available for exchange with no net loss of GRSG Key habitat within Priority and Important. Not available for disposal. (LR-13)	Same as Priority (LR-13)	Available for exchange subject to existing land use plan conformance (No Action)
<b>Fluid Mineral Resource Allocation (Includes Geothermal) – Maps 8 &amp; 9</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Idaho: Open subject to No Surface Occupancy with a limited exception.  Montana: Open subject to No Surface Occupancy with a limited exception. (FLM-1)	Idaho: Open subject to No Surface Occupancy with a limited exception. Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to Controlled Surface Use and Timing Limitations (FLM-1)
<b>Locatable Minerals – Map 10</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.	Areas not previously withdrawn are Open.
<b>Non-Energy Leasables – Map 11</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
Known Phosphate Leasing Areas (KPLAs) are Open subject to standard leasing stipulations. Closed to leasing outside KPLAs (NEL-1)	KPLAs are Open subject to standard leasing stipulations. Areas outside KPLAs are Open subject to standard and greater sage-grouse stipulations (required design features, seasonal timing restrictions). (NEL-1)	Open to leasing with standard and greater sage-grouse stipulations (required design features and seasonal timing restrictions) (NEL-1)
<b>Mineral Materials (Salable Minerals) – Map 12</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>

Commented [BER1]: Montana and Idaho are the same. Priority and Important are the same as priority.



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Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to criteria. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
<b>Travel Management – Map 13</b>		
<b>Priority</b>	<b>Important</b>	<b>General</b>
BLM <a href="#">Idaho</a> : Limited to Existing (TM-1) <a href="#">BLM Montana: Limited to Designated</a> FS: Limited to Designated	BLM: Limited to Existing (TM-1) FS: Limited to Designated	BLM: Limited to Existing (TM-1) <a href="#">BLM Montana: Limited to Designated</a> FS: Limited to Designated

**Commented [BER2]:** Include appropriate management action in Travel Management Section.

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<b>Map 1. Conservation Areas within Idaho and Southwestern Montana Subregion</b>
<b>Map 2. Management Areas within Idaho and Southwestern Montana Subregion</b>
<b>Map 3. Wind and Solar Development Allocations</b>
<b>Map 4. Commercial Service Airport and Landfill Development Allocations</b>
<b>Map 5. Utility Corridor Designations</b>
<b>Map 6. Right-of-Way Development Allocations</b>
<b>Map 7. Land Tenure Designations</b>
<b>Map 8. Fluid Mineral Resource Allocations – Oil and Gas</b>
<b>Map 9. Fluid Mineral Resource Allocations - Geothermal</b>
<b>Map 10. Locatable Minerals Withdrawals</b>
<b>Map 11. Non-Energy Leasable Resource Allocations</b>
<b>Map 12. Minerals Materials Allocations</b>
<b>Map 13. Travel Management Allocations</b>

## 2. Goals and Objectives

- 2.1. GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
- 2.2. GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies' direction for multiple use and sustained yield as described in FLPMA and the NFMA.
- 2.3. GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.
- 2.4. GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and USFS management actions.
- 2.5. Management Area (MA) - Objective (OBJ)-1: Maintain a resilient population of GRSG in Idaho and Southwestern Montana.
- 2.6. MA-OBJ-2: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.
- 2.7. MA-OBJ-3: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.
- 2.8. Vegetation (VEG)-OBJ-1: Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.
- 2.9. VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:
  - a. Increasing canopy cover and average patch size of sagebrush in perennial grasslands.
  - b. Increasing the amount, condition and connectivity of seasonal habitats.
  - c. Protecting or improving GRSG migration/movement corridors.
  - d. Reducing conifer encroachment within GRSG seasonal habitats.
  - e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
  - f. Reducing the extent of annual grasslands within and adjacent to Priority and Important Habitat Management Areas.Decadal treatment objectives by population area are identified in Table 2.
- 2.10. Habitat Management (HM)-OBJ-1: Maintain or make progress toward at least 70% of lands within PHMAs and IHMAs capable of producing sagebrush at 10-30% canopy cover and conifers absent to uncommon within 1.86 miles of occupied leks.
- 2.11. HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 3) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species; unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:

A specific objective is not applicable to the site-specific conditions of the project or activity;

Commented [BER3]: Objectives or desired conditions? In relation to the HAF.

An alternative objective is determined to provide equal or better protection for GRSG or its habitat (based on appropriate scientific findings); or Analysis concludes that following a specific objective would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

- 2.12. FUEL-OBJ-1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.
- 2.13. WHB-OBJ-1: Manage wild horse and burro population levels within the established AML ranges to maintain or enhance GRSG habitat.

**Table 2. Acres of Treatment within a 10-Year Period to Achieve Vegetation Objectives<sup>2</sup>**

Population Area	Mechanical Conifer Treatment	Mechanical Sage	Prescribed Fire	Annual Grass Treatment
Bear Lake Plateau		1000		
East Idaho Uplands	6000		9000	1000
S Central Idaho/N Snake River and Mountain Valleys	4000	14000	11000	162000
Weiser				13000
SW Idaho	48000	4000	10000	444000

**Commented [BER4]:** Double check management actions for prescribed fire in high elevation areas. Footnote direction regarding use of fire in Wyoming sagebrush.

**Commented [BER5]:** Check with Rob and Kelly on numbers for Montana.

**Table 3. Seasonal Habitat Desired Conditions for Greater Sage-Grouse**

ATTRIBUTE	INDICATOR	DESIRED CONDITON
<b>BREEDING HABITAT (LEK AND NESTING/EARLY BROOD REARING)</b>		
Lek Security	Proximity of trees <sup>7,13</sup>	Trees (i.e., <a href="#">in Idaho</a> mainly juniper, conifers, and does not include old growth juniper, pinyon pine and mountain mahogany; <a href="#">in Montana</a> mainly Douglas-fir) absent or uncommon on shrub/grassland ecological sites

**Commented [BER6]:** How are these implemented – if not met what happens?

<sup>2</sup> These acreage figures represent and objective for treatment over a ten-year (decadal) timeframe to support achievement or progress toward vegetation and habitat objectives. This accounts for variations in yearly funding availability and does not reflect a maximum acreage for treatment should funding and site specific conditions allow for more or less treatment than described in order to meet vegetation and habitat objectives.

	Proximity of sagebrush to leks <sup>13</sup>	within 1.86 miles (3 km) of occupied leks. Adjacent protective sagebrush cover within 328 ft (100 m) of an occupied lek
<b>NESTING/EARLY BROOD REARING<sup>5,10,12,13,14</sup></b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).
	Sagebrush canopy cover <sup>2,8,9,11</sup>	15-25%
	Sagebrush height <sup>8</sup>	
	Arid sites <sup>3</sup>	12-31 inches (30-80cm)
	Mesic sites <sup>4</sup>	16-31 inches (40-80cm)
	Predominant sagebrush shape <sup>13</sup>	Predominantly spreading shape <sup>5</sup>
	Perennial grass cover <sup>2,8,13</sup>	
	Arid sites <sup>3</sup>	≥10%
Mesic sites <sup>4</sup>	≥15%	
Perennial grass height <sup>8,9,11,13</sup>	Adequate nest cover	
Perennial forb cover <sup>2,8</sup>		
Arid sites <sup>3</sup>	≥5%	
Mesic sites <sup>4</sup>	≥10%	
Perennial forb availability <sup>13</sup>	Preferred forbs are common with several species present <sup>6</sup>	
<b>LATE BROOD-REARING/SUMMER<sup>1</sup> (July-October)<sup>1</sup> (Apply to all habitat outside of nesting/breeding and winter)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to ecological site potential, etc.)
	Sagebrush canopy cover <sup>2,8</sup>	10-25%
	Sagebrush height <sup>8</sup>	16 to 32 inches (40-80cm)
	Perennial grass canopy cover <sup>2,8</sup>	>15%
	Upland and riparian perennial forb availability <sup>2,13</sup>	Preferred forbs are common with several preferred species present <sup>6</sup> .
Riparian meadow habitat condition	Proper Functioning Condition <sup>13</sup>	
<b>WINTER<sup>1</sup> November-March<sup>1</sup> (Apply to areas of known or likely winter-use)</b>		
Cover and Food	Seasonal habitat extent <sup>8</sup>	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).
	Sagebrush canopy cover above snow <sup>2,8,13</sup>	>10%
	Sagebrush height above snow <sup>8</sup>	>10 inches (>25cm)
<b>NOTES AND REFERENCES</b>		
<p><sup>1</sup> Seasonal dates can be adjusted by local unit according to geographic region.</p> <p><sup>2</sup> Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to other species present.</p>		

<sup>3</sup> Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>4</sup> Mesic corresponds to the  $\geq 12$  inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).

<sup>5</sup> Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.

<sup>6</sup> Preferred forbs are listed in Stiver et al. *In press*. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

<sup>7</sup> Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving sage-grouse from trees.

<sup>8</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. *Wildlife Society Bulletin* 28:967-985.

<sup>9</sup> Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.

<sup>10</sup> Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.

<sup>11</sup> Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. *Wildlife Biology* 13 (Supplement 1):42-50.

<sup>12</sup> Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107:742-752.

<sup>13</sup> Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference XXXX-X. U.S. Bureau of Land Management, Denver, Colorado.

<sup>14</sup> Connelly, J.W., A. Moser, and D. Kemner. 2013. Greater Sage-Grouse breeding habitats: Landscape-based comparisons. *Grouse News* 45. Research Reports.

### 3. Coordination

- 3.1. CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non-governmental organizations.
- 3.2. CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, FS and Task Team. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's forthcoming sage-grouse conservation strategy.
- 3.3. CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.
- 3.4. CC-4: The BLM and Forest Service would coordinate with the State of Idaho and Montana and the Idaho Sage-Grouse Implementation Task Force and Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and livestock grazing (Appendix O).
- 3.5. CC-5: Upon completion of the Record of Decision the BLM will develop an Implementation Guide for BLM District and Field Offices to define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan.
- 3.6. CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate recommendations for GRSG conservation at broader scales.
- 3.7. CC-7: At the state level, BLM and Forest Service would coordinate with appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.
- 3.8. CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

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**Commented [BER8]:** Need to clarify what is strictly Idaho. Applies to XX and does not apply t

**Commented [BER9]:** Break into Montana and Idaho pieces. In support of the MOU in CC-2. Dillon will draft MT portion of Appendix O.

#### 4. Greater Sage-Grouse Management Areas

- 4.1. Management Area (MA)-1: Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in Map 1. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, and includes habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan Karas Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry’s Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon and Butte BLM Field Office boundaries. (the Butte RMP is not being amended and since there are limited GRSG federal General Habitat Management Areas management actions do not apply in the Butte Field Office).

Additionally, sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to topography, elevational and land use differences.

- 4.2. MA-2: Within each Conservation Area (CA) designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (Map 2). **Priority Habitat Management Areas (PHMAs)** focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. The PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. Priority Habitat

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Management Areas include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Habitat Management Areas (IHMAs)** contain additional high value habitat and populations that provide a management buffer for the PHMA, connect patches of PHMA. The IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some CAs includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). The IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. There are no IHMAs designated within the Southwestern Montana CA. **General Habitat Management Areas (GHMAs)** encompass habitat that is outside of PHMAs or IHMAs. It is generally characterized by more marginal habitat and few, if any, occupied leks or other important seasonal use areas.

- 4.3. MA-3: Delineate PHMA and IHMA to encompass 90% of the breeding males in Idaho.
- 4.4. MA-4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.
- 4.5. MA-5: Prioritize activities and mitigation to protect, enhance and restore GRSG habitats (i.e. suppression activities, fuels management activities, vegetation treatments, invasive species treatments, etc.) first by Conservation Area, if appropriate (CA under adaptive management or at risk of engaging adaptive management), followed by Priority Habitat Management Areas, then Important Habitat Management Areas then General Habitat Management Areas within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in Appendix D. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat. Priority restoration and mitigation areas are restoration areas identified on the Key Habitat map (R1, R2, R3 and Recent Burn) within nesting and wintering areas in Priority and Important Habitat Management Areas.
- 4.6. MA-6: The management area map and biologically significant unit baseline map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust Priority, Important or General Habitat Management Areas or the habitat baseline. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map. [Results from the Wildfire and Invasives Species Assessments such as identified focal or emphasis areas would also be used to help inform mapping adjustments during this evaluation.](#)
- 4.7. MA-7: The [functionality and capability](#) of GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management area designations (Priority, Important, General) and appropriate updates to the Key Habitat map would occur. Areas without the potential and capability to provide GRSG habitat would be identified, areas with the potential to provide GRSG habitat

Commented [BER11]: Remapping for Idaho. May need to include an action for remapping in Montana.

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- would be appropriately classified on the Key Habitat map. Project proposals and their effects would be evaluated based on the habitat and values affected.
- 4.8. MA-87: Idaho BLM will annually update the Key Habitat map as described in Appendix F, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies indicate that sage-grouse are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, sage-grouse Local Working Groups (LWG), or agency partners in sage-grouse conservation.
- 4.9. MA-98: Areas of habitat outside of delineated management areas identified during the Key habitat update process would be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix A), seasonal timing restrictions (Appendix B) and buffers (Appendix C) would be included as part of project design. These areas would be further evaluated during plan evaluation to determine whether they should be included as Priority, Important or General Habitat Management Areas.

## 5. Adaptive Management

- 5.1. Adaptive Management (AM)-1: Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.
- 5.2. AM-2: Utilize monitoring information collected through the Monitoring Framework Plan (Appendix E) to determine when adaptive regulatory triggers have been met.
- 5.3. AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the FS and Idaho Department of Fish and Game (IDFG), using the process described in Appendix F.
- 5.4. AM-4: BLM and Forest Service would utilize population information collected and maintained by the Idaho Department of Fish and Game to track and identify population changes to assess the population trigger in the adaptive management approach.
- 5.5. AM-5: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management criteria have been met.
- 5.6. AM-6: Adaptive regulatory triggers would be individually calculated across all ownerships within the biologically significant units (BSU). The BSU is defined as the Idaho Department of Fish and Game modeled nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area. The sagebrush component of the BSU is represented by the key habitat within the BSU.
- 5.7. AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:
  - A 20 percent loss of Key Habitat within the biologically significant unit (BSU) (Appendix G) of the PHMA of a CA when compared to the 2011 baseline (the BSU is defined as the nesting and wintering habitat within a Priority and Important Habitat Management Areas (separately) within a Conservation Area, inclusive of all ownerships); or
  - A 20 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.8. AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:
  - A 10 percent loss of Key Habitat within the BSU of the PHMA of a CA when compared to the 2011 baseline; or
  - A 10 percent loss of Key Habitat within the BSU of the IHMA of a CA when compared to the 2011 baseline.
- 5.9. AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:  
A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within PHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline; or  
A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within IHMA within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline.
- 5.10. AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:

- A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within PHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011; or  
A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within IHMA within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011.
- 5.11. AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities Appendix G.
  - 5.12. AM-12: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met then PHMA management actions would be applied to the IHMA within that CA.
  - 5.13. AM-13: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in Appendix G.
  - 5.14. AM-14: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of baseline values within the associated CA.
  - 5.15. Montana Adaptive Management:

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## **6. Anthropogenic Disturbance**

- 6.1. Anthropogenic Disturbance (AD)-1: Limit anthropogenic disturbance to 3 percent as calculated within the biologically significant unit (BSU) (Map 3). The BSU is defined as the nesting and wintering habitat within Priority and Important Habitat Management Areas within a Conservation Area, inclusive of all ownerships for evaluation. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes activities described in Table X. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (powerlines, pipelines and roads). For Montana this disturbance is measured utilizing the Disturbance Density Calculation Tool process described in Appendix H.
- 6.2. AD-2: New anthropogenic disturbances within Priority or Important Habitat Management Areas within a CA where the disturbance cap is already exceeded from any source or where the proposed development would result in the cap being exceeded would not be allowed until enough habitat has been restored to maintain the area under this cap (subject to valid existing rights).
- 6.3. AD-3: Priority Habitat Management Area: Anthropogenic Disturbance Exception Criteria. In order to avoid surface-disturbing activities in Priority Habitat Management Areas, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of Priority Habitat Management Areas. When authorizing development in Priority Habitat Management Areas, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. In addition to the Priority and Important Habitat Management Area Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the project screening and assessment process:
  - a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations would not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments would be substantially the same as the existing development);
  - b. The development with associated mitigation would not result in a net loss of GRSG Key habitat and mitigation would provide a net conservation benefit to the respective Priority Habitat Management Area;
  - c. The project would not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA (the project would be outside Key habitat in areas not meeting desired habitat conditions or the project would provide a benefit to habitat areas that are functioning in a limited way as habitat);
  - d. Cannot be reasonably accomplished outside of the Priority Habitat Management Area; or can be either: 1) developed pursuant to a valid existing authorization; 2) is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade); or 3) is co-located within the footprint of existing infrastructure (i.e. powerlines) (proposed actions would not increase the 2011

- authorized footprint and associated impacts more than fifty percent (50%), depending on industry practice.
- e. Development could be implemented adhering to the required design features (RDF) described in Appendix A;
  - f. The project would not exceed the disturbance cap (AD-1).
  - g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.
- 6.4.** AD-4: Priority and Important Habitat Management Areas: Anthropogenic Disturbance Development Criteria – the following criteria must be met in the screening and assessment process:
- a. The project cannot reasonably be achieved, technically or economically, outside of this management area; and
  - b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co-location within the footprint for existing infrastructure, to the extent practicable; and
  - c. The project does not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA; and
  - d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and
  - e. The project complies with the applicable RDFs as described in Appendix A.
  - f. The project would not exceed the disturbance cap (AD-1).
- 6.5.** AD-5: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as:
- Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.
- Electrical Lines – Installation of new rights-of-way (ROWs) adjacent to current ROWs boundaries, not necessarily placed on the same power poles.
- Other Rights-of-Way – The installation of new rights-of-way (ROWs) within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary.
- Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.
- 6.6.** AD-6: Incorporate required design features (RDFs) as described in Appendix A in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be

- demonstrated and documented in the NEPA analysis associated with the specific project:
- A specific RDF is not applicable to the site-specific conditions of the project or activity;
  - A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or
  - Analysis concludes that following a specific RDF would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.
- 6.7. AD-7: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix B.
- 6.8. AD-8: Required Design Features and seasonal habitat restrictions would not be required for emergency or short-term activities necessary to protect and preserve human life or property.
- 6.9. AD-9: Incorporate appropriate buffers into implementation and project design to avoid and minimize impacts to GRSG described in Appendix C.

Table X. Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework <sup>3</sup>
Oil and Gas Wells and Development Facilities
Coal Mines
Wind Towers
Solar Fields
Geothermal Development Facilities
Mining (Active Locatable, Leasable and Saleable Developments)
Roads
Railroads
Powerlines
Communication Towers
Other Vertical Structures
Additional Local Datasets (need definitions)
Underground Pipelines
Coal Bed Methane Ponds
Meteorological Towers
Nuclear Energy Facilities
Airports
Military Ranges (ground based?)
Hydropower plants
Recreation Areas (Developed)

<sup>3</sup> Taken from Table 6 – GRSG Monitoring Framework.

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## 7. Mitigation

- 7.1. Mitigation (MIT)-1: BLM and USFS would establish an inter-agency GRSG Conservation Board at the state level (both Idaho and Montana) to oversee GRSG Conservation.
- 7.2. MIT-2: The BLM and USFS, in coordination with the GRSG Conservation Board would develop a State Mitigation Strategy. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (Appendix I).
- 7.3. MIT-3: Mitigate impacts from anthropogenic developments (Appendix G Table G-1) to GRSG habitats to a net conservation benefit (benefits more birds) by first avoidance of impacts, minimizing impacts and then compensating for impacts.
- 7.4. MIT-4: Mitigate anthropogenic development (Appendix G Table G-1) impacts to a no net loss of Key habitat standard (Appendix I) through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I), referred to as no unmitigated loss.
- 7.5. MIT-5: Mitigate anthropogenic development (Appendix G Table G-1) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix I).
- 7.6. MIT-6: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in Table 3.

8. From NPT - *"A net conservation gain to the greater sage-grouse will be achieved by implementing restoration conservation actions outlined in this proposed plan [or amendment], applying a no net unmitigated loss standard for authorized land uses in all GRSG habitat (within) [mention all areas that make up GRSG habitat: PHMA, GHMA, IHMA, and/or Core], and, strategically siting compensatory mitigation actions, via a WAFWA Management Zone Regional Mitigation Strategy as part of a mitigation program in order to achieve cumulative benefits (as outlined in [Appendix X])."*

7.6.10. *"No net unmitigated loss means that impacts from implementation level actions will fully offset to benefit the species. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions."*

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## **8.11. Wildfire Preparedness/Prevention**

- 8.1.11.1.** Wildfire Preparedness (WFP)-1: Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.
- 8.2.11.2.** WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).
- 8.3.11.3.** WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in Appendix D, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.
- 8.4.11.4.** WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.
- 8.5.** WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.
- 8.6.** WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.
- 8.7.** WFP-7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the Priority or Important Habitat Management Areas. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.
- 8.8.** WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.
- 8.9.** WFP-9: Implement activities identified within the FIAT Assessments.

## 9. Wildfire Suppression

- 9.1. WFS-1: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within Appendix D and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of focal And emphasis priority areas/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify priority areas and describe strategies for fuels management, suppression and restoration activities.
- 9.2. WFS-2: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within Priority and Important Habitat Management Areas or on those fires that have the potential to impact Priority and Important Habitat Management Areas. Incorporate findings into Unit Initial Attack program
- 9.3. WFS-3: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.
- 9.4. WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.
- 9.5. WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in General Habitat Management Areas when suppression resources are available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.
- 9.6. WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.
- 9.7. WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.

## **10. Fuels Management**

- 10.1.** FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.
- 10.2.** FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.
- 10.3.** FM-3: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into Priority Habitat Management Areas or WUI.
- 10.4.** FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in Appendix D.
- 10.5.** FM-5: When developing the fuels management strategy as part of the FIAT Assessment described in Appendix D consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.
- 10.6.** FM-6: Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.
- 10.7.** FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).
- 10.8.** FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings) or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.

- 10.9. FM-9: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments..
- 10.10. FM-10: Protect seeding efforts from subsequent fire events.
- 10.11. FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of unwanted wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.
- 10.12. FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:
- Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
  - Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
  - Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations
- 10.13. FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.
- 10.14. FM-14: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.

**11. Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation**

- 11.1. ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in Appendix D to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (FS) actions after fire.
- 11.2. ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.
- 11.3. ESR-3: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species. New seedlings should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ES&R objectives.
- 11.4. ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.

## **12. Habitat Restoration and Vegetation Management**

- 12.1. VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.
- 12.2. VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to sage-grouse seasonal habitats.
- 12.3. VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.
- 12.4. VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.
- 12.5. VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.
- 12.6. VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of Priority or Important Habitat Management Areas to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.
- 12.7. VEG-7: During land health assessments evaluate the compatibility of existing nonnative seedlings for GRSG habitat to keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak (Davies et al. 2011) or during restoration development. If nonnative seedlings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, evaluate the nonnative seedlings in and adjacent to PHMA to determine if they should be diversified with or converted to native grasses, forbs, and shrubs, including sagebrush.

- 12.8. VEG-8: Utilize conifer (juniper) removal treatments to reduce the extent of conifer encroachment areas in sagebrush habitats. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDTT and FIAT assessments to help refine the location for specific priority areas to be treated. Refrain from using prescribed fire and conducting removal projects in old-growth juniper stands. Old-growth juniper trees are characterized by rounded tops and spreading canopies, often containing dead limbs and/or spike tops, large branches near the base of the tree, as well as furrowed, fibrous bark, and are typically host to arboreal lichens. Leader growth in the upper quarter of the tree is usually less than one inch. These trees are generally distributed on rock outcrop or rubble land soils, or other soils with coarse fragments in the soil-surface and/or slopes over 12-25%, where juniper vegetation type is the climax plant community (IDFG 2000; Miller et al 2005; USDI and USGS 2007).
- 12.9. VEG-9: Avoid using prescribed fire in Greater Sage-Grouse habitat unless evaluation of site-specific conditions demonstrate that there would be a net benefit for sage-grouse. If prescribed fire is used in Greater Sage-Grouse habitat, include an analysis in the NEPA document that indicates how Greater Sage-Grouse goals and objectives will be addressed and met by its use, why alternative techniques were not selected, and a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized.
- If prescribed fire is to be used at the implementation level, at a minimum, the burn plan will indicate how land use plan objectives would be addressed and met and why alternative techniques were not selected.
  - Avoid prescribed fire as a vegetation or fuels treatment in Wyoming big sagebrush or other xeric sagebrush species, or in areas with a potential for post-fire exotic annual dominance. However, after other treatment opportunities have been explored and as site-specific variables allow, prescribed fire could be used in these areas to meet specific fuels objectives that would maintain, improve, or restore Greater Sage-Grouse habitat (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities).
  - Allow no treatments in areas only providing known winter seasonal habitat unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality.

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**13. Invasive Species**

- 13.1. Invasive Species (INV)-1: Incorporate results of the FIAT Assessments into projects and activities addressing invasive species.
- 13.2. INV-2: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.
- 13.3. INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.
- 13.4. INV-4: Require project proponent (projects described in Table X and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years.

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#### **14. Lands and Realty / Infrastructure**

- 14.1. Lands and Realty (LR)-1: Priority: Designate and manage Priority Habitat Management Areas as ROW avoidance areas, consistent with AD-3 and subject to RDFs, buffers and seasonal timing restrictions (Appendix A, B & C). Important: Designate and manage Important Habitat Management Areas as ROW avoidance areas, consistent with AD-4 and subject to RDFs, buffers and seasonal timing restrictions. General: Designate and manage General Habitat Management Areas as open with proposals subject to RDFs, buffers and seasonal timing restrictions.
- 14.2. LR-2: Priority: Designate and manage Priority Habitat Management Areas as exclusion areas for utility scale (20 MW) Wind and Solar testing and development, nuclear and hydropower energy development. Important: Designate and manage Important Habitat Management Areas as avoidance areas for Wind and Solar testing and development, nuclear and hydropower development. General: Designate and manage General Habitat Management Areas as open for Wind and Solar testing and development and nuclear and hydropower development subject to RDFs, buffers and seasonal timing restrictions.
- 14.3. LR-3: Priority: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.4. LR-4: Priority: Development of new or expansion of existing landfills would not be allowed within Priority Habitat Management Areas. Important and General Habitat Management Areas are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 14.5. LR-5: Consistent with LR-2, LR-3 and LR-4, Rights-of-way for development of new or amended ROWs and land use authorizations in PHMA would only be considered when consistent with the Anthropogenic Disturbance Exception Criteria (AD-3); Rights-of-way for development of new or amended ROWs and land use authorizations in IHMA could be considered consistent with the Important Habitat Management Area Anthropogenic Disturbance Development Criteria. (AD-4). General: New ROW and land use authorizations could be considered.
- 14.6. LR-6: If the project is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade) - the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized.
- 14.7. LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open (subject to the ongoing settlement agreement).
- 14.8. LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Areas within which it is located and the RDFs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and rehabilitating the habitat.

- 14.9. LR-9: Land use authorizations that are temporary (less than 3 years) in nature would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.
- 14.10. LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be allowed on a case-by-case bases subject to RDFs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.
- 14.11. LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).
- 14.12. LR-12: Work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix A.
- 14.12.1. LR-13: Lands within Priority, Important or General Habitat Management Areas for Greater Sage-Grouse will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation benefit to the Greater Sage-Grouse or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse. Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:
- a. Lands within Priority, Important and General Habitat Management Areas would not be available for disposal through sale (Appendix J).
  - b. Acquire habitat within Priority and Important Habitat Management Areas, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if a land exchange would allow for additional or more contiguous federal ownership patterns.
  - c. Lands within Priority, Important and General Habitat Management Areas would be retained unless exchange of those lands would increase the extent or provide for connectivity of Priority or Important Habitat Management Areas.
  - d. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of Priority Habitat Management Areas. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within Priority Habitat Management Areas currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the Priority and Important Habitat Management Areas.

e. Identify lands for acquisition that increase the extent of or provide for connectivity of Priority Habitat Management Areas.

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## 15. Minerals

### 15.1. Fluid Minerals

- 15.1.1. Fluid Minerals (FLM)-1: Idaho and Montana: Areas within Priority Habitat Management Areas and Important Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to no surface occupancy with a limited exception (FLM-3). General Habitat Management Areas would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations. Montana: Areas within Priority Habitat Management Areas would be open to leasing subject to no surface occupancy. No waivers, exceptions or modifications would be allowed unless approved by the State Director. General Habitat Management Areas would be open to leasing subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.
- 15.1.2. FLM-2: FLM-7: Parcels nominated for lease in Priority or Important Habitat Management Areas would be evaluated prior to lease offering to determine if development is feasible when buffers and seasonal timing restrictions are applied. Parcels which do not meet the criteria would not be offered for lease.
- 15.1.3. FLM-3: Priority and Important Habitat Management Areas: A lease waiver, exception or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-greater sage-grouse habitat, the area is not used by Greater sage-grouse, or it would not have direct, indirect or cumulative effects to Greater sage-grouse or its habitat. The determination would be made by a team of interagency Greater sage-grouse experts, including an expert from the state wildlife agency, USFWS and the BLM. Waivers, by regulation, require a 30-day public review (43 CFR ????.??). All exceptions must be approved by the State Director. In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

#### **Waivers, Exceptions and Modifications (WEMs)** (Source IM-2008-032)

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers require a 30-day public review and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the lease to which the restrictive criteria are applied.

- 15.1.4. FLM-4: Incorporate required design features and best management practices appropriate to the management area as conditions of approval when post leasing activity is proposed into any post-lease authorizations.
- 15.1.5. FLM-5: Complete a Master Development Plan, consistent with plan development guide, on leases where a producing field is proposed to be developed.

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- 15.1.6. FLM-6: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.
- 15.1.7. FLM-7: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations or habitat.
- 15.2. **Locatable Minerals**
- 15.2.1. Locatable Minerals (LOC)-1: Lands would remain open to locatable mineral entry in all management areas.
- 15.2.2. LOC-2: Apply reasonable and appropriate required design features and best management practices as Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or FS approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).
- 15.3. **Salable Minerals**
- 15.3.1. Salable Minerals (SAL)-1: Priority: No new site authorizations would be approved. Important: New site authorizations could be considered provided the Anthropogenic Disturbance Development Criteria (AD-4) can be met, and subject to RDFs, buffers and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. General: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions.
- 15.3.2. SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.
- 15.3.3. SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).
- 15.4. **Non-Energy Solid Mineral Leasable Minerals**
- 15.4.1. Non Energy Leasables (NEL)-1: Priority, Important and General Habitat Management Areas: Areas within Know Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA areas outside KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. General Habitat Management Areas: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily) and standard stipulations.
- 15.4.2. NEL-2: Require seasonal and daily timing restrictions in undeveloped non-energy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as conditions of approval.

15.4.3. NEL-3: Include RDFs as conditions of approval to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.

15.5. **Mineral Split Estate**

15.5.1. Mineral Split Estate (MSE)-1: **BLM Owns Mineral Estate – non-federal surface owner:** In coordination with surface owner, apply stipulations, conservation measures, and design features consistent with those applied to BLM- and Forest Service-administered lands in the management area.

15.5.2. MSE-2: **BLM owns surface – non-federal mineral estate owner:** Recommend to the state regulatory entity and mineral estate owner that timing restrictions, COAs, and buffer restriction be applied around occupied leks, when concurring to the approval of authorizations for mineral-related surface disturbance on lands with GRSG habitat.

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## **16. Range Management/Livestock Grazing**

- 16.1. Range Management (RM)-1: Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.
- 16.2. RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.
- 16.3. RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.
- 16.4. RM-4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat objectives including riparian and lentic areas (HM-OBJ-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.
- 16.5. RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.
- 16.6. RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following consultation, cooperating and coordination with permittees and interested publics, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:
- 1) Season or timing of use;
  - 2) Numbers of livestock;
  - 3) Distribution of livestock use;
  - 4) Duration and/or level of use;
  - 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011);
  - 6) Voluntary measures such as temporary non-use; and
  - 7) Grazing schedules (including rest or deferment).
- 16.7. RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in sage-grouse habitat areas.
- 16.8. RM-8: PHMA & IHMA - When an allotment becomes vacant or grazing preference is relinquished, consider voluntary retirement of the allotment or grazing preference



- in whole or in part, or converting the area to a forage reserve/buffer when doing so would maintain or enhance sage-grouse habitat. GHMA - When an allotment becomes vacant or grazing preference is relinquished, consider converting it to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere, when such actions would result in a net benefit to GRSG habitat and other priority resources.
- 16.9. RM-9: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.
- 16.10. RM-10: Evaluate the locations where salt/supplements are placed. In coordination with the permittee, have salt/supplements placed in areas which would reduce impacts to GRSG habitat (e.g., existing disturbed areas).
- 16.11. RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service-administered lands in the spring. Work with permittees in locating over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.
- 16.12. RM-12: Design any new structural range improvements, following cooperation, consultation and coordination with permittees, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements are subject to RDFs (Appendix A). Structural range improvement in this context, include, but are not limited to: fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.
- 16.13. RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.
- 16.14. RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following cooperation, consultation and coordination with permittees to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).

**17. Wild Horses and Burros**

- 17.1. Wild Horse and Burro (WHB)-1: Develop or amend BLM Herd Management Area Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs) and Forest Service Wild Horse Territories.
- 17.2. WHB-2: When evaluating AML on HMAs within PHMA and IHMA, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.
- 17.3. WHB-3: Utilize interdisciplinary land health assessments in HMAs containing GRSG habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.
- 17.4. WHB-4: PHMA: Do not expand HMAs. IHMA: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts on GRSG habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of PHMA and IHMA.
- 17.5. WHB-5: Prioritize gathers and population growth suppression techniques in HMAs within Priority and Important Habitat Management Areas, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Additional prioritization would be given for HMAs that are near AML or where a reduction would serve the most beneficial purpose.

## **18. Travel Management**

- 18.1.** Travel Management (TM) -1: Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.
- An off-highway vehicle is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) Any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) Vehicles in official use where official use is use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0 5).
- 18.2.** TM-2: Temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).
- Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.
- 18.3.** TM-3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (Appendix K).
- 18.4.** TM-4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize harassment of wildlife or significant disruption of wildlife habitats. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, and creation of new routes to help protect

habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within Priority Habitat Management Areas would be placed on having a neutral or positive effect on GRSG habitat. Individual route designations would occur during subsequent travel management planning efforts.

- 18.5. TM-5: Conduct road maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

DRAFT

**19. Recreation**

- 19.1. REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.
- 19.2. REC-2: Do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within PHMAs and IHMAs unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities as in TM-4, or unless the development is required for visitor safety or resource protection.

DRAFT

## **20. Monitoring**

- 20.1. Monitoring (MON)-1: Once FIAT Assessments are complete a Annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.
- 20.2. MON-2: Annually monitor the effectiveness of fuels treatment projects.
- 20.3. MON-3: Monitor invasive vegetation post vegetation management treatment
- 20.4. MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.
- 20.5. MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.
- 20.6. MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in Appendix F.
- 20.7. MON-7: Monitor GRSG habitat as described in the monitoring framework plan (Appendix E) in coordination with IDFG and MT FWP.

## Appendices

Appendix A – Required Design Features

Appendix B – Seasonal Timing Restrictions

Appendix C – Application of Buffers

Appendix D – Wildfire and Invasive Species Assessments/FIAT Team

Appendix E – Monitoring Framework Plan

Appendix F – Idaho Key Habitat Map Update Process

Appendix G – Idaho Anthropogenic Disturbance and Adaptive Management

Appendix H – Montana Anthropogenic Disturbance [and Adaptive Management Process](#)

Appendix I – Mitigation

Appendix J – Lands No Longer Available for Disposal

Appendix K – Travel Management Planning Guidelines

Appendix L – Functioning of Boards

Commented [BER19]: John working on.

Commented [BER20]: Pat is working on Montana section.



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May 15, 2015

John Beck, Project Lead  
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**Custer County Idaho Comments on Idaho and Southwestern Montana Greater Sage-Grouse Administrative Draft of Proposed Land Use Plan Amendment and Final Environmental Impact Statement**

On behalf of the Custer County Idaho Board of Commissioners, please incorporate the following comments into the above referenced documents. All prior Custer County comments to this NEPA process are herein incorporated by reference.

**1. FEIS Chapter 1, Page 2: “While historical Euro-American settlement of these lands has been slower and sparser than in other regions of the country, habitat conversion to suit human purposes has contributed to widespread loss and decline of sagebrush habitat availability or quality and associated wildlife populations. These human purposes include agriculture and urban development, energy and mineral resource development, and a long history of dispersed (but sometimes intensive) uses such as domestic grazing.”**

Comment:

The Land Use Plan Amendment (LUPA) and Final Environmental Impact Statement (FEIS) for Idaho and southwestern Montana are based on a series of false assumptions including the statement quoted above. As testimonials from Custer County Commissioners and residents show, before enactment of the ESA, sage-grouse were abundant. Sage-grouse populations thrived in the era of agriculture in Idaho and southwest Montana. This fact is understated in the FEIS in favor of hypothetical pre-European settlement “make-believe” maps that are not



based on science. The artificial stories and maps created by federal biologists leave out the fact that when ranchers, farmers and miners settled in Idaho and Montana in the 1800s and 1900s they cleared trees, leveled land, planted crops, created year round water sources and increased the abundance of sage-grouse and the diversity of habitat the sage-grouse needed for optimum year round survival.

The false assumptions throughout the FEIS result in a proposed action that would harm the Greater Sage-Grouse as well as the economy of Custer County and other counties in Idaho and southwestern Montana. The proposed action would also harm the economic well being of our nation as a whole by destroying the very industries that have helped sage-grouse habitat diversification over time. The proposed action would also harm our military defense system by adding restrictions that are unnecessary and expensive. Every hour and every dollar the military spend on this false crisis is time and money that is urgently needed to strengthen our national defenses.

The false assumptions and incorrect political rationalizations in the name of the Endangered Species Act (ESA) are disingenuous and need to be corrected. For the reasons listed below and those itemized in past comments, the Custer County Board of Commissions recommends the No Action Alternative as the preferred alternative.

**2. FEIS Page 1 -9. “Within the Idaho and southwestern Montana sub-region, the PACs consist of a total 11,232,800 acres.”**

Comment:

Custer County is opposed to restrictions within over 11.2 million acres of Priority Areas for Conservation (PACs) including each and every proposed land withdrawal, restriction on land disposal, leasing closure, leasing constraint, non-energy leasing closure, saleable mineral material leasing closure, travel management restriction, ban from surface occupancy, anthropomorphic surface disturbance limitation and other action that prohibits economic opportunities, scientific vegetative management, and predator control options outlined clearly and succinctly in the Custer County Land Use Plan.

**3. FEIS Figure 1-1**

Comment:

This figure demonstrates that the Greater sage-grouse habitat is widespread and abundant. The proposed action is based on the premise that sage-grouse are declining due to man induced factors related to livestock grazing, oil and gas development, roads, and mining.



Instead, the science shows the sage-grouse populations fluctuate in relation to climate and predators and that sage-grouse are not threatened with extinction. Genetic work by Dr. Zink, discussed in previous comments submitted by Custer County, clearly demonstrates the genetic health of the Greater sage-grouse population across the eleven states where listing is proposed but not warranted.

The very work federal land management agencies should be taking to enhance sage-grouse habitat would be severely restricted by the proposed alternative. The proposed plan of action would limit options to manage sagebrush and riparian communities as well as predators, thus harming sage-grouse populations in Idaho and southwestern Montana.

**4. FEIS Table 1-3 Lists Predators as a threat to sage-grouse in all three documents cited:**

<b>USFWS 2010 Finding</b>	<b>2006 Idaho GRSG Conservation Plan</b>	<b>2005 Montana GRSG Management Plan</b>
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Comment

FEIS Table 1-3 clearly demonstrates that USFWS, Idaho and Montana all consider predators a significant threat to sage-grouse. This fact contradicts Appendix R, Page R 15 which states:

*“The [Catron] county plan identifies predation as the primary threat in the county (p. 14). This threat is not shown as a primary threat on other threat descriptions (BLM, State, USFWS, Local Working Group). **Predator control is not under the jurisdiction or authority of the BLM or FS** (emphasis added) and a specific alternative to address predator control has been eliminated from detailed analysis”*

The FEIS and Appendix R need to be corrected so they don't contradict each other.

Please answer the question of why BLM and FS personnel think they can manage game bird populations (sage-grouse) and their habitat and why they think they can't manage predator populations (foxes, badgers, ravens, etc) and their habitat.

Also, if *“**Predator control is not under the jurisdiction or authority of the BLM or FS**”* (emphasis added) why are the two agencies involved in interdisciplinary teams to manage wolves? Wolves are predators. Wolves prey on sage-grouse.

Stating that BLM and FS can manage sage-grouse and wolves, but not “predators” is illogical and contradicts ongoing actions by both agencies. The statement that predator control is not under the jurisdiction or authority of BLM or FS is false and needs to be corrected. Both agencies know that they currently, through agreements with state and other federal agencies, jointly perform predator management control activities. The statement was merely placed in



Appendix R to discard the Custer County recommendation for predator control actions as a mechanism to increase sage-grouse numbers. The statement is political and it is false.

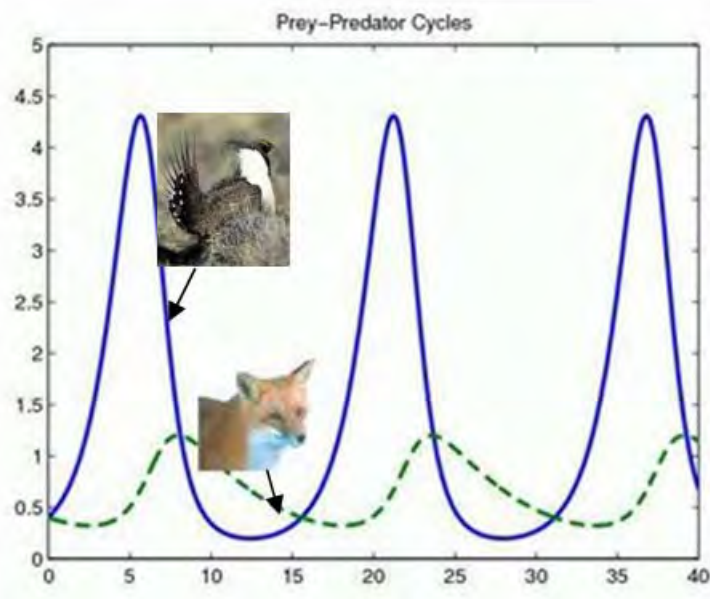
Please rewrite Appendix R as it relates to the Custer County Land Use Plan predator control recommendations and what BLM and FS can and cannot do through interagency agreements to control predators and to fund predator control programs when they so desire.

Why is it that BLM and Forest Service seem to think they can create rules and restrictions for sage-grouse and wolf habitat, hire biologists to count sage-grouse and wolves, radio track sage-grouse and wolves, map sage-grouse and wolf movements, etc. yet the same federal agencies say they can't count badgers, radio track badgers, map badger movements, or otherwise "manage" predators such as badgers?

What federal laws create the distinction between when the BLM and Forest Service can manage a particular species? BLM and Forest Service biologists are involved in programs to track deer and elk, yet these species are not listed as sensitive, threatened or endangered.

The FEIS needs to analyze predators as well a prey. The two are directly related and inseparable.

Anyone with basic wildlife management training knows that there is a predator – prey cycle:



Prior to enacting the ESA, predator control was a key factor in keeping sage-grouse numbers high. This is a well documented fact that recent agency biologists choose to ignore.

The presence or absence of predators is a key population factor in the survival and population viability of sage-grouse and cannot be categorically ignored. By ignoring the predator prey cycle in the FEIS, the agencies have missed a key factor in sage-grouse management that is critical to their decision. The lack of a detailed predator prey analysis negates the ability of the agencies to make an informed decision. The lack of a predator prey analysis makes the current FEIS proposed decision arbitrary and/or capricious.

## **5. FEIS Figure 3-3**

Comment:

This figure demonstrates that catastrophic fires are significant in Idaho and southwestern Montana. Science proves sage-grouse habitat is dynamic and vulnerable to catastrophic fires if left unmanaged (Davies et al 2011). The catastrophic fires that would be perpetuated by the proposed action will destroy soil microbes necessary to restore vegetation.

Livestock grazing prevents blazing, yet livestock grazing is severely restricted under the proposed action. The result of implementing the proposed action would be massive fuel loads that build up and burn hot, requiring federal, state and local resources to fight fires instead of producing food and economic prosperity.

## **6. FEIS Appendix D**

Comment:

Though the federal agencies assess fire strategies, they fail to include the private land and the value of partnerships with private landowners to create an ecosystem approach to fire management. Their analysis also fails to consider the large amount of revenue generated from mining, oil and gas, and livestock grazing that would be available to implement the fire management strategies if these resource uses were allowed to persist and thrive under Congressionally mandated multiple use guidelines.

The combination of natural resource use and mitigation provided when industry is involved in natural resource management, while at the same time creating wealth from food and energy producers, was not analyzed. Money matters. The Big Green organizations are not spending enough of their money on land management. Instead they spend it on litigation and lobbying. The litigation takes money away from federal land management agencies that would be better spent on managing wildlife habitat.



Natural resource users will spend money to manage the land so they can continue to use it wisely. Federal agencies should ally with livestock producers, mining companies, oil and gas companies, hunters and other natural resource users to find ways to work towards the goal of bringing both healthy natural resources and healthy economic metrics into balance. Government would be better served to work with producers instead of against them. The current plan of action works against industry.

The current plan of action did not take into account the comments provided by Custer County to date in regard to this NEPA decision. The proposed action is inconsistent with the Custer County Land Use Plan and the economic needs and willingness of the County and its constituents to work to assure the health of sage-grouse populations and their habitat.

## **7. FEIS Appendix R**

Comment:

Though Appendix R of the FEIS purports to take into account relevant County Land Use Plans, it does nothing to create consistency between federal and local plans. The Custer County Board of Commissioners adopted their Land Use Plan in hopes that it would be relevant to the decisions of federal land managers within the County. Instead, the Custer County Land Use Plan was largely ignored because it did not fit with the easier and less expensive government GIS models that lock up the land instead of managing land as evidenced by the millions of acres that would be withdrawn or restricted from multiple use under the proposed alternative.

## **8. Appendix AA**

Comment

The IMPLAN addressed in Appendix AA is deceiving in respect to tables that show no decrease in AUMs under the proposed action. The problem is that the price of the AUMs increases to the point that livestock producers will not be able to afford the AUMs (Appendix AA).

This real and significant economic impact was not analyzed in the FEIS, in direct violation of NEPA, CEQ regulations, the Regulatory Flexibility Act and a variety of other laws, policies and Executive Orders detailed in previous Custer County comments. Based on a lack of a proper economic analysis, any decision from the FEIS is by nature arbitrary and/or capricious.



The IMPLAN is akin to stating that the number of federal employees in BLM and Forest Service will stay the same, though in a different part of the analysis, their salaries will be cut 90%. Logic tells you the federal employees will leave if their salaries are significantly cut. Why wasn't the same logic used to state that AUMs will be significantly reduced under the proposed action alternative due to the significant increase in the cost of each AUM?

## **9. Appendix R**

Comment:

The LUPA/FEIS continue to ignore the Custer County Land Use Plan as evidenced in Appendix R of the FEIS. Custer County Commissioners have watched as ESA actions to bring back species such as the spotted owl, gray wolf and grizzly bear have restricted perceived threats such as livestock grazing, timber harvest, oil and gas development, mining and other natural resource uses. The result is unhealthy and unbalanced. Custer County Commissioners reacted by writing their own land use plan that should become part of any federal plans within the County. Instead, the proposed action is inconsistent with the County Land Use Plan and the federal government is negligent in its actions to dismiss the County Plan as irrelevant.

The proposed action further restricts land uses and land management tools that constituents of Custer County need to utilize in order to keep sagebrush from becoming decadent. Old growth climax sagebrush is not used by sage-grouse, yet that is what the proposed action will create, to the detriment of the very species the federal agencies purport to want to protect.

How did federal agencies get off track? The answer is simple. Politics, emotions and egos are overtaking science and facts. Many federal biologists have put their careers on the line to get promoted, make friends in Washington DC and become Hollywood – type stars in the eyes of people who trust them to save a species that would be best left to local management.

Pro-sage-grouse organizations are making billions of dollars off this false crisis. Politicians are getting reelected based on the lobbying efforts of these Big Green organizations that know the real issue is not sage-grouse. The real issue is power and wealth, big government control and a wildlands network where rural populations are exterminated for the perceived greater good of the country.

The crime is in the fact that rural Americans that feed the world are the heart and soul of our country. They should not be destroyed in favor of zealots that believe humans are a parasite on this earth. By writing Appendix R in a way that dismissed the Custer County Land Use Plan, the federal agencies are buying into a false premise that will actually put the security of



our nation at risk as we become dependent on other nations for food, energy, minerals, and other necessities of life.

The ESA action to place Canadian timber wolves in Idaho and southwest Montana has created a significant increase in predators which in turn threatens sage-grouse. As documented in earlier Custer County comments, raven numbers have increased thousands of fold in certain areas of Idaho due to the carcasses left by wolves. Ravens and other predators eat sage-grouse eggs and sage-grouse chicks. Why is the fact that ravens and other predators are causing a decline in sage-grouse ignored? The answer has to be political because it certainly isn't scientific. Many members of the Custer County Commission have seen the benefits of predator control. Many of the people who live in Custer County grew up in the County. They know the history, customs and culture of their ancestors. They know wildlife management. They know more about sage-grouse and sage-grouse habitat than federal biologists. Custer County Commissioners know that the proposed action is bad for sage-grouse and bad for their County.

## **10. FEIS Appendix BB**

Comment:

The federal agencies do not see the hypocrisy of their thinking. In Appendix BB they discuss nonmarket values including *“value from using these non-market resources, such as photographing ranch houses, old barns ... driving backcountry roads.”* They don't stop to think that the proposed action will destroy the very values they weigh. The proposed action will cause ranch houses and old barns to crumble and high density subdivisions to be built (Davies et al. 2011). Backcountry roads will either disappear or become paved roads with more traffic. The nonmarket analysis is fatally flawed because it places values on so many resources that will disappear if the proposed action is implemented. The nonmarket analysis must be re-written to take into account this factor.

## **SUMMARY**

In summary, the only acceptable alternative is the No Action Alternative. Idaho and Montana fish and wildlife management agencies need to work with local governments and multiple use groups to keep a wide diversity of habitat, with vegetation in various seral stages, to recreate an ecosystem where sage-grouse and other wild animals thrive. Predator control must be part of the solution.

The western eleven states where Greater sage-grouse are found should not become part of a conservation system that creates protection akin to national parks or wilderness. Sage-grouse



thrive on agriculture and a diversity of land uses and seral stages of vegetation. Sage-grouse do not thrive in climax communities of old growth sagebrush with unpalatable vegetation. The proposed action will exacerbate a situation where a spark of lightening is enough to start a catastrophic fire that burns millions of acres of sage-grouse habitat where fuel loads are so high that the habitat is lost for decades to come.

The FEIS needs to be rewritten to analyze the impacts the proposed action will have as fires increase and add more carbon to the environment than what was analyzed in the FEIS. (See <http://www.lanl.gov/discover/news-release-archive/2013/July/07.09-wildfires-may-contribute-to-global-warming.php>).

Please choose the No Action Alternative and work with local and state governments to manage sage-grouse and their habitat in balance with all wildlife and human activities. To do otherwise will rapidly result in the demise of sage-grouse and their habitat.

Respectfully Submitted on Behalf of Custer County by  
Darling Geomatics Sage-Grouse Biologist

*/s/ Mary E. Darling*

Mary E. Darling, MS, JD





## OFFICE OF SPECIES CONSERVATION

**C.L. "BUTCH" OTTER**  
Governor



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Administrator

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May 13, 2015

Interim State Director Jeff Foss  
Idaho BLM Office  
1387 S. Vinnell Way  
Boise, Idaho 83709

Dear Mr. Foss,

Thank you for the opportunity to provide comments on the Administrative Draft of the Idaho and Southwest Montana Sub-regional Greater Sage-grouse Proposed Resource Management Plan Amendment and Final Environmental Impact Statement (Draft Plan). Attached to this letter are specific comments to the Draft Plan from the State of Idaho.

Idaho values the ongoing local partnership with the Bureau of Land Management ("BLM"), the U.S. Forest Service, and the U.S. Fish and Wildlife Service. When Governor Otter took Secretary Salazar up on his offer to develop state-specific regulatory mechanisms and participate in the federal planning effort, he did so knowing that a local collaborative was key to building and implementing a plan that balanced the needs of sage-grouse with the economic vitality of the State.

Over that past few months, the State has worked in close coordination with your office to ensure that the Final Environmental Impact Statement (EIS) reflected the full intent of the Governor's Alternative. Unfortunately, despite a solid path forward with Idaho BLM, recently issued National Direction from the BLM office in Washington, D.C. stands to diminish the work completed by the Governor's Sage-grouse Task Force, the State of Idaho, and our local federal partners. Many elements of the National Direction were not vetted with the State or the Task Force. To that end, many of the following comments continue to highlight the State's concerns with the National Direction.

The State of Idaho is committed to conserving sage-grouse and its habitat while maintaining multiple-use activities across the landscape. We look forward to continuing our partnership as we move towards the completion of the Final EIS and subsequent record of decision.

Sincerely,

A handwritten signature in blue ink that reads "Dustin T. Miller".

Dustin T. Miller

## Comments from the Office of Species Conservation - May 13, 2015

### BLM portion of Chapter 2

**Chapter 2: Section 2.1 Changes between the Draft LUPA/EIS .... Page 2-5, line 12: A BLM Disturbance and Monitoring Sub-team further enhanced the two Appendices (Appendix G,... Appendix H, ... and Appendix E ...).**

There are three appendices listed and it states that there are two.

**Section 2.6.1 Development of the Proposed Plan Amendment for GRS Management page 2-4: Within these areas, the BLM/FS identified Sagebrush Focal Areas (SFAs), which are PHMAs with the following additional management (Figure 2-3): 1) Recommended for withdrawal from the Mining Law of 1872, subject to valid existing rights. 2) Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing. 3) Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions).**

SFAs are a deviation from the original three-tiered approach within the Governor's Alternative. The three-tiered approach is a model that prioritizes the best of the best habitat with the most restrictive regulations in Priority (Core) habitat, less restrictive in Important Habitat and the least restrictive in General Habitat.

**Section 2.6.1, page 2-5 lines 9 – 12: Based on these documents, the BLM is proposing to include lek-buffer distances when authorizing activities near leks.**

The addition of lek buffers in all tiers of the plan would disregard the flexible approach within the Governor's Alternative, ranging from Priority being the most restrictive and General being the least.

**Section 2.6.2, HM-OBJ-1, page 2-9, lines 17-20: Maintain or make progress toward at least 70 percent of lands within PHMAs and IHMAs capable of producing sagebrush at 10 to 30 percent canopy cover...**

This habitat objective states that the agency will strive toward having lands capable of producing 10 to 30 percent sagebrush canopy cover. This range does not align with those in table 2-3 on pages 2-10, 2-11 and 2-12 where the range is stated to be from 10 to 25 percent, 10 being the low end in winter range and late brood rearing, while the high end is 25 percent, not 30 percent, in nesting/early brood rearing and late brood rearing.

**Section 2.6.2 page 2-10 lines 6-10: These habitat objectives are not obtainable on every acre within the designated GRS habitat management areas. Therefore, the determination on whether the objectives have been met will be based on the specific site's ecological ability to meet the desired condition identified in the table.**

"Ecological ability" should be defined in this statement. Is this referring to the natural ability of the site without additional resources? In many cases, if a site has crossed an ecological threshold such as a perennial bunchgrass community converting to an annual grass community, return to the proper state is precluded within a time frame relevant to management, without substantial inputs of energy. A large amount of resources are needed to return the ecological processes to functioning within a normal range of variation.

**Section 2.6.2 page 2-10 lines 12-14: If monitoring data show the habitat objectives have not been met nor progress being made towards meeting them, there will be an evaluation and a determination made as to the cause.**

What monitoring points will be used to obtain this data? Will the points be at established monitoring points?

**Table 2-3, pages 2-10 and 2-11. Seasonal Use Period March 1 – June 15: Perennial Grass (and forb) height: Desired Condition: Greater than or equal to 7 inches:**

Having a height of greater than or equal to 7 inches of grass height will increase the fire potential in the area. Also, the measurement of 18 cm or 7 inches was from a study in southeastern Idaho, which is particular to that portion of Idaho. It is important to note that the vegetative preferences described, such as height and canopy coverage, are likely to occur as different-sized patches in sagebrush/grassland communities. Specific measurements, such as grass canopy height at nest sites, do not imply a uniform landscape-wide measurement, but instead are a microsite measurement of vegetation at a specific site. Also, in some parts of Idaho, vegetation may not be capable of achieving the desired height or cover characteristics. Connelly et al. (2000b) suggested, "...in all these cases, local biologists and range ecologists should develop height and cover requirements that are reasonable and ecologically defensible." (Idaho Sage-grouse Advisory Committee. 2006). A better approach to this may be having the desired condition state that the habitat is providing vertical and horizontal concealment for sage-grouse and having local knowledge address the issue of stubble height or desired condition.

**MA-10 page 2-17: Areas of non-PHMA mapped within the SFA boundary will not be managed as SFA except for the Donkey Hills ACEC and three Forest Service parcels in the Lost River Range, Idaho (Borah Peak, Big Flat Top Mountain, and Copper Basin Knob).**

Many of these areas, in particular the top of Borah Peak are NOT sage-grouse habitat.

**AD-1 page 2-19, lines 27-35: If the 3 percent anthropogenic disturbance cap is exceeded on lands ... then no further discrete anthropogenic disturbances ... will be permitted by BLM with GRSG PHMAs and IHMAs in any given BSU until the disturbance has been reduced to less than the cap.**

The four CAs in Idaho were set up to determine the disturbance within each area. Sage-grouse across Idaho are affected regionally by different threats. The purpose of the CA framework with the associated three-tiered HMA approach was to address problems where they are occurring and not penalize the rest of the State, where significant progress may be occurring for GRSG. Application of any disturbance cap must be applied at the CA level and not statewide.

**MON-1 page 2-25, line 2: Once FIAT Assessments are complete annually complete a review of FIAT Assessments...**

There needs to be a comma after the first "complete": Once FIAT Assessments are **complete**, annually complete .....

**FM-6 page 2-31, line 20: Fuel treatments will be designed though an interdisciplinary team process.....**

"Though" needs to be "through" to read: Fuel treatments will be designed through an interdisciplinary team process....

**ESR-4 page 2-33, line 34 &35: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.**

Language must be added explaining how the livestock management on adjacent unburned areas will be adjusted. If this plan is setting habitat characteristics and standards across the landscape, then adjustment in adjacent pastures should not be needed.

**RM-3 page 2-34, lines 14-17: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG ...**

This needs to be used to address seasonal restrictions and timing with livestock grazing. If certain areas, usually lower in elevation, are being grazed during the critical growing period for the plants annually, BLM and USFS should work together to help permittees with grazing management rotations instead of not allowing them to graze during the entire breeding, nesting, and early brood rearing period. This could be a detriment to users if seasonal restrictions are implemented.

**RM-7 page 2-35, lines 4-8: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitat areas.**

The situations in which this would occur need to be spelled out. Livestock operators need to understand when this would occur.

**RM-12 page 2-35, lines 26-34: Design any new structural range improvements following ... Any new structural range improvements should be placed along existing disturbance corridors or in unsuitable habitat, to the extent practical, and are subject to RDFs.**

Limiting the tools that a land manager has to use by restricting range improvements to existing disturbance corridors or in unsuitable habitat could severely limit the ability to properly manage grazing with facilitating practices such as cross fences and watering facilities. Practices such as spring developments, watering troughs and cross fences to name a few, are usually not in disturbance corridors or unsuitable habitat, but are crucial for managing proper livestock grazing and maintaining GRSG habitat standards.

**RM-19 page 2-36, lines 31-34: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider .... Should remain available for livestock grazing or be used for other resource management objectives, such as grass banks or fire breaks.**

A fire break is not a practice that should replace grazing in an allotment. A fire break is a practice that, in many cases, buffers a linear feature such as a road or powerline on both sides for a set distance. This practice does not occupy or take the place of grazing in an entire allotment.

**LR-10 page 2-39, line 22: New ROW applications .... Would be allowed on a case-by case bases subject to RDFs to reduce ....**

Would be allowed on a case-by case bases ... this should be "basis."

**FLM -7 page 2-43, lines 28-30: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG population or habitat.**

The reasonable protective measures need to be listed or identified as RDFs, these terms cannot be ambiguous and unknown.

**LOC-3 page 2-44, lines 1 – 2: Recommend SFAs for withdrawal from the General Mining Act of 1872 ...**

In LOC-2 of this plan there will be RDFs and BMPs applied to all HMAs. Also, regulations within this plan and these RDFs will help protect seasonal habitats for the entire life cycle of the GRSG without the need to withdraw 3.5 million acres in Idaho from locatable minerals. The application of SFAs in Idaho is inconsistent with the Governor's Alternative.

**TM-1 page 2-45, lines 34 – 40: Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails ....**

This will limit the ability for grazing permittees to effectively and efficiently manage their livestock to best meet GRSG habitat standards. Activities such as salting, moving livestock to subsequent pastures, fence and trough maintenance, etc. will be severely hampered by this restriction.

**TM-5 page 2-47, lines 8-10: Conduct road construction, upgrades and maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.**

This needs to be stated more clearly. I am unsure if this refers to Appendix C – Seasonal Timing Restriction. It appears that the only dates that would be affected would be a range from March 15 – May 15. If so, would this be considered different seasons? Also, there needs to be an exemption for major roadways through these areas for snow removal as maintenance.

**USFS Comments of Chapter 2**

**GRSG-Gen-DC-003-Desired Condition, page 2-48, lines 26-34: In all seasonal habitats, 70 percent of lands capable of producing sagebrush have 10 to 30 percent canopy cover ...**

This habitat objective states that the agency will strive toward having lands capable of producing 10 to 30 percent sagebrush canopy cover. This range does not align with those in table 2-6 on pages 2-48 and 2-49 where the range is stated to be from 10 to 25 percent, 10 being the low end in Winter range and late brood rearing while the high end is 25%, not 30%, in nesting/early brood rearing and late brood rearing.

**GRSG-GEN-GL-004-Guideline, page 2-50, lines 22-26 – Development of tall structures within 2.0 miles from the perimeter of occupied leks, ...**

The Governor's Alternative requires a 1 km buffer for tall structures from occupied leks in Core and Important Habitat.

**GRSG-LR-SUA-ST-001-Standard, page 2-51, lines 9-13 – In PHMA, IHMA and SFAs, restrict issuance of new lands special use authorizations for infrastructure ...**

The Governor's Alternative includes a management continuum whereby flexibility for new land-use activities increase as you move out from the Core Habitat Zone to the General Habitat Zone. In this standard there is no difference between PHMA and IHMA on restricting issuance of new lands special use authorizations for infrastructure which deteriorates the State's three-tiered approach. This three-tiered habitat approach has been validated by the U.S. Fish and Wildlife Service.

**GRSG-LR-SUA-ST-003-Standard, page 2-51, lines 19-21 – In PHMA, IHMA and SFAs, do not authorize temporary lands special uses that result in loss of habitat ...**

See comment above at GRSG-LR-SUA-ST-001.

**Table 2-7 Treatment Acres per Decade on National Forest System Lands, page 2-53: Within the footnote #4; Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.**

This treatment of annual grasses does not appear in the table to denote how many acres will be treated for annual grasses on USFS lands per decade.

**GRSG-GRSGH-GL-002-Guideline, page 2-53, lines 24-26: When removing conifers that are encroaching into GRSG habitat, avoid persistent woodlands (old growth relative to the site or more than 100 years old).**

Old growth juniper is not considered “old growth” unless it is pre settlement, when settlers began suppressing fires and allowing for woodland expansion. This would be around 145 years old as of 2015. This is according to Oregon State University technical bulletin 152, Biology, ecology and management of Western Juniper, June 2005.

**GRSG-LG-ST-001-Standard, page 2-54, lines 8-9: In PHMA, IHMA and SFAs, do not approve construction of water developments unless beneficial to GRSG habitat.**

This standard is subjective depending on who is applying the standard of “beneficial.” The literature approves of a 1.2 mile buffer for new permanent livestock facilities of which is covered in Guideline 006. This standard could affect proper grazing management.

**Table 2-8 page 2-54, lines 19-20: when grazing occurs during breeding and nesting season (March 1 to June 15) manage for upland perennial grass height of 7 inches. When grazing occurs post breeding and nesting season (June 16 to October 30) manage for 4 inches of perennial grass height. Retain an average stubble height of 4 inches for herbaceous riparian/mesic meadow vegetation.**

Depending upon the ecological potential, a perennial grass height standard enforced before the growing season in early spring may be unattainable. A riparian/ mesic meadow standard of 4 inches is arbitrary given that the literature suggests a range of between 2 and 6 inches.

**GRSG-LG-GL-002-Guideline, page 2-54, lines 21-24: In PHMA, IHMA, GHMA, and SFAs, consider closure of grazing allotments ....where removal of livestock grazing would enhance the ability to achieve desired habitat conditions.**

Language should be included here stating that once desired conditions are reached, livestock will be reintroduced into the system after a set period of time, and removal would not be permanent.

**GRSG-FM-ST-002-Standard, page 2-55, lines 17-21: In PHMA, SFAs, GHMA, if it is necessary to use prescribed fire to facilitate site preparation for restoration ...**

IHMA should not be excluded from this standard.

**GRSG-FM-GL-001-Guideline, page 2-55, lines 22-24: In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted ...**

Wording that states and/or the management action brings the habitat consistent to desired conditions within Table 2-6.

**GRSG-FM-GL-005-Guideline, page 2-55, lines 33-35: In PHMA, IHMA, GHMA and SFAs, cross country vehicle travel during fire operation should be restricted ....**

Will this hamper firefighting efforts and effective wildfire suppression?

**GRSG-RT-ST-002 Standard, page 2-57, lines 35-37: Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks ...**

Only during the breeding and nesting season? How will this affect road maintenance? What if the road is not federal jurisdiction?

**GRSG-M-FMUL-ST-001-Standard, page 2-58, lines 21-30: In PHMA, and IHMA any new oil and gas leases must include an NSO stipulation. There will be no waivers ....**

PHMA and IHMA should not be the same and there should be some increased flexibility when moving from PHMA to IHMA.

**GRSG-M-FML-ST-005-Standard, page 2-59, line 17: In PHMA, GHMA and SFAs, when authorizing development.....**

This should be PHMA, IHMA and SFAs, not GHMA.

**GRSG-FML-GL-003-Guideline,page 2-59, line 30: In PHMA, SFAs, and GHMA ....**

This format for PHMA, SFAs and GHMA is different than what has been used throughout the entire document of PHMA, IHMA, GHMA and SFAs.

**GRSG-M-NEL-GL-002-Guideline: page 2-62, line 1: In PHMA, SFAs, GHMA, the Forest Service should ....**

This format for PHMA, SFAs and GHMA is different than what has been used throughout the entire document of PHMA, IHMA, GHMA and SFAs. The format should be the same throughout the document when using similar HMA's.

## **Appendix B - Required Design Features**

**B-4 RDF – 51: When conducting vegetation treatment in areas inhabited or potentially inhabited by slickspot peppergrass ...**

This is a GRSG document and not the place to have at slickspot peppergrass RDF.

**B-6 RDF – 105: Avoid building new wire fences within 2 km of occupied leks (Stevens 2011). If this is not feasible, ensure that high risk segments are marked with collision diverter devices ...**

The Governor's Alternative states to avoid constructing new fences within one kilometer (0.6 miles) of occupied leks.





May 13, 2015

## Comments from the Office of Energy Resources

### 2.6 Proposed Plan Amendment

#### 2.6.1 Development of the Proposed Plan Amendment for GRSG Management

**MA-10 (p. 2-16):** The proposed Land Use Plan Amendment (LUPA) designates Sagebrush Focal Areas (SFAs) and manages them as priority habitat management areas, with additional management, including: “1) Recommended for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights; 2) Managed as no surface occupancy, without waiver, exception, or modification, for fluid mineral leasing; and 3) Prioritized for management and conservation action in these areas, including but not limited to review of livestock grazing permits/leases.”<sup>1</sup>

On March 9, 2012, Governor C.L. “Butch” Otter promulgated Executive Order 2012-02 establishing a 15 member Sage-Grouse Task Force (Task Force). The Task Force’s purpose was to provide Governor Otter with recommendations to ensure long-term viability for Sage-Grouse and prevent the need for federal protection under the Endangered Species Act.<sup>2</sup> The Task Force recommendations were submitted to the Governor on June 15, 2012 and became part of the larger State Plan. MA-10 is inconsistent with the State Plan.

Governor Otter submitted the State Plan to the Bureau of Land Management (BLM) for inclusion in this Environmental Impact Statement. The State Plan envisions a three tiered management approach to sage-grouse habitat, which adequately enables the State and the federal government to prioritize conservation and restoration efforts, and provides the most effective opportunities to benefit sage-grouse populations and their habitat *while maintaining predictable levels of land use*.<sup>3</sup> This management approach takes into account the distribution of sage-grouse populations in Idaho focusing on the two meta-populations in the State.<sup>4</sup>

MA-10 recommends what is effectively a four tier approach by adding SFAs as a habitat classification, in addition to the Priority, Important, and General Habitat Management Areas as delineated in MA-2.<sup>5</sup> This addition of a fourth habitat category creates inconsistency and minimizes the collaborative work between the BLM and the State on the three tiered approach to habitat classification.

Moreover, MA-10 is inconsistent with the direction that the Secretary of the Interior gave the eleven western states to develop a *state-specific regulatory mechanism to conserve the species and preclude the need to list under the ESA*.<sup>6</sup> This direction was received by Governor Otter,

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<sup>1</sup> Idaho and Southwestern Montana Greater Sage-Grouse Proposed LUPA/Final EIS, p. 2-16, 17 (June 2015).

<sup>2</sup> Idaho Exec. Order No. 2012-02 (Mar. 9, 2012).

<sup>3</sup> State Plan at page 19, emphasis added.

<sup>4</sup> State Plan at page 23.

<sup>5</sup> Proposed LUPA/Final EIS at 2-14, 15 EIS (June 2015).

<sup>6</sup> Idaho Exec. Order 2012-02, emphasis added.

and taken seriously, as shown by its memorialization in Executive Order 2012-02. The Secretary's assurance that Idaho would be allowed to develop its own regulatory mechanism was a portion of Idaho's motivation for creating the State Plan.

MA-10 is inconsistent with the directive contained in Executive Order 2012-02 because it is based off of an October 27, 2014 memorandum from the United States Fish and Wildlife Service to the BLM<sup>7</sup>, which implements a one-size-fits-all approach to sage-grouse habitat management spanning several western states. Idaho was not afforded the opportunity to provide input to SFAs, their associated maps, and was not consulted on the additional management directives that apply to the areas designated as SFAs. MA-10 is not a state-specific regulatory mechanism, and therefore not consistent with the directive given to Idaho by the Secretary of Interior.

Finally, MA-10 is not consistent with the recently adopted Idaho State Board of Land Commissioners Greater Sage-Grouse Conservation Plan (Land Board's Plan).<sup>8</sup> The Land Board's Plan contains mandatory conservation measures for endowment trust land, and programs that fall under Idaho Department of Lands (IDL) regulatory functions.<sup>9</sup> The Land Board's Plan utilizes the State of Idaho Habitat Zone classifications as described in the State Plan, with three distinct management zones.<sup>10</sup> The State and IDL both recognize the value of a three-tiered habitat approach which is essential to the functionality of the adaptive management process.<sup>11</sup> MA-10 is inconsistent with the Land Board's Plan because it creates a fourth tier by managing SFAs differently than Core/Priority, Important, and General Habitat Management Areas.

Because the SFAs are inconsistent with the State's laws, plans, policies and programs, any reference in MA-10 and subsequent LUPAs in this environmental impact statement should be eliminated. With respect to the LUPAs that contain both reference to SFAs and other habitat management zones, BLM should sever reference to SFAs and continue to manage habitat zones as if there was not the fourth tier of habitat management introduced with SFAs.

## 2.6.2 BLM Proposed Plan Amendment

**FLM-1 (p. 2-4I):** Areas within SFAs would be open to fluid mineral leasing and development and geophysical exploration subject to no surface occupancy (NSO) without waiver, exception, or modification.

FLM-1 is inconsistent with state statutes because it does not allow for the development, production and utilization of oil and gas in SFAs. Idaho's legislature "declared it to be in the public interest to foster, encourage and promote the development, production and utilization of natural resources of oil and gas in the state of Idaho in such a manner as will prevent waste; ..."<sup>12</sup> Categorically eliminating the option to develop, produce and utilize Idaho's oil and

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<sup>7</sup> "Greater Sage-Grouse: Additional Recommendations to Refine Land Use Associations in Highly Important Landscapes" (Oct. 27, 2014).

<sup>8</sup> Adopted April 21, 2015.

<sup>9</sup> Land Board's Sage-grouse Conservation Plan at page 5.

<sup>10</sup> Land Board's Sage-grouse Conservation Plan at page 9.

<sup>11</sup> Land Board's Sage-grouse Conservation Plan at page 10.

<sup>12</sup> Idaho Code § 47-315 (2012).

natural gas resources by eliminating approximately three million acres of land from the possibility of exploration and development is a *per se* inconsistency with Idaho statute.

**LOC-1 (p. 2-43):** Lands would remain open to locatable mineral entry outside of SFAs; and **LOC-3 (p. 2-44):** Recommend SFAs for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.

LOC-1 and LOC-3 are inconsistent with state statutes because Idaho allows people “to locate mining claims upon [the] public domain in the state of Idaho which is open to location under the mining laws of the United States.”<sup>13</sup> Withdrawing three million acres of land from the General Mining Act of 1872 disallows Idaho citizens the opportunity to locate mining claims in SFAs.

Moreover LOC-1 and LOC-3 are inconsistent because Idaho Code leaves open to casual exploration “all lands belonging to the state of Idaho in which mineral deposits... are owned by the state, and which have not been located, leased, or withdrawn...”<sup>14</sup> LOC-1 and LOC-3 creates inconsistency because the SFA designation does not take into account ownership of land. While the BLM only has jurisdiction over federally managed lands, maps showing SFAs cover federally managed land, state endowment land, and private property.

Finally, LOC-1 and LOC-3 are inconsistent with a recently passed piece of legislation<sup>15</sup> amending Section 39-102 Idaho Code which states, “[i]t is the policy of the state to protect groundwater and to allow for the extraction of minerals above and within ground water.” While this code amendment is pertaining to ground water, it is clear that the intent of the legislature is to allow for the extraction of minerals in Idaho. Because LOC-1 and LOC-3 recommends withdrawal of the ability to extract minerals from federally managed lands, it is inconsistent with legislative intent.

### **2.6.3 Forest Service Proposed Plan Amendment**

**GRSG-M-FMUL-ST-003-Standard (p. 2-58):** In SFAs, there will be NSO and no waivers, exceptions, or modifications for fluid mineral leasing.

GRSG-M-FMUL-ST-003-Standard is inconsistent with state statutes because it does not allow for the development, production and utilization of oil and gas in SFAs. Idaho’s legislature “declared it to be in the public interest to foster, encourage and promote the development, production and utilization of natural resources of oil and gas in the state of Idaho in such a manner as will prevent waste; ...”<sup>16</sup> Categorically eliminating the option to develop, produce and utilize Idaho’s oil and natural gas resources by eliminating approximately three million acres of land from the possibility of exploration and development is a *per se* inconsistency with Idaho statute.

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<sup>13</sup> Idaho Code § 47-601 (1970).

<sup>14</sup> Idaho Code § 47-702 (1986).

<sup>15</sup> House Bill 197, amending Idaho Code § 39-102, signed in to law on April 2, 2015.

<sup>16</sup> Idaho Code § 47-315 (2012).

May 13, 2015

Idaho and Southwestern Montana Proposed LUPA/FEIS Grazing comments

**ISDA'S COMMENTS ON CHAPTER 2 (GRAZING – suggested additions in red font, suggested deletions lined out & highlighted in yellow)**

**General Comment:**

ISDA supports and believes that good cooperative planning should come from the local level where ideas and decisions can be discussed openly between all of the entities that are familiar with state wide sage grouse issues, including information from local sage grouse working groups throughout the state. These local working groups have extensive knowledge on sage grouse numbers and issues on both public and private lands. When all parties have been involved in a cooperative and collaborative process working to identify all of the topics and issues that need to be identified, discussed, and planned for up front, the final outcome of the process and plan is generally a very successful product. Through numerous task force meetings, interagency meetings with Federal and State Officials, and numerous conference calls, a good collaborative process was carried out at the local level with the exception of the topic of Sagebrush Focal Areas (SFAs). Unfortunately, Sagebrush Focal Areas were not discussed at the local planning level with all of the cooperating agencies and partners. This concept did not come up until after the document left the local collaboration process and was sent back to the Washington D.C. Office.

**Livestock Grazing**

**RM-1:** Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the numbers of AUMS available on an allotment may be adjusted **with supporting quantitative and qualitative monitoring data** based on site specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation. Additionally, temporary adjustments can be made annually to livestock numbers, the numbers of AUMs, and season of use in accordance with applicable regulations.

**RM-3:** Okay as written as long as **private land is included on a permittee voluntary basis only** and the permittees permit/annual bill reflects the correct percent public land use. [See 43 C.F.R. 4130.3-2(g)]

**RM-4:** Add the following sentence to the end of RM-4. **Public and permittee involvement and participation should be encouraged throughout the entire Rangeland Health Assessment process.**

**RM-6:** When **current** livestock management practices are determined to not be compatible following appropriate consultation, cooperation, and coordination, implement .....

**RM-8:** PHMA, IHMA, & GHMA – When an allotment, or portion thereof, becomes vacant or grazing preference is relinquished, consider **retirement of the allotment or grazing preference, or portion thereof, or** converting the area to a forage reserve (a.k.a. reserve common allotment; forage reserves are areas that are set aside for use). This would allow the BLM/Forest Service vacant allotments to

place operators while sage-grouse related habitat restoration efforts occur in their respective allotments, allowing for increased connectivity of fragmented sagebrush habitats. Some of the reasons ISDA does not support and would discourage the retirement of an allotment or grazing preference are:

- BLM Instruction Memorandum No. 2013-184 clearly states that *“the BLM’s receipt of a relinquishment of permitted use does not, in and of itself, result in that forage allocation becoming unavailable for use by livestock. Reassigning a livestock forage allocation that has become available due to a relinquishment to a new or different permittee supports the BLM’s multiple-use mission. When BLM evaluates potential management actions and opportunities following a relinquishment, managers should strive to develop management strategies that allow public lands to be used for livestock grazing while achieving other land use plan management goals and objectives.”*
- Research shows that with no use, fuel loads increase, creating the likelihood of wildfires which will destroy Sage-Grouse habitat
- Reduces the number of places a permittee may go when displaced by wildfire or even restoration efforts in their allotments to improve Sage-Grouse habitat
- By totally eliminating grazing through the retirement of an allotment or grazing preference, this reduces all of the Federal Land Management Agencies options when working with operators on restoration efforts in their allotments that will benefit Sage-Grouse, they have no-where for the displaced operators to go while restoration work occurs
- Retirement of allotments or grazing preferences can have impacts to local rural economies
- Livestock grazing is one of several tools used in the management of fuel reductions. Why would federal land management agencies completely remove tools out of their “tool box” on a permanent basis?

**RM-9:** Where practical, **and in consultation, cooperation, and coordination with the permittees,** design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.

**RM-10:** Evaluate the locations where salt/supplements are placed, coordinate salt/supplement placement **with permittees** to reduce impacts to GRSG habitat (e.g., existing disturbed areas)

**RM-12:** Design any new structural range improvements ..... Any new structural range improvements, **when possible and practical,** should be placed along existing disturbance corridors or in unsuitable habitat, **to the extent practical,** and are subject to RDFs (**Appendix B**).

**RM-15:** In response to weather conditions (i.e. drought), **and in consultation, cooperation, and coordination with affected users and interested parties as outlined in resource Management During Drought Instruction Memorandums,** adjust grazing management (i.e. delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing) as appropriate for adequate food and cover for GRSG.

**RM-17:** The original NEPA document should: (1) fully disclose all specific management thresholds and their ranges, (2) clearly define Land Health Standards (43 CFR 4180.2) and Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and (3) clearly explain the defined responses.

“Defined response” sets up an “if/then” scenario that does not provide the flexibility to address unique rangeland concerns. Additionally, the emphasis on the ecological potential of the site implies that the GRSG Habitat Objectives Table would be populated at a local scale. It is important that the table be populated at a local scale. Finally, there is no mention of ensuring that changes to a permit be accompanied by appropriate spacial and temporal monitoring.

**RM-18:** Allotments within SFA, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision. **Permittees should be extended the invitation to attend when any vegetation type of monitoring (such as utilization, stubble heights, photo monitoring, etc.) occurs on the allotment.**

**RM 19:** At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives. Other resource uses for these allotments may include **uses** such as **forage reserves or grass banks to be used for livestock grazing while restoration efforts occurs in other allotments to improve sage-grouse habitat and improve habitat connectivity in key allotments or while strategic locations to install fire breaks are developed to aid in the protection of other allotments which contain important sage-grouse habitat.**

May 13, 2015

**Wildland Fire Management – Fuels Management - ISDA COMMENTS**

**FUEL-OBJ-1: In coordination, cooperation, and consultation with permittees and the interested publics,** design fuel treatment to restore, enhance, or maintain GRSG habitat.

**Fuels Management**

**FM-1:** Design and implement fuels treatment that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area. **When determined that vegetation or other resources on the public lands are at substantial risk of wildfire due to fuel buildup, consideration should be made on implementing a rangeland wildfire management decision effective immediately or on a date established in the decision (see 43 CFR 4190.1).**

**FM-2:** Looks okay as written

**FM-3:** As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources **following consultation with private land owner(s).** Provide availability to respond to fire in or threatening PHMA and IHMA during initial attack.

**FM-4:** Looks okay as written

**FM-5:** Looks okay as written

**FM-6:** Fuel treatments will be designed through an interdisciplinary process **including the range user** to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeting grazing) mechanical and prescribed fire treatments. **These fuel treatments may be implemented through a rangeland wildfire management decision effective immediately or on a date established in the decision (43 C.F.R. 4190).**

**FM-7:** Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design, **following consultation cooperation and coordination with the permit holder,** then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).

**FM-8:** Looks okay as written

**FM-9:** Looks okay as written

**FM-10:** Protect vegetation restoration and rehabilitation efforts/projects from subsequent fire events **by effectively implementing fuel reduction techniques in a timely manner following successful completion of the vegetation restoration and rehabilitation efforts.**

**FM-11:** Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of wildfires may be implemented within existing grazing authorizations if feasible such as through temporary nonrenewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits **such as rangeland wildfire management decision effective immediately or on a date established in the decision (43 C.F.R. 4190).**

**FM-12:** Targeted grazing to achieve fuels management objectives should conform to the following criteria:

- a. Okay as written
- b. Okay as written
- c. **Where livestock grazing to achieve fuels management objectives is determined to be feasible and applicable within an allotment(s),** coordinate with the grazing permittee(s) to strategically reduce **these fine** fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations.

**FM-13:** Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant, **low yield producing** native and nonnative species, as appropriate, to provide for fuel breaks.

**FM-14:** Looks okay as written

**FM-15:** Looks okay as written



## Washington Office Review of Greater Sage-Grouse Proposed RMPA/Final EIS

### Plan Name: Idaho/SW Montana

April 25 – May 9, 2015

**Instructions for Completing a Comment Table:**

1. Objective of this review is to identify any high-level issues or red flags. Many documents are still being technically edited and reviewed for quality assurance; editorial comments are not needed.
2. Fill in all cells that you are responsible for as a Commenter or IMT Reviewer. The four **yellow** columns must be completed by Commenters. The three **blue** columns must be completed by IMT Reviewers.
  - a. Commenters, if you have the same comment more than once, do not refer to another comment number. Instead, repeat your comment by copying and pasting your comment in to a new row in the table and provide the page number, line number, and Commenter name.
  - b. IMT Reviewers, if you have the same Reviewer response more than once, do not refer to another comment number. Instead, repeat your response by copying and pasting your response in the IMT Reviewer response column and fill in the “A, R, or M” and IMT Reviewer name.
3. Identify the specific error in the document being reviewed and provide the exact text that corrects erroneous text. A good way to do this is as follows: Replace the sentence “\_\_\_” with the sentence “\_\_\_”.
4. IMT Reviewer, ensure IMT Reviewer responses to similar comments provide consistent direction for making revisions.

**Comment Table Notes to Commenters and Reviewers:**

**<sup>1</sup>A = Accept:** Requested change from the Commenter is accepted by the Reviewer and no additional changes are needed; **R = Reject:** Requested change from the Commenter is rejected and the Reviewer provides an explanation for the rejection. No changes to the document will occur if there is an “R” in the “A, R, or M” column; **M = Modify:** Reviewer agrees a change to the document is needed, but the Reviewer wants to modify the change provided by the Commenter. Reviewer provides the exact change to the document and explains the reason for the modified change.

**Comment Table**

Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
	Page #	Line/Row # or Figure/Table #	Commenter Name	Comment <i>(Provide exact new text for use in making changes to document. Comments lacking this information may not be considered.)</i>	IMT Reviewer Name	A, R, or M <sup>1</sup>	IMT Reviewer Response to Comment	Document Change
1.	2-40	LR-14	J Whyte / Lands and Realty	Section needs to be reworded. Needs to include all forms of disposal.  Exchanges should not be the preferred method of land tenure adjustment. This limits the BLM.  Per the BLM manual - “Land exchanges are an important tool to consolidate land ownership for more efficient management and to secure important objectives of resource management, enhancement, development and protection; to meet the needs of communities ; promote multiple-use management; foster sustainable development and to fulfill other public	Hildner	A	Do not identify exchanges at the preferred method of land tenure adjustment.	

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				needs. However, BLM will evaluate and consider the full range of land disposal and acquisition tools to be able to accomplish these objectives prior to proceeding with a land exchange.”				
2.	2-166	Table 2-11 Land Tenure B-LR-19	JWhyte	<p>Section needs to be reworded. Needs to include all forms of disposal.</p> <p>Exchanges should not be the preferred method of land tenure adjustment. This limits the BLM.</p> <p>Per the BLM manual - “Land exchanges are an important tool to consolidate land ownership for more efficient management and to secure important objectives of resource management, enhancement, development and protection; to meet the needs of communities ; promote multiple-use management; foster sustainable development and to fulfill other public needs. However, BLM will evaluate and consider the full range of land disposal and acquisition tools to be able to accomplish these objectives prior to proceeding with a land exchange.”</p>	Hildner	A	Do not identify exchanges at the preferred method of land tenure adjustment.	
3.	2-8	T2-2	Merrill	This table indicates that Areas not previously withdrawn are open, which seems to conflict with page 2-57 which says that SFA for locatables will be withdrawn. Recommend making this consistent.	Hildner	R	No change needed. SFAs are only recommended to be withdrawn by the RMP, and so would remain open till this is done at a later date.	
4.	2-23	T2-4	Merrill	Replace Leasable with "Non-Energy Leasable"	Hildner	A	Make change	
5.	2-44	1	Merrill	See comment on page 2-8	Hildner	R	No change needed. SFAs are only recommended to be withdrawn by the RMP, and so would remain open till this is done at a later date.	
6.	2-44	23-24	Merrill	This is an unfunded mandate. Without funds this is simply a goal or an objective, since BLM could not required the operator to do this if the contract has already been issued with this requirement.	Hildner	R	This is fine to identify as a management action.	
7.	2-61	10-11	Merrill	Is "co-location" really the right word. Presumably the disturbed land has fulfilled its purpose and can be reclaimed. What we're really talking about is "re-locating" the facility to land that has not been reclaimed yet. I recommend replacing "co-locate" at line 10 and 11 with "relocate".	Hildner	R	This is FS decision. Not BLM. No change needed.	
8.	2-61	24-28	Merrill	Is this language suggesting that phased development be required? I'm not sure we have the authority to require a phase operation, unless UUD would occur. For everything else, 3809.420(a)(5) requires concurrent	Hildner	R	This is FS decision. Not BLM. No change needed.	

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				reclamation, which accomplishes the same goal as the phase operation, which is to keep disturbance to the lowest level possible. I recommend the following wording.  In PHMA, IHMA, GHMA and SFAs keep habitat disturbance at a minimum. A phased development approach should be applied to operations, when necessary to avoid unnecessary or undue degradation, consistent with the rights granted under the General Mining Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations, as required by 43 3809.420(a)(5)				
9.	2-61	33-37	Merrill	This section presupposes that all Nonenergy Leases will be on USFS administered lands. Was this intentional? As written these guidelines would not apply to leases on BLM administered lands, nor are there any guidelines for this.	Hildner	R	This is FS decision. Not BLM. No change needed.	
10.	2-84	T2-9	Merrill	Make consistent with Table 20-2, see comment on page 2-8.	Hildner	R	No change needed. SFAs are only recommended to be withdrawn by the RMP, and so would remain open till this is done at a later date.	
11.	2-84	T2-9	Merrill	Please break out withdrawn vs recommended for withdrawal as I have seen in other plans.	Hildner	A	Make edit as time allows	
12.	2-168	T2-11	Merrill	I find the following sentence to be confusing:  "To the extent allowable by laws and regulations and to the extent the claimant would be willing to apply the standards, limit or ameliorate impacts through the use of the general stipulations identified in the GRSG section."  I recommend rewriting as follows: "To the extent allowable by laws and regulations, limit or ameliorate impacts through the use of the general stipulations identified in the GRSG section."	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
13.	2-200	T2-6	Merrill	Third paragraph- Should this be "short-term", rather than "sort term"?	Hildner	A	Make edit	

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14.	4-16	7	Merrill	First line should read "Locatable mineral development"	Hildner	A	Make edit	
15.	4-16	7-11	Merrill	This sentence tries to do too much. Separate out sentences; one for BLM one for USFS. For BLM try: "Locatable minerals development within the sub-region consists of three tiers based on level of disturbance and type of mining; casual use, notice-level operations, and Plan-level operations. In general, casual use operations are activities that result in "no or negligible disturbance". Exploration activities that will disturb less than 5 acres require the filing of a notice. All other mining activities, including exploration with disturbance over 5-acres, require an approved Plan of Operations. Certain operations that would normally not require a plan may be required to do so when certain criteria are met or when the operation is proposed for certain special management areas (43 CFR 3809.11). "  You'll need to contact the forest service for an equivalent statement for 36 CFR 228.4.	Hildner	A	Make edit	
16.	4-16	8	Merrill	For BLM 43 CFR 3809 only refers to Notices or Notice-level operations. Please do not use refer to Notice of Intent unless referring to USFS regulations	Hildner	A	Make edit	
17.	4-16	11	Merrill	"gravel and stone". Not all Oakley is locatable.	Hildner	A	Make edit	
18.	4-38	7-9	Merrill	This section appears to only address fluid leaseables not solid leaseables. Add Solid Leaseable section.	Hildner	A	Make edit	
19.	4-51	27 -31	Merrill	Rename to include "Fluids"; create section for Solid leaseable.	Hildner	M	Reformat if necessary/have sufficient time	
20.	4-52	5	Merrill	Publicly stating that BLM may purchase mining claim may encourage speculators. Further, BLM/DOI's history of buying claims is extremely rare and if BLM were to do so a validity examination would be required first.  Recommend dropping buy-out language.	Hildner	A	Make edit	
21.	4-58	8-13	Merrill	Rename to include "Fluids"; create section for Solid leaseable.	Hildner	M	Reformat if necessary/have sufficient time	

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22.	4-63	15-23	Merrill	Rename to include "Fluids"; create section for Solid leasable.	Hildner	M	Reformat if necessary/have sufficient time	
23.	4-63	19-23	Merrill	Is this statement on locatables and salables misplaced under this section heading?	Hildner	M	Make edit if appropriate	
24.	4-70	3	Merrill	Rename to include "Fluids"; create section for Solid leasable.	Hildner	M	Reformat if necessary/have sufficient time	
25.	4-70	20	Merrill	There's something missing from this sentence "Management under Alternative E would close acres to salable minerals removal."  Was there supposed to be a number of acres in this sentence?	Hildner	A	Make edit	
26.	4-75	16	Merrill	Rename to include "Fluids"; create section for Solid leasable.	Hildner	M	Reformat if necessary/have sufficient time	
27.	4-75	21	Merrill	There's something missing from this sentence "Management under Alternative E would close acres to salable minerals removal."  Was there supposed to be a number of acres in this sentence?	Hildner	A	Make edit	
28.	4-83	5-7	Merrill	Should only be required when determined that the operation will cause UUD per 43 CFR 3809.5.  See H-3809-1 for limitation on mitigation. Mitigation is limited the prevention of UUD, as defined in 43 CFR 3809.5 and addressed in 43 CFR 3809.415. Recommend adding "...mitigation measures required to prevent UUD as defined in 43 CFR 3809.415..."	Hildner	A	Make edit	
29.	4-121	7-8	Merrill	See H-3809-1 for limitation on mitigation. Mitigation is limited the prevention of UUD, as defined in 43 CFR 3809.5 and addressed in 43 CFR 3809.415. Recommend adding "...mitigation measures required to prevent UUD as defined in 43 CFR 3809.415..."  Limitation of the use of mitigation measures and the application of UUD is found in Solicitor's Opinion (M-37007) and supported in court (Mineral Policy Center v. Norton, No. 01-00073 (District Court, DC, November 18, 2003). Therefore, additional requirements beyond UUD may not be implementable. Recommend statement clarifying that such restrictions may not apply to locatable minerals, that such restrictions are	Hildner	A	Make edit	

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				voluntary and achieved by negotiation with the claim holder.				
30.	4-121	13-14	Merrill	This creates an unfunded mandate.	Hildner	R	Noted; no change needed	
31.	4-125	14-18	Merrill	See H-3809-1 for limitation on mitigation. Mitigation is limited the prevention of UUD, as defined in 43 CFR 3809.5 and addressed in 43 CFR 3809.415. Recommend adding "...mitigation measures required to prevent UUD as defined in 43 CFR 3809.415..."  Limitation of the use of mitigation measures and the application of UUD is found in Solicitor's Opinion (M-37007) and supported in court (Mineral Policy Center v. Norton, No. 01-00073 (District Court, DC, November 18, 2003). Therefore, additional requirements beyond UUD may not be implementable. Recommend statement clarifying that such restrictions may not apply to locatable minerals, that such restrictions are voluntary and achieved by negotiation with the claim holder.	Hildner	A	Make edit	
32.	4-125	20-25	Merrill	Is it necessary to place time limits for salables throughout the entire decision area? Presumably some of that is non GRSG habitat. Those areas as well?	Hildner	M	No clear edit provided; make edit to the extent it's clear and necessary	
33.	4-131	31	Merrill	Replace "caused by locatable minerals management" with "...caused by operations authorized by the mining law.	Hildner	A	Make edit	
34.	4-131	28-34	Merrill	See H-3809-1 for limitation on mitigation. Mitigation is limited the prevention of UUD, as defined in 43 CFR 3809.5 and addressed in 43 CFR 3809.415. Recommend adding "...mitigation measures required to prevent UUD as defined in 43 CFR 3809.415..."  Limitation of the use of mitigation measures and the application of UUD is found in Solicitor's Opinion (M-37007) and supported in court (Mineral Policy Center v. Norton, No. 01-00073 (District Court, DC, November 18, 2003). Therefore, additional requirements beyond UUD may not be implementable. Recommend statement clarifying that such restrictions may not apply to locatable minerals, that such restrictions are voluntary and achieved by negotiation with the claim holder.	Hildner	A	Make edit	

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35.	4-139	1-7	Merrill	No mention of Non-energy solid leasables?	Hildner	M	Mention if necessary	
36.	4-153	25-39	Merrill	Level of risk for human caused ignition should be qualified. Distinguish between possible rather than probable.	Hildner	A	Make edit	
37.	4-159	16-18	Merrill	All operations are required to comply with "fire" performance standards at 3809.420(b)(10). I'm not sure how being a valid claim in a withdrawal would prevent ignition any more than an operator on a claim with unknown validity, outside of a withdrawal.  Recommend changing to "Impacts may be lessened if the withdrawals decrease the amount of disturbance cause by operations authorized by the mining laws."	Hildner	A	Make edit	
38.	4-166	9-11	Merrill	All operations are required to comply with "fire" performance standards at 3809.420(b)(10). I'm not sure how being a valid claim in a withdrawal would prevent ignition any more than an operator on a claim with unknown validity, outside of a withdrawal.  Recommend changing to "Impacts may be lessened if the withdrawals decrease the amount of disturbance cause by operations authorized by the mining laws."	Hildner	A	Make edit	
39.	4-174	11-13	Merrill	Non-energy solid leasables are not addressed.	Hildner	M	Address as necessary	
40.	4-242	7-9	Merrill	A validity examination does not need to precede withdrawal. The surface management regulations require that a validity exam occurs before a new operation can begin. Further if the claimant proposes an operation after the date of withdrawal, then the claimant becomes responsible for cost recovery and cannot begin until the exam is complete. Therefore it is best for BLM to wait until the claimant proposes an operation, before beginning a validity exam.	Hildner	M	No clear edit provided; make edit to the extent it's clear/necessary	
41.	4-242	13	Merrill	Remove "Valid existing rights determination"	Hildner	A	Make edit	
42.	4-242	16-23	Merrill	See H-3809-1 for limitation on mitigation. Mitigation is limited the prevention of UUD, as defined in 43 CFR 3809.5 and addressed in 43 CFR 3809.415. Recommend adding "...mitigation measures required to	Hildner	A	Make edit	

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				<p>prevent UUD as defined in 43 CFR 3809.415..."</p> <p>Limitation of the use of mitigation measures and the application of UUD is found in Solicitor's Opinion (M-37007) and supported in court (Mineral Policy Center v. Norton, No. 01-00073 (District Court, DC, November 18, 2003). Therefore, additional requirements beyond UUD may not be implementable. Recommend statement clarifying that such restrictions may not apply to locatable minerals, that such restrictions are voluntary and achieved by negotiation with the claim holder.</p>				
43.	4-242	25	Merrill	Habitat restoration will have a more than negligible impact on an operation. If the operator is required to restore habitat, which this documents puts at up to 30 years, then the operator will have to pay monitoring costs and maintain a reclamation bond for 30 years. Recommend removing and developing as a separate paragraph.	Hildner	M	Make edit if necessary/appropriate	
44.	4-243	3-4	Merrill	Notice allow exploration only, no development. Fix	Hildner	A	Make edit	
45.	4-243	5-6	Merrill	Mining, including development, are any size (.0001 acres and up) requires a plan. Exploration greater than 5 acres requires a plan as well.	Hildner	A	Make edit	
46.	4-245	34	Merrill	Why does Alternative B and C say there are 41 plans and notices, while this says 231? After the decision area is the same size.	Hildner	A	Make edit	
47.	300	T4-81	Merrill	Salable minerals should be included in this table.	Hildner	M	Make edit if necessary/appropriate	
48.	2-73	TTM section Far left column	Perrin	<p>Replace: 'motorized travel' with 'OHV travel' throughout this section for BLM sections.</p> <p>This is the regulatory definition of OHV (aka ORV) per 43 CFR 8340.0-5(a). This basically means all casual public motorized vehicle use excluding admin , auth. Etc. see definition. Make sure the reg definition of OHV is in the glossary as well.</p>	Hildner	A	Make edit	
49.	2-154	TTM section in alternatives table (2-11)	Perrin	Same as comment #1. Replace 'motorized travel' with 'OHV travel' in all relevant sections (esp. Alts B & F).	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
50.	2-155	Table 2-11 TM-2	Perrin	Alt F. uses 'road' to describe restrictions. This implies that primitive roads and trails (as defined in MS-1626) are allowed. Is this the intent?	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed	



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							alternative due to time.	
51.	2-155	Table 2-11 TM-3	Perrin	Alt B. same as comment 3.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
52.	2-155	Table 2-11 TM-4	Perrin	Alt B. This language implies that this only applies for ‘administrative’ uses and wouldn’t apply to ‘authorized’ uses such as grazing permit administration, etc. Is this the intent?	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
53.	2-156	Table 2-11 TM-6	Perrin	Why require a ‘road’ if a ‘primitive road’ or ‘trail’ might suffice? Suggest changing to ‘route’.  Make sure the definitions for ‘road’, ‘primitive road’, ‘trail’, ‘route’, etc. from MS-1626 are included in a glossary so readers know what these terms mean in the context of BLM planning.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
54.	2-190	Table 2-12 Infrastructure – Roads section	Perrin	Be consistent with the use of the word ‘road’ and ‘route’ they have different meanings per definitions MS-1626. The primary BLM designated route system consists of roads, primitive roads and trails....  Use these terms consistently.	Hildner	A	Make edit	
55.	2-193	Table 2-12 Rec/ TTM	Perrin	Recommend changing ‘road’ to ‘route’ in this section.	Hildner	A	Make edit	
56.	4-20	Line 16	Perrin	Replace: ‘OHV’ with ‘ATV’ or similar  See definition of ‘OHV (aka ORV) in 43CFR8340.0-5(a). It essentially means casual (non-admin or authorized) motor vehicle use in the context of BLM planning.	Hildner	A	Make edit	
57.	4-20	Line 23 Line 24	Perrin	Replace ‘motorized use’ with ‘OHV use’.	Hildner	A	Make edit	
58.	4-31	Line 2	Perrin	Replace: “off-road motorized vehicle” with “OHV”	Hildner	A	Make edit	
59.	4-32 Ditto 4-33	Table 4-6 title	Perrin	Replace: “GRSG Habitat Where Motorized Travel Would Be Limited to Roads, Designated Roads, and Trails in the Idaho and Southwest Montana Sub-Region”  With: “GRSG Habitat Where OHV Travel Would Be Limited to Roads,	Hildner	A	Make edit	

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				Primitive Roads, and Trails in the Idaho and Southwest Montana Sub-Region”				
60.	4-42	Lines 13-14	Perrin	Replace: ‘motorized vehicles’ with ‘OHV’	Hildner	A	Make edit	
61.	4-55	Line 4	Perrin	Replace: ‘motorized vehicles’ with ‘OHV’	Hildner	A	Make edit	
62.	4-61	Line 13	Perrin	Replace: ‘motorized vehicles’ with ‘OHV’	Hildner	A	Make edit	
63.	4-66	Lines 9,12	Perrin	Replace: ‘motorized vehicles’ with ‘OHV’	Hildner	A	Make edit	
64.	4-66	Lines 12-13	Perrin	Replace: “be limited to roads, existing roads, and trails”  With: “be limited to roads, primitive roads, and trails”	Hildner	A	Make edit	
65.	4-72	Lines 8-10	Perrin	Replace: “It also would reduce the risk of wildfire from cross-country motorized travel because motorized vehicles would be restricted to existing routes in CHZ and IHZ.”  With: “It also would reduce the risk of wildfire from cross-country OHV travel because OHVs would be restricted to existing routes in CHZ and IHZ.”	Hildner	A	Make edit	
66.	4-84	Line 5	Perrin	Replace: “it would limit motorized travel to existing roads and trails on all BLM”  With: “...it would limit OHV travel to existing routes on all BLM...”	Hildner	A	Make edit	
67.	4-93	Line 8	Perrin	Replace: ‘off-road motorized vehicle’ with ‘OHV’	Hildner	A	Make edit	
68.	4-121	Line 29	Perrin	Replace ‘motorized travel’ with ‘OHV travel’	Hildner	A	Make edit	
69.	4-127	Line 35	Perrin	Replace: ‘vehicles’ with ‘OHV’	Hildner	A	Make edit	
70.	4-132	Line 16	Perrin	Replace: ‘motorized travel’ with ‘OHV travel’	Hildner	A	Make edit	

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71.	4-135	Line 36	Perrin	Replace: 'motorized vehicles' with 'OHVs'	Hildner	A	Make edit	
72.	4-141	Line 13	Perrin	Replace; 'motorized travel' with 'OHV travel'	Hildner	A	Make edit	
73.	4-146	Line 5 Line 7	Perrin	Line 5; Replace 'motorized travel' with 'OHV travel' Line 7; Replace: 'recreational traffic' with 'OHVs'	Hildner	A	Make edit	
74.	4-173	Line 6	Perrin	Replace: 'motorized vehicles' with 'OHV'	Hildner	A	Make edit	
75.	4-174	Line 35	Perrin	Replace: 'motorized travel' with 'OHV'	Hildner	A	Make edit	
76.	4-178	Line 38	Perrin	Replace: 'motorized travel' with 'OHV'	Hildner	A	Make edit	
77.	4-195	Line 36-37	Perrin	Replace: 'motorized travel' with 'OHV'	Hildner	A	Make edit	
78.	4-197	Line 3 Line 5	Perrin	Replace: 'off-highway motorized travel' with: 'OHV travel' Replace: 'motorized travel designations' with 'OHV designations'.	Hildner	A	Make edit	
79.	4-198	Line 6	Perrin	Replace: 'cross-country motorized travel' with 'OHV travel'	Hildner	A	Make edit	
80.			Perrin	'motorized travel' is not equivalent to OHV travel. We cannot limit 'motorized travel' with the 43CFR8340 regs. We only limit 'OHV' as defined (ie. Casual public motorized use). This does not include admin or authorized/permitted motorized vehicle, etc. uses which are exclude by the regs. Recommend checking and changing all inappropriate use of the term 'motorized vehicle' which includes ALL uses including admin/authorized.	Hildner	A	Make edit	
81.			Janna Simonsen	Contradictions in this paragraph. ROW wouldn't be concentrated in GHMA. ROW would be concentrated in non-habitat areas. <i>Under the Proposed Plan Amendment, the BLM would manage 345,560 acres (PHMA and <b>GHMA</b>) as ROW <b>avoidance</b> area for new major ROW authorizations, while <b>GHMA would be open to new minor</b> ROWs (112,341 acres). ..... The designation of GRS habitat as ROW <b>avoidance</b> for major ROWs could <b>limit the placement</b> of new above ground infrastructure.</i>	Hildner	R	No page number provided	

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				<i>Management of PHMA as avoidance and GHMA as <u>open for minor</u> ROWs could <u>concentrate</u> new ROW development in GHMA and non-habitat areas.</i>				
82.	2-173	<b>Unleased Federal Fluid Mineral Estate</b>	Janna Simonsen	<b>F-MLS-12: PHMA:</b> <i>Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within PHMA.</i> This isn't what our priority leasing language says.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
83.	2-70 2-72 to 2-89, 2-94 to 2-194	41 Alt F	Janna Simonsen	What are RHMA's? The acronym for this is not in Chapter 1, and this is the first time it is mentioned in Ch2. Should this have been in the Table 1-1 on pg 1-7? And define on pg1-8? RHMA is abundant in ch2.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
84.	2-201	<b>Fluid Minerals (Oil and Gas)</b>	Janna Simonsen	Proposed Plan: <i>Management of existing fluid mineral leases under the Proposed Plan would be the same as that under Alternative B with the same impacts.</i>  Is this what the Proposed Plan is pointing to?  Alt B: <i>Existing leases would remain valid through their term but could not be renewed, resulting in further long-term restrictions on the development of fluid mineral resources.</i>  It should say PHMA, GHMA, etc- SG habitat types. This doesn't apply to all leases; we don't want to not renew all leases.	Hildner	A	Make clarification	
85.	2-187 to 2-193	Table 2-12 Find: PPMA	Janna Simonsen	Preliminary Priority Management (PPMA) The Table 1-6 has changes between draft and final; PPMA is not in the final, yet PPMA is repeated mentioned in the Table 2-12 in	Hildner	A	Make edit	

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				ch2, AltB Fire, Fuels Treatments including Prescribed Fire on pg187, 2-188 Invasive Species in the summary, 2-188 Livestock Grazing, Structure Range Improvements and Wild Horses & 2-189 Alt B & D & in Summary..... <b>ECT. Many others</b> <b>This table shouldn't have PPMA in it.</b>				
86.	4-165 4-235 Etc.	21	Janna Simonsen	PPMA shouldn't be mentioned in the FEIS.	Hildner	A	Make edit	
87.	2-189 to 192	Table 2-11	Janna Simonsen	Same concept in comment 5 applies. <u>Preliminary</u> General Management Area (PGMA) used in Table 1-1 shouldn't have been carried over to the final EIS, yet it is in Table 2-12 on pg 2-189, 190, 191, 192.	Hildner	A	Make edit	
88.	4-227, etc.	Use find: PGMA	Janna Simonsen	PGMA shouldn't be mentioned in the FEIS. Change to PHMA	Hildner	A	Make edit	
89.	2-114	Table 2-11 Alt E	Janna Simonsen	Same concept in comment 5 applies. Utah Sage-grouse Management Area (SGMA) is also in Table 1-1 in the DEIS, yet it is.	Hildner	A	Make edit	
90.		Use find	Janna Simonsen	PMMA Preliminary Medial Management Area Change to IHMA in the FEIS.	Hildner	A	Make edit	
91.	2-41	34	Janna Simonsen	<i>In Idaho, parcels nominated for lease in PHMA or IHMA would be evaluated prior to lease offering to determine if development is feasible. In GHMA, parcels that could not be developed when these buffers and restrictions are applied would not be offered for lease.</i> Change to one sentence: In Idaho, parcels nominated for lease in PHMA, IHMA, and <b>GHMA</b> would be evaluated prior to lease offering to determine if development is feasible and parcels that could not be developed	Hildner	M	Make edit if BLM-ID agrees	

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				when these buffers and restrictions are applied would not be offered for lease.				
92.	2-59	2-4	Janna Simonsen	<p><i>In PHMA, IHMA, and SFAs, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on <b>existing leases that are not yet developed</b>, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</i></p> <p>Was this in other plans? Checked Buffalo as an example-Didn't find this wording exactly. I don't think it would matter if the lease has been developed or not, if we have an APD in house that is one of these habitat areas, we are going to apply the appropriate COAs when we approve the permit, regardless of the lease being developed.</p>	Hildner	M	Make edit if BLM-ID agrees	
93.	2-59	36	Janna Simonsen	<p><b>GRSG-M-FMO-ST-001-Standard</b> – <i>In PHMA, IHMA and SFAs, do not authorize 36 employee camps.</i></p> <p>This should include GHMA  <b>GRSG-M-FMO-ST-001-Standard</b> – <i>In PHMA, IHMA, SFAs, and GHMA do not authorize 36 employee camps.</i></p>	Hildner	R	This is FS, not BLM	
94.	Through-out		Janna Simonsen	PHMA, IHMA, GHMA and SFAs, Why use on SFA, but not the other habitat types.	Hildner	R	Editorial	
95.	CH3		Janna Simonsen	<p>Find = no SFAs = no matches found ?</p> <p>Same happened with PHMA, IHMA, GHMA.  Keep habitat acronyms the same in the chapters as was define in ch.1.  Not PPH, PGH</p>	Hildner	R	No edit necessary. It's ok to have PPH and PGH in Chap 3	
96.	2-61	1-2	Janna Simonsen	<i>Disturbed areas should be reclaimed as soon as they are no</i>	Hildner	M	Make edit if BLM-ID agrees	

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				longer needed for mineral operations. Inserted to say: Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations <b>to include terms and conditions to restore habitat to desired conditions as described in Table 2-6.</b>				
97.		Figure 2-22 & 2-23	Janna Simonsen	There should be a map of the <b>Proposed</b> Habitat Management Areas. There are only Habitat maps of a few alternatives. Where it applies, SFAs should be part of these maps.	Hildner	M	Make edit if BLM-ID agrees	
98.	3-131		B. Nelson WO410	<b>Plan excerpt:</b> <b>3.13 Special Designations 1</b> Within the planning area are a variety of lands set aside through congressional or 2 administrative action to protect certain values, such as Wilderness, Wilderness Study Areas, 3 National Landscapes, National Scenic and Historic Trails, and Wild and Scenic Rivers 4 ( <b>Figure 3-14</b> , Special Designations in the Planning Area).  <u>Comment:</u> There is no information in Figure 3-14.  <u>Comment:</u> What is a “National Landscape”?	Hildner	M	No clear edit provided; make edit to the extent it’s clear/necessary	
99.		Ch. 2 and 4	P. Mali WO410	Do any of the alternatives eliminate identified wilderness characteristics? Do any of the alternatives prevent future management of the area to protect wilderness characteristics	Hildner	R	No clear edit.	
100.		Ch 3 and 4	B. Nelson WO410	There is a discrepancy in the plan re: the acreage found to contain wilderness characteristics. The plan indicates 390,800 acres on BLM-administered lands have been found to have wilderness characteristics in Section 4.14 while p. 3-173 states that there are	Hildner	A	Resolve inconsistency	

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				252,296 acres of lands with wilderness character within the planning area boundary.				
101.	2-40	7	Matt Preston	<p>Need to work in the “net conservation gain” via application of the mitigation hierarchy to each potentially impacting land use activity described in Chapter 2. Right now, it is only explicitly noted for land disposal and recreation. I know we have language elsewhere in the Chapter, but we need to be consistent throughout. (See my re-write on XXXXXXXXXXXX below, as examples)</p> <p>Same need applies for Sec 2.8, Table 2-6, Table 2-10, and Table 2-11.</p> <p>For example, when discussing fluid minerals management (e.g. Pg. 2-41) add language, such as:</p> <p>“As reasonable (43 CFR, Part 3101.1-2), in consideration of valid existing rights, and to achieve a net conservation gain, the BLM would require compensatory mitigation when impacts cannot be adequately avoided and minimized, and residual impacts would result in habitat loss and degradation. Compensatory mitigation actions will align with the recommendations in the Regional Mitigation Strategy (see Section 2.7.3), as appropriate. A priority may be given to compensatory mitigation actions in the same PHMA as is being impacted, unless a greater benefit can be achieved elsewhere. Compensatory mitigation would be considered when no feasible options remain to adequately avoid and minimize impacts within and immediately adjacent to the impacted site.”</p>	Hildner	R	There is a drop in decision that requires NCG in GRSG habitat throughout the entire planning area; necessary to put the NCG standard in every decision.	
102.	2-41	17	Matt Preston	<p>Strike: “avoid, reduce, and mitigate”</p> <p>Insert: “avoid, minimize, and compensate”</p> <p>GLOBAL CHANGE</p>	Hildner	A	Make edit : Avoid, minimize, and apply compensatory mitigation	
103.	2-41	21	Matt Preston	<p>Strike: “avoid and minimize”</p> <p>Insert: “avoid, minimize, and compensate”</p>	Hildner	A	Make edit: Avoid, minimize, and apply compensatory mitigation	



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104.	2-57	33	Matt Preston	Strike: “avoid, minimize, and mitigate” Insert: “avoid, minimize, and compensate”  GLOBAL CHANGE	Hildner	A	Make edit: Avoid, minimize, and apply compensatory mitigation	
105.	2-171	A-MLS-5	Matt Preston	Strike: “offsite mitigation” and “off-site mitigation” Insert: “compensatory mitigation”  GLOBAL CHANGE	Hildner	A	Make edit: Avoid, minimize, and apply compensatory mitigation	
106.	Appendix I	I-1	Matt Preston	Strike: “offsetting” Insert: “compensation”	Hildner	A	Make edit	
107.	Appendix I	I-4	Matt Preston	“BLM State Office/USFS Region may find it most effective to enter into an agreement with a State-level program administrator (e.g. a NGO, a State-level entity) to help manage these aspects of mitigation.”  This is inconsistent with language in Chpt 2 and Appendix J, which is more affirmative about entering into an agreement. Please use the language used in those locations instead of this language.	Hildner	A	Make edit	
108.	Appendix J	Part II	Matt Preston	We need to add language that connects Part I (Regional Mitigation Strategy) to Part II (Idaho Mitigation Framework) and probably Part III, as well. These are very similar concepts, so presenting them as totally separate ideas might lead to duplication, or at the least perception of duplication.  It sounds like Part II (admittedly, I only skimmed it), is a nice solid step towards fulfilling Part I’s obligations. Might just make that point at the start of Part II...and reference Part II in Part I.	Hildner	M	No clear edit provided; make edit to the extent it’s clear	
109.	Appendix J	Part III	Matt Preston	This seems very similar to Appendix I. Suggest merging.	Hildner	M	Do if BLM-ID agree	
110.	Appendix J	Part III	Matt Preston	Where are Steps 7-12?	Hildner	A	Clarify where/what steps 7-12 are	
111.	Appendix J	Part III	Matt Preston	Need more careful language in here about mitigation. Please use “avoid”, “minimize”, and “compensate”, specifically, rather than referring to “mitigated”, “eliminated”, etc. (e.g. Step 4-6).	Hildner	A	Make edit	
112.	2-54	GRSG-LG-GL-002_Guideline	Hackett	While this language is consistent with the drop in language for reserve common allotments, it seems duplicative.	Hildner	R	This is FS, not BLM	

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113.	2-36	RM-19	Hackett	Replace grass banks with Reserve Common Allotments	Hildner	A	Make edit	
114.	15	1-42	Ramos	The RMP provides no section on laws and regulations that are common to the BLM/FS and that would apply to the RMP e.g., <ul style="list-style-type: none"> <li>- Section 15 of the <b>Federal Noxious Weed Act</b> of 1974 (7 U.S.C. 2801 et seq.),</li> <li>- <b>Plant Protection Act of 2000</b> (PL 106-224) includes management of undesirable plants on federal lands) authorize the BLM to manage noxious weeds and to coordinate with other federal and state agencies in activities to eradicate, suppress, control, prevent, or retard the spread of any noxious weeds on federal lands .</li> </ul>	Hildner	R	Not necessary	
115.	4-203	13	D Morgan	Is the preferred alt consistent with the SRMA and ERMA management objectives? Are there SRMAs that should potentially be undesignated (or changed to an ERMA) due to sage grouse protection and restrictions on recreation?	Hildner	R	No clear edit provided; after RODs are signed, assess how GRSG descisions impact existing SRMA/ERMAs	
116.		General comment	D Morgan	<b>Shooting closures.</b> If there are any shooting closures, ensure compliance with the Shooting Sports Roundtable MOU. Early and ongoing coordination with local, regional, state and national shooting sports organizations is required when a shooting closure is proposed.  For informational purposes, add: <i>“Note: All developed recreation sites (including trailheads, picnic areas, etc.)are closed to target shooting per 43 CFR 8365.2-5(a).”</i>	Hildner	A	Make edit	
117.	2-28	N/A – Fire Preparedness/Pr	Kristy Swartz	<i>Overall objective for Fire Operations seems to be missing (there’s a fuels mgt. objective, but no Fire Ops. Objective). <b>Suggest:</b></i>	Hildner	M	Do if BLM-ID agrress	

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		event/Operations Objective	Fire & Aviation (FA-600)	“Manage wildfires to minimize loss of sage-brush and protect greater sage-grouse habitat.”				
118.	2-29	37	Kristy Swartz Fire & Aviation (FA-600)	<i>Suggest replacing UIA with a description of what UIA does rather than the title of the model – as it will probably be different in 10-20 years</i> “As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within PHMA and IHMA or on those fires that have the potential to impact PHMA and IHMA. Incorporate findings into Unit Initial Attack program the model used to determine initial attack resources.”	Hildner	A	Make edit	
119.	2-30	1-4	Kristy Swartz Fire & Aviation (FA-600)	<i>Suggest edit for clarity:</i> As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Utilize analysis to ensure Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.	Hildner	A	Make edit	
120.	2-30	11-19	Kristy Swartz Fire & Aviation (FA-600)	<i>Suggest edits for clarity consistency with current terminology:</i> Consistent with land use plan direction, utilize a full range of fire management strategies and tactics through strategic wildfire preparedness suppression planning consistent with appropriate management response and within acceptable risk levels to achieve resource objectives for GRSG habitat. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in GHMA when suppression resources are available or managing wildfire to meet for resource benefit objectives in areas of conifer (juniper)	Hildner	A	Make edit	

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				encroachment.				
121.	2-30	21-24	Kristy Swartz Fire & Aviation (FA-600)	<i>Needs to be edited to be consistent with WO IM-2014-XX</i> “Maintaining GRSG habitat will be prioritized immediately after human life and property, as fire management’s highest natural resource priority commensurate with threatened and endangered species habitat or other critical habitats to be protected.	Hildner	A	Make edit	
122.	2-113	Table 2-11, Wildland Fire, General Alts A-F WFM-1	Kristy Swartz Fire & Aviation (FA-600)	<i>Suggest edit to remove IM-2013-128 (could be noted in the relevant Appendix that that’s where they originally were developed):</i>  Follow RDFs/BMPs for fire and fuels (BLM Washington Office IM 2013-128 and Forest Service Washington Office letter 5100, see Appendix B).	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
123.	2-114	Table 2-11, Wildland Fire, General Alt E WFM-3	Kristy Swartz Fire & Aviation (FA-600)	<b>E-WFM-3: Idaho – CHZ:</b> Decrease wildfire response time through: a. Prioritizing, maintaining and improving a high initial attack success rate in suppression response and staging decisions; b. Utilizing available Sage-Grouse Management Area maps and spatial data depicting GRSG habitats within this zone in accordance with action 31 (Appendix Q); (Appendix Q does not label “Action 31” – Recommend bring this action explicitly into the alternative description here and then cite where it came from (e.g. as recommended, Idaho State proposed Alternative, Appendix Q)	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
124.	2-114	Table 2-11, Wildland Fire, General Alt E WFM-3	Kristy Swartz Fire & Aviation (FA-600)	<i>Requesting federal appropriations is not a resource management plan action, recommend delete:</i> <del>d. Requesting the necessary federal appropriations to achieve this objective.</del>	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
125.	2-115	Table 2-11, Wildland Fire, General Alt E WFM-6	Kristy Swartz Fire & Aviation (FA-600)	<i>This doesn’t appear to provide unique direction for this alternative. Suggest delete or specify what standard procedures need to be included in the FMP.</i> <del>“D-WFM-6: PHMA: —”.</del>	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	

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				<del>IHMA: Follow Standard procedures described in Fire Management Plan.</del> <del>GHMA: —.”</del>				
126.			Kristy Swartz Fire & Aviation (FA-600)	<i>Suggest editing to ensure clarity regarding the objective and need for interdisciplinary participation (which could be done via pre-season meetings, WFDSS, or whatever future process might occur).</i> <b>D-WFM-7: PHMA: When natural ignitions occur in areas of Consider conifer (juniper) encroachment, areas as areas to utilize an interdisciplinary process to determine if the fire could be managed wildfire for resource benefit to meet vegetative objectives.</b> <b>IHMA:</b> Same as PHMA. <b>GHMA:</b> Same as PHMA.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
127.	2-115	Table 2-11 Alt E-WFM-8	Kristy Swartz Fire & Aviation (FA-600)	<i>I'm not sure I know what "marshalling existing and targeting future federal resources" or what "more aggressive" means? Suggest clarify to include specific actions:</i> <i>(Here are some potential options:</i> <ul style="list-style-type: none"> <li>• <i>Prepare local wildfire prevention plans that identify human caused fire "hot-spots" and target these areas for patrols/enforcement.</i></li> <li>• <i>Utilize heavy equipment and direct attack in wildfire suppression actions to minimize fire size.</i></li> <li>• <i>Utilize a Strategic Weed Accelerated Treatment teams (SWAT) method to address annual invasives.</i></li> <li>• <i>Utilize effective weed treatments that incorporate long-term site stability to prevent re-invasion in their design.)</i></li> </ul> <b>"E-WFM-8: Idaho – Common to All Habitats:</b> Reduce the number and size of wildfires, especially in the West Owyhee CA, by marshaling existing and targeting future federal resources. <b>Idaho – CHZ:</b> Utilize and employ more aggressive wildfire and invasive species management practices to prevent further encroachment of these two primary threats into CHZ on Federal	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	

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128.	2-118, 119	Table 2-11	Kristy Swartz Fire & Aviation (FA-600)	lands.” <b>E-FM-1: Idaho – CHZ:</b> Implementation of specific, more aggressive wildlife and invasive species management practices to prevent further encroachment into CHZ should be driven by local planning efforts at the field office and ranger district level. <b>Idaho – IHZ:</b> Same as Idaho - CHZ. <b>Idaho – GHZ:</b> —. <b>Montana Habitat:</b> Same as Alternative A. <b>Utah Habitat:</b> Habitat loss due to fire and replacement of (burned) native vegetation by invasive plants is the single greatest threat to GRSG in Utah. While unscheduled fires may occur, response to fire can have a large impact on the severity of the effects, especially over time as rehabilitation or restoration continues. Implement the following: <input type="checkbox"/> Create and implement a statewide fire agency agreement(s) that will eliminate jurisdictional boundaries and allow for immediate response to natural fire in PHMA. Allow use of fire-retardant vegetation that will buffer areas of high quality GRSG habitat from catastrophic fire. <input type="checkbox"/> Use prescriptive fire with caution in sagebrush habitat. The WAFWA has prepared information that explains the risks from using prescribed fire in xeric sagebrush habitats. <input type="checkbox"/> Prescribed fire should only be used at higher elevations and in a manner designed prescriptively to benefit GRSG. <input type="checkbox"/> Conduct effective research into controlling fire size and protecting remaining GRSG areas that are adjacent to high-risk cheatgrass areas. <input type="checkbox"/> Focus research efforts on effective reclamation and restoration of landscapes altered by wildfire. <input type="checkbox"/> Within winter habitat, manage to maintain maximum amount of sagebrush, especially tall sagebrush, which would be available to	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	

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				GRSG above snow during a severe winter. Tall sagebrush is capable of standing above heavier than normal snowfall. <input type="checkbox"/> Sagebrush treatment projects within winter habitat need pre-approval by the appropriate regulatory agency in coordination with the Utah Department of Wildlife Resources. Sagebrush treatment projects within winter habitat should maintain 80% of the available habitat as tall sagebrush; 20% of the habitat can be managed for younger age classes, if appropriate. <input type="checkbox"/> Coordinate the needs and efforts related to GRSG with the State of Utah committee that was formed to develop a collaborative process to protect the health and welfare by reducing the size and frequency of catastrophic fires.				
129.	2-125		Kristy Swartz Fire & Aviation (FA-600)	<b>Suggest adding</b> “natural resource” to ensure clarity/no conflict with <b>Sup-1</b> “Firefighter and public safety are the highest priority.” :  <b>D-SUP-2: PHMA:</b> Within GRSG, PHMAs (and PACs, if so determined by individual LUP efforts) are the <b>highest natural resource priority</b> for conservation and protection during fire operations and fuels management decision making.	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
130.	2-127	Table 2-11	Kristy Swartz Fire & Aviation (FA-600)	<b>Recommend clarify</b> to ensure consistency with current terminology: <b>D-SUP-6: PHMA: Manage wildfires to protect sagebrush</b> Suppress <del>wildland fires</del> in intact GRSG habitats. <del>and use managed wildfire</del> Where <b>fire is</b> needed to improve GRSG habitat (e.g. in areas of <b>conifer encroachment</b> ), <b>manage fires to meet Sage-grouse habitat objectives.</b>	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	
131.	2-133	Table 2-11	Kristy Swartz Fire & Aviation	<i>Pre-decisional to determine the impacts would be adverse.</i> <b>Recommend edit</b> to ensure effects are analyzed, without a pre-determined outcome:	Hildner	R	These are comments on the draft alternatives. Only supposed to commenting on the proposed alternative due to time.	

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			(FA-600)	<b>B-LG/RM-7: PHMA:</b> Maintain retirement of grazing privileges as an option in PHMA when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals.				
132.	2-188	Table 2-12	Kristy Swartz Fire & Aviation (FA-600)	<b>Recommend clarify to ensure consistency with current terminology:</b> <b>When natural ignitions occur in areas of conifer (pinyon/juniper) encroachment, an interdisciplinary process would be utilized to determine if the fire could be managed to meet vegetation objectives.</b> <del>Conifer encroachment areas would be considered as areas to manage wildfire for resource benefit.</del>	Hildner	A	Make edit	
133.	4-14	3-7	Kristy Swartz Fire & Aviation (FA-600)	<i>The Hempy/Pyke citation is a bit confusing as this paper is specific to seed production not fuels treatments, suggest elaborating on the paper or referring to the vegetation section to address effects of targeted grazing on cheatgrass vs. native plant populations.</i> <b>Additionally appears to conflict with discussion and citations(Davies et al. 2009, 2010a &amp; Diamond et al. 2009) on p. 4-57. Need to reconcile the different scientific references.</b> “Grazing may have limited ability to reduce the types of fuels (e.g., cheatgrass) that have the biggest impact on fire frequency. Intensive livestock grazing is often suggested for controlling cheatgrass competition. Although targeted grazing may have some applications for fuels management, it is not effective in reducing cheatgrass competition (Hempy-Mayer and Pyke 2008).”	Hildner	A	Make edit	
134.	4-75	7-12	Kristy Swartz Fire &	<i>The Hempy/Pyke citation is a bit confusing as this paper is specific to seed production not fuels treatments, suggest elaborating on the paper or referring to the vegetation section to</i>	Hildner	A	Make edit	



Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
	Page #	Line/Row # or Figure/Table #	Commenter Name	Comment ( <i>Provide exact new text for use in making changes to document. Comments lacking this information may not be considered.</i> )	IMT Reviewer Name	A, R, or M <sup>1</sup>	IMT Reviewer Response to Comment	Document Change
			Aviation (FA-600)	<p><i>address effects of targeted grazing on cheatgrass vs. native plant populations.</i></p> <p><i>Additionally appears to conflict with discussion and citations(Davies et al. 2009, 2010a &amp; Diamond et al. 2009) on p. 4-57 Need to reconcile the different scientific references.</i></p> <p>“Grazing may have limited ability to reduce the types of fuels (e.g., cheatgrass) that have the biggest impact on fire frequency. Intensive livestock grazing is often suggested for controlling cheatgrass competition. Although targeted grazing may have some applications for fuels management, it is not effective in reducing cheatgrass competition (Hempy-Mayer and Pyke 2008).”</p>				
135.	4-57	15-19	Kristy Swartz Fire & Aviation (FA-600)	<p><i>Appears to conflict with discussion and citation (Hempy-Mayer and Pyke 2008) on 4-14 &amp; 4-25 Need to reconcile the different scientific references.</i></p> <p>“Moderate grazing made the perennial herbaceous component of the sagebrush plant communities more tolerant of fire (Davies et al. 2009), perhaps due to a reduction in crown litter (Davies et al. 2010a). Targeted grazing may be a critical tool for breaking the exotic annual grass-fire cycle by decreasing the probability of fire disturbance (Diamond et al. 2009). Well-managed livestock grazing may have limited impact (Courtois et al. 2004) or beneficial effects, including decreased risk of conversion to exotic annual grass communities (Davies et al. 2009, 2010a).”</p>	Hildner	A	Make edit	
136.	4-148	14-23	Kristy Swartz Fire & Aviation (FA-600)	<p><i>Recommend editing indicators as follows:</i></p> <p>Indicators of impacts on wildland fire management are as follows within the planning area:</p> <p><del>Alteration of vegetative cover that is likely to result in a</del></p>	Hildner	R	Too late in process to change indicators	

Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
	Page #	Line/Row # or Figure/Table #	Commenter Name	Comment (Provide exact new text for use in making changes to document. Comments lacking this information may not be considered.)	IMT Reviewer Name	A, R, or M <sup>1</sup>	IMT Reviewer Response to Comment	Document Change
				<p>substantial shift in</p> <ul style="list-style-type: none"> <li>• Acres of fire regime condition class (FRCC) 1, 2, or 3 (or percent departure from historic reference conditions)</li> <li>• <del>A substantial</del> Increase, Decrease, No change in the likelihood of fire (ignition frequency)</li> <li>• <del>Or</del> Increase, Decrease, No Change in the potential severity of wildfire, based on level of restrictions on uses that may introduce sources of ignition</li> <li>• <del>Management actions that substantially inhibit a response to wildfire or appropriate treatments to prevent wildfire</del></li> <li>• increase, decrease, no change in Fire Size (annual burn probability)</li> </ul> <p>increase, decrease, no change in Fire Cost (broad inclusive evaluation (larger, longer duration fires, more resources,, longer fire season = more expensive, fewer, smaller, less frequent fires = less expensive))</p>				
137.	4-152	3-5	Kristy Swartz Fire & Aviation (FA-600)	<p>Suggest include fire management costs as an analysis indicator. “This would affect the wildfire management program by reducing costs and potential for large, damaging wildland fires.”</p>	Hildner	R	Too late in process to change indicators	
138.	4-155	9-13	Kristy Swartz Fire & Aviation (FA-600)	<p>Please describe <b>how</b> the prioritization of suppression in SG Habitat would increase fire management program costs. Additionally, suggest include fire management costs as an analysis indicator.</p> <p>“In PHMA, prioritizing suppression in GRSG habitat immediately after life, and then property, could limit management options and increase costs for the fire management program.</p>	Hildner	M	No clear edit provided; make edit to the degree it’s clear/necessary	

Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
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				However, the focus on suppression could also limit expansion of cheatgrass because fire increases opportunities for invasive species, such as cheatgrass, to expand (Brooks et al. 2004).”				
139.	4-156	23-27	Kristy Swartz Fire & Aviation (FA-600)	<p><i>Reduced annual invasives wouldn't reduce the number of fires, but it might result in smaller fires, <b>suggest edit:</b></i></p> <p>The complete removal of livestock grazing would reduce weed spread via livestock vector and could increase fire intensity due to <b>heavier increases in fine fuels loads</b> from lack of fuel removal. In the short term, <b>this</b> fuel buildup might lead to bigger fires, while in the long term, if weed spread were reduced, <b>fewer smaller</b> fires may result.</p> <p><i>Fires burn due to a combination of Fuels, Weather and Topographic factors (and frequency is not affected by any of those... although the Fire Return Interval or Annual Burn Probability would be)– <b>Recommend edit to:</b></i></p> <p>Ultimately, the effect of no grazing on wildfires <del>frequency</del> would be dependent on weather <b>and fuel</b> conditions at the time of ignition.</p>	Hildner	A	Make edit	
140.	156	28-31	Kristy Swartz Fire & Aviation (FA-600)	<p><i>Which direction would FRCC shift? <b>Recommend editing to:</b></i></p> <p>Limiting development in occupied habitat to existing footprints would reduce opportunities for human-caused ignitions. The rest of the decision area would continue to experience current levels of risk for human-caused ignitions and the <b>resultant shift in FRCC</b>–<b>would continue to increase(?) the departure from historic reference conditions due to invasive annual grasses and too much early successional seral vegetation(?).</b></p>	Hildner	A	Make edit	
141.	157	4-9	Kristy Swartz Fire & Aviation	<p><i>So, it sounds like this would result in increased fire size &amp; cost. <b>Suggest editing to:</b></i></p> <p>“In addition, removing grazing from GRS habitat would limit</p>	Hildner	A	Make edit	

Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
	Page #	Line/Row # or Figure/Table #	Commenter Name	Comment ( <i>Provide exact new text for use in making changes to document. Comments lacking this information may not be considered.</i> )	IMT Reviewer Name	A, R, or M <sup>1</sup>	IMT Reviewer Response to Comment	Document Change
			(FA-600)	the effectiveness of RFPAs because there would be fewer ranchers to serve as first responders and engage in implementing comprehensive fuel break strategies. <b>This reduced effectiveness would result in increased fire size and federal fire management costs.</b> “				
142.	4-157, 158	35-36 & 1-2	Kristy Swartz Fire & Aviation (FA-600)	<i>Which direction would FRCC shift? Recommend editing to:</i> “this alternative would reduce <b>departure from historic reference conditions and FRCC shift toward condition class 3</b> and would result in a more natural (i.e., historic) frequency and intensity of wildfire.”	Hildner	A	Make edit	
143.	4-158	16-26	Kristy Swartz Fire & Aviation (FA-600)	<p>“Strategic wildland fire planning would help return PHMA to historic FRCC and natural fire intensities and intervals. Key actions driving this impact are as follows:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Strategically placed fire-resistant vegetation or green-strip seedings</li> <li><input type="checkbox"/> Strategically placed pretreated areas that reduce fine fuels by such practices as mowing vegetation along roadsides, implementing grazing strategies, and applying herbicides</li> <li><input type="checkbox"/> Planned wildfire suppression tactics in important GRSG habitat</li> </ul> <p><i>This seems to conflict with the paragraph above – Recommend clarifying to differentiate between departure from historic reference conditions and maintenance of natural fire return intervals:</i></p> <p>“Prioritizing wildfire suppression in PHMA and conducting burn-out/backfiring operations in a manner that minimizes the loss of sagebrush may have limited ability to restore historic FRCC in</p>	Hildner	A	Make edit	

Cmt #	Completed by Commenter				Completed by IMT Reviewer			Completed by Contractor or BLM Field Staff
	Page #	Line/Row # or Figure/Table #	Commenter Name	Comment (Provide exact new text for use in making changes to document. Comments lacking this information may not be considered.)	IMT Reviewer Name	A, R, or M <sup>1</sup>	IMT Reviewer Response to Comment	Document Change
				PHMA.”				
144.	4-165	1-4	Kristy Swartz Fire & Aviation (FA-600)	Which direction would FRCC shift? <b>Recommend editing to:</b> “As a result, <b>this alternative would reduce departure from historic reference conditions and FRCC shift toward condition class 3</b> <del>FRCC shift would be reduced and</del> <b>additionally</b> , the frequency and intensity of wildland fires would be more natural.”	Hildner	A	Make edit	
145.	Chapter 2 pg 47	Line 21	Repass	BAER stands for Burned Area Emergency Response, not Restoration.	Hildner	A	Make edit	
146.		General	Bryan Fuell	I do not understand why they include "Burro" in all their discussion on need for management and impacts. The RMP mentions twice there is no burro's yet every discussion about wild horse includes Burro's  I would recommend they remove "and Burro" except where they reference the "act"		A	Make edit	

## Brent Ralston

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**From:** Mickelsen, Robert -FS  
**Sent:** Thursday, July 24, 2014 8:00 PM  
**To:** Brent Ralston  
**Subject:** RE: State of Idaho Comments on GSG ADPP

Thanks Brent!

Robbert Mickelsen  
US Forest Service  
National Greater Sage Grouse Team Member  
Idaho-SW Montana Liaison  
208-557-5764



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**From:** Brent Ralston [<mailto:bralston@blm.gov>]  
**Sent:** Thursday, July 24, 2014 7:58 PM  
**To:** Katie Powell; Jason Pyron; Kathleen Hendricks; Mickelsen, Robert -FS  
**Subject:** FW: State of Idaho Comments on GSG ADPP

FYI

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Dustin T. Miller [<mailto:Dustin.Miller@osc.idaho.gov>]  
**Sent:** Friday, July 18, 2014 11:24 PM  
**To:** Timothy Murphy  
**Cc:** Jeffery Foss; Brent Ralston  
**Subject:** State of Idaho Comments on GSG ADPP

Tim,

Please find the attached comments from the State of Idaho . Please contact me with any questions. Thank you.

Dustin

**Dustin T. Miller**  
Administrator  
Governor's Office of Species Conservation

304 North 8th Street, Suite 149  
Boise, Idaho 83702  
P: 208-334-2189/ F: 208-334-2172  
[species.idaho.gov](http://species.idaho.gov)

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## **Brent Ralston**

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**From:** Foss, Jeffery  
**Sent:** Monday, July 21, 2014 7:07 AM  
**To:** Dustin T. Miller  
**Cc:** Timothy Murphy; Brent Ralston; Kurt R Wiedenmann; Cally Younger; Virgil Moore  
**Subject:** Re: State of Idaho Comments on GSG ADPP

Dustin

We appreciate the detailed comments on the ADPP and the continued close coordination between the State of Idaho and BLM.

Jeff

On Fri, Jul 18, 2014 at 11:24 PM, Dustin T. Miller <[Dustin.Miller@osc.idaho.gov](mailto:Dustin.Miller@osc.idaho.gov)> wrote:

Tim,

Please find the attached comments from the State of Idaho . Please contact me with any questions. Thank you.

Dustin

### **Dustin T. Miller**

Administrator

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**Jeff Foss**  
**Deputy State Director- Resources, Idaho BLM**  
**1387 S. Vinnell Way, Boise, ID 83709**  
**208-373-3800**  
[jfoss@blm.gov](mailto:jfoss@blm.gov)

# OFFICE OF SPECIES CONSERVATION

**C.L. "BUTCH" OTTER**  
Governor



P.O. Box 83720  
Boise, Idaho 83720-0195

**DUSTIN T. MILLER**  
Administrator

304 North Eighth Street, Suite 149  
Boise, Idaho 83702

July 18, 2014

Tim Murphy  
Acting Director  
Idaho State BLM Office  
1387 S. Vinnell Way  
Boise, Idaho 83709

Dear Tim,

Thank you for the opportunity to provide comments on the Idaho and Southwestern Montana Administrative Draft Proposed Plan ("ADPP") for the Greater Sage-Grouse Land-Use Plan Amendment and Final Environmental Impact Statement. Attached to this letter you will find specific comments to the ADPP from the State of Idaho in track change format.

We appreciate the partnerships that have been cultivated throughout this land-use plan amendment process between the State of Idaho, Bureau of Land Management ("BLM"), the U.S. Forest Service ("USFS") and the U.S. Fish and Wildlife Service (Service") and we look forward to continuing this partnership as we move towards the completion of the final EIS.

The State of Idaho strongly encourages the BLM and USFS to adopt in the Final EIS, the three-tiered habitat approach described in the Idaho Governor's Alternative (Alternative E) and the ADPP. As you know, this approach allows the BLM and USFS to prioritize conservation actions within the Core Management Zone or "CMZ", which contains the highest quality habitat and the highest population densities of greater sage-grouse ("GSG") in Idaho. However, the Important Management Zones ("IMZ") plays a crucial role in the adaptive management process as it essentially serves as a habitat and population "bank account" in the event an adaptive regulatory trigger is tripped. Under Alternative E and the ADPP, the CMZ provides for a high level of conservation for GSG, while potential development is focused in areas outside of both the CMZ and IMZ. However, this does not exclude *all* new development in CMZ as an exemption process would allow for some limited new development if certain criteria are met. In essence, the management zones represent continuum whereby flexibility for land-use activities increases as you move from the CMZ to the General Management Zone ("GMZ").

Additionally, it is important to remind our federal partners that the population and habitat triggers and anthropogenic disturbance cap identified in Alternative E and the ADPP are based on nesting and wintering habitats in both CMZ and IMZ within a Conservation Area.

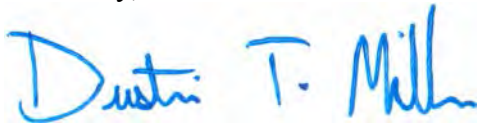
The CMZ, IMZ and GMZ boundaries were reviewed by BLM field office staff. BLM field office staff recommended boundary adjustments based on local knowledge at a finer scale than

was used during the development of the original boundaries. Adjustments were made to include more connectivity areas in CHZ and IHZ. New information on leks densities caused some areas to be moved into a higher classification. Some areas were moved to a lower classification because of their less significant habitat value to GSG. Additionally, boundaries were adjusted to remove non-habitat from the zones. Other adjustments were also made to “snap” boundaries to meaningful and implementable divisions of the landscape.

Idaho believes that the three-tiered habitat structure represents an innovative approach to the conservation of GSG while ensuring the economic vitality of the State of Idaho. Therefore, Idaho remains committed to our continued work with the BLM to ensure this approach is carried forward in the Final EIS.

If you have any questions regarding these comments, please contact me at 334-2189.

Sincerely,

A handwritten signature in blue ink that reads "Dustin T. Miller". The signature is written in a cursive, slightly slanted style.

Dustin T. Miller

Idaho and Southwestern Montana  
Recommendation for Proposed Plan Amendment

1. Summary Description of Plan

- 1.1. Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
- 1.2. Comply with existing laws, regulations and policies.
- 1.3. Recognize valid existing rights.
- 1.4. BLM and FS would coordinate with the States of Idaho and Montana, as appropriate, during implementation activities including the evaluation of disturbance threshold, adaptive management triggers and mitigation.
- 1.5. The Idaho and Southwestern Montana Sub-Region would be divided into 5 Conservation Areas over which the disturbance threshold and adaptive management triggers would apply. These areas are the West Owyhee, Desert, Mountain Valleys, Southern and Southwestern Montana (Map 1).
- 1.6. The Conservation Areas would be categorized into management zones – Core, Important and General, with the exception of the Southwestern Montana Conservation Area which does not contain Important Management Zones (Map 2).
- 1.7. Adaptive Management: Idaho: actions would engage when population decline by 10 percent or a combined 10 percent loss nesting and/or wintering habitat within Core or Important Management Zones within a Conservation Area is lost (Soft Trigger), and when 20 percent of the population or nesting and wintering habitat within Core or Important Management Zones within a Conservation Area is lost (Hard Trigger) Montana: Adaptive management in Montana is linked with the state evaluation framework.
- 1.8. Additional anthropogenic disturbance (AD-1) would be significantly limited in Core Management Zones with specific exceptions (AD-3 & AD-4); it would be limited unless consistent with specific criteria in Important Management Zones (AD-4) and would be avoided in General Management Zones.
- 1.9. Anthropogenic disturbance (AD-1) would be contained within a 3 percent total disturbance cap as applied to the biologically significant unit (the biologically significant unit (BSU) is defined as the nesting and wintering habitat within Core and Important Management Zones within a Conservation Area), including existing anthropogenic disturbance. In Montana surface disturbance will be calculated through the state surface disturbance analysis process on a project by project basis.
- 1.10. Mitigation would be required for all anthropogenic disturbance activities within GRSG habitat. Within Core Management Zones a standard of no net unmitigated loss would be required.
- 1.11. BLM and Forest Service would set up a Mitigation Board at the State level with state involvement to develop a Mitigation Strategy and oversee the application of mitigation at the site-specific level.
- 1.12. BLM and Forest Service would complete Wildfire and Invasive Species Assessments at the local level to identify priority areas of habitat, and wildfire and invasive species concern. These assessments would support and include the development of fuels, restoration and rehabilitation strategies to use during implementation level activities.

Comment [CY1]: Need clear definition and identify what data layers will be used to calculate this; who is responsible for managing data; etc. Maybe this is in Appendix H.

Comment [CY2]: Only applying disturbance within the BSU could significantly effective the functional 3% disturbance threshold. Task Force recommendations are 3% within nesting and wintering habitat of a CA.

Comment [CY3]: Are only impacts in BSU are counted towards the 3%??

Comment [CY4]: How will BLM's new mitigation policy be coordinated with the state effort?

Comment [CY5]: What is local – BSU or CA?

Comment [d6]: Fuel breaks?

## Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary

Solar/Wind/Nuclear/Hydropower		
Core	Important	General
Exclusion (LR-2)	Avoidance (LR-2)	Open (LR-2)
Commercial Service Airports		
Core	Important	General
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
Landfills		
Core	Important	General
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
Utility Corridors		
Core	Important	General
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain “open” (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as Core (LR-7)	Same as Core (LR-7)
High-Voltage Transmission and Major Pipeline ROWs		
Core	Important	General
Avoidance (LR-1)	Avoidance (LR-1)	Open (LR-1)
Other (Minor) Rights-of-Way and Land Use Authorizations/Permits		
Core	Important	General
Avoidance (LR-1)	Avoidance (LR-1)	Open (LR-1)
Land Tenure Adjustments		

**Comment [CV7]:** Does this category cover distribution lines? Communication sites?

<b>Core</b>	<b>Important</b>	<b>General</b>
Retention with exceptions for exchange; available for exchange with no net loss of GRSG within Core and Important. Not available for disposal. (LR-13)	Same as Core (LR-13)	Available for exchange subject to existing land use plan conformance (No Action)
<b>Fluid Mineral Resource Allocation (Includes Geothermal)</b>		
<b>Core</b>	<b>Important</b>	<b>General</b>
Idaho: Low or no potential areas Closed Moderate to High potential areas Open subject to No Surface Occupancy Montana: Open subject to NSO. (FLM-1)	Idaho: Open subject to No Surface Occupancy Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to CSU (FLM-1)
<b>Non-Energy Leasables</b>		
<b>Core</b>	<b>Important</b>	<b>General</b>
Known Phosphate Leasing Areas (KPLAs) are Open – Not Applicable, No KPLAs in Core Closed to leasing outside KPLAs (NEL-1)	KPLAs are Open Open with standard and additional stipulations for leasing outside KPLAs. (NEL-1)	KPLAs are Open to leasing with standard stipulations (NEL-1)
<b>Mineral Materials (Salable Minerals)</b>		
<b>Core</b>	<b>Important</b>	<b>General</b>
Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to criteria. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
<b>Travel Management</b>		
<b>Core</b>	<b>Important</b>	<b>General</b>
Limited (TM-1)	Limited (TM-1)	Limited (TM-1)

## 2. Goals and Objectives

- 2.1. GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.
  - 2.2. GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies' direction for multiple use and sustained yield as described in FLPMA and the NFMA.
  - 2.3. GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.
  - 2.4. GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and USFS management actions.
  - 2.5. Management Area (MA) - Objective (OBJ)-1: Maintain a resilient population of GRSG in Idaho and Southwestern Montana.
  - 2.6. MA-OBJ-2: Designate GRSG management zones and associated management to maintain a resilient population and to designate strategically located adjacent zones to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.
  - 2.7. MA-OBJ-3: Identify and strategically protect larger in-tact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.
  - 2.8. Vegetation (VEG)-OBJ-1: Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.
  - 2.9. VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:
    - a. Increasing canopy cover and average patch size of sagebrush in perennial grasslands.
    - b. Increasing the amount, condition and connectivity of seasonal habitats.
    - c. Protecting or improving GRSG migration/movement corridors.
    - d. Reducing conifer encroachment within GRSG seasonal habitats.
    - e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
    - f. Reducing the extent of annual grasslands adjacent to Core and Important Management Zones.
- Decadal treatment objectives by population area are identified in Table 1.
- 2.10. Habitat Management (HM)-OBJ-1: Maintain or make progress toward 70% of lands within CMZs and IMZs capable of producing sagebrush at 10-30% canopy cover and less than 10% conifer canopy cover.
  - 2.11. HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 2) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species.
  - 2.12.

FUEL-OBJ-1: FUEL-OBJ-1:

Comment [CV8]: In a specific CA or should "in" be deleted?

Deleted: in

Deleted:

Comment [CV9]: within and adjacent to...

Comment [BER10]: Tie this value to what is in the table. Paul and Rob to finish table.

Comment [BER11]: Use FS language regarding fuels objectives – get from Rob.

Comment [BER12]: Need to incorporate FIAT results.

Deleted: ¶

**Table 1. Acres of Treatment within a 10-Year Period to Achieve Vegetation Objectives**

Population Area	Mechanical Conifer Treatment	Prescribed Fire	Annual Grass Treatment
SW Idaho	15000-16000	600-700	30000-32000
S Central Idaho	10000-11000	100-200	16000-17000
Mountain Valleys	1500-1600	500-600	0
N Snake River	0	4000-4500	20000-21000
Bear Lake Plateau	100-150	0	100-200
Montana	300-400	10000-12000	0

**Comment [BER13]:** From Paul - The figures in this table look more like what we would need to treat annually. Treating 15000 acres of juniper a decade in SW Idaho won't make a dent, nor will 500 acres of RX fire in mountain valleys (that is far less than one typical RX fire project acreage.). Double check model outputs with Robb. In comment review meeting NV/CA mentioned they are reporting this info for 50 year timeframe....Should we. Discuss.

**Comment [d15]:** This may be financially challenging to treat this many acres annually but their objectives indicates the magnitude of this primary threat.

**Comment [d14]:** I agree with Paul that they must mean this to be annual objectives – otherwise they are not treating enough if this is the total over 10 years.

**Table 2. Seasonal Habitat Desired Conditions for Greater Sage-Grouse**

ATTRIBUTE	INDICATOR	DESIRED CONDITON
Lek Habitat	Proximity of trees <sup>9,16</sup>	<Trees (e.g. juniper) none to uncommon within 3 km of occupied leks
	Proximity of sagebrush to leks <sup>16</sup>	Adjacent protective sagebrush cover within 100 m of an occupied lek <sup>16</sup>
Nesting Habitat	Apply indicators to areas within 10 km of occupied leks, that have the ecological capability to provide sagebrush cover.	
	Seasonal habitat needed <sup>10</sup>	>80% of the landscape in sagebrush cover
	Sagebrush canopy cover <sup>2,10,11,13</sup>	15-25%
	Sagebrush height <sup>10</sup>	
	Arid sites <sup>3</sup>	12-31 inches (30-80cm)
	Mesic sites <sup>4</sup>	16-31 inches (40-80cm)
	Predominant sagebrush shape <sup>16</sup>	>50% in spreading shape <sup>5</sup>
	Perennial grass cover <sup>2,10</sup>	
	Arid sites <sup>3</sup>	≥10%
	Mesic sites <sup>4</sup>	≥15%
	Perennial grass height <sup>10,11,13,16</sup>	≥7 inches <sup>10</sup>
<b>BROOD-REARING/SUMMER<sup>1</sup> (July-October)<sup>1</sup> (Apply to all habitat outside of nesting/breeding and winter)</b>	Cover	
	Seasonal habitat needed <sup>10</sup>	>40% of the landscape in sagebrush cover
	Sagebrush canopy cover <sup>2,10</sup>	10-25%
	Sagebrush height <sup>10</sup>	40-80cm
	Perennial grass canopy cover <sup>2,10</sup>	>15%
	Upland and riparian perennial forb availability <sup>2,16</sup>	Preferred forbs are common with several preferred species present <sup>7,8</sup>

**Comment [LD16]:** Should "tree" be defined? I am just thinking of areas with mountain mahogany or old-growth juniper in limited patches that we would want to preserve, vs. seral juniper. Maybe there is a way to differentiate by saying "as appropriate for existing soils/ecological sites"??

<sup>1</sup> These acreage figures represent an objective for treatment over a ten-year (decadal) timeframe to support achievement or progress toward vegetation and habitat objectives. This accounts for variations in yearly funding availability and does not reflect a maximum acreage for treatment should funding and site specific conditions allow for more or less treatment than described in order to meet vegetation and habitat objectives.

Deleted: d



	Riparian meadow habitat function	>80% relative composition <sup>a</sup> of riparian herbaceous species <sup>7</sup>
<b>WINTER<sup>1</sup> November-March<sup>1</sup> (Apply to areas of low snow accumulation)</b>		
Cover and Food	Seasonal habitat needed <sup>10</sup>	>80%
	Sagebrush canopy cover above snow <sup>2,10</sup>	>10%
	Sagebrush height above snow <sup>10</sup>	>25cm

**Comment [LD17]:** Function is kind of a confusing term to use here. That makes me think of PFC, which doesn't look at spp. Composition. Not a deal breaker, just thought I'd mention it

<sup>1</sup> Seasonal dates can be adjusted by local unit according to geographic region.  
<sup>2</sup> Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to other species present.  
<sup>3</sup> 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (HAF 2014).  
<sup>4</sup> ≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (HAF 2014).  
<sup>5</sup> Sagebrush plants that are more tree or columnar-shaped do not provide the protective cover of sagebrush with a spreading shape (HAF 2014).  
<sup>7</sup> Preferred forbs are listed in HAF Table III-2 (HAF 2014). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred in Table III-2.  
<sup>8</sup> Cover may be higher according to local riparian classifications.

**Reference List**

<sup>9</sup> Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving sage-grouse from trees.

<sup>10</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. Wildlife Society Bulletin 28:967-985.

<sup>11</sup> Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.

<sup>12</sup> Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.

<sup>13</sup> Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. Wildlife Biology 13 (Supplement 1):42-50.

<sup>14</sup> Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. Condor 107:742-752.

<sup>15</sup> Holloran, M. J., B. J. Heath, A. G. Lyon, S. J. Slater, J. L. Kuipers, and S. H. Anderson. 2005. Greater sage-grouse nesting habitat selection and success in Wyoming. Journal of Wildlife Management 69:638-649.

<sup>16</sup> Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference XXXX-X. U.S. Bureau of Land Management, Denver, Colorado.

<sup>17</sup> Boyd, C. S., and T. J. Svejcar. 2009. Managing Complex Problems in Rangeland Ecosystems. Rangeland Ecology & Management: November 2009, Vol. 62, No. 6, pp. 491-499.

**Maximum Allowable Use Levels for GRSG Habitat**

Seasonal Habitat	Allowable Use of Key Species
Nesting/Breeding <sup>1</sup>	Residual perennial grass height: Grazing post nesting/breeding season: 4 in. <sup>15,16</sup> Grazing during nesting/breeding season <sup>a</sup> : 7 in. <sup>10,15,16</sup>
	<sup>a</sup> Average, assuming current vegetation composition has the capability.
	≤35% shrub species
Brood-Rearing /Summer	≤40% herbaceous species <sup>17</sup>
	≤35% woody species
	Average stubble height 4 inches (depending on site capability and potential) for herbaceous riparian vegetation <sup>17</sup>
Winter	≤35% shrub species

**1-Grass heights only apply in nesting habitats with sufficient sagebrush cover (15-25%) to support nesting.**

**Comment [PM18]:** This is FS language that will be required. Need to discuss BLM's use of these.

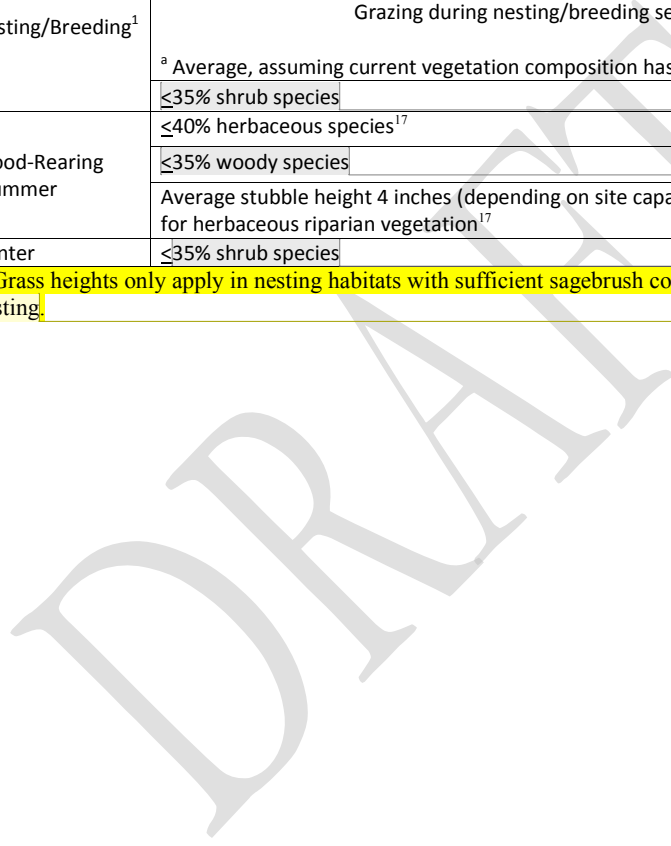
**Comment [LD19]:** Allowable Use is fine for BLM too

**Comment [PM20]:** This is from FS Draft. Assumes we will be monitoring shrub utilization in spring. Need to discuss.

**Comment [PM21]:** This is from FS Draft. Assumes we will be monitoring shrub utilization in summer. Need to discuss.

**Comment [PM22]:** This is from FS Draft. Assumes we will be monitoring shrub utilization in winter. Need to discuss.

**Comment [LD23]:** In the grazing section, we have language about considering ESDs and current site potential as well, so that unrealistic objectives aren't put in place for areas that can't produce 7" every year. May need to spell out how this works if POSE doesn't count towards cover requirements, but it is the main perennial grass out there...



3. General Direction (GD)

- 3.1. GD-1: Comply with state and federal laws, regulations, policies, and standards, including FLPMA multiple use mandates and NFMA regulations.
- 3.2. GD-2: Implement actions (day-to-day management, monitoring, and administrative functions) that stem directly from regulations, policy, and law, which are considered in conformance with the LUPA that are not specifically addressed in the plan amendment.
- 3.3. GD-3: Preserve and recognize valid existing rights, which include any leases, claims, or other use authorizations established before a new or modified authorization, change in land designation, or new or modified regulation is approved. Activities on existing mineral leases are managed through terms, conditions and stipulations on the leases, and through specific operating conditions included in operating plan approvals for the duration of the lease.
- 3.4. GD-4: Allowable uses and management actions from the existing LUPs that remain valid and do not require amending are carried forward.
- 3.5. GD-5: Sustain habitat in sufficient quantities and quality for resilient plant and wildlife populations.
- 3.6. GD-6: Provide for human safety and property protection from wildfire.
- 3.7. GD-7: Ensure that existing utility corridors would remain unchanged.
- 3.8. GD-8: Limit all Forest Service-administered lands to designated routes.
- 3.9. GD-9: Existing requirements regarding site-specific environmental analysis, public involvement, consultation with tribes and other agencies, or compliance with applicable laws without waiver are maintained.
- 3.10. GD-10: Appropriate, site-specific analysis as described in NEPA and any requisite site specific decision making (i.e., 43 CFR Subpart 4160, or 36 CFR Part 251) would be conducted prior to approving proposed management actions.
- 3.11. GD-11: Impacts analysis on other sagebrush steppe species and impacts on state endowment trust lands managed by the Idaho Department of Lands would be analyzed during site-specific project NEPA review.
- 3.12. GD-12: Activities not specifically addressed by the plan amendment would still be subject to the allowances and restrictions of the applicable land use plans.
- 3.13. GD-13: Information in the Management Plan and Conservation Strategies for Sage-Grouse in Montana would be considered when designing projects that may affect sensitive species or federally listed species in Montana.
- 3.14. GD-14: Any oil and gas leasing decisions would be consistent with the BLM and Forest Service requirements for leasing decisions as found in 43 CFR Part 3101 and 36 CFR 228.102, respectively.
- 3.15. GD-15: In conjunction with plan evaluation, re-evaluate management zones, required design features and other protective stipulations as new science, information and data regarding the habitats and behavior of the species is obtained. Incorporate these findings as part of plan maintenance.
- 3.16. GD-16: Incorporate required design features (RDFs) as described in Appendix A in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities.
- 3.17. GD-17: Incorporate best management practices as described in Appendix A, as applicable and appropriate in the design and development of implementation activities and projects.
- 3.18. GD-18: Conduct implementation and project activities consistent with seasonal habitat restrictions described in Appendix B.

Comment [CY24]: Designate utility corridors or designated and de facto corridors or authorized ROWs?

Comment [CY25]: Why single out IDL?

Comment [d26]: Not BLM's jurisdiction

Comment [CY27]: How will public be involved?

Comment [CY28]: Need to further review Appendices, but maintenance activity could be impacted. For example-seasonal restrictions, but power company needs to respond to outage...

Comment [d29]: May need an exception for emergency repairs.

Comment [BER30]: Paul is compiling.

- 3.19. GD-19: Incorporate appropriate buffers into implementation and project design to avoid and minimize impacts to GRSG described in Appendix C.

**Comment [CV31]:** Need to review how this is defined in Appendix.

DRAFT

**4. Coordination**

- 4.1. CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups and non-governmental organizations.
- 4.2. CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, FS and Task Team. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordinated and implementation of BLM's final decision and Montana's forthcoming sage-grouse conservation strategy.
- 4.3. CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.
- 4.4. CC-4: The BLM and Forest Service would coordinate with the State of Idaho and Montana and the Idaho Sage-Grouse Implementation Task Force and Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and livestock grazing (Appendix O).
- 4.5. CC-5: At the state level, BLM and Forest Service would consider recommendations from the Governor in the decision process recognizing that the BLM and Forest Service have the final decision making authority and responsibility on federal lands under their appropriate jurisdiction.
- 4.6. CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends within the broader USFWS PACs and make appropriate recommendations for GRSG conservation at broader scales.
- 4.7. CC-7: At the state level, BLM and Forest Service would coordinate with appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.
- 4.8. CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

**Comment [d32]:** Permitted users of federal lands need to be included in coordination.

## 5. Greater Sage-Grouse Management Areas

- 5.1. Management Area (MA)-1: Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in Map 1. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

### Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, and includes habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan Karaus Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry’s Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon and Butte BLM Field Office boundaries.

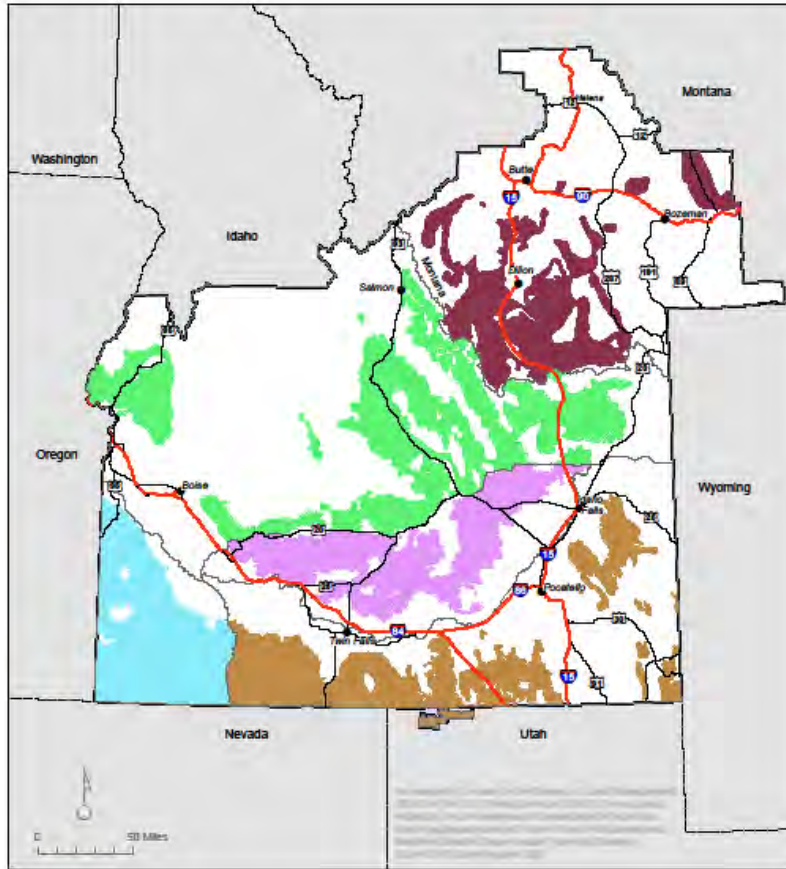
Additionally, sage-grouse habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to topography, elevational and land use differences.

- 5.2. MA-2: Within each Conservation Area (CA) designate GRSG Management Zones: Core, Important and General Management Zones (Map 2). **Core Management Zones (CMZs)** focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. The CMZ encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. Core Management Zones include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Management Zones (IMZs)** contain additional high value habitat and populations that provide a management buffer for the CMZ, connect patches of CMZ. The IMZ encompasses areas of generally moderate to high conservation value habitat and/or populations and in some CAs includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations

(Priority Areas for Conservation (PACs)). The IMZs are typically adjacent to CMZs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. There are no IMZs designated within the Southwestern Montana CA. **General Management Zones (GMZs)** encompass habitat that is outside of CMZs or IMZs. It is generally characterized by more marginal habitat and few, if any, occupied leks or other important seasonal use areas.

- 5.3. MA-3: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.
- 5.4. MA-4: Prioritize activities to protect, enhance and restore GRSG habitats (i.e. suppression activities, fuels management activities, vegetation treatments, invasive species treatments, etc.) first by Conservation Area, if appropriate (CA under adaptive management or at risk of engaging adaptive management), followed by Core Management Zones, then Important Management Zones then General Management Zones within the Conservation Areas. Local priority areas within these zones will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in Appendix D. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat.
- 5.5. MA-5: The management zone map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust Core, Important or General Management Zones. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map.
- 5.6. MA-6: The appropriateness of specific project proposals or management activities within the management zone designations (Core, Important, General) would be assessed individually during project-level NEPA analysis. This evaluation is necessary since designations of Core, Important and General Management Zones were derived at a broad scale with additional refinements relative to boundaries and management consideration; locally GRSG habitat suitability and vegetation characteristics vary.

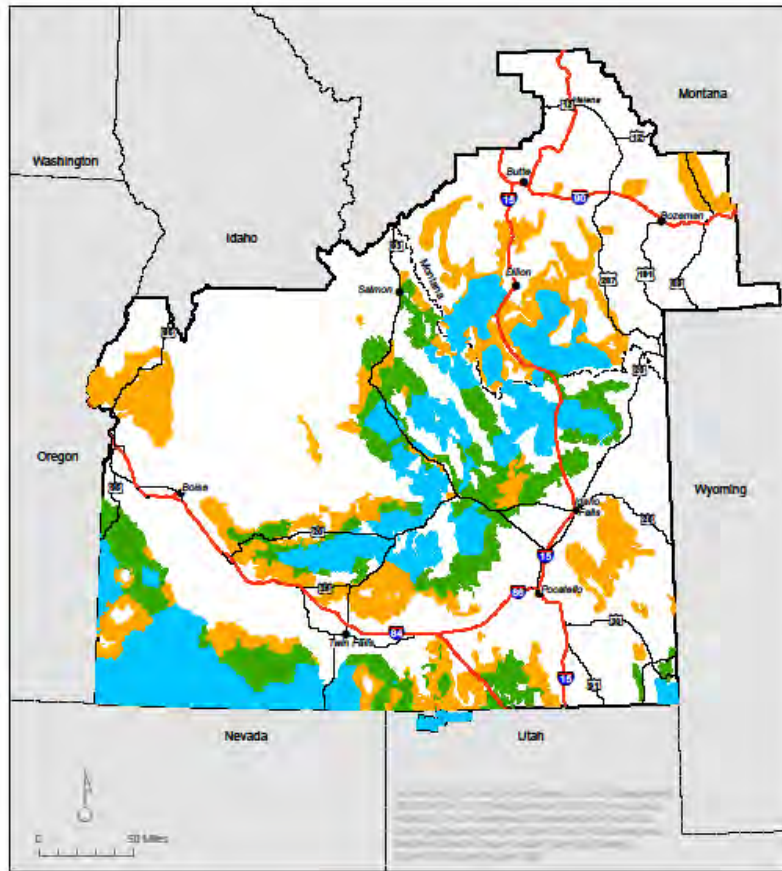
Map 1. Conservation Areas within Idaho and Southwestern Montana Subregion



- |   |                            |
|---|----------------------------|
| <b>Conservation Area with Management Zone</b> | Conservation Area Boundary |
| Idaho Desert Conservation Area                | Analysis Boundary          |
| Idaho Mountain Valleys Conservation Area      |                            |
| Idaho Southern Conservation Area              |                            |
| Idaho West Owyhee Conservation Area           |                            |
| SW Montana Conservation Area                  |                            |



Map 2. Management Zones within Idaho and Southwestern Montana Subregion



- Management Zone**
- Core
  - Important
  - General
  - Analysis Boundary

## 6. Adaptive Management

- 6.1. Adaptive Management (AM)-1: Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.
- 6.2. AM-2: Utilize monitoring information collected through the Monitoring Framework Plan (Appendix E) to determine when adaptive regulatory triggers have been met.
- 6.3. AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the FS and Idaho Department of Fish and Game (IDFG), using the process described in Appendix F.
- 6.4. AM-4: BLM and Forest Service would utilize population information collected and maintained by the Idaho Department of Fish and Game to track and identify population changes to assess the population trigger in the adaptive management approach...
- 6.5. AM-5: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management criteria have been met.
- 6.6. AM-6: Adaptive regulatory triggers would be individually calculated across all ownerships within the biologically significant units (BSU). The BSU is defined as the nesting and wintering habitat within Core and Important Management Zones within a Conservation Area.
- 6.7. AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:
  - A 20 percent combined loss of nesting and/or wintering habitat within CMZ within a CA compared to the 2011 baseline; or
  - A 20 percent combined loss of nesting and/or wintering habitat within IMZ within a CA compared to the 2011 baseline.
- 6.8. AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:
  - A 10 percent combined loss of nesting and/or wintering habitat within CMZ within a CA compared to the 2011 baseline; or
  - A 10 percent combined loss of nesting and/or wintering habitat within IMZ within a CA compared to the 2011 baseline.
- 6.9. AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:
  - A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within CMZ within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline; or
  - A 20 percent decline in maximum number of males counted and a finite rate of change significantly below 1.0 within IMZ within a CA over a period of 3 consecutive years compared to the 2009-2011 baseline.
- 6.10. AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:
  - A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within CMZ within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011; or
  - A 10 percent decline in maximum number of males counted and a finite rate of change below 1.0 within IMZ within a CA over a period of 3 years when compared to the average finite rate of change from 2009-2011.
- 6.11. AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met then the Implementation Team would engage to identify implementation level actions that may be appropriate to consider.

Comment [BER33]: Describe Project Level Adjustments.

Comment [BER34]: From Paul - Confirm if this should read "average maximum" (avg max no. per lek) or is it the total max number of birds. Important distinction.

- 6.12. AM-12: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities Appendix G.
- 6.13. AM-13: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met due to loss of habitat then CMZ management actions would be applied to the IMZ within that CA.
- 6.14. AM-14: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in Appendix G.
- 6.15. AM-15: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of baseline values within the associated CA.
- 6.16. Montana Adaptive Management:

**Comment [BER35]:** John Carlson to provide template of language.

DRAFT

## 7. Anthropogenic Disturbance

- 7.1. Anthropogenic Disturbance (AD)-1: Limit anthropogenic disturbance to 3 percent as calculated within the biologically significant unit (BSU). The BSU is defined as the nesting and wintering habitat within Core and Important Management Zones within a Conservation Area, inclusive of all ownerships. This excludes habitat disturbance from wildfire and includes activities described in Appendix H. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features. For Montana this disturbance is measured utilizing the Disturbance Density Calculation Tool process described in Appendix I.
- 7.2. AD-2: New anthropogenic disturbances within winter and nesting habitat within Core or Important management zones within a CA where the disturbance threshold is already exceeded from any source or where the proposed development would result in the threshold being exceeded would not be allowed until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights).
- 7.3. AD-3: Core Management Zone: Anthropogenic Disturbance Exception Criteria – in addition to the Core and Important Management Zone Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the screening and assessment process:
- The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers;
  - The development with associated mitigation would not result in a net loss of GRSG habitat and would provide a net conservation benefit of the respective Core Management Zone;
  - The project would not likely result in a net loss of GRSG habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA;
  - The project is developed pursuant to a valid existing authorization;
  - The project is an incremental upgrade/capacity increase of existing development;
  - Cannot be reasonably accomplished outside of the Core Management Zone;
  - Can be co-located within the footprint of existing infrastructure (proposed actions would not increase the existing authorized footprint and associated impacts more than fifty percent (50%), depending on industry practice.
  - Development would follow the required design features (RDF) and best management practices (BMPs) as described in Appendix A;
  - The project would not exceed the disturbance threshold (AD-1).
  - The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.
- 7.4. AD-4: Core and Important Management Zone: Anthropogenic Disturbance Development Criteria – the following criteria must be met in the screening and assessment process:
- The project cannot reasonably be achieved, technically or economically, outside of this management zone; and
  - The project is co-located within the footprint for existing infrastructure, to the extent practicable. In the event co-location is not practicable, the siting should best reduce cumulative impacts and/or impacts on other high value natural, cultural, or societal resources; and

**Comment [CY36]:** Right, but EIS only applies to federal land.

**Comment [d37]:** Ask BLM if this is just roads and pipelines which would mean the ROW width is basically the same as the direct footprint. Or does this include powerlines where the ROW width includes area that is not disturbed.

**Comment [CY38]:** This needs to be clarified for the State.

**Comment [CY39]:** Need to make sure this will be compatible with e and g when we play out different project scenarios. Is there an implied "and" after each criteria, or is it an "or"?

- c. The project does not result in a net loss of GRSG habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant CA; and
  - d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and
  - e. The project complies with the applicable RDFs as described in Appendix A.
  - f. The project would not exceed the disturbance threshold (AD-1).
- 7.5. AD-5: Construction activities and other short-term anthropogenic disturbances would be carried out subject to seasonal and timing restrictions Appendix B.

DRAFT

**8. Mitigation**

- 8.1. Mitigation (MIT)-1: BLM and USFS would establish an inter-agency GRSG Conservation Board at the state level (both Idaho and Montana) to oversee GRSG Conservation.
- 8.2. MIT-2: The BLM and USFS, in coordination with the GRSG Conservation Board would develop a State Mitigation Strategy. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (Appendix J).
- 8.3. MIT-3: Mitigate impacts from anthropogenic developments (Appendix H) to GRSG habitats by first avoidance of impacts, minimizing impacts and then compensating for impacts.
- 8.4. MIT-4: Mitigate anthropogenic development (Appendix H) impacts to CMZs to a no net loss standard (Appendix K) through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix L), referred to as no unmitigated loss.
- 8.5. MIT-5: Mitigate anthropogenic development (Appendix H) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix L).

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**9. Wildfire Preparedness/Prevention**

- 9.1. Wildfire Preparedness (WFP)-1: Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.
- 9.2. WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).
- 9.3. WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments described in Appendix D, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.
- 9.4. WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.
- 9.5. WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and Wildfire and Invasive Species Assessments.
- 9.6. WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.
- 9.7. WFP-7: As part of the Wildfire and Invasive Species Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the Core or Important Management Zones. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.
- 9.8. WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.
- 9.9. WFP-9: Implement activities identified within the Wildfire and Invasive Species Assessments.

## 10. Wildfire Suppression

- 10.1. WFS-1: Complete Wildland Fire and Invasive Species Assessments as described within Appendix D within 1 year of the Record of Decision and incorporate results into appropriate Fire Management Plans as they are completed. Wildfire and Invasive Species Habitat Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of priority areas/treatment opportunities for fuels management, fire management, and restoration. These assessments identify priority areas and describe strategies for fuels management, suppression and restoration activities.
- 10.2. WFS-2: As part of the Wildfire and Invasive Species Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within Core and Important Management Zones or on those fires that have the potential to impact Core and Important Management Zones. Incorporate findings into Unit Initial Attack program
- 10.3. WFS-3: As part of the Wildfire and Invasive Species Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening CMZ and IMZ during initial attack.
- 10.4. WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the Wildfire and Invasive Species Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat.
- 10.5. WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in General Management Zones when suppression resources are available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.
- 10.6. WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.
- 10.7. WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.



## **11. Fuels Management**

- 11.1.** FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.
- 11.2.** FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.
- 11.3.** FM-3: Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into Core Management Zones or WUI.
- 11.4.** FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the Wildfire and Invasive Species Assessments completed as described in Appendix D.
- 11.5.** FM-5: When developing the fuels management strategy as part of the Wildfire and Invasive Species Assessment described in Appendix D consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.
- 11.6.** FM-6: Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of fuel reduction techniques, including: grazing, targeted grazing, prescribed fire, chemical, biological and mechanical treatments.
- 11.7.** FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas.
- 11.8.** FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings) or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.
- 11.9.** FM-9: Strategically pre-treat areas to reduce fine fuels.
- 11.10.** FM-10: Protect seeding efforts from subsequent fire events.
- 11.11.** FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of unwanted wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.

**Comment [CY40]:** Text should clarify that ROW holder is not responsible for fuel break creation or maintenance (unless get mitigation credit).

- 11.12. FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:
- Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
  - Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
  - Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations
- 11.13. FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.
- 11.14. FM-14: Maintain effectiveness of fuels projects to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.

**Comment [d41]:** And fuel breaks. Must ensure that a strategy is implemented to maintain effective fuel breaks.

**12. Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation**

- 12.1. ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the Wildfire and Invasive Species Assessment process described in Appendix D to determine if rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (FS) actions after fire.
- 12.2. ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the Wildfire and Invasive Species Assessments.
- 12.3. ESR-3: Adjust management activities, as appropriate to ensure successful establishment of vegetation from ESR and rehabilitation informed through the evaluation of measurable groundcover and vegetation objectives such as plant vigor, seed production and growing season conditions.
- 12.4. ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.

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### 13. Habitat Restoration and Vegetation Management

- 13.1. VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.
- 13.2. VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on Wildfire and Invasive Species Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to sage-grouse seasonal habitats.
- 13.3. VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.
- 13.4. VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.
- 13.5. VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.
- 13.6. VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of Core or Important Management Zones to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.
- 13.7. VEG-7: During land health assessments evaluate the compatibility of existing nonnative seedings for GRSG habitat to keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak (Davies et al. 2011) or during restoration development. If nonnative seedings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, evaluate the nonnative seedings in and adjacent to CMZ to determine if they should be diversified with or converted to native grasses, forbs, and shrubs, including sagebrush.
- 13.8. VEG-8: Utilize conifer (juniper) removal treatments to reduce the extent of conifer encroachment areas. Refrain from using prescribed fire and conducting removal

projects in old-growth juniper stands. Old-growth juniper trees are characterized by rounded tops and spreading canopies, often containing dead limbs and/or spike tops, large branches near the base of the tree, as well as furrowed, fibrous bark, and are typically host to arboreal lichens. Leader growth in the upper quarter of the tree is usually less than one inch. These trees are generally distributed on rock outcrop or rubble land soils, or other soils with coarse fragments in the soil-surface and/or slopes over 12-25%, where juniper vegetation type is the climax plant community (IDFG 2000; Miller et al 2005; USDI and USGS 2007).

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#### 14. Invasive Species

- 14.1. Invasive Species (INV)-1: Incorporate results of the Wildfire and Invasive Species Assessments into projects and activities addressing invasive species.
- 14.2. INV-2: Implement noxious weed and invasive species control using integrated weed management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.
- 14.3. INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.
- 14.4. INV-4: Require project proponent to ensure that treatments of noxious weeds and invasive species on disturbed project construction areas are completed for at least 3 years.

**Comment [CY42]:** This should be treatment of weeds that are caused by or contributed to the project proponent. The project proponent should not be responsible for weeds that were present prior to their project – unless they get mitigation credit.

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**15. Lands and Realty / Infrastructure**

- 15.1. Lands and Realty (LR)-1: Core: Designate and manage Core Management Zones as ROW avoidance areas subject to RDFs, BMPs, buffers and seasonal timing restrictions (Appendix A, B & C). Important: Designate and manage Important Management Zones as ROW avoidance areas subject to RDFs, BMPs, buffers and seasonal timing restrictions. General: Designate and manage General Management Zones as open with proposals subject to RDFs, BMPs, buffers and seasonal timing restrictions.
- 15.2. LR-2: Core: Designate and manage Core Management Zones as exclusion areas for Wind and Solar testing and development, nuclear and hydropower energy development. Important: Designate and manage Important Management Zones as avoidance areas for Wind and Solar testing and development, nuclear and hydropower development. General: Designate and manage General Management Zones as open for Wind and Solar testing and development and nuclear and hydropower development subject to RDFs, BMPs, buffers and seasonal timing restrictions.
- 15.3. LR-3: Core: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within Core Management Zones. Important and General Management Zones are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 15.4. LR-4: Core: Development of new landfills would not be allowed within Core Management Zones. Important and General Management Zones are Avoidance and Open respectively for these types of ROW applications as described in LR-1.
- 15.5. LR-5: Core Management Zones: Rights-of-way for development of new or amended ROWs and land use authorizations, not excluded, would not be allowed except according to the Anthropogenic Disturbance Exception Criteria (AD-3). Important: Rights-of-way for development of new or amended ROWs and land use authorizations, not excluded, could be considered consistent with the Important Management Zones Anthropogenic Disturbance Development Criteria. (AD-4). General: New ROW and land use authorizations could be considered.
- 15.6. LR-6: If the project is an incremental upgrade/capacity increase of existing development - the existing transmission line must be removed within a specified amount of time after the new line is installed and energized.
- 15.7. LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open (subject to the ongoing settlement agreement).
- 15.8. LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Zones within which it is located and the RDFs, BMPs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and restoring the habitat.
- 15.9. LR-9: Land use authorizations that are temporary in nature would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.
- 15.10. LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be

Comment [CY43]: This paragraph could be stated clearer I think.

Comment [CY44]: CHZ only? Or All 3 zones?

- allowed on a case-by-case bases subject to RDFs and BMPs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.
- 15.11. LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).
- 15.12. LR-12: Work with ROW holders to retrofit existing towers with perch deterrents or other anti-perching devices, where appropriate, to limit GRSG predation.
- 15.13. LR-13: Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:
- a. Lands within Core and Important Management Zones would not be available for disposal (Appendix M).
  - b. Acquire habitat within Core and Important Management Zones, when possible (i.e. willing landowner), and retain ownership of habitat within all Zones, except if a land exchange would allow for additional or more contiguous federal ownership patterns.
  - c. Lands within Core and Important Management Zones would be retained unless exchange of those lands would increase the extent or provide for connectivity of Core or Important Management Zones.
  - d. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of Core Management Zones. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within Core Management Zones currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the Core and Important Management Zones.
  - e. Identify lands for acquisition that increase the extent of or provide for connectivity of Core Management Zones.

**Comment [CY45]:** We should focus on reducing raven nesting opportunities as implied in LR-12. Request this be removed.



## 16. Minerals

### 16.1. Fluid Minerals

- 16.1.1.** Fluid Minerals (FLM)-1: Idaho: Areas within Core Management Zones with no or low potential for fluid mineral development (oil and gas or geothermal) would be closed. Areas within Core Management Zones with moderate to high potential for development and Important Management Zones would be open to mineral leasing and development subject to no surface occupancy, in accordance with the Anthropogenic Disturbance Exceptions (Core – AD-3) and the Anthropogenic Disturbance Development Criteria (Important – AD-4) subject to RDFs, BMPs, buffers, timing restrictions and standard stipulations. General Management Zones would be open to mineral leasing and development subject to CSU which includes RDFs, BMPs, buffers, seasonal timing restrictions and standard stipulations. Montana: Areas within Core Management Zones would be open to leasing subject to no surface occupancy. No waivers, exceptions or modifications would be allowed unless approved by the State Director. General Management Zones would be open to leasing subject to CSU which includes RDFs, BMPs, buffers, seasonal timing restrictions and standard stipulations.
- 16.1.2.** FLM-2: Core Management Zones: Waivers, exemptions or modifications to the NSO stipulation could be considered upon recommendation from the Governor through the Implementation Task Force during the federal site-specific NEPA analysis based on Core Management Zone Anthropogenic Disturbance Exception Criteria (AD-3). Important Management Zones: Waivers, exceptions or modifications to the NSO stipulation could be considered upon recommendation from the Governor through the Implementation Task Force during the federal site-specific NEPA analysis based on the Important Management Zone Anthropogenic Disturbance Development Criteria (AD-4). In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes RDFs, BMPs, buffers, seasonal timing restrictions and standard stipulations.
- Waivers, Exceptions and Modifications (WEMs)** (Source IM-2008-032)

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers require a 30-day public review and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the lease to which the restrictive criteria are applied.

- 16.1.3.** FLM-3: Incorporate required design features, best management practices appropriate to the management area, buffers and seasonal timing restrictions as conditions of approval into any post-lease activities.
- 16.1.4.** FLM-4: Complete a Master Development Plan on leases where a producing field is proposed to be developed.
- 16.1.5.** FLM-5: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be

**Comment [CY46]:** I can't remember if this is something we all agreed to or if this paragraph all comes from BLM planning language.

designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.

- 16.1.6. FLM-6: Require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs that would result in full rehabilitation to restore lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work.

**16.2. Unleased Fluid Minerals**

- 16.2.1. FLM-7: Allow temporary geophysical exploration, subject to site-specific RDFs, BMPs, buffers, seasonal restrictions, and daily timing restrictions.
- 16.2.2. FLM-8: Parcels nominated for lease in Core or Important Management Zones would be evaluated to determine whether they meet the Anthropogenic Disturbance Exception (AD-3 for CMZ) or Anthropogenic Disturbance Development Criteria (AD-4) for IMZ), prior to lease offering. Parcels which do not meet the criteria would not be offered for lease.

**16.3. Locatable Minerals**

- 16.3.1. Locatable Minerals (LOC)-1: Lands would remain open to locatable mineral entry in all management zones.
- 16.3.2. LOC-2: Apply reasonable and appropriate Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or FS approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).

**16.4. Salable Minerals**

- 16.4.1. Salable Minerals (SAL)-1: Core: No new site authorizations would be approved. Important: New site authorizations could be considered consistent with the Anthropogenic Disturbance Development Criteria (AD-4) subject to RDFs, BMPs, buffers and seasonal timing restrictions. Sales from existing community pits within CMZ and IMZ would be subject to seasonal timing restrictions. General: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions.
- 16.4.2. SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.
- 16.4.3. SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IMZ (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).

**16.5. Non-Energy Solid Mineral Leasable Minerals**

- 16.5.1. Non Energy Leasables (NEL)-1: Core and Important Management Zones: Areas within Know Phosphate Leasing Areas (KPLAs) will remain open to leasing. CMZ areas outside KPLAs are closed to leasing and prospecting. IMZ areas outside of KPLAs are open to leasing in accordance to the Anthropogenic Disturbance Development Criteria (AD-4) subject to the anthropogenic disturbance cap (AD-1), RDFs, BMPs, buffers and seasonal timing restrictions. Exceptions may be made for lease modifications and fringe leases where valid existing rights may be affected. General Management Zones: Lands are available for leasing, exploration activities and initial mine development subject to RDFs, BMPs, buffers, timing restrictions (seasonal and daily) and standard stipulations.

**Comment [BER47]:** From Paul - But what if we can show minimal issue such as far from leks, can moderate disturbance in lek/nest season etc. with seasonal or timing restrictions? See buffer table ideas.

**Comment [BER48]:** From Paul - Verify use of "administratively unavailable" for Important, per Buffer table and discussion with Karen Porter in May.

- 16.5.2. NEL-2: Require seasonal and daily timing restrictions in undeveloped non-energy mineral leases when exploration activities or initial mine development is proposed, as appropriate.
- 16.5.3. NEL-3: Include RDFs as conditions of approval to mine plans in undeveloped non-energy mineral leases.

**16.6. Mineral Split Estate**

- 16.6.1. Mineral Split Estate (MSE)-1: In coordination with surface land owner, apply stipulations, conservation measures, and design features consistent with those applied to BLM- and Forest Service-administered lands in the management zone where the federal government owns the mineral estate and the surface is non-federal ownership.
- 16.6.2. MSE-2: Recommend to the state regulatory entity to apply a timing restriction stipulation, COAs, and buffer restricts around occupied leks, when concurring to the approval of authorizations for mineral-related surface disturbance on lands in GRSG habitat where the federal government owns the surface and the mineral estate is in non-federal ownership.

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## 17. Range Management/Livestock Grazing

- 17.1. Range Management (RM)-1: Continue to make GRSG habitat available for livestock grazing. Active AUMs for livestock grazing would remain the same, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, season of use in accordance with applicable regulations.
- 17.2. RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management zone prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.
- 17.3. RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.
- 17.4. RM-4: CMZ & IMZ: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat objectives including riparian and lentic areas (HM-OBJ-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.
- 17.5. RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.
- 17.6. RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following consultation, cooperating and coordination with permittees and interested publics, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:
- 1) Season or timing of use;
  - 2) Numbers of livestock;
  - 3) Distribution of livestock use;
  - 4) Duration and/or level of use;
  - 5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011);
  - 6) Voluntary measures such as temporary non-use; and
  - 7) Grazing schedules (including rest or deferment).
- 17.7. RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in sage-grouse habitat areas.
- 17.8. RM-8: CMZ & IMZ - When an allotment becomes vacant or grazing preference is relinquished, consider voluntary retirement of the allotment or grazing preference in whole or in part, or converting the area to a forage reserve/buffer when doing so would maintain or enhance sage-grouse habitat. GMZ - When an allotment

- becomes vacant or grazing preference is relinquished, consider converting it to a forage reserve/buffer to use during fire rehabilitation or restoration efforts elsewhere, when such actions would result in a net benefit to GRSG habitat and other priority resources.
- 17.9. RM-9: CMZ & IMZ - Where practical, design pasture rotations to utilize exotic perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.
- 17.10. RM-10: Evaluate the locations where salt/supplements are placed. In coordination with the permittee, have salt/supplements placed in areas which would reduce impacts to GRSG habitat (e.g., existing disturbed areas).
- 17.11. RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service-administered lands in the spring. Work with permittees in locating over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.
- 17.12. RM-12: Design any new structural range improvements, following cooperation, consultation and coordination with permittees, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements are subject to RDFs (Appendix A). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.
- 17.13. RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.
- 17.14. RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following cooperation, consultation and coordination with permittees to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).

**Comment [d49]:** My concerns with retirement of an allotment and relinquishment of AUMS is related to fuel load build up and fire. Long term rest causes an accumulation of fine fuels that increase wildfire risk, increases fire severity and subsequently the cost of fire suppression efforts and increases the likelihood of conversion to exotic annual grasslands (Davies et al. 2014). Additionally, areas with long-term protection from livestock grazing followed by fire resulted in substantial increases in cheatgrass and annual forbs, resulting in a shift from perennial vegetation dominance to annual vegetation dominance (Davies et al. 2009).

**Comment [BER50]:** From Paul – See revised buffer table.

**18. Wild Horses and Burros**

- 18.1. Wild Horse and Burro (WHB)-1: Develop or amend BLM Herd Management Area Plans and Forest Service Wild Horse Territory Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs) and Forest Service Wild Horse Territories.
- 18.2. WHB-2: When evaluating AML on HMAs within CMZ, evaluate indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.
- 18.3. WHB-3: Utilize interdisciplinary land health assessments in HMAs containing GRSG habitat to determine whether vegetation characteristics are meeting appropriate seasonal habitat objectives.
- 18.4. WHB-4: CMZ: Do not expand HMAs. IMZ: Analysis of proposed additions to existing HMA boundaries should consider the direct, indirect and cumulative impacts on GRSG habitat, including the need for additional infrastructure such as boundary fencing, and consider alternative areas outside of CMZ and IMZ.

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**19. Travel Management**

- 19.1. Travel Management (TM) -1: Limit motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails. This excludes areas previously designated as open through an affirmative land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. The initial designation would be “limited to existing roads, primitive roads and trails”; this designation would change to “limited to designated roads, primitive roads and trails”, in areas where travel management plans are completed.
- 19.2. TM-2: Close areas adversely affected by off-highway vehicles immediately to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence when the authorized officer determines that off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources. This may include closure or specific routes or areas. (43 CFR 8341.2)
- 19.3. TM-3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (Appendix N).
- 19.4. TM-4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize harassment of wildlife or significant disruption of wildlife habitats. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within Core Management Zones would be placed on having a neutral or positive effect on GRSG habitat.
- 19.5. TM-5: Conduct road maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

**Comment [CY51]:** Both of these should have provision for authorized use even if closed to others.

**20. Recreation**

- 20.1. REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, BMPs, buffers and seasonal restrictions.
- 20.2. REC-2: Do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within CMZs and IMZs unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities as in TM-4, or unless the development is required for visitor safety or resource protection.

DRAFT



**21. Monitoring**

- 21.1. Monitoring (MON)-1: Annually complete a review of Wildfire and Invasive Species assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.
- 21.2. MON-2: Annually monitor the effectiveness of fuels treatment projects.
- 21.3. MON-3: Monitor invasive vegetation post vegetation management treatment
- 21.4. MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.
- 21.5. MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.
- 21.6. MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in Appendix F.
- 21.7. MON-7: Monitor GRSG habitat as described in the monitoring framework plan (Appendix E) in coordination with IDFG and MT FWP.

DRAFT

## Appendices

Appendix A – Required Design Features and Best Management Practices

Appendix B – Seasonal Timing Restrictions

Appendix C – Application of Buffers

Appendix D – Wildfire and Invasive Species Assessments/FIAT Team

Appendix E – Monitoring Framework Plan

Appendix F – Idaho Key Habitat Map Update Process

Appendix G – Adaptive Management

Baseline Map and Description

Adaptive Management – Soft Trigger Implementation Actions

Adaptive Livestock Grazing Management Response

Appendix H – Idaho Anthropogenic Disturbance Process

Appendix I – Montana Anthropogenic Disturbance Process

Appendix J – Mitigation

Regional Mitigation Framework

Idaho Mitigation Framework

Unmitigated Loss

Appendix K – Lands No Longer Available for Disposal

Appendix L – Travel Management Planning Guidelines

Appendix O – Functioning of Boards

**Comment [BER52]:** Include description of how these are defined and mapped in supplemental information. Paul and Don K. have language. The baseline map needs to be developed – it is a map of the GRSG habitat (key habitat as described on the Key Habitat map) within nesting and wintering habitat (delineated by IDFG) within core and important areas.

**Comment [BER53]:** Need to develop appendix of lands no longer identified for disposal

**Comment [BER54]:** Develop description of how this board interfaces with State Implementation Team.  
Work to develop a clear description of how the Task Team would function in relation to the Mitigation Board, etc. Brent, Dustin, Rob, Cally, Jason and Don K. will work to develop this description. Need flow charts to diagram how interactions work. Describe the scope of the Implementation Team. Liaison on implementation team? Describe and develop MOU after the ROD

**Brent Ralston**

---

**From:** dbalsecr@gmail.com  
**Sent:** Tuesday, July 29, 2014 9:50 AM  
**To:** Ralston Brent  
**Cc:** Balfour Doug; Behrend David; Behrend Paul; Bethke Larry; Bethke Nick; Cates Rayma; Christiansen Todd; Driscoll Braden; Driscoll Brock; Dustin Allen; Evans Jake; Evans Jerre; Gehring Jordan; Gohl Clarence; Hansen Eddy; Hornbacher Henry; Isaak Lamar; Jensen Kristen; Jensen Reve; Kooppin Claren; Kopp Edith; Kopp Richard; Kress Cory; Kruckeberg J.P.; Leyshon Brett; Lish Scott; Matthews Kyle; McHargue Dan; Meadows Vicki; Munk Kindra; Pahl Greg; Permann Ivan; Permann Joan; Petersen Ryan; Povey Wade; Rudeen Kent; Schmidt Stan; Schritter Mike; Stoker Brent; Ternus Tom; Tilley Shane; Ward Dallas; Wegner John; Barrus Al; Beck David; Beck Judi; Beck Mike; Bedke Scott; Beuker John; Crane Dennis; Gibby Von; Jones Gary; Kunau Bob; McMurray Kerry; Ottley Tom; Patterson Lisa; Pickett Doug; Searle Kent; Smyer Gaylen; Steadman Lynn; Stoker Brent; Wells Kay; Whiteley Robert; Wood Fred; Behrend Paul; Bethke Larry; Christiansen Todd; Gehring Gary; Jones Travis; Kopp Edith; Kopp Richard; Kress Cory; Kruckeberg J.P.; Lish Scott; Permann Ivan; Permann Joan; Rudeen Kent; Ternus Tom; Tilley Shane; Wahlen Kim; Wegner John  
**Subject:** Sage Grouse Administrative Draft Proposed Plan  
**Attachments:** 20140729094625071.pdf

PLEASE SEE ATTACHED.....

Thank you,  
Lisa Rodriguez  
Secretary to Douglas J. Balfour  
(208) 233-0680  
(208) 233-0319 (fax)

This communication, including any attachment, contains information that may be confidential and/or privileged, and is intended solely for the entity or individual to whom it is addressed. If you are not the intended recipient, you should delete this message and are hereby notified that any disclosure, copying, or distribution of this message is strictly prohibited. If you receive this email in error, please contact the sender immediately either by return email or at #(208) 233-0680.

***Douglas J. Balfour, Chartered***

***230 W. Lewis***

***P.O. Box 490***

***Pocatello, ID 83204-0490***

***Phone: 208-233-0680***

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***E-mail: dbal0680@gmail.com***

July 29, 2014

Brent Ralston  
Bureau of Land Management – Boise

*Sent Via Email*

RE: Sage Grouse Administrative Draft Proposed Plan

Dear Brent:

This letter will constitute the comments of Power and Cassia County, Cooperating Agencies in this process.

This specific comment is directed to page eighteen (18) of the Draft Proposed Plan, section 7.4.

Under the Draft Land Use Plan Amendment and Environmental Impact Statement, for alternative E which was largely adopted in this Draft Proposed Plan, there was a distinction between Core and Important areas for lands and realty infrastructure. Specifically in Important areas, the Draft EIS stated “new infrastructure can be authorized if specific criteria are met.” Draft EIS. 2-33. shows criteria are described as similar to the best management practices. The Cooperating Agencies submit that those best management practices are far more practical than the increased criteria contained in the current 7.4.

Alternative E specifically stated “infrastructure is generally permissible, but requires analysis of whether it can be reasonably accomplished outside IHZ.” Draft, 2-164.

Specifically, 7.4.AD-4:c. Changes the language from the Draft EIS which stated “the project does not result in unnecessary and undue habitat fragmentation or other impacts causing a decline in the population of the species within the relevancy CA.”

The new language requires a project to not result in a “net loss of GRSG habitat.” As GRSG habitat is finite, and already established, this change in language is very confusing. The prior language just talked about unnecessary and undue habitat fragmentation. By adding the criteria of no net loss of habitat, the language could be interpreted by agencies as preventing a project completely. For example, a transmission tower has, basically, a fifty foot by fifty foot base. If the transmission tower is built in an Important Management Zone, there will be twenty five hundred square feet less habitat. That does not mean that the tower base will have any impact at all on Sage Grouse, as the literature seems clear that it would not. Certainly the requirement for mitigation would resolve that issue. However, we are concerned that this language will confuse the decision makers.

Power and Cassia County request that Criteria c be returned to that proposed from Alternative E in the Draft EIS.

The mitigation language in the next sentence should be sufficient to achieve the desired result.

The introduction and explanation in the Draft EIS was specifically **to authorize** new infrastructure development. That authorization language is also lacking in the 7.4 proposed plan.

We request it be reinstated, so that the agency understands that infrastructure is to be allowed, within certain criteria.

It must be understood that the BLM cannot simply follow a process that will require infrastructure to be built, but only to not allow it to built on public land. The concept of Adaptive Management, and the exact studying of impacts, does not support impossible criteria.

Very Truly Yours,



DOUGLAS J. BALFOUR

*Representative of  
Power County Idaho  
Cassia County Idaho*

DJB/er  
c. Gateway

**Brent Ralston**

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**From:** SHIRLEY, ROBERT M GS-14 USAF HAF AFCEC/SAF/IEE REO SF  
**Sent:** Wednesday, July 30, 2014 8:00 AM  
**To:** Brent Ralston  
**Subject:** FW: Admin Draft Proposed Plan for ID & SW MT GRSG RMP  
**Signed By:** robert.shirley.2@us.af.mil

Brent,

Below are DoD comments on the draft Proposed Plan for ID & SW MT GRSG RMP/EIS.

Comments:

1. The Minimization Measures Seasonal/Timing Restrictions & Buffers listed In Appendix B, Page 12 of 15 "Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary Table" lists restrictions to anthropogenic activities within 2 miles. Recommend reducing restriction on activities to within ~1 mile of active leks. Justification: based upon the rationale provided "statistical evidence that oil/well pad influence extended as far as 1.6 km (~ 1 mile) from grouse leks." Additionally, the intro to Appendix B has a lateral restriction of "within 1 km (0.62 mile): "Seasonal Timing Restriction During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25- May 15 in higher elevations), project activities will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse."
2. Page 12 of 15, "Causes" Change "anthropogenic activities..." to "Ground based anthropogenic activities...." Justification: Clarifies RDF/BMP applies to ground based anthropogenic activities. Overflight by any aircraft (civilian, commercial, or military) could potentially generate a "repeated behavioral disturbance" and not result in "sustained avoidance of the lek during a particular lekking season." The rationale provided is focused on consistent noise/activity from ground based activities however the qualifier "anthropogenic activity" could be argued to include all anthropogenic activity to include any aircraft overflight. Previous scientific studies document the effects of overflight and sonic booms on wildlife were of short duration and rarely result in injury or negative population effects, and studies on similar upland game birds, including the wild turkey and bobwhite quail, found no decreased success rate in either breeding or hatching success from low-flying aircraft.

//SIGNED//

Robert M. Shirley, DAF  
DoD Regional Environmental Coordinator, Region 10  
AF Western Regional Environmental Office, San Francisco

(415)977-8846

**Brent Ralston**

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**From:** Robertson, Mark  
**Sent:** Thursday, July 31, 2014 4:34 PM  
**To:** Hoefler, Scott  
**Cc:** Jeffery Foss; Kurt Wiedenmann; Brent Ralston; Colt, Chris J -FS; Barbara Schmidt; Russ Holder; Dennis Mackey; Michael Carrier  
**Subject:** Re: Sage Grouse EIS consultation

I greatly appreciate the response, Scott. Based on the movement of the CA (our understanding is that we are pretty close to finalizing it and having it out for signature) and the enhanced coordination via the weekly phone calls for the sage grouse EIS/consultation, I believe we have made some meaningful progress in the last couple of weeks; we look forward to continuing on this trajectory. The unique relationship of these parallel efforts, their significance at the local/regional/national levels, and the linked project-level step-downs, required the collective "we" to step up, and I'm pleased to see that we are all working together to meet the needs of our respective agencies on this broader effort. Thanks again.

On Thu, Jul 31, 2014 at 3:53 PM, Hoefler, Scott <[shoefler@blm.gov](mailto:shoefler@blm.gov)> wrote:  
Hi Mark,

We have discussed each of the items internally that came out of the initial Sage-grouse EIS consultation call on July 10th which you provided to us in the below email, and have the following input by issue:

1. We agree that coordination between BLM/FS/FWS definitely needs to ramp up over the next few months in order to meet the tight timelines, particularly, given the added complexity associated with LEPA. We feel that the weekly calls and additional communication as needed is heading us in the right direction.
2. We are committed to providing the staff-level LEPA expertise necessary to facilitate good communication regarding LEPA. Anne Halford returns from vacation on August 4th, so we will be identifying the individual next week who will be providing that expertise.
3. We also agree that the LEPA CA and the Sage-grouse EIS need to be consistent and we are taking steps to ensure consistency.
4. The proposed action will be final in the near future.

We are committed to ongoing coordination through weekly calls and additional conversations or meetings as necessary. We appreciate your willingness to fully engage with us in this consultation process.

Thanks, Scott

On Mon, Jul 14, 2014 at 10:46 AM, Robertson, Mark <[mark\\_robertson@fws.gov](mailto:mark_robertson@fws.gov)> wrote:  
Jeff/Kurt/Scott/Brent,

The IFWO had our first coordination call regarding the Sage Grouse EIS consultation with Chris Colt of the FS (overseeing the development of all EIS BAs). Unfortunately, Scott could not make the call last week, but as a group, we have committed to weekly calls each Thursday to ensure timely exchanges of information. Please review the following based on this initial call, which provided some insight on agency roles and responsibilities, timelines, and potential issues.



Issues/Needs to Consider:

1. With LEPA being a likely focal point for BA development (potential adverse affects and the need to develop a BO), it is clear that BLM/FS/FWS coordination needs to ramp up over the next few months to meet current projected timelines (coordination efforts have only just been initiated at the ID/MT EIS level for BA development).
2. Since the FS is essentially acting as contractors for BA development, and do not necessarily have the species expertise for all species being addressed in the BAs (notably for LEPA), it is recommended that BLM ensure staff-level LEPA expertise (perhaps Anne Halford or a District-level staff member) is available to facilitate good communication between BLM/FS/FWS regarding LEPA and the potential overlap to sage grouse RMP guidance/direction. Scott's ESA experience will continue to be invaluable.
3. The concurrent efforts of updating the LEPA CA between FWS and BLM, and amending the RMPs to include sage grouse guidance/direction, need to be compatible, notably as it relates to fire and range management guidance/direction (e.g., fuel breaks, rehabilitation, etc.); completion of 1 prior to the other without considering their relationship could result in conflicting approaches to species conservation.
4. We should acknowledge the added complexity of the ID/MT situation in that there is still no "official" proposal/action on which the BA will be based, and the ongoing nature of discussions at the national/regional/state levels relative to EIS direction (and hence the action described in the BA) creates a "moving target" for the associated consultation.

Given the above, I am seeking your support in prioritizing these standing coordination calls with appropriate personnel, ensuring that all communications at all levels are exchanged in a timely fashion (whether stemming from the BA development side or the EIS side, as they are intimately tied), and ensuring equal consideration be given to the concurrent CA update and EIS amendment efforts. If additional coordination beyond the BA development calls needs to occur, the FWS will be happy to engage. Please let me know your thoughts.

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 Mark Robertson  
 Idaho Fish and Wildlife Office  
 U.S. Fish and Wildlife Service  
 1387 S. Vinnell Way, Suite 368  
 Boise, ID 83709  
 phone: 208-378-5287  
 email: [mark\\_robertson@fws.gov](mailto:mark_robertson@fws.gov)  
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 Scott Hoefler  
 Fisheries Biologist/T&E Program Lead  
 Idaho BLM State Office  
 1387 S Vinnell Way  
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 =+=+=+=+=+=+=+=+=+=+=+=+=  
 Mark Robertson

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08/01/2015



Beck, Jonathan <jmbeck@blm.gov>

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## Box Elder County - Cooperating Agency comments on LUPA/FEIS

1 message

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Scott L. Lyons <slyons@boxeldercounty.org>  
To: "jmbeck@blm.gov" <jmbeck@blm.gov>

Wed, May 13, 2015 at 12:21 PM

Jonathan,

Please see our attached comments. Thank you.

Scott Lyons


Senior Planner

Office: 435-734-3316

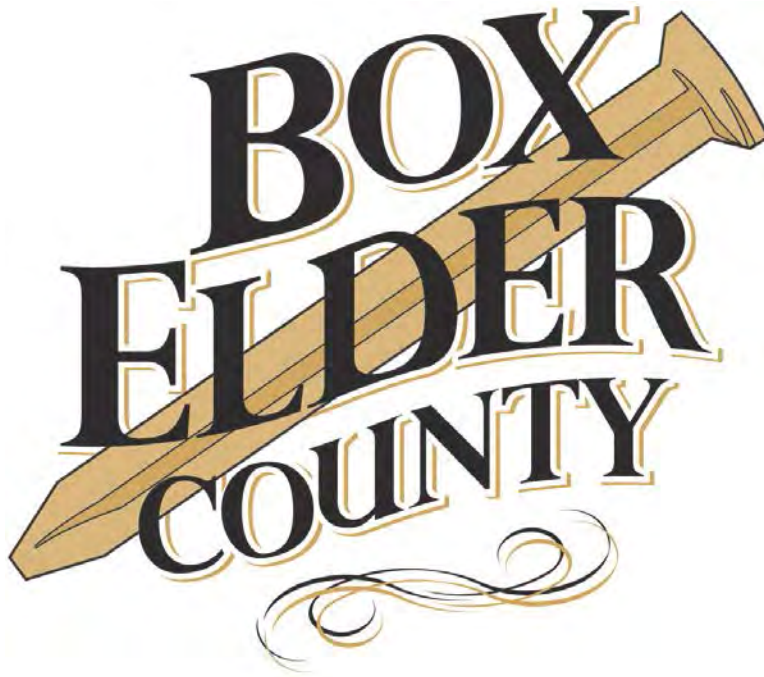
Cell: 801-699-6739

[slyons@boxeldercounty.org](mailto:slyons@boxeldercounty.org)

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 BEC Comments to BLM 5-13-15.pdf  
2469K

**Preliminary Proposed LUPA/Final EIS for Cooperating Agency Review**



**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
1.	Chapter 1 page 1-1  and page 1-4	16-44 of page 1-1  24-46 of page 1-4	Scott Lyons	Box Elder County Planner	<p>Here the Department of Interior presumes that USFWS effectively "found" and "determined" a significant enough threat to the GRSG exists to materially amend the LUPs through the Preliminary Proposed Land Use Plan Amendment (PPLUPA), even though the USFWS found a threat for only two of five of the Section 4(a)(1) listing factors even though the USFWS issued a "precluded" conclusion.</p> <p>Indulging the Department's notion that the USFWS determination is the substantial equivalent of an ESA Sec. 4 listing for purposes justifying the PPLUPA, <u>it would appear the Department's resulting PPLUPA contradicts the Congressional GRSG spending Moratorium.</u> The Department's treating the PPLUPA as a response to an ESA Sec. 4 finding makes the PPLUPA an effective written rule to address the Sec. 4 finding, thus contradicting the spending moratorium of Sec. 122 of Title I, Division F, 2015 spending law, PUBLIC LAW 113–235—DEC. 16, 2014 128 STAT. 2131, prohibiting the Department's use of Congressional funds to write or issue a proposed rule pursuant to section 4 of the ESA for greater sage grouse. The PPLUPA is in every material respect such a proposed set of rules for the GRSG, admittedly done as a result of and to redress the USFWS' ESA Sec. 4 "threatened but precluded" determination, which the Department is currently fictionalizing as an outright "threatened" determination. Fictionalizing has its consequences; here it's the running afoul of the Congressional GRSG spending Moratorium.</p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
2.	# 1 continued		Scott Lyons	Box Elder County Planner	<p>The Department's maneuvers to get around the precise wording of the Moratorium notwithstanding, either the USFWS determination constitutes an effective Section 4 "threatened" listing, in which case the PPLUPA response clearly violates the letter and spirit of the Congressional moratorium as a set of rules issued in response to the Section 4 determination, or the USFWS finding does not constitute a Section 4 "threatened" listing, in which case the PPLUPA is an arbitrary, needless effort to accommodate a species that is not in trouble. The Department needs to pick its poison.</p> <p>Certainly the spirit of the Moratorium has been subverted, which is, "Department stop using our funds to treat and manage this bird as if it were under a Section 4 ESA listing." The Department is plainly using Congressional funds to treat the bird in all material respects like it has a "threatened" listing.</p> <p>A credible argument can be made that the letter of the Moratorium is violated as well, because the PPLUPA at the page and lines referenced catches the Department acting as if a Sec. 4 "threatened" listing has occurred, and catches the Department acting like the PPLUPA is designed to respond to and comply with ESA Sec. 4.</p>
3.	Chapter 1 page 1-19	17-26	Scott Lyons	Box Elder County Planner	<p>The PPLUPA at the referenced page and lines professes participation and coordination with cooperating agencies. This is belied by the fact that only about two weeks were given the State and Counties to review and comment on the PPLUPA. This is not reasonable and meaningful participation and coordination with cooperating agencies under any stretch. The County has not had any meaningful opportunity to review and comment on the PPLUPA, <u>and that equates to no or scant cooperating agency opportunity for participation and coordination. The Department should start over and give 60-90 days to the cooperating agencies to review and comment on the PPLUPA, unless they'll swear an affidavit that they only took two weeks to issue it.</u></p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

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<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
4.	Chapter 1 page 1-19	34-45	Scott Lyons	Box Elder County Planner	<p>The PPLUPA at the referenced page and lines professes compliance with 43 CFR Part 1600. 43 CFR 1610.3-1 obligates the Department to meaningfully coordinate with the County in the promulgation of the PPLUPA. Section 1610.3-1(c) in particular obligates the BLM State Directors and Field Managers to provide opportunity for review, advice, and suggestion. <u>This obligation is violated given the extremely short time frame in which the County has been given to review and comment on the PPLUPA.</u></p> <p>The PPLUPA at the referenced page and lines professes compliance with 40 CFR Parts 1500 - 1508. Under 40 CFR 1506.2(d), the lead agency must ensure that the NEPA statement will discuss any inconsistencies between the proposed action and any approved State or local plan and laws (whether or not federally sanctioned), and where inconsistencies exist, the NEPA statement must describe the extent to which the lead agency will reconcile its proposed action with the State or local plan or law. <u>This has not happened. The PPLUPA falls far short of this standard. The time allowed to review and comment on the PPLUPA is so short, that the County as a cooperating agency is unable to meaningfully advise the Department regarding inconsistencies between the proposed action and the approved State Sage Grouse management plan, particularly as it applies to the County.</u> The short time frame for review and response effectively violates 40 CFR 1506.2(d) for failure to give the County an opp. to point out such inconsistencies. This short review and comment time frame also violates the Department's obligations discussed in the Council on Environmental Quality's Answers to the 40 Most Asked Questions, Number 14(b) (The lead agency, though it has the ultimate responsibility for the content of the NEPA statement, must use any environmental analyses and recommendations of a county cooperating agency to the maximum extent possible; consistent with the lead agency's responsibility, and consistent with this authority, the lead agency must recognize that if it leaves out a</p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
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<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
5.	# 4 continued		Scott Lyons	Box Elder County Planner	<p>significant issue or ignores the advice and expertise of a county cooperating agency, the NEPA statement may be found later to be inadequate); and</p> <p>Number 23(a) (The lead agency must</p> <ul style="list-style-type: none"> <li>- first inquire of a county cooperating agency whether there are any potential conflicts between the proposed action and the state and local laws and plans, or if conflicts could arise in the future; and the lead agency must;</li> <li>- ensure that the NEPA document will acknowledge, describe and explain the extent of those conflicts;</li> <li>- ensure that the NEPA document will evaluate the seriousness of the impact of the proposed action on the state and local land use plans and policies, and whether, or how much, the proposal will impair the effectiveness of land use control mechanisms for the area).</li> </ul> <p>It is impossible to meet all of these important CEQ NEPA requirements and obligations placed on the DOI and Forest Service in the short two-week time frame given. <u>The Department has effectively eviscerated the County's cooperating agency role.</u></p>



**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
6.	Chapter 1 page 1-20	Lines 12-14	Scott Lyons	Box Elder County Planner	<p>The PPLUPA at the referenced page and lines pegs its planning criteria in part to the objectives and measures included in the USFWS 2013 final Conservation Objective Team (COT) report. The COT report was issued with no opportunity for public review and comment. It lacks the scientific quality, integrity, objectivity and utility required by the Data Quality Act *DQA). It's description of "science" makes no mention of hypothesis testing or potential falsification, so it runs counter to the DOI Manual on Scientific Integrity as well as the DQA and its Guidelines.</p> <p>The PPLUPA lacks the scientific quality, integrity, objectivity and utility required by the DQA, the Guidelines and the additional authority. The COT Report's description of "science" makes no mention of hypothesis testing or potential falsification, so it violates the DOI Manual on Scientific Integrity and the DQA and its Guidelines. The DQA, Section 515 requires Federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by Federal agencies on or after October 1, 2002. Yet the COT Report acknowledges uncertainty nearly 100 times. It admits a shortage of established research, credible conservation results and a lack of clear patterns with regard to GRSG. Population numbers, habitat, range, threats and viability are all acknowledged uncertainties. The COT report ignores studies that do not support its theses and jumps to scientifically unsupported conclusions. The COT report is not transparent, because it does not disclose data and methods of analysis. The COT report was guided by a relative handful of scientists with pre-established relationships with advocacy groups with single viewpoints, and failed to undergo adequate peer review.</p>
7.	# 6 continued		Scott Lyons	Box Elder County Planner	<p>Moreover peer review was not transparent and did not under go public comment.</p> <p>The COT report was not based on best available science; it had no original data or quantitative analyses. It omits many scientific papers and reports on other mitigation measures, raven predation, and how GRSG frequent roads, ag. areas and oil and gas development. The COT Report fails to acknowledge the significant effort of the State of Utah to conserve GRSG. The COT Report unfairly conflicts with the BLM and Forest Service multiple-use mandate, by calling for GSRG centric management in derogation of all other uses and values.</p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

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April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
8.	Page 1-3 and Page 1-19	Lines 29-41 and Lines 32-33	Scott Lyons	Box Elder County Planner	<p>The County calls out the misleading omission of the National Technical Team Report (2011) (NTT Report) in the list of planning criteria under Section 1.7.1 on page 1-19. Lines 32-33 identify the BLM's National GRSG Conservation Strategy as one of the planning criteria, but omit express reference to the NTT Report. This is misleading, because the National GRSG strategy and accompanying BLM Instruction Memorandum (IM) 2012-044, by its very terms, relies on and follows the NTT Report. So to not candidly reference the NTT Report as part of the list of criteria under Section 1.7.1, cloaks the widely panned NTT Report, as it is part and parcel of the National GRSG Conservation Strategy.</p> <p>Reference is made to the NTT Report on page 1-3 at lines 29-41. The County's comments on the NTT Report itself are as follows:</p> <p>The BLM IM 2012-044 is another example of administrative creation of so-called "conservation" policy that runs counter to the FLPMA statute and regulations that put forth a multiple-use mandate. Lines 29-41 of page 1-3 are written as if everyone is supposed to run for cover and abandon the FLPMA multiple-use mandate and associated multiple planning and management regulations, because a federal bureau decreed a conservation ethic contrary the multiple-use mandate in the enabling legislation that created the bureau, all for a species for which the USFWS said a listing was not warranted. Then a self-styled "Technical Team" issues a report that further arrogates entrenchment of an anti-multiple-use ethic in contravention of the FLPMA statutory multiple-use mandate. So the County's first observation is that the IM's decree that everyone should honor the NTT report is invalid to the extent they both violate the FLPMA multiple-use mandate. The County holds to FLPMA and its multiple-use mandate and regulations in the face of an IM that improperly decrees monopolistic reign of the NTT Report despite other available and superior GRSG science.</p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
9.	# 8 continued		Scott Lyons	Box Elder County Planner	<p>Moreover, contrary to the claims at lines 36-39, the NTT Report does not provide the latest and best science and biological judgment for GRSG decision making. The NTT Report is fraught with Data Quality Act (DQA) deficiencies and violations, and the BLM has failed to properly reconcile the NTT Report and its flaws with other credible science.</p> <p>The NTT Report is inaccurate, unreliable, and biased in violation of the DQA, highly partial in presenting scientific information, and overly restrictive in the range of possible conservation measures. The NTT Report ignores basic tools already at BLM's disposal, like BLM Manual 6840, project-specific wildlife protection and habitat enhancement measures, and private conservation activities. The NTT Report is anything but best available science; it is obviously a tool to support a pre-determined outcome. It fails the basic hallmarks of utility, integrity and objectivity required under OMB guidelines imposed on land management agencies.</p> <p>The NTT Report fails to recognize state and local ongoing conservation efforts that are more accurate, adaptive and effective than the one-size-fits all approach taken in the NTT Report. Best science supports a far more flexible and adaptive approach than the NTT Report's monolithic approach.</p> <p>The NTT Report is not transparent; it is the result of many closed door sessions and private correspondence. Peer review was not out in the open but behind closed doors. The specific data used, assumptions applied, analytic methods used and statistical procedures used in the NTT Report area unknown, to where the Report is not capable of being substantially reproduced subject</p>

**BLM – UTAH SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
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<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
10.	#8 continued		Scott Lyons	Box Elder County Planner	<p>to an acceptable degree of imprecision. The NTT Report fails the substantially reproducibility standard so basic to DQA standards of quality.</p> <p>The original and supporting data on which the NTT Report relies do not meet basic thresholds of confirmation. It fails robustness checks, which should be rigorous to meet DQA standards. The NTT report went through no rigorous nor robust checks.</p> <p>The NTT Report is plagued by conflicts of interest. Peer reviewers were contributors to work product leading to the listing of a species. Peer reviewers were influenced by funding considerations.</p> <p>A relative handful of GRSG advocates had disproportionate influence in preparation of the NTT and COT Reports. These two documents plus the influential USGS GRSG monograph had authors and peer reviewers that overlapped with authors of the few other studies on which these reports relied. Practically everybody involved in these three reports cross-insulated each other. This is a clear violation of the DQA and its guidelines. Dr, Jack Connelly was both a COT member and co-editor of the USGS monograph. Dr. Steven Knick was an NTT author and another co-editor of the Monograph. Shawn Espinosa helped prepare both the NTT and COT. Dr. David Naugle was both an NTT member and source of support for the FWS listing document. Naugle, an NTT member, cited his own work. Knick cited his own work repeatedly in the NTT report.</p> <p>The NTT report relies on the same limited set of studies, showing a lack of diversity of viewpoints. Contributing authors reviewed and edited their own work.</p> <p>In short, the NTT report is the work of a handful of scientists with</p>

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11.	#8 continued		Scott Lyons	Box Elder County Planner	<p>long relationships and singular viewpoints, who disproportionately influenced the NTT Report. This violates the spirit and letter of the DQA. Policies and regulations requiring independence and conflict of interest avoidance were set aside.</p> <p>What little peer review was done on the NTT Report, was done not by independent anonymous parties, but was done by folks selected from the authors' close colleagues, students and friends. What little peer review was done did not take a rigorous and robust look at clarity of hypotheses, validity of research design, quality of data collection procedures, methods for testing hypotheses, extent to which conclusions follow the analyses, and strengths and limits of overall product. There was no balance of diversity to represent different perspectives. All of this fell short of the DQA requirements.</p> <p>Nor was any peer review subject to public comments.</p> <p>The NTT Report suffers from poor quality. It forces a 1-size-fits-all approach that lacks context. Seasonal habitats are either priority or general, which is too simplistic. Definition of priority and general habitat is lacking. No realistic adaptive management, and no flexibility regarding no surface occupancy (NSO) buffer requirements are applied in the NTT report. Just fundamentally poor science in that regard.</p> <p>Better science was available, but the NTT Report failed to use it. Methodology was flawed, modeling and assumptions were erroneous, and interpretation of results was biased. Significant uncertainties were ignored. And conjecture and opinion were presented as facts.</p> <p>The NTT report strayed from science to frowning policy stick, imposing regulatory measures that are far from justified and</p>

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<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
12.	#8 continued		Scott Lyons	Box Elder County Planner	<p>impose a huge burden on stakeholders with no scientific justification.</p> <p>Many DOI employees are on record in internal emails and the like recognizing the many scientific flaws of the NTT Report, and questioning the legality of conservation measures dogmatically recommended in the NTT Report.</p> <p>All the NTT Report flaws translate into flawed, poor quality Land Use Plan Amendments.</p> <p>BLM has failed to disclose all the sources of the NTT report and the supporting data and models for the public to assess the report's objectivity. Independent peer review and regulation are therefore impossible. Data gathering has varied from state to state, with standards changing over time. No central repository properly curates and maintains the data. Metadata are missing to document how the core data were collected, recorded and summarized. For example, GRSG lek count information comes from across several states, and no controls exist on the uniform means for counting such populations to predict potential trends and migration. DOI biologists have cherry picked lek count data from the several states to form the basis of reports used by the BLM.</p> <p>NTT members wrote to other NTT members internal emails to churn up and support scientific conclusions deemed to be weak.</p> <p>The NTT report contains selective citations.</p> <p>Worst of all, the NTT report goes beyond the job of providing science to imposing harsh restrictions. This is contrary to the DQA. The disturbance caps in the NTT report are unsupported. Same with the buffer zone around the lek. This is just policy dogma, usurping the role of policy makers.</p>

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13.	#8 continued		Scott Lyons	Box Elder County Planner	<p>On the one hand, the NTT Report is fraught with sagebrush canopy threshold discrepancies to the point of being embarrassing. On the other hand, the NTT Report demands one-size-fits all recommendations regarding habitat that will only lead to contrary results across the diverse range. Somehow the National Technical Team did not get the memo: that sagebrush cover requirements vary between seasons and across populations.</p> <p>Noise restrictions in the NTT Report are not supported and are unreasonable.</p> <p>The NTT Report is full of misrepresentations regarding: population trends and persistence, natural GRSG population fluctuations, mortality due to predation and predator control, effects of hunting, effects of oil and gas operations, livestock grazing.</p> <p>The NTT Report fails to recognize the multi-million dollar efforts undertaken by Utah so conserve GRSG.</p>
14.	Chapter 2 in general		Scott Lyons	Box Elder County Planner	<p>The County incorporates the January 29, 2014 comments to Chapter 2 of the Utah Association of Counties (UAC) to the Draft LUPA/EIS at that time. <u><a href="#">A PDF copy of those comments and its appendix are submitted herewith.</a></u></p> <p>The window of time to review and comment on the present PPLUPA was so short (2 weeks) there was no reasonable opportunity to provide a page-by-page, line-by-line point-by-point application of UAC's January 2014 comments to Chapter 2 of the present PPLUPA. Under these circumstances, BLM cannot be heard to complain that this comment is inadequate because it does not identify specific pages and line numbers, etc. Such was impossible under the unreasonably short time frame. Give the County more time, and we will make that specific application of the prior comments. Otherwise, make do with the attached PDF comments, because they still apply to the carried forward defects of the present PPLUPA.</p>
15.					
16.					
17.					

# Comments on Bureau of Land Management/ US Forest Service's Utah Greater Sage Grouse Draft LUPA/EIS

Submitted by Utah Association of Counties

Date: January 29, 2014

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Utah Association of Counties (UAC) appreciates this opportunity to comment as follows on the following sections of Chapter 2 of the Greater Sage Grouse Draft LUPA/EIS:

## Sections 2.1.4 and 2.1.5

### 1. General Comment

Many portions of Alternative D, the agency preferred alternative, are either consistent with the State of Utah greater sage grouse sage grouse plan, consistent with UAC's view, or both.

UAC advises the following practical modifications to Alternative D (hereafter "the Modified D Alternative") to harmonize and reconcile it with what UAC sees as helpful portions of the State's plan (Alternative E) needed to best bring about sustained recovery and growth of species population numbers and habitat improvement statewide while preserving and protecting critical public land uses so important to rural counties.<sup>1</sup>

For discussion purposes, UAC refers to the recommended changes herein as the ***Modified D Alternative***.

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<sup>1</sup> BLM reportedly advised cooperator counties it would mix and match the best of various developed alternatives to ultimately achieve the proposed plan. Indeed the Draft LUPA/EIS at Section 2.9 (pb. 2-163) states:

Though Alternative D has been identified as the preferred alternative, aspects of Alternative E, which is based on the State of Utah and Wyoming's GRSG conservation plans, may also meet the purpose and need of this effort and fulfill the BLM and Forest Service's "statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors" (NEPAs 40 Most Asked Questions 4a). As such the proposed plan could include aspects of Alternative D, Alternative E, or other alternatives.

It is in this spirit that UAC offers these comments and urges consideration of the **Modified D Alternative**.



***The following comments about constructing a Modified D Alternative rest on the assumption that the final ROD adopts Maps 2.4 and 2.6 and references to the SGMAs mapped therein. Departure from the mapped SGMAs in Maps 2.4 and 2.6 and adoption of Map 2.3 and the PPMA areas therein, render meaningless and nonsensical the following proposed specific comments about construction of a Modified D Alternative. Again, an indispensable piece of the following proposed Modified D Alternative consists of a good faith adoption and application of Maps 2.4 and 2.6 in the final chosen alternative and ROD.***

2. Adopt Maps 2.4 and 2.6 and All References to SGMAs;  
Drop Map 2.3 and All References to PPMAs and PGMAs

The beginning and most critical building block of the proposed Modified D Alternative is adoption of Maps 2.4 and 2.6 and the Sage Grouse Management Areas (SGMAs) described and illustrated therein and the Greater Sage Grouse Habitat within those SGMAs.<sup>2</sup>

UAC strenuously opposes adoption of Map 2.3 and all references to and use of the PPMAs and PGMAs described and illustrated in Map 2.3. Pulling in from the PPMAs and PGMAs and narrowing the current plan to the SGMAs, where the latest and best science documents the true GRSG habitat exists, and where the real work can thus be done to improve the species, is logically in the species' overall best interest. Moreover, the areas mapped in Map 2.3 were done so arbitrarily without input and consideration of state and local sage grouse working groups and ignore on the ground science identifying the true location of nesting, breeding and brood rearing populations. Map 2.3 completely ignores this state and local input.

Again the most reasonable, workable approach is achieved through adoption of Maps 2.4 and 2.6 and adhering to the SGMAs as mapped therein.

3. Adopt the Rule that Fire and Vegetation Treatments Would Not Count  
Toward the 5% Disturbance Threshold in SGMAs

The Modified D Alternative urged by UAC embraces the following principles:

(a) Habitat loss due to fire should not be categorized as a human caused disturbance to an SGMA toward calculation of the disturbance threshold. Disturbance and the 5% cap on new permanent disturbance will reflect human-caused habitat loss other than fires (and other than agricultural improvements per comment below);

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<sup>2</sup> Adequate protection of the species outside the SGMAs already exists in current RMPs and LUPs sufficient and commensurate to already scientifically documented marginal nature of the habitat found outside those SGMAs.

- (b) Habitat burned within an SGMA will be rehabilitated;
- (c) Rehab efforts should consist of reseeding with sagebrush;
- (d) Multiple attempts may be required at lower elevation sites until successful;
- (e) If more than 30% of habitat in an SGMA is burned in any 3-year period, the SGMA will be evaluated for viability to see if additional management actions are needed;
- (f) Remove reference to natural events from the discussion of disturbance in Section 8.0 to eliminate any confusion; and
- (g) Remove natural events from the definition of disturbance in Section 10.3 to eliminate any confusion.

## Table 2.1 of Chapter 2

4. Steer Away From Efforts to Impose Sage Grouse Related Restrictions Outside Mapped Habitat. (Table 2.1 pp-2-18)

The Modified D Alternative urged by UAC, instead imposing an unwieldy open-ended burden of requiring possible additional surveys and curbing off-habitat authorized uses within 4 miles of an occupied lek - whether in or out of a PPMA/PGMA, would follow the more practical State-based approach of concentrating on the habitat with real potential with 3-miles, around which all SGMA boundaries have been hardwired, thus providing certainty for other stakeholders, manageability for agency personnel, and focus for everyone's recovery efforts on the quality habitat worth preserving and enhancing.

5. For Purposes of the 5% Disturbance Cap Calculation, Exclude Developed Agricultural Land, and All Other Baseline Existing Anthro Disturbances

The Modified D Alternative urged by UAC, instead of labeling all anthropogenic disturbance within an SGMA as counting toward the disturbance cap, would exclude

(a) any agricultural development, existing or new, and

(b) any existing, already in place, anthropogenic disturbances of a nature other than developed agriculture. This policy is vital to counties' interest in protecting the property tax base of private lands within an SGMA. Counties do not want to see GRSG management policy steer and funnel county residents into a cruel, zero-sum trade-off game that threatens to erode county tax base. This policy is only consistent with the already enshrined principle that BLM and Forest Service do not have any regulatory authority to influence the amount of disturbance occurring on private taxable ground, when calculating the disturbance cap.

6. Instead of Obsessing Over Penalizing Counties For Every Known Type of Anthro Disturbance, Focus Plan on Vast Opportunities to Rehab Disturbance Enhance Habitat Where Feasible

The Modified D Alternative urged by UAC, instead of punishing counties for every acre of existing paved highway, gravel road, transmission line, substation, wind turbine, oil and gas well, geothermal well and associated facilities, excludes all such *already existing facilities* from the disturbance calculation, and measures instead any such new disturbance from the date of the plan forward.

But more importantly and far more helpful to the GRSG species, the Modified D Alternative urged by UAC focuses restoration on past, present and new disturbance to approximate the original land form in the following ways:

(a) Self-sustaining, vigorous, diverse, native (or otherwise approved) plant community - no invasive plants;

(b) Erosion features are equal to or less than surrounding area and erosion control, so that water naturally infiltrates into the soil;

(c) Free the area from state or county listed noxious weeds, anthropogenic debris or contaminated soil;

(d) Condition permitted activities on approved reclamation plans, with interdisciplinary review of available monitoring data and reports.

In other words, the Modified D Alternative focuses on incentivizing efforts to truly beautify SGMAs and enrich their GRS habitat potential, rather than needlessly penalize and demoralize Counties for disturbances already done and in place, which cannot be helped.

7. Protect County Vested Road Rights and Established Water Uses and Developments.

***Counties have valid existing vested rights in their B and D roads in SGMAs and elsewhere. County citizens with certificated State water rights have vested rights in existing water improvements. The Modified D Alternative would respect these facts and avoid policies and practices that pressure Counties into compromising those vested interests which protect the basic transportation and water needs and rights of county citizens and other Americans who value and use the public lands. Accordingly, under the Modified D Alternative:***

(a) Existing inventoried and numbered county roads and all present and future uses thereon within the established scope thereof do not count as disturbance toward any disturbance calculation cap.

(b) The same holds true for existing water improvements and necessary repairs and upgrades and future points of diversion necessary to realize and enjoy the currently certificated beneficial rights to such water.

***The following comments are to be read in conjunction with Exhibit A attached hereto, which is a marked up copy Table 2.1 of the Draft GRSG LUPA/EIS.***

Comment regarding Page 2-10, row entitled “Goal:”

The highlighted language should be combined for the Modified D Alternative.

Comment regarding Page 2-11, 1<sup>st</sup> row under heading “Objectives:”

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom of 2-11, 2<sup>nd</sup> and continuing over to Page 2-12:

The highlighted language should be adopted to read as is for the Modified D Alternative.

Comment regarding the first full row on page 2-13:

The highlighted language should be adopted to read as is for the Modified D Alternative.

Comment on 1<sup>st</sup> row on page 2-14:

The highlighted language should be adopted to read as is for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row on page 2-14:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, and to make express reference to working with counties, for the Modified D Alternative.

Comment regarding the row beginning at page 2-15 and continuing over to the top portion of page 2-16:

The highlighted language should be adopted to the extent the figures are consistent with the State Plan for the Modified D Alternative:

Comment regarding the row beginning at the bottom portion of page 2-16 and continuing through pages 2-17, 2-18 and the top portion of 2-19; and the row beginning at the bottom portion of page 2-19 and continuing through page 2-20 and over to the top portion of 2-21:

The Modified D Alternative for these rows should be rewritten to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, and to reflect and incorporate comments 1-7 on pages 1-5 of these present comments.

Comment regarding the row beginning at the bottom portion of page 2-21 and continuing through pages 2-22, 2-23, 2-24, 2-25, 2-26, 2-27 and the top portion of page 2-28:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, to bear in mind the notes shown on such pages, and to reflect and incorporate comments 1-7 on pages 1-5 of these present comments, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-28 and continuing through pages 2-29, 2-30, 2-31, 2-32, 2-33 and the top portion of page 2-34:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, to bear in mind the notes shown on such pages, and to reflect and incorporate comments 1-7 on pages 1-5 of these present comments, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row of page 2-34:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, and to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-34 and continuing through pages 2-35, 2-36 and the upper portion of page 2-37:

The highlighted language should be modified to bear in mind the notes shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-37 and continuing through pages 2-38, 2-39, 2-40, 2-41, 2-42 and 2-43:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at page 2-44 and continuing through 2-45 and the top portion of 2-46:

The highlighted language should be combined and modified to replace all references to PPMAs and SGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-46 and continuing over to the top portion of page 2-47:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-47:

The highlighted language should be modified to bear in mind the note shown and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-47 and continuing over to the top portion of page 2-48:

The highlighted language should be applied bearing in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-48:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-48 and continuing over to the top portion of page 2-49:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-49:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6.

Comment regarding the row beginning at the bottom portion of page 2-50 and continuing over to the top portion of page 2-50:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-50:

The highlighted language should be applied bearing in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-50 and continuing over to the top portion of page 2-51:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-51:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the bottom row at page 2-51 and continuing over to the top portion of page 2-52:

The highlighted language should be modified to bear in mind the note shown, for Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-52:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 3<sup>rd</sup> row at page 2-52:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the bottom row of page 2-52:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the top row at page 2-53:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-53:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.



Comment regarding the 3<sup>rd</sup> row at page 2-53:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the bottom row at page 2-53:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the top row at page 2-54:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-54 and continuing to the top portion of page 2-55:

The highlighted language should be combined for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-55:

The highlighted language should be combined for the Modified D Alternative.

Comment regarding the 3<sup>rd</sup> row at page 2-55:

The highlighted language should be combined for the Modified D Alternative.

Comment regarding the 4<sup>th</sup> row at page 2-55:

The highlighted language should be combined for the Modified D Alternative.

Comment regarding the bottom row at page 2-55:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the top row at page 2-56:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the bottom row beginning at the bottom portion of page 2-56 and continuing through page 2-57:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the top row of page 2-58:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-58 continuing through page 2-59 and page 2-60, and continuing over to the top portion of page 2-61:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-61 and continuing over to the top portion of page 2-62:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-62 and continuing over to the top portion of page 2-63:

The highlighted language should be adopted to read as is.

Comment regarding the 2<sup>nd</sup> row of page 2-63:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-63 and continuing over to the top portion of page 2-64:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative

Comment regarding the row beginning at the bottom portion of page 2-64 and continuing over to the top portion of page 2-65.

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-65, continuing through page 2-66, and continuing over to the top portion of page 2-67:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-67:

The highlighted language should be applied bearing in mind the note shown, for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-67:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom of page 2-68 and continues over to the top of page 2-69:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom page 2-69 and continuing over to the top of page 2-70:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom of page 2-70, continuing through page 2-71:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the top row of page 2-72:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-72, continuing through page 2-73, and continuing over to the top portion of page 2-74:

The highlighted language should be combined and modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-74 and continuing over to the top portion of page 2-75:

The highlighted language should be combined and modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2nd row at page 2-75:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-75 and continuing over to the top portion of page 2-76:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-76:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-76 and continuing over to the top portion at page 2-77:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-77:

The highlighted language should be modified to bear in mind the note shown, the Modified D Alternative.

Comment regarding the row at the top portion of page 2-78:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-78 and continuing over to the top portion of page 2-79:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6 for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-79 and continuing over to the top portion of page 2-80:

The highlighted language should be modified to bear in mind the note shown and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-80 and continuing through page 2-81 and continuing over to the top portion of page 2-82:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-82:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-82 and continuing over to the top of page 2-83:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-83:

The highlighted language should be combined and modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-83 and continuing over to the top portion of page 2-84:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-84:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-84 and continuing through the top portion of page 2-85:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-85:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at page 2-86 and continuing through page 2-87, and continuing over to the top of page 2-88:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row of page 2-88:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-88 and continuing over to the top portion of page 2-89:

The highlighted language should be adopted to the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row of page 2-89:

The highlighted language should be modified to bear in mind the note shown and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-89 and continuing over to the top portion of page 2-90:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-90:

The highlighted language should be modified to bear in mind the note shown, and to reflect and incorporate comment 7 on page 5 above, for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-90 and continuing over to the top portion of page 2-91:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-91:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-91 and continuing over to the top portion of page 2-92:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-92:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the 3<sup>rd</sup> row at page 2-92:

The highlighted language should be applied for the Modified D Alternative.

Comment regarding the bottom row at page 2-92:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at page 2-93 and continuing through page 2-94:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at page 2-95 and continuing through pages 2-96, 2-97, 2-98 and continuing over to the top portion of page 2-99:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-99 and continuing over to the top portion of page 2-100:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-100 and continuing over to the top portion of page 2-101:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-101 and continuing over to the top portion of page 2-102:

The highlighted language should be modified to replace all references to PPMAs and PGMAAs with references to the SGMAs shown in Maps 2.4 and 2.6 for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-102:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-102 and continuing over to the top portion of page 2-103:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-103:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding row beginning at the bottom portion of page 2-103 and continuing over to the top portion of page 2-104:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-104:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-104 and continuing over to the top portion of page 2-105:

The highlighted language should be modified to replace all references to PPMAs and PGMAAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row of page 2-105:

The highlighted language should be modified to bear in mind the note shown for the Modified D Alternative.



Comment regarding the row beginning at the bottom portion of page 2-105, continuing through pages 2-106 and 2-107, and continuing over to the top portion of page 2-108:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-108:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-108 and continuing over to the top portion of page 2-109:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-109:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-109, continuing through pages 2-110 and 2-111, and continuing over to the top portion of page 2-112:

The highlighted language should be modified to bear in mind the note shown, for Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-112 and continuing over to the top portion of page 2-113:

The highlighted language should be modified to bear in mind the note shown for Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-113 and continuing over to the top portion of page 2-114:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-114 and continuing over to the top portion of page 2-115:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-115, continuing through page 2-116, and continuing over to the top portion of page 2-117:

The highlighted language should be modified to bear in mind the note shown, for Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-117, continuing through pages 2-118 and 2-119, and continuing over to the top portion of page 2-120:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-120 and continuing over to the top portion of page 2-121:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-121:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row at page 2-122:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row at the top portion of page 2-123:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-123, continuing through pages 2-124, 2-125, 2-126, 2-127 and continuing over to the top of page of page 2-128:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-128:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-128 and continuing over to the top of page 2-129:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-129, continuing through page 2-130 and continuing over to the top portion of page 2-130:

The highlighted language should be modified to bear in mind the notes shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at the bottom of page 2-131 and continuing over to the top of page 2-132:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-132, continuing over to the top of page 2-133:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-133, continuing through pages 2-134, 2-135 and continuing over to the top portion of page 2-136:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-136, continuing through pages 2-137, 2-138 and continuing over to the top portion of page 2-139:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-139 and continuing through page 2-140:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row at page 2-141, continuing through page 2-142 and continuing over to the top portion of page 2-143:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-143:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the 3<sup>rd</sup> row at page 2-143:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-143 and continuing over to the top portion of page 2-144:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-144:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding top row at page 2-145:

The highlighted language should be modified to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-145:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment regarding row beginning at the bottom portion of page 2-145 and continuing over to the top portion of page 2-146:

The highlighted language should be adopted to bear in mind the note shown, for the Modified D Alternative.

Comment regarding the 2<sup>nd</sup> row at page 2-146:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the 3<sup>rd</sup> row at page 2-146:

The highlighted language should be modified to bear in mind the note shown, Modified D Alternative.

Comment regarding the row beginning at the bottom portion of page 2-146 and continuing over to the top of page 2-147:

The highlighted language should be adopted for the Modified D Alternative.

Comment regarding the row at the bottom portion of page 2-147:

The highlighted language should be modified to bear in mind the note shown, and to replace all references to PPMAs and PGMAs with references to the SGMAs shown in Maps 2.4 and 2.6, for the Modified D Alternative.

Comment regarding the row beginning at page 2-148, continuing through page 2-149, and continuing over to the top portion of page 2-150:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

Comment on row beginning at bottom portion of page 2-150 and continuing over to page 2-151:

The highlighted language should be modified to bear in mind the note shown, for the Modified D Alternative.

**Exhibit A**  
**to**  
**Utah Association of Counties'**  
**Comments on BLM's Draft Greater Sage Grouse**  
**LUPA-EIS**

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**Consisting of a highlighted copy of**  
**Table 2.1 of the LUPA-EIS**

**Quick Links to Management Actions for Resource Topics**

- [Areas of Critical Environmental Concern \(ACECs\)](#) (p. 2-148)
- [Comprehensive Travel and Transportation Management](#) (p. 2-88)
- [Lands and Realty](#) (p. 2-93)
- [Livestock Grazing/Range Management](#) (p. 2-65)
- [Mineral Development](#) (p. 2-108)
- [Coal](#) (p. 2-115)
- [Fluid Minerals](#) (p. 2-132)
- [Unleased Federal Fluid Mineral Estate](#) (p. 2-133)
- [Leased Federal Fluid Mineral Estate](#) (p. 2-139)
- [Mineral Split-Estate](#) (p. 2-146)
- [Locatable Minerals](#) (p. 2-123)
- [Mineral Materials](#) (p. 2-128)
- [Nonenergy Leasable Minerals](#) (p. 2-109)
- [Recreation](#) (p. 2-86)
- [Special Status Species - Greater Sage-Grouse \(GRSG\)](#) (p. 2-10)
- [Vegetation Management](#) (p. 2-44)
- [Wild Horses and Burros](#) (p. 2-54)
- [Wildland Fire Management](#) (p. 2-56)

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<b>SPECIAL STATUS SPECIES – GREATER SAGE-GROUSE (GRSG)</b>						
<b>GOAL:</b>						
With exception of the Uinta LRMP, goals have not been developed specifically for GRSG. However, all LUPs include a goal to work with partners to protect, maintain, and enhance habitat for special status species.	Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in collaboration with other conservation partners.	Maintain and increase current GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem.	Maintain and/or increase abundance and distribution of GRSG by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend, in collaboration with other conservation partners.	Protect, maintain, improve and enhance GRSG populations and habitats within the State of Utah established SGMAs.	Conserve, recover, and enhance GRSG habitat on a landscape scale consistent with local, state, and federal management plans and policies, as practical, while providing for multiple use of BLM-administered and National Forest System lands.  Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other state,	Goal GRSG-1

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
					local, industry, permittee and conservation partners.	
<b>Objectives:</b>						
In general, older plans do not include objectives specific to GRSG. More recent plans (those completed after 2000) may include an objective to advance conservation of the GRSG and GRSG habitat, although a mechanism for achieving GRSG specific objectives is infrequently identified.	<p>Designate PPMAs for each WAFWA MZ across the current geographic range of GRSG that are large enough to stabilize populations in the short term and enhance populations over the long term.</p> <p>GRSG habitat in Utah overlaps 4 WAFWA MZs:</p> <ul style="list-style-type: none"> <li>• MZ II – Wyoming Basins</li> <li>• MZ III – Southern Great Basin</li> <li>• MZ IV – Snake River Plain</li> <li>• MZ VII – Colorado Plateau</li> </ul> <p>Protect PPMAs from anthropogenic disturbances that will reduce distribution or abundance of GRSG.</p>	Establish a system of sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.	Identify and protect PPMAs from anthropogenic and natural disturbances that will reduce distribution or abundance of GRSG.	<p>Protect habitat which provides for the year-round life-cycle needs of the GRSG. Sustain the best-of-the-best existing GRSG populations.</p> <p>Perpetuate conditions necessary to ensure recruitment of a continuing population within the aggregate state population.</p> <p>Enhance or improve GRSG habitat that has been impaired or altered through restoration or rehabilitation activities.</p> <p>Eliminate the threats facing the GRSG while balancing the economic and social needs of the residents of Utah.</p> <p>Sustain the best-of-the-best existing GRSG populations and increase populations through habitat restoration and rehabilitation.</p>	Identify and prioritize opportunities for habitat enhancement and conservation within core areas based on threats and the ability to manage GRSG habitat.	Objective GRSG-1
Recently completed BLM plans include a management action to implement the most recent <i>UDWR Strategic Management Plan for Sage-Grouse</i> (UDWR 2002), the	To maintain or increase current populations of GRSG, manage or restore PPMAs so that at least 70 percent of the land cover provides adequate sagebrush habitat to meet	Restore and maintain sagebrush steppe to its ecological potential in GRSG habitat.	Manage or restore PPMAs so that at least 50 percent of the landscape (mapped occupied habitat within a population area) provides sagebrush cover to meet GRSG needs.	<p>Enhance an average of 25,000 acres of GRSG habitat in SGMA's annually.</p> <p>Increase the total amount of GRSG habitat acreage within</p>	Restore native (or desirable) plants and create landscape patterns which most benefit GRSG. Write specific LUP objectives for vegetation that connects habitats and creates	Objective GRSG-2



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p><i>BLM National Sage Grouse Habitat Conservation Strategy</i>, and recommendations from local GRSG working groups, to protect, maintain, enhance, and restore GRSG populations and habitat.</p> <p>A few plans including more detailed habitat objectives that include land cover.</p>	<p>GRSG needs.</p>		<p>Within PPMAs where sagebrush is the current or potential dominant vegetation type or is a primary species within the various states of the ecological site description (ESD) – or comparable Forest Service methods, maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, winter, and transition areas. Desired cover percentages and heights for sagebrush, grasses, and forbs in seasonal habitats will be managed to meet habitat guidelines from scientific literature (e.g., Connelly et al. 2000 and Hagen et al. 2007), where such standards can be met. Adjustments from the guidelines may be made, but must be based on documented regional variation of habitat characteristics (e.g., sagebrush type, ecological site potential), quantitative data from population and habitat monitoring, and evaluation of local research.</p>	<p>and adjacent to SGMA by an average of 50,000 acres per year, through management actions targeting Opportunity Areas.</p>	<p>patterns that benefit GRSG. Write specific vegetation management objectives relative to invasive annual grass spread and woody plant removal where these are of concern in GRSG habitat. Consider management objectives in buffers around intact core areas that detect and rapidly respond to invasions in the buffer zones.</p> <p>Establish measurable objectives related to GRSG habitat from baseline monitoring data, ESDs (or comparable Forest Service methods), or land health assessments/evaluations.</p> <p>Incorporate available site information collected using the GRSG Habitat Assessment Framework or similar methods to evaluate existing resource conditions and to develop any necessary resource solutions.</p> <p>Incorporate management practices that will provide for maintenance and/or enhancement of GRSG habitats, including specific attention to maintenance of desired understories of sagebrush plant communities.</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
					When developing objectives for residual cover and species diversity, identify the ecological site types within the planning area and refer to the appropriate ESDs) (Forest Service may use other methods).
No similar action.	No similar action.	Increase GRSG populations to a level where they are viable and secure from local extirpation events, and eventually to a level that allows for an annual harvestable surplus.	No similar action.	<p>Sustain an average male lek count of 4,100 males (based on a 10-year rolling average on a minimum of 200 monitored leks) in the SGMAs, and increase the population of males to an average of 5,000 (based on the same 10-year rolling average on a minimum of 200 monitored leks) within the SGMAs.</p> <p>Maintain viable populations within each SGMA. Ensure a path for birds to migrate within SGMAs on a seasonal basis, and ensure a long-term genetic connection between populations as needed. Should the population trends within a population area temporarily or permanently suffer from the effects of factors such as wildfire, management controls in the other SGMAs will be adjusted to achieve the other objectives listed above.</p>	<p>Enhance quality/suitable habitat to support the expansion of GRSG populations on federally-administered lands within the planning areas.</p> <p>Manage GRSG seasonal habitats and maintain habitat connectivity to support population objectives set by the WGFD.</p> <p>Objective GRSG-3</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E1</b>	<b>Alternative E2</b>	
Under current management, there are no designated PGMA.	Quantify and delineate PGMA for capability to provide connectivity among and between PPMA.	No similar action because all mapped occupied habitat would be PPMA	Delineate and manage mapped occupied GRSG habitat outside PPMA as PGMA.	GRSG habitat outside SGMA would not be managed for the conservation of the species. No specific management actions are provided for this habitat.	No similar action.	Objective GRSG-4
All LUPs include a general commitment to coordinate management actions with state and local governments and non-governmental organizations.	No similar action.	No similar action.	Participate in local GRSG conservation efforts (e.g., UDWR, NRCS, local working groups) to implement landscape-scale habitat conservation, to implement consistent management to benefit GRSG, and to gather and use local research and monitoring to promote the conservation of GRSG. <div style="border: 1px solid red; padding: 2px; display: inline-block; color: red;">add counties</div>	The State of Utah will coordinate the efforts of BLM, Forest Service, USFWS, state agencies, local government, and others to accomplish the purposes of this Plan. The State will convene a Working Group with membership including the Dept. of Natural Resources, Dept. of Agriculture and Food, State Institutional Trust Lands Administration, BLM, Forest Service, NRCS, USFWS, and others as needed. The Working Group will meet as often as needed to coordinate the implementation of the State Sage-Grouse Plan (included in this alternative). The Working Group will initiate and coordinate the efforts of necessary technical teams to assure scientific and monitoring information is shared by all management agencies, and that efforts to achieve the necessary conservation goals are progressing.	In cooperation with local GRSG working groups, partners and stakeholders, develop site-specific conservation strategies to maintain or enhance GRSG habitats and habitat connectivity.  Continue to support the development of statewide GRSG seasonal habitat models for the State of Wyoming.  Utilize Local Working Group plans, analyses, and other sources of information to guide development of conservation objectives for local management of GRSG habitats.	Objective GRSG-5

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A		Alternative B			Alternative C			Alternative D			Alternative E1			Alternative E2	
<b>Management Actions:</b>															
Acreage of mapped occupied GRSg habitat is as follows:		Identify PPMAs and PGMA as follows (Map 2.1):			Identify PPMAs and PGMA as follows (Map 2.2):			Identify PPMAs and PGMA as follows (Map 2.3):			Identify GRSg habitat within SGMA and core areas, as well as GRSg habitat outside SGMA and non-core areas, as follows (Map 2.4 and Map 2.5):			MA-GRSG-I	
Population Area	Acres of BLM/ Forest Service Surface Estate	Population Area	Acres		Population Area	Acres		Population Area	Acres		Population Area	Acres			
			PPMA	PGMA		PPMA	PGMA		PPMA	PGMA		SGMA/ Core	Non-SGMA/ Noncore		
Uintah	642,600	Uintah	348,400	294,200	Uintah	642,600	0	Uintah	348,400	294,200	Uintah	340,800	301,800		
Carbon	174,800	Carbon	128,200	46,600	Carbon	174,800	0	Carbon	136,200	38,600	Carbon	27,700	147,100		
Emery	87,700	Emery	81,500	6,200	Emery	87,700	0	Emery	81,500	6,200	Emery (SGMA merged with Parker)	80,600	7,100		
Parker Mountain	531,800	Parker Mountain	524,800	7,000	Parker Mountain	531,800	0	Parker Mountain	524,800	7,000	Parker Mountain (SGMA merged with Emery)	520,700	8,480		
Panguitch	221,600	Panguitch	221,600	0	Panguitch	221,600	0	Panguitch	221,600	0	Panguitch	221,600	0		
Bald Hills	267,500	Bald Hills	256,800	10,700	Bald Hills	267,500	0	Bald Hills	267,500	10,700	Bald Hills	265,400	2,000		
Hamlin Valley	101,000	Hamlin Valley	101,000	0	Hamlin Valley	101,000	0	Hamlin Valley	101,000	0	Hamlin Valley	101,000	0		
Sheeprocks	515,900	Sheeprocks	463,100	52,800	Sheeprocks	515,900	0	Sheeprocks	515,900	106,700	Sheeprocks	417,700	109,500		
Ibapah	57,100	Ibapah	47,000	10,100	Ibapah	57,100	0	Ibapah	47,000	10,100	Ibapah	48,000	10,100		
Box Elder	413,100	Box Elder	364,100	49,000	Box Elder	413,100	0	Box Elder	412,100	1,000	Box Elder	439,200	5,800		
Rich	181,400	Rich	180,200	1,200	Rich	181,400	0	Rich	180,200	1,200	Rich	183,000	4,500		
Lucerne	2,300	Lucerne	0	2,300	Lucerne	2,300	0	Lucerne	0	2,300	Lucerne (Utah does not include)	0	2,300		
Strawberry	40,200	Strawberry	40,200	0	Strawberry	40,200	0	Strawberry	40,200	0	Strawberry	40,700	0		
WY-Uinta	22,000	WY-Uinta	1,100	20,900	WY-Uinta	22,000	0	WY-Uinta	1,100	20,900	WY-Uinta (E2 only)	1,100	20,900		
WY-Blacks Fork	54,800	WY-Blacks Fork	23,700	31,100	WY-Blacks Fork	54,800	0	WY-Blacks Fork	23,700	31,100	WY-Blacks Fork (E2 only)	23,700	31,100		
Statewide	3,313,800	Statewide	2,781,700	532,100	Statewide	3,313,800	0	Statewide	2,760,300	553,500	Statewide	2,711,200	650,680		
		% Occupied	84%	16%	% Occupied	100%	0%	% Occupied	83%	17%	% Occupied	82%	20%		
Under current management, there are no designated PPMAs or PGMA.											Note: Though the State of Utah and BLM began their processes with GRSg occupied habitat data from March 27, 2012, over the course of the State's process developing their SGMA, several modifications were made to the occupied habitat boundaries. Though the BLM was provided various versions of the SGMA data, the changes to occupied habitat were not provided for use in this process. As a result, the				

so long as this matrix is consistent with the written state plan

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				combined acres of PPMA and PGMA for Alternatives B, C and D (which is the occupied habitat used throughout this EIS) differ from the combined acres of habitat within SGMA and habitat outside SGMA for Alternative E1.		
No similar action.	No similar action.	No similar action.	<p>Within the mapped PPMA and PGMA there may be areas that lack the principle habitat components necessary for GRSG, including but not limited to rock outcrops, alkaline flats, pinyon-juniper ecological sites, or towns. These areas of non-habitat would be identified during site-specific project review by agency biologists, in discussion with the State of Utah and other agencies, as appropriate. Decisions associated with PPMA or PGMA would apply to areas with or ecologically capable of supporting GRSG habitat. The decisions may be excepted if it can be shown that the action would occur in a non-habitat area and the following conditions are met:</p> <ul style="list-style-type: none"> <li>• access through GRSG habitat to the activity in the non-habitat area occurs only on existing routes, and no new roads, maintenance, or improvements to roads would be required within GRSG habitat,</li> <li>• no activity would be</li> </ul>	<p>Non-habitat areas within the SGMA include lands that do not contribute to the annual life-cycle of GRSG. Effort has been made to minimize the amount of non-habitat within the SGMA, but given the topographic, physiographic and land cover features within Utah and the scale and detail of mapping, the inclusion of some non-habitat was unavoidable.</p> <p>No specific management provisions are proposed for non-habitat areas within the SGMA, except to consider noise and permanent structure stipulations around a lek, and to note that, birds may fly over the non-habitat as they connect to other populations or seasonal habitat areas. (Corridors may or may not be included as habitat within the population area, depending on local conditions, topography, and other factors. Corridors are important to GRSG, but may not require restrictions on human activity. As a general rule, it will be adequate to</p>	<p>As new occupied GRSG habitat is found or occurs either through additional inventories or expansion into previously un-occupied habitat, the agencies will incorporate these areas into the non-core category and manage them as such, until the earliest review occurs by the SGIT. At that time they will be considered for core status or will continue to be managed as non-core, and will be added to the statewide map at that time.</p> <p>Include the collection of baseline data and outline post-project monitoring components into the project planning.</p> <p>Contribute to actions that help to ground-truth the statewide GRSG seasonal habitat models for the State of Wyoming.</p> <p>The official Wyoming GRSG lek database is maintained by the WGFD in accordance with Appendix 4B of the Umbrella Memorandum of</p>	MA-GRSG-2

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>permitted or authorized if it would establish a valid existing right that would subsequently require construction of new routes within GRSG habitat for access,</p> <ul style="list-style-type: none"> <li>• access to the activity for construction, maintenance, etc. would be required to avoid applicable GRSG sensitive seasons (i.e., breeding, brood-rearing, winter) and time periods (2-hours before sunrise to 2-hours after sunrise near leks during breeding season),</li> <li>• the non-habitat does not provide important connectivity between habitats,</li> <li>• impacts to areas adjacent to PPMAs can be reduced or eliminated (e.g., sound, tall structures).</li> </ul> <p>Proposed projects within population areas will consider impacts to GRSG and potential mitigation measures when preparing site-specific planning and environmental compliance documents.</p> <p><u>Additional Sage-Grouse Habitat Outside of mapped occupied</u></p>	<p>avoid removal of sagebrush and to minimize development that would create a physical barrier to GRSG movement in these areas.)</p> <p>SGMAs should be reviewed annually through the coordination efforts of the Public Lands Policy Coordination Office. Review should include, for example, changes in the distribution of disturbance, the increases in habitat through enhancement or improvement, decreases in habitat through wildfire or other events, status of population numbers, and related items. Adjustments to SGMAs will be reviewed every 5 years, unless large-scale events such as wildfire, and successful annual events, such as habitat enhancement or improvement, necessitate a more frequent adjustment. Adjustments may include expansion or constriction of the external boundaries and a redrawing of the internal boundaries among habitat, non-habitat and opportunity areas.</p>	<p>Understanding between the WGFD and BLM (WGFD and BLM 1990). The action agencies will meet at least annually to coordinate and review the accuracy of data and incorporate the most up-to-date information.</p> <p>Ensure site-specific, measurable, conservation and mitigation objectives are included in project planning within GRSG habitats.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>habitat, prior to site-specific authorizations, the BLM or Forest Service would evaluate habitat conditions and may require surveys to determine if the project area contains GRS habitat (FLPMA, 43 USC 1701 Sec. 201 (a), BLM Manual 6840 .04 D 3; BLM-M-6840 .04 E 2). Surveys would be required prior to authorizing discrete anthropogenic disturbances within 4 miles of an occupied lek that is located in a PPMA, but only in areas that ecologically could provide GRS habitat.</p> <p>If an area is determined to contribute to the GRS life-cycle, mitigation will be considered as part of the project level NEPA analysis (BLM Manual 6840 .04 D 5). Measures that may be considered include those identified in Appendices H, I, J, K, or L. On Forest Service administered lands these areas will be analyzed at the site-specific level and will be covered in the specialist report and Biological Evaluation. Changes to maps and associated acreages would occur through the appropriate BLM and Forest</p>		

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>Recently completed BLM plans include a management action to implement the most recent <i>UDWR Strategic Management Plan for Sage-Grouse</i> (UDWR 2002), the <i>BLM National Sage Grouse Habitat Conservation Strategy</i>, and recommendations from local GRSG working groups, to protect, maintain, enhance, and restore GRSG populations and habitat.</p> <p>A few plans (e.g., Vernal RMP, Uinta LRMP) including more detailed habitat objectives such as desired seral sage, percent canopy cover, or height.</p> <p>Other than the abovementioned decision, and basic planning allocations, management actions specific to GRSG are not present in most LUPs.</p>	<p>Develop quantifiable habitat and population objectives with WAFWA and other conservation partners at the MZ and/or other appropriate scales. Develop a monitoring and adaptive management strategy to track whether these objectives are being met, and allow for revisions to management approaches if they are not.</p>	<p>No similar action.</p> <div style="border: 1px solid red; padding: 5px; width: fit-content; margin: 10px auto;"> <p>up to the point that state population objectives are met</p> </div>	<p>Service planning processes (e.g., plan maintenance, simple plan amendments, etc.).</p> <p>Increase the amount and functionality of seasonal habitats within PPMAs:</p> <ul style="list-style-type: none"> <li>• Maintain or increase canopy cover and average patch size of sagebrush in perennial grasslands unless there's conflict with other special status species (e.g., Utah prairie dog and black footed ferrets).</li> <li>• Maintain or increase the amount, condition and connectivity of seasonal habitats within, and where applicable, between population areas.</li> <li>• Protect and improve GRSG migration/ movement corridors.</li> <li>• Reduce conifer encroachment within PPMAs.</li> <li>• Maintain or improve understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.</li> <li>• Reduce the extent of annual grasslands adjacent to PPMAs where objectives are not being met.</li> </ul>	<p>Enhance an average of 25,000 acres of GRSG habitat in SGMA's annually.</p> <p>Increase GRSG habitat acreage within and adjacent to SGMA's by an average of 50,000 acres per year, through management actions targeting Opportunity Areas.</p> <p>Manage activities within SGMA's based on a hierarchical protocol that provides as follows:</p> <ol style="list-style-type: none"> <li>1. Avoidance of disturbance to habitat or birds by an activity is the preferred option;</li> <li>2. Minimization of the disturbance is desired if the disturbance cannot be avoided in greater GRSG habitat, with mitigation for the effects of the minimization decisions; and finally</li> <li>3. Mitigation of the disturbance from an activity within GRSG habitat is required if a disturbance cannot be avoided.</li> </ol>	<p>Work with project proponents, partners, and stakeholders to avoid or minimize impacts and/or implement direct mitigation (e.g. relocating disturbance, timing restrictions, etc.), and utilize BMPs and off-site compensatory mitigation where appropriate (Greater Sage-Grouse Wyoming Executive Orders 2011-05 and 2013-03 and BLM IM WY-2010-012, Policy Statement 3, page 7).</p> <p>The Forest Service will coordinate new recommendations, mitigation, and conservation measures applied for GRSG with the WGFD and other appropriate agencies. These measures will be analyzed in site-specific NEPA documents, as necessary.</p> <p>Where applicable and technically feasible, apply BMPs as mandatory conditions of approval (COAs) within core GRSG habitat for Fluid Minerals, travel management,</p>	<p>MA-GRSG-3</p>



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>Manage areas identified as SGMAs to avoid surface disturbance to the greatest degree possible. Coordinate with the UDWR when land use which may result in a disturbance is contemplated.</p> <p>All existing uses are explicitly recognized by this alternative and shall not be affected by the implementation of this alternative. The GRSG conservation measures identified in the associated NEPA documents for each of these projects would continue to be implemented to protect GRSG and its habitat. Provisions of this plan would not be added to the measures identified each specific project.</p>	<p>Lands and Realty, Range Management, Wild Horse and Burro, Solid Minerals-Coal, Locatable Minerals, West Nile, mineral materials, nonenergy solid leasables, Vegetation Management, Fire and Fuels Management, and Noise.</p> <p>Use the GRSG Habitat Assessment Framework or best available assessment tool (approved by the Responsible Official) when assessing or evaluating GRSG habitats at multiple scales.</p> <p>Ranger District staff will work with project proponents (including those within Forest Service) to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats whether inside or outside of core areas.</p> <p>Forest Service district offices, in coordination with WGFD and other partners, will establish monitoring protocols for GRSG populations and habitat that will be incorporated into individual project approvals as</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
No similar action.	<p>Manage PPMAs so that discrete anthropogenic disturbances cover less than 3 percent of the total GRSG habitat regardless of ownership. Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines.</p> <ul style="list-style-type: none"> <li>In PPMAs where the 3 percent disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by the BLM or the Forest Service until enough <b>only new disturbance, not existing disturbance; only take the fire related provisions here</b> and reclaim/restore anthropogenic disturbances</li> </ul>	<p>Limit discrete surface disturbance in PGMA to one instance per section of GRSG habitat regardless of ownership, with no more than 3 percent surface disturbance (or, where stipulated, implement the disturbance cap prescribed in the applicable state conservation plan, whichever is more protective). The 3 percent cap includes existing and all new initial disturbance to the landscape, interim mitigation and restoration efforts notwithstanding. Discrete disturbances include but are not limited to highways, roads, transmission lines, substations, wind turbines, oil and gas wells, heavily grazed areas, range developments, severely burned areas, pipelines, landfills, mines, and vegetation treatment that reduces sagebrush cover. As additional research on the 3 percent cap becomes available, revise this prescription, as necessary, to conserve GRSG.</p>	<p>Protect PPMAs from fragmentation by anthropogenic disturbances that will reduce distribution or abundance of GRSG by managing PPMAs so that discrete anthropogenic disturbances cover less than 5 percent of the area within the PPMA used by a population of GRSG, regardless of ownership. While the BLM and Forest Service do not have any regulatory authority to influence the amount of disturbance that will occur on state or private land, when determining whether development is appropriate on Federal lands, disturbances on private and state lands will count towards the 5 percent disturbance cap.</p> <p>When considering implementation-level actions, the 5 percent disturbance calculation would include all discrete anthropogenic disturbances within a biologically based disturbance calculation area, which must be</p>	<p>The provisions of this alternative include, under certain circumstances, a general limit on new permanent disturbance of 5 percent of habitat on state or federally managed lands within any particular SGMA. The fundamental purpose of this provision is to limit the effects of a large amount of disturbance to the existing habitat or activities of the GRSG. The cumulative calculation of permanent disturbance in any population area, and specific habitats within a population area, is the aggregate of the various project, land use, or natural event disturbances, as modified by the effects of rehabilitation, restoration or other mitigation actions.</p> <p>Many of the SGMAs extend into two or more counties. In such cases, the 5 percent limitation shall be apportioned to each county in proportion</p>	<p>appropriate and necessary. Small or in-house projects within core areas will also have a monitoring plan for GRSG incorporated in the approval document.</p> <p>Inside core areas the density and disturbance goals include:</p> <ul style="list-style-type: none"> <li>The Forest Service will consider and evaluate measures that limit or reduce the density of oil and gas or mining activities to no more than an average of 1 location per 640 acres across the Density Disturbance Calculation Tool; and to limit all surface disturbance (any program area) to no more than 5 percent of the core area landscape using the Density Disturbance Calculation Tool.</li> </ul>	MA-GRSG-4

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<p>so that 3 percent or less of the total PPMA area is disturbed within 10 years.</p>	<p>For an area to no longer be considered disturbed under the 3 percent cap, disturbances need to be restored/reclaimed, where technically and legally feasible (e.g., valid existing rights, split estate lands). The objective of long-term restoration/reclamation is to make areas with disturbance useable by GRSG. For long-term restoration of PPMAs with discrete surface disturbances to be considered successful, GRSG must be documented to have used the area.</p>	<p>contained within the PPMA of a GRSG population area. The disturbance calculation area would be identified during the site-specific project planning/NEPA phase, but the following would be taken into account when determining what would be included/excluded:</p> <ul style="list-style-type: none"> <li>Existing developed agriculture lands should generally be excluded.</li> <li>Areas in PPMAs that have burned but have not recovered to the extent of being able to provide habitat for GRSG should generally be excluded from the baseline disturbance calculation area for which the 5 percent is calculated (though the burned areas are still part of the PPMA), unless the proposed disturbance is within the burned area. (For example, a potential disturbance calculation area is 2,000 acres and does not have any existing disturbance, thereby allowing up to 100 acres of total disturbance. If 1,000 acres of the area burns, the calculation area should be adjusted to exclude the 1,000 burned acres, reducing potential disturbance in the</li> </ul>	<p>to the total amount of habitat within the larger area.</p> <p>Because of the highly discontinuous nature of GRSG habitat in Utah, each of the SGMAs is a composite of habitat, non-habitat and opportunity areas. In many cases, it may be difficult to discern whether an existing dispersed use is part of habitat or non-habitat, and thereby make an accurate calculation of the base for the limitation calculation difficult to determine. As part of the implementation of this alternative, such issues should be brought to the interagency review effort coordinated by the Public Lands Policy Coordination Office to insure consistency in interpretation throughout the state. In addition, if it should become sufficiently apparent that an accurate determination of the base for the limitation calculation is not feasible, then the interagency coordination effort may propose and seek approval for an alternative measurement of, or technique to measure, the cumulative effects of disturbance.</p>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>remaining area to 50 acres. If the proposed disturbance is within the burned area, the calculation area should include the entire 2,000 acres, but the disturbance would still be limited to 50 acres.) However, just because the burned area could be excluded from the disturbance calculation area, any existing disturbances within the burned areas would still be counted against the disturbance cap of the revised disturbance calculation area.</p> <ul style="list-style-type: none"> <li>Developed private lands that are no longer used by GRSG (e.g., towns, airports, reservoirs) would be excluded. However, other dispersed disturbances would be considered disturbance (e.g., cabins, access roads, community pits, etc.).</li> </ul> <p>Discrete disturbances should be consolidated and localized as much as possible, though total areas with discrete disturbances cannot exceed 5 percent in the identified disturbance calculation area. This could result in small areas where existing and proposed disturbances exceed 5</p>	<p>The area of permanent disturbance is the area within a spatial polygon defined by the outside limits of the actual disturbed area, plus the area outside of this polygon where effects of the project, based on the type of project, could be expected to cause a disturbance to GRSG.</p> <p>Allowances must be made to include the temporal effects of any temporary disturbance, if any such effects are expected. The calculation of the spatial extent of each proposed project or land use, or the area of a natural event, such as wildfire, to be employed in this calculation, is defined as part of the definition of disturbance. The base upon which this calculation is made may be increased through successful rehabilitation or restoration of habitat, or other mitigation actions as appropriate.</p>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>percent if total disturbances in the identified disturbance calculation area equals or is less than 5 percent.</p> <p>Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines. In PPMAs where the 5 percent disturbance threshold is already exceeded from any source, no further discrete anthropogenic disturbances will be permitted by the BLM or the Forest Service until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights). In these areas, reclaim and/or restore discrete anthropogenic disturbances, where technically and legally feasible, so that 5 percent or less of the disturbance calculation area is disturbed.</p> <p><u>Restoration/Reclamation of Surface Disturbances:</u>                      An area with surface disturbance is not excluded from the 5 percent until it has</p>		<p><u>Restoration/Reclamation of Surface Disturbances:</u>                      Reclamation of surface disturbances in GRSG habitats will be in accordance with the</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>been successfully reclaimed (short-term) and restored (long-term). The objective of long-term restoration/reclamation in PPMAs is to provide for the needs of GRSG. Providing habitat could include, but is not limited to restoring landforms and vegetative communities to reflect the potential for the given ecological site, as well as restoring hydrologic systems and other wildlife habitat components. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for soil site stability, hydrologic function, and integrity of the biotic communities. Specific restoration/reclamation objectives will be identified through the NEPA process, but for final restoration/reclamation to be judged successful within PPMAs, all the following objectives must be met:</p> <ul style="list-style-type: none"> <li>• Areas where the landform has been altered (e.g., well pads, production facilities, roads, pipelines, utility corridors, etc.) have been re-contoured to blend in with adjacent</li> </ul>		<p>Wyoming Reclamation Policy and Forest Service Reclamation policy.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>undisturbed areas, approximating the original landform.</p> <ul style="list-style-type: none"> <li>• A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community is established on the site, with a density sufficient to control erosion and invasive plants (e.g., cheatgrass, non-native thistles, knapweeds) and can reestablish wildlife habitat and/or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation. Permanent vegetative cover will be determined successful when the percent cover of desirable perennial species is consistent with GRSG habitat objectives and the ESD (or comparable Forest Service methods). Monitoring for restoration must extend for a reasonable time frame, considering ecological site potential and environmental conditions (e.g., drought). Plants must be resilient as evidenced by well-developed root systems and flowers; shrubs must be well</li> </ul>		

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>established and not comprised mainly of seedlings that may not survive until the following year.</p> <ul style="list-style-type: none"> <li>• Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gulying, headcutting, slumping, and deep or excessive rilling (greater than 3 inches) is not observed.</li> <li>• The site is free of State- or county-listed noxious weeds, anthropogenic debris and equipment, and contaminated soil. [Exception of site-specific requirement: Given that some weeds, such as cheatgrass, are common in portions of the planning area, it may not be possible to totally eliminate invasive species from the reclaimed area.]</li> <li>• Final reclamation success and approval for abandonment for disturbances caused by permitted activities will be subject to an interdisciplinary review of available monitoring data and final monitoring reports. Monitoring teams must consist of, at a minimum, a wildlife biologist, a rangeland management</li> </ul>		



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			specialist, and another resource specialist (e.g., natural resources specialist) will evaluate the monitoring plan (from the NEPA or POD documents), and review the regular and final monitoring reports and provide the Authorized Officer with a recommendation as to whether or not objectives have been met. For non-permitted activities (e.g., reclamation of user created roads), successful restoration/reclamation occurs when the area meets the four criteria noted above, as determined by an interdisciplinary review of inventory/monitoring information.			
Most LUPs include a management action that prohibits surface disturbing or other disruptive within GRSG breeding and nesting habitat within a certain distance and between certain dates. The protect buffers around leks vary from 0.5 miles and 3.1 miles. In general, recently completed plans include a larger protective buffer.  Recently completed plans also	No similar action.	No similar action.	Do not allow discrete anthropogenic disturbances or activities disruptive to GRSG (including scheduled maintenance activities) within PPMAs in seasonal GRSG habitats during the corresponding seasonal use periods (Map 3.2-3, Current and historic Greater Sage-Grouse habitat): In breeding and nesting habitat from Feb 15 – Jun 15 In brood rearing habitat from	Within SGMAs in seasonal GRSG habitats during the corresponding seasonal use periods, avoid activities (construction, vehicle noise, etc.) that will disturb GRSG use of the seasonal area by employing seasonal stipulations as follows: • In leks (for lek attendance or breeding) from Feb 15 – May 15. • In nesting or brood-rearing areas from Apr 1 – Aug 15.	Leks – core habitat • Permanent surface occupancy and surface disturbing activities would be prohibited on or within a six tenths (0.6) mile radius of the perimeter of occupied GRSG leks. • Temporary disruptive activity is restricted on or within a six tenths (0.6) mile radius of the perimeter of occupied GRSG leks from March 15 – June 30.	MA-GRSG-5

the lek restrictions should end May 15, and the nesting brood rearing restrictions should end July 15; should not be static, but case specific. so we like E in this regard



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>include a management action that prohibits surface disturbing activity or disruptive activities during certain dates in winter habitat.</p>			<p><b>Apr 15 – Jul 15</b></p> <ul style="list-style-type: none"> <li>In winter habitat from Nov 15 – Mar 15</li> </ul> <p>In addition, the following use requirements would be applied to discretionary activities within PPMA, as applicable:</p> <ul style="list-style-type: none"> <li>the activity meets noise restrictions (noise at occupied leks does not exceed 10 decibels above ambient sound levels from 2 hours before to 2 hours after sunrise and sunset during breeding season);</li> <li>the activity meets permanent (structure persists through subsequent breeding season) tall structure restrictions (a tall structure is any man-made structure that has the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decrease the use of an area; a determination as to whether something is considered a tall structure would be determined based on local conditions such as vegetation or topography); and</li> <li>environmental compliance documents associated with the activity analyze limitations</li> </ul>	<ul style="list-style-type: none"> <li>In winter habitat from Nov 15 – Mar 15.</li> </ul> <p>Specific time and distance determinations for all these seasonal stipulations would be based on site-specific conditions for all these seasonal stipulations, in coordination with the local UDWR biologist.</p> <p>In addition, the following management provisions would be applied to the applicable areas within GRSG habitat in SGMA (Map 2.4):</p> <p><u>Leks</u></p> <ul style="list-style-type: none"> <li>Avoid disturbance within this area, if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>If avoidance is not possible, use minimization as appropriate to the area.</li> <li>If minimization is not sufficient, mitigation is required (see mitigation section).</li> <li>New permanent disturbance, including structures, fences, and buildings, should not be</li> </ul>	<ul style="list-style-type: none"> <li>Noise levels at the 0.6 mile perimeter of the lek, should not exceed 10 decibels above ambient noise from 6 pm to 8 am from March 15 – June 30.</li> </ul> <p><u>Nesting/Early Brood-Rearing Habitat – core habitat</u></p> <ul style="list-style-type: none"> <li>Surface disturbing and/or disruptive activities are prohibited from March 15– June 30 within core areas regardless of distance from a lek and the suitability of the habitat.</li> <li>Where credible data support different timeframes for this seasonal restriction, dates may be expanded by up to 14 days prior to or subsequent to the above dates.</li> </ul> <p><u>Winter Concentration Areas</u></p> <ul style="list-style-type: none"> <li>Surface disturbing and/or disruptive activities in GRSG winter concentration areas are prohibited from December 1–March 14 to protect core populations of GRSG that use these winter concentration habitats (independent of habitat suitability). Protection of additional areas of winter</li> </ul>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>to habitat fragmentation.</p> <p>Exceptions to the seasonal restrictions could be granted by the Authorized Officer under the following conditions:</p> <ul style="list-style-type: none"> <li>• if surveys determine that the lek is not active that year (based on UDWR lek survey protocol), and the proposed activity will not result in a permanent disturbance and will not take place beyond the season being excepted;</li> <li>• if surveys determine that the lek is no longer occupied, and the proposed activity will not take place beyond the season being excepted;</li> <li>• if the project plan and NEPA document demonstrate the project would not impair the function of seasonal habitat, life-history, or behavioral needs of GRSG;</li> <li>• if the potential short-term impacts from vegetation treatment are off-set by long-term improvement to the quantity or quality of habitat (e.g., seedings, juniper reduction).</li> </ul> <p>Additionally, the Authorized Officer may modify the seasonal restrictions under the following</p>	<ul style="list-style-type: none"> <li>• located within the lek itself.</li> <li>• No permanent disturbance within 1 mile of the lek, unless it is not visible to the GRSG using the lek.</li> <li>• Fences should not be located on or adjacent to leks where bird collisions would be expected to occur. If required, the construction of any fences near the lek should follow the standards identified in the NRCS fence collision risk tool (NRCS/CEAP Conservation Insight Publication “Applying the Sage Grouse Fence Collision Risk Tool to Reduce Bird Strikes”).</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the background level at the edge of the lek during breeding season.</li> <li>• Implement time-of-day stipulations during the season when the lek is occupied (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise).</li> </ul> <p><u>Nesting and Brood-Rearing Areas</u></p>	<p>concentration that are not located within the current core area boundaries, may be necessary where winter concentration areas or important late brood-rearing areas are identified as supporting populations of GRSG that attend leks within core areas.</p> <p>Appropriate seasonal timing restrictions and habitat protection measures must be considered and evaluated in all winter concentration areas habitats identified (independent of habitat suitability).</p> <p><u>Noise</u></p> <p>The Forest Service will work with proponents to limit project related noise where it would be expected to reduce functionality of habitats that support core area populations. The Forest Service will evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate. Forest Service’s near-term goal is to limit noise sources that would be expected to negatively impact core area GRSG populations and to continue to support the</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>conditions:</p> <ul style="list-style-type: none"> <li>• if portions of the area do not include habitat (lacking the principle habitat components of GRSG habitat) or are outside the defined area, as determined by the BLM/ Forest Service in discussion with the State of Utah, and indirect impacts would be mitigated;</li> <li>• if documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) reflect a need to change the given dates in order to better protect when GRSG use a given area, and the proposed activity will not take place beyond the season being excepted.</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid disturbance within these areas, if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>• If avoidance is not possible, use minimization as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic features to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation to provide food and shelter).</li> <li>• If minimization is not sufficient, mitigation is required (see mitigation section).</li> <li>• Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting habitat within the SGMA.</li> <li>• Employ noise stipulations which allow no more than 10-decibel rise above ambient noise levels at the edge of the lek.</li> </ul> <p><u>Winter Habitat</u></p> <ul style="list-style-type: none"> <li>• Avoid disturbance within the area, if possible. Project</li> </ul>	<p>establishment of ambient baseline noise levels for occupied core area leks. As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate limitations will be implemented where necessary to minimize potential for noise impacts on GRSG core-area population behavioral cycles.</p> <p>As new research is completed, new specific limitations would be coordinated with the WGFD and partners.</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>proponents must demonstrate why avoidance is not possible.</p> <ul style="list-style-type: none"> <li>• If avoidance is not possible, minimize as appropriate to the area. Minimization provisions include, for example, the location of development in habitat of least importance, or by locating development to take advantage of topographic screening.</li> <li>• If minimization is not sufficient, mitigation is required (see mitigation section).</li> <li>• Cumulative new permanent disturbance should not exceed 5 percent of the surface area of winter habitat within the SGMA.</li> <li>• Manage the area to maintain maximum amount of sagebrush, especially tall sagebrush, which would be available to greater GRSG above snow during a severe winter. Tall sagebrush is capable of standing above heavier than normal snowfall.</li> <li>• Sagebrush treatment projects within this area need pre-approval by the</li> </ul>	

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>appropriate regulatory agency in coordination with the UDWR. Sagebrush treatment projects within winter habitat should maintain 80 percent of the available habitat as tall sagebrush; 20 percent of the habitat can be managed for younger age classes, if appropriate.</p> <p><u>Other Habitats</u></p> <ul style="list-style-type: none"> <li>• Avoid disturbance in the area if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>• If avoidance is not possible, minimize as appropriate to the area. Minimization provisions include, for example, the location of development in habitat of least importance, or by locating development to take advantage of topographic screening.</li> <li>• If minimization is not sufficient, mitigation is required (see mitigation section).</li> <li>• Mitigation must produce lands capable of supporting GRSG as habitat before the proposed disturbance</li> </ul>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				<p>occurs, though birds do not need to be using the mitigated area. The proponent of the disturbance must demonstrate that the mitigation conditions have been met.</p> <ul style="list-style-type: none"> <li>Cumulative new permanent disturbance should not exceed 5 percent of the surface area of other habitat within the SGMA.</li> <li>Manage the lands to avoid barriers to migration, if applicable.</li> </ul>		
No similar action.	No similar action.	No similar action.	<p>Apply standards for development activities within PPMAs and PGMAs to reduce opportunities for GRSG predators, such as limiting food sources (trash reduction), nesting, cover, or perches. Apply actions specific to the predators of concern for the given GRSG population (e.g., ravens, red fox, badgers, raccoons, raptors).</p>	<p>Eliminate or minimize external food sources for corvids, particularly dumps, waste transfer facilities, and road kill.</p> <p>Apply habitat management practices (e.g. grazing management, vegetation treatments) that decrease the effectiveness of predators.</p>	<p>The Forest Service will implement strategies and techniques in land management decisions that address predators shown to pose a threat to GRSG.</p> <p>The Forest Service will support and encourage other agencies in their efforts to minimize impacts from predators on GRSG where needs have been documented.</p>	MA-GRSG-6
Under current management plans, there are no designated PGMAs.	Conserve, enhance or restore PGMAs and connectivity to promote movement and genetic diversity, with emphasis on those habitats occupied by GRSG.	No similar action.	<p>Conserve PGMAs to maintain and maintain between if necessary, to opportunities to</p>	<p>GRSG habitat outside SGMA would not be managed for the conservation of the species. No specific management actions are provided for this habitat.</p>	<p><u>Leks – non-core habitat</u></p> <ul style="list-style-type: none"> <li>Surface occupancy and surface disturbing activities would be prohibited or restricted on or within one- (0.25) radius of occupied</li> </ul>	MA-GRSG-7

avoid the concept of perches; tall structures may be shown not be a problem

other than in existing EIS's that provide for GRSG management, ...

so therefore urge no action on this point - outside of SGMA's

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>Do not allow discrete anthropogenic disturbances or activities disruptive to GRSG (including scheduled maintenance activities) within PGMA's in seasonal GRSG habitats during the corresponding seasonal use periods (Map 3.2-3, Current and Historic Greater Sage-Grouse Habitat):</p> <ul style="list-style-type: none"> <li>• In breeding and nesting habitat from February 15 – June 15</li> <li>• In brood rearing habitat from April 15 – July 15</li> <li>• In winter habitat from November 15 – March 15</li> </ul> <p>In addition, the following use requirements would be applied to discretionary activities within PGMA's, as applicable:</p> <ul style="list-style-type: none"> <li>• the activity meets noise restrictions;</li> <li>• the activity meets permanent tall structure restrictions; and</li> <li>• environmental compliance documents associated with the activity consider how to limit habitat fragmentation.</li> </ul> <p>Exceptions to the seasonal restrictions could be granted Authorized Officer under the</p>		<p>GRSG leks.</p> <p><u>Nesting/Early Brood-Rearing Habitat – non-core habitat</u></p> <ul style="list-style-type: none"> <li>• Surface disturbing and/or disruptive activities are limited from March 15–June 30 to protect GRSG nesting and early brood rearing habitats within 2 miles of the lek perimeter of any occupied lek located outside core areas.</li> <li>• Where credible data support different timeframes for this restriction, dates may be expanded by 14 days prior or subsequent to the above dates.</li> </ul> <p><u>Winter Concentration Areas</u></p> <ul style="list-style-type: none"> <li>• Protection of additional areas of winter concentration that are not located within the current core area boundaries, may be necessary where winter concentration areas or important late brood-rearing areas are identified as supporting populations of GRSG that attend leks within core areas. Appropriate seasonal timing restrictions and habitat protection measures must</li> </ul>



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>following conditions:</p> <ul style="list-style-type: none"> <li>• if surveys determine that the lek is not active that year (based on UDWR lek survey protocol), and the proposed activity will not take place beyond the season being excepted;</li> <li>• if surveys determine that the lek is no longer occupied, and the proposed activity will not take place beyond the season being excepted;</li> <li>• if the project plan and NEPA document demonstrate the project would not impair the function of seasonal habitat, life-history, or behavioral needs of GRSG;</li> <li>• if the potential short-term impacts from the action are off-set by long-term improvement to the quantity or quality of habitat (e.g., seedings, juniper reduction).</li> </ul> <p>Additionally, the Authorized Officer may modify the seasonal restrictions under the following conditions:</p> <ul style="list-style-type: none"> <li>• if portions of the area do not include habitat (lacking the principle habitat components of GRSG habitat) or are outside the current defined</li> </ul>		<p>be considered and evaluated in all winter concentration areas habitats identified (independent of habitat suitability).</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>area, as determined by the BLM/Forest Service in discussion with the State of Utah, and indirect impacts would be mitigated;</p> <ul style="list-style-type: none"> <li>• if documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) reflect a need to change the given dates in order to better protect when GRSG use a given area, and the proposed activity will not take place beyond the season being excepted.</li> </ul> <p>Application of the above use restrictions and meeting objectives within PGMA's may be waived by the Authorized Officer if off-site mitigation is successfully completed in PPMA's, following discussion with BLM/Forest Service and the State of Utah. Even in situations where use restrictions are waived in PGMA's, to avoid direct disturbance and/or mortality of birds, disturbances would not be approved during the sensitive seasons.</p>			
No opportunity areas identified in current	Assess PGMA's to determine potential to replace lost PPMA	Identify GRSG restoration habitat and prioritize areas for	Restore historical habitat to support GRSG populations to	Opportunity areas are those portions of an SGMA that	Each office will develop landscape-scale restoration/	MA-GRSG-8

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>management plans.</p> <p>Most LUPs contain objectives for maintaining improving, or restoring sagebrush plant communities. The level of detail varies depending on the age of the LUP.</p> <p>All LUPs address vegetation treatments for improvement of wildlife habitat overall or to provide increased forage for wildlife, livestock, and wild horses and burros.</p> <p>Recent plans may include management actions that purposely restore or enhance GRSG habitat.</p>	<p>caused by perturbations and/or disturbances and provide connectivity between PPMAs.</p> <ul style="list-style-type: none"> <li>• These habitats should be given some priority over other PGMA that provide marginal or substandard GRSG habitat.</li> <li>• Restore historical habitat functionality to support GRSG populations guided by objectives to maintain or enhance connectivity.</li> <li>• Enhance PGMA such that population declines in one area are replaced elsewhere within the habitat.</li> </ul>	<p>implementation of restoration projects based on environmental variables that improve chances for project success. Restoration habitat is degraded or fragmented habitat that is currently unoccupied by GRSG, but might be useful to the species if restored to its potential natural community.</p> <p>Prioritize areas for restoration based on their potential importance to GRSG and the likelihood of successfully restoring sagebrush communities. Passive restoration is preferred for restoring these areas over active restoration methods.</p>	<p>maintain or enhance connectivity. Vegetation treatments may be applied to meet GRSG habitat objectives and provide additional GRSG habitat. Discrete anthropogenic disturbances should not be authorized in areas that have been previously treated with the intent of improving or creating new GRSG habitat.</p>	<p>currently do not contribute to the life cycle of GRSG but are areas where restoration or rehabilitation efforts can provide additional habitat when linked to existing GRSG populations. Opportunity areas may be transformed into either habitat or non-habitat based upon natural events or management choices, and may be used to mitigate disturbance within habitat as appropriate.</p> <p>Opportunity areas may be employed to meet improvement, restoration, or rehabilitation goals, or as mitigation areas for disturbance within habitat. If this occurs, an opportunity area may become habitat and be managed as such, especially as part of the calculation for disturbance limitations. Alternatively, opportunity areas may be employed as the site for disturbances which are diverted from habitat, or other economic proposals not involving habitat, and become non-habitat. In either event, boundaries of the SGMA, or the land types within, should be adjusted accordingly.</p>	<p>conservation strategies, including special management of seasonal habitats and connectivity zones outside of core areas, working with voluntary partners.</p> <p>These strategies must be coordinated and reconciled with adjoining management entities that share habitats or populations.</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
No similar action.	No similar action.	No similar action.	<p>The use restrictions, stipulations, seasonal constraints, etc. included for GRSG habitat are intended to be the initial and not the entirety of the protections. Project proponents and BLM/Forest Service offices should develop additional mitigation measures at the project level to address the site-specific issues and impacts associated with local effects of specific projects. The mitigation actions developed at the project level must be based on current scientific recommendations. Mitigation actions could include some or all of the following:</p> <ul style="list-style-type: none"> <li>• avoiding the impact altogether by not taking a certain action or parts of an action,</li> <li>• minimizing impacts by limiting the degree of magnitude of the action and its implementation,</li> <li>• repairing, rehabilitation, or restoring the affected area,</li> <li>• reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, or</li> <li>• compensating for the impact by replacing or providing</li> </ul>	<p>Mitigation actions are designed to create new habitat or ameliorate disturbances by the creation of or protection of other habitat. Mitigation for a disturbance must be shown to be effective in the time-frame of the activity, not at some future date. Effective mitigation does not require that birds are immediately present using the land, only that the habitat is capable of supporting birds as part of their yearly life-cycle. However mitigation should be performed in areas which have the highest likelihood of occupation by the species. The amount of mitigation, if required, should be calculated based on the effects generated within SGMA.</p> <p>Prioritize areas for habitat improvement to make best use of mitigation funds.</p> <p>Mitigation for a disturbance should not necessarily be tied to reclamation efforts at the actual site of the disturbance. Mitigation may occur locally, elsewhere in the same population area, or in another population area, based on the</p>	<p>Within core areas, when mitigation is required, the agencies in coordination with WGFD and partners would use the following mitigation hierarchy: in-kind and onsite mitigation as first priority or in-kind mitigation offsite mitigation as second priority.</p> <p>When additional offsite mitigation is necessary, conduct it within the same population area where the impact occurs if possible or, if that is not possible, within the same MZ per 2006 WAFWA Strategy as the impact.</p>	MA-GRSG-9

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>substitute resources or environments.</p> <p>Money for research or monitoring within PPMA will not be counted as mitigation.</p> <p>Mitigation includes actions that are designed to create new habitat or ameliorate disturbances by the creation of or protection of other habitat, either within the same population or in other areas of the State. The preference is that mitigation for impacts within PPMA will occur within the same population area of the impact. For off-site mitigation associated with mitigation of actions within PGMA, project proponents will work closely with the BLM and the State of Utah to identify PPMA where off-site mitigation could occur. The ratio for mitigation, either onsite or off-site, will be set at the project level and will depend on the type and quality of the habitat being affected and the nature of the action affecting the habitat. While mitigative exchange values will not be set in this planning process, they need to follow the guiding principles of not trading</p>	<p>location, which offers greater potential for enhancing GRSG populations, so long as the location of the mitigation does not result in the loss of resiliency, representation or redundancy of the species in Utah. The Public Lands Policy Coordination Office, with assistance from the UDWR, BLM, Forest Service, NRCS, Department of Natural Resources, Department of Agriculture and Food, and other entities, shall coordinate and oversee the creation and operation of a Greater Sage-Grouse Mitigation Bank in Utah. The operation of this Mitigation Bank will seek to rehabilitate or restore lands as habitat prior to need, as well as coordinate the mitigation for development or other effects upon the habitat of the GRSG. Once operational, contributions to the Bank will be welcome.</p> <p>Mitigation may be required in nesting and brood-rearing areas, winter habitat, and other habitat. Examples of successful mitigation for various GRSG habitat types include the following:</p>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>short-term gains for long-term losses.</p> <p>For compensatory mitigation (either onsite or off-site), actions should consider the type and quality of habitat being impacted by a project and the proportional impact a project will have the population. In turn, proposed mitigation actions should address the same type and quality of habitat that may be impacted (e.g., breeding, nesting, brood-rearing, wintering, transitional habitats). The value of the habitat may increase if the birds use the area for more than one time of the year, if it is relatively higher in quality, or if the type of habitat is a limiting factor for the local population. Similarly, mitigation should account for the proportional impact a project will have to a specific population (if a given project impacts 1 percent of wintering habitat versus 30 percent of the wintering habitat).</p> <p>Mitigation that trades impacts to areas that are meeting habitat objectives with creation of areas that do not meet habitat objectives, even in high</p>	<p><u>Leks</u></p> <ul style="list-style-type: none"> <li>• Removal of trees on or adjacent to the lek.</li> <li>• Removal or marking of fences on or adjacent to the lek.</li> <li>• Employment of off-site mitigation (e.g., use of the concept of a mitigation bank, if appropriate).</li> </ul> <p><u>Nesting and Brood-Rearing Areas</u></p> <ul style="list-style-type: none"> <li>• Removal of trees to no more than 5 percent cover (the closer to 0 percent the better) and maintenance of at least 10 percent sagebrush cover.</li> <li>• Maintain forb cover greater than 10 percent and greater than 10 percent grass cover during nesting and brood-rearing season.</li> <li>• Maintain or improve wet meadows, when present.</li> <li>• Installation of green-strips or firebreaks to protect existing nesting habitat.</li> <li>• Employment of off-site mitigation (e.g., use of the concept of a mitigation bank, if appropriate).</li> <li>• Mitigation should be calculated at a minimum of a</li> </ul>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>offsetting ratios, will not be accepted. Mitigation does not require that birds are immediately present using the land, only that the habitat meets habitat objectives for grasses and forbs. However mitigation should be performed in areas which have the highest likelihood of occupation by the species.</p>	<p>4:1 ratio starting with the first acre disturbed.</p> <p><u>Winter Habitat</u></p> <ul style="list-style-type: none"> <li>• Removal of trees to less than 5 percent cover (the closer to 0 percent the better) and maintenance of at least 10 percent sagebrush cover.</li> <li>• Installation of green-strips or firebreaks to protect existing winter habitat.</li> <li>• Employment of off-site mitigation (e.g., use of the concept of a mitigation bank, if appropriate).</li> <li>• Mitigation should be calculated at a 4:1 ratio starting with the first acre disturbed.</li> </ul> <p><u>Other Habitats</u></p> <ul style="list-style-type: none"> <li>• Removal of trees to less than 5 percent cover and maintenance of at least 10 percent sage brush cover.</li> <li>• Maintain forb cover greater than 10 percent and grass cover greater than 10 percent during nesting/brood-rearing season.</li> <li>• Maintain or improve wet meadows, when present.</li> </ul>	

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<ul style="list-style-type: none"> <li>• Installation of green-strips or firebreaks to protect existing habitat.</li> <li>• Employment of off-site mitigation (e.g., use of the concept of a mitigation bank, if appropriate).</li> <li>• Mitigation should be calculated at a 1:1 ratio with first acre disturbed.</li> </ul> <p>Mitigation must produce lands capable of supporting GRSG habitat before the proposed disturbance occurs, though birds do not need to be using the mitigated area. The proponent of the disturbance must demonstrate that the conditions have been met.</p> <p>Before mitigated areas are considered to be habitat within an SGMA, a preponderance of the evidence must indicate that GRSG are occupying the mitigated area. Habitat altered by fire shall not be removed from SGMAs until rehabilitation or restoration of the burned areas is determined to be unsuccessful or not feasible.</p>	



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<b>VEGETATION MANAGEMENT</b>						
In most LUPs, either no priorities are established or prioritization is given to projects that benefit multiple resources (e.g., livestock, wildlife, wild horses and burros, special status species).	<p>Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG.</p> <p>Prioritize restoration in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance.</p>	<p>Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG.</p> <p>Prioritize restoration in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance and where factors causing degradation have already been addressed.</p>	<p>Where necessary to meet habitat objectives, treat PPMAs to maintain and expand healthy GRSG habitat (e.g., conifer encroachment areas, areas with or at threat to be converted to annual grasslands, areas without a proper shrub/grass/forb composition for the applicable seasonal habitat and ecological site, fuel breaks, areas without a healthy mosaic of habitat types for the various GRSG life stages).</p> <p>Prioritize implementation of restoration/treatment projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG.</p> <p>Prioritize restoration in seasonal habitats that are identified as the limiting factor for GRSG distribution and/or abundance.</p> <p>Use collaborative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from entities such as local landowners, local GRSG working groups, and other federal, state, county, and</p>	<p>Protection of GRSG habitat is the primary focus of conservation efforts, but many locations can be reclaimed or restored by active vegetation management actions. For example:</p> <ul style="list-style-type: none"> <li>removal of encroaching conifers and other plant species may create new habitat or increase the carrying capacity of habitat and thereby expand GRSG populations, or</li> <li>the distribution of water into wet meadow areas may improve seasonal brood-rearing range and enhance GRSG recruitment.</li> </ul> <p>Aggressively remove encroaching conifers and other plant species to expand GRSG habitat where possible.</p> <p>Sagebrush treatment projects within nesting and winter habitat should be limited and require pre-approval by the appropriate regulatory agency in discussions with UDWR. Sagebrush treatment projects should maintain 80 percent of the available habitat as sagebrush within the project</p>	<p>Within core areas, prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG.</p> <p>Prioritize restoration in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance.</p> <p>Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a core area. Vegetation treatments must include monitoring to determine achievement of objectives and their long-term success.</p> <p>In core areas, design and implement vegetation treatments with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems. For vegetation treatments, refer to <i>WGFD Protocols for Treating Sagebrush to Benefit</i></p>	MA-VEG-I

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>private organizations should be solicited and considered in development of restoration projects.</p> <p>Consider design features that will contribute to the most favorable conditions for success when planning and implementing restoration/vegetation treatment projects.</p> <p>Considerations should include:</p> <ul style="list-style-type: none"> <li>• Review of available plant species and their adaptation to the site when developing seed mixes.</li> <li>• The need to reduce non-native annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc.</li> <li>• Assessment of on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider the use of passive restoration techniques.</li> <li>• Use of site preparation techniques that retain existing desirable vegetation.</li> <li>• Use of “mother plant” techniques or planting of satellite populations of desirable plants to serve as seed sources.</li> </ul>	<p>area; 20 percent of the habitat can be managed for younger age classes of sagebrush, if appropriate. These treatments are generally recommended only to improve brood-rearing habitat, but need to be carefully considered before use in winter and other habitat.</p> <p>Within SGMAs, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.</p> <p>Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMAs, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.</p>	<p><i>Sage-Grouse</i> (WGFD 2011a, as updated) and BLM IM 2013-128 (<i>Sage-grouse Conservation Related to Wildland Fire and Fuels Management</i>), or applicable Forest Service counterpart. These recommended protocols will be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the 5 percent threshold for habitat maintenance or not. Additionally, these protocols will be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation. Treatments to enhance sagebrush/grasslands habitat for GRSG will be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>Most LUPs contain objectives for maintaining improving, or restoring sagebrush plant communities. The level of detail varies depending on the age of the LUP.</p> <p>All LUPs address vegetation treatments for improvement of wildlife habitat overall or to provide increased forage for wildlife, livestock, and wild horses and burros.</p> <p>Recently completed BLM plans include a management action to implement the most recent <i>UDWR Strategic Management Plan for Sage-Grouse</i> (UDWR 2002), the <i>BLM National Sage Grouse Habitat Conservation Strategy</i>.</p> <p>A few plans (e.g., Vernal RMP, Uinta LRMP) including more detailed habitat objectives such as desired seral sage, percent canopy cover, or height.</p>	<p>Include GRSG habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State GRSG Conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within PPMAs the highest restoration priority.</p>	<p>Include GRSG habitat objectives in habitat restoration projects. Make meeting these objectives within mapped occupied GRSG habitat the highest restoration priority.</p>	<ul style="list-style-type: none"> <li>The need for post-treatment control of non-native annual grass and other invasive species.</li> </ul> <p>Include GRSG habitat objectives in restoration/treatment projects within PPMAs. There will be objectives for short-term and long-term habitat conditions, and they should include specific objectives for the establishment of sagebrush cover and height, as well as cover and heights for understory perennial grasses and forbs necessary for GRSG seasonal habitats. The restoration/treatment objectives should take into consideration ecological site potential of the area(s) and the need for a mosaic of habitat conditions across the landscape.</p> <p>Make meeting the GRSG objectives for the restoration/treatment project one of the primary priorities for the project and subsequent land uses, recognizing that managing for other special status species may result in treatment objectives that may not meet GRSG seasonal habitat objectives (e.g., winter habitat cover requirements vs. creation</p>	<p>No similar action.</p>	<p>Identify areas for vegetation restoration and/or identify restoration criteria that include State GRSG conservation plans and appropriate local information.</p>	<p>MA-VEG-2</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			of Utah prairie dog habitat). Where GRSG habitat overlaps with that of federally listed threatened or endangered species (e.g., Utah prairie dogs), assemble species-specific experts to develop conservation and recovery objectives and allow habitat treatments that will benefit both species.			
All recent LUPs include management actions that promote use of native species where possible.  Older plans typically do not include a similar management action.	Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, non-native seeds may be used as long as they support GRSG habitat objectives.	Same as Alternative B.  <b>recent RMPs like Uintah's have this covered, but others, like on the west side of the state do not and could use this USE</b>	Prioritize the use of native seeds for restoration in PPMAs based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, desirable non-native seeds may be used as long as they support GRSG habitat objectives. Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, should be the principle objective for rehabilitation efforts.	No similar action.	Require use of native seeds for restoration unless the probability for success is low (desirable non-native seeds may be used as long as they meet GRSG habitat objectives), and design restoration management to obtain long term persistence.	MA-VEG-3
All LUPs, which are written in accordance with applicable program direction, include management actions that allow the administrating agency to make adjustments to livestock grazing, wild horse and burro management, and travel management on a case-by case basis following	Design post restoration management to ensure long term persistence. This could include changes in livestock grazing management, wild horse and burro management and travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits	Same as Alternative B.  <b>APPROPRIATE SEED USE, INCLUDING NON-NATIVE WHICH WILL HAVE THE BEST LIKELIHOOD OF A SPEEDY RECOVERY ETC.</b>	Same as Alternative B.	<b>No similar action.</b>  <b>so therefore advocate for A - no action - i.e., current RMPs and LUPs rather than Alt B</b>	Identify areas for vegetation restoration and/or identify restoration criteria that include State GRSG conservation plans and appropriate local information. Require use of native seeds for restoration unless the probability for success is low desirable non-native seeds	MA-VEG-4

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
restoration activities.	GRSG.				may be used as long as they meet GRSG habitat objectives), and design restoration management to obtain long term persistence.	
Allow commercial seed collection on a case-by-case basis.	No similar action.	No similar action.	Identify areas where commercial seed or live plant collection in PPMA's could occur. Limit commercial collection to levels that ensure long-term maintenance of the GRSG habitat objectives. Locations, species allowed for collection, and limits on the amounts to be collected will be developed on a case-by-case basis following environmental review of annual site-specific conditions. Commercial collection during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter) will include mitigation, developed to reflect the site-specific conditions on the ground, that could include, but is not necessarily limited to, restrictions on the timing and method of collection activities, limiting the number of individuals collecting, providing portions of collected seeds for use in local restoration projects, etc.	No similar action.	No similar action.	MA-VEG-5
Most LUPs do not include a similar action.	Consider potential changes in climate when proposing restoration seedlings when	Same as Alternative B.	Allow for seed collection and use in restoration/reclamation activities. Prioritize use of seed	No similar action.	No similar action.	MA-VEG-6

ok as long as this does not limit current extractive/commodity uses

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
A few plans include management actions that encourage use of native species from local sources when possible.	using native plants. Consider collection from the warmer component of the species current range when selecting native species.		from areas as close as possible to where the seed will be used to capture local adaptations.			
<p>No similar action.</p> <p>Most LUPs do not include specific management actions related to seedings.</p> <p>Plans do include generic decisions that allow maintenance of existing range improvements, which includes maintenance of historical seedings.</p> <p>Recently completed LUPs promote use of native species when conducting restoration activities. This would include restoration projects conducted in areas that have perennial grass cover.</p> <p>Older plans do not include a similar management action.</p>	Restore native (or desirable) plants and create landscape patterns which most benefit GRSG.	<p>Exotic seedings will be rehabbed, interseeded, or restored to recover sagebrush in areas to expand occupied habitats.</p> <p>Complete active restoration of crested wheatgrass seedings. This can be accomplished, following targeted restoration planning to expand, reconnect or recover habitats required by GRSG by:</p> <ul style="list-style-type: none"> <li>• Inter-seeding sagebrush seed or seedlings.</li> <li>• Removal of crested wheatgrass through plowing while minimizing use of herbicides. Subsequent re-seeding with local native ecotypes.</li> </ul> <p>In all cases, local native plant ecotype seeds and seedlings must be used.</p> <p>Perform active restoration of cheatgrass infestation areas.</p>	<p>Diversify the perennial grass and forb components through additional seeding in areas where monotypic stands resulting from historical seedings (e.g., crested wheatgrass) have been recolonized by sagebrush.</p>	No similar action.	Restore native plants and create landscape patterns that most benefit GRSG, considering potential changes in climate.	MA-VEG-7
The practices found in Appendix H, Required Design Features for Fire and Fuels,	Follow the required design features (RDFs) for fire and fuels (BLM IM 2013-128; see	Same as Alternative B.	Follow the applicable and technically feasible RDFs and policies for fire and fuels	Aggressively remove cheatgrass and other invasive species, and rehabilitate areas	Give priority for implementing specific GRSG habitat restoration projects in annual	MA-VEG-8

fine on all these seed type alternatives provided it's BLM/USFS that does this as opposed to imposing this on permittees as a reclamation requirement; unless the permittees want to preserve this as an option for doing mitigation work.

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
were provided as BMPs as part of BLM IM 2013-128 and the US Forest Service's July 3, 2013 Sage Grouse Conservation Methods 2013 letter. As such, they would be applied as BMPs to fuels and fire management action as a matter of compliance to BLM policy.	Appendix H, Required Design Features for Fire and Fuels)		outlined in Appendix H, Required Design Features for Fire and Fuels.	to provide additional habitat for GRSG where possible.	grasslands first to sites which are adjacent to or surrounded by core areas. Annual grasslands are second priority for restoration when the sites not adjacent to core areas, but within 2 miles of core areas. The third priority for annual grasslands habitat restoration projects are sites beyond 2 miles of core areas. The intent is to focus restoration outward from existing, intact habitat.
Most LUPs contain objectives for maintaining improving, or restoring sagebrush plant communities. The level of detail varies depending on the age of the LUP.  All LUPs address vegetation treatments for improvement of wildlife habitat overall or to provide increased forage for wildlife, livestock, and wild horses and burros.  Recent LUPs may include management actions that purposely restore or enhance GRSG habitat.	Make re-establishment of sagebrush cover and desirable understory plants (relative to ecological site potential) the highest priority for restoration efforts.	Composition, function, and structure of native vegetation communities will meet ESD (or the Forest Service equivalent) and will provide for healthy, resilient, and recovering GRSG habitat components.	Desired cover percentages and heights for sagebrush, grasses, and forbs in seasonal habitats will be managed to meet habitat guidelines from scientific literature (e.g., Connelly et al. 2000, Hager such standard Adjustments may be made based on do variation of characteristic type, ecological quantitative population a monitoring, local research	No similar action.	Make reestablishment of sagebrush cover and desirable understory plants the highest priority for restoration efforts
No similar action.	In fire prone areas where sagebrush seed is required for GRSG habitat restoration, consider establishing seed harvest areas that are managed	Same as Alternative B.	No similar a	imilar action.	Same as Alternative B.

UTAH CAN'T MEET THESE CONNELLY STANDARDS - THEY WERE DEVELOPED SPECIFICALLY TO SHRUP STEPPE HABITAT IN NORTHERN PART OF GSRG RANGE - THEY ARE BEING REWRITTEN. EFFORTS ARE UNDERWAY TO IDENTIFY UTAH SPECIFIC GUIDELINES.

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
	for seed production and are a priority for protection from outside disturbances.					
No similar action.	No similar action.	Avoid sagebrush Use whatever works or grows. Native where possible, but allow non-native if that's what works. state it in the positive - use what give best chance of good rehab.	No similar action.	No similar action.	No similar action.	MA-VEG-11
Recently completed LUPs promote use of native species when conducting restoration activities.	Prioritize native seed allocation for use in GRSG habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from Emergency Stabilization and Rehabilitation (BLM) and/or Burn Area Emergency Rehabilitation (Forest Service) projects outside of PPMAs to those inside it. Use of native plant seeds for Emergency Stabilization and Rehabilitation or Burn Area Emergency Rehabilitation seedings is required based on availability, adaptation (site potential), and probability of success (Richards et al. 1998). Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of		the use of native seeds in PPMA based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, desirable non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the principle objective for rehabilitation efforts.	Allow use of fire-retardant vegetation that will buffer areas of high quality GRSG habitat from catastrophic fire.	Where probability of success or native seed availability is low or where there is a specific identified purpose that cannot be met with natives, (desirable non-native seeds may be used as long as they meet GRSG habitat conservation objectives),	MA-VEG-12

don't like non-native seeds; in this respect A is best because present LUPs promote native species



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E1</b>	<b>Alternative E2</b>	
	appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.					
All LUPs, which are written in accordance with applicable program direction, include management actions that allow the administrating agency to make adjustments to livestock grazing, wild horse and burro management, and travel management on a case-by case basis following restoration activities.	Design post Emergency Stabilization and Rehabilitation/ Burn Area Emergency Rehabilitation management to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of Emergency Stabilization and Rehabilitation projects to benefit GRSG (Eiswerth and Shonkwiler 2006).	Same as Alternative B.	Same as Alternative B.  Monitor and control invasive vegetation post-wildfire for at least 3 years.	Immediate, proactive means to reduce or eliminate the spread of invasive species, particularly cheatgrass, after a wildfire, is a high priority.	Same as Alternative B.	MA-VEG-13
No similar action.	Consider potential changes in climate (Miller et al. 2011) when proposing post-fire seedings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seed. (Kramer and Havens 2009).	Same as Alternative B.	No similar action.	No similar action.	Restore native plants and create landscape patterns that most benefit GRSG, considering potential changes in climate.	MA-VEG-14
No similar action.	No similar action.	Establish and strengthen networks with seed growers to assure availability of native seed for Emergency Stabilization and Rehabilitation projects.	No similar action.	No similar action.	No similar action.	MA-VEG-15

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
No similar action.	No similar action.	Post fire recovery must include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recovery.	No similar action.	No similar action.	No similar action.	MA-VEG-16
<u>Integrated Invasive Species Management</u> Implement noxious weed and invasive species control using integrated weed management actions per national guidance and local weed management plans in collaboration with State and Federal agencies, affected counties, and adjoining private lands owners.	<u>Integrated Invasive Species Management</u> Integrated Vegetation Management would be used to control, suppress, and eradicate, where possible, noxious and invasive species per BLM Handbook H-1740-2 and Forest Service Manual 2080.	<u>Integrated Invasive Species Management</u> Same as Alternative B.	<u>Integrated Invasive Species Management</u> Same as Alternative B.	<u>Integrated Invasive Species Management</u> No similar action.	<u>Integrated Invasive Species Management</u> Same as Alternative B.	MA-VEG-17
In most LUPs, either no priorities are established or prioritization is given to projects that benefit multiple resources (e.g., livestock, wildlife, wild horses and burros, special status species).	No similar action.	Develop and implement methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants.	Same as Alternative C.	Aggressively respond to new infestations to keeping invasive species from spreading. Every effort should be made to identify and treat new infestations before they become larger problems. Additionally containment of known infestations in or near sagebrush habitats should be a high priority for all land management agencies.	No similar action.	MA-VEG-18
No similar action.	No similar action.	In GRSG habitat, ensure that soil cover and native herbaceous plants are at their ESD potential (or comparable Forest Service methods) to help protect against invasive plants.	No similar action.	No similar action.	No similar action.	MA-VEG-19

so therefore default to A - stick with status quo use of locally driven integrated weed management plans, etc

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C		Alternative D	Alternative E1	Alternative E2	
No similar action.	No similar action.	No similar action.		No similar action.	No similar action.	<p>Field offices/district offices may implement treatments within core areas where outbreaks of grasshopper or Mormon cricket populations are expected to rise above economic levels. Treatments must be conducted only following reduced agent-area treatments protocols. The Forest Service will work collaboratively with partners at the Federal, State, and local levels to maintain and enhance GRSG habitats in a manner consistent with the core population area strategy for conservation.</p> <p>Field offices/district offices are directed to utilize Wyoming Grasshopper and Mormon Cricket Control website as a resource for updated information when conducting analysis of grasshopper and Mormon cricket control in GRSG habitats.</p>	MA-VEG-20
<b>WILD HORSES AND BURROS</b>							
Manage wild horse and burro population levels within established AMLs to ensure a balance among wild horses, wildlife, livestock, and other resources.	Manage wild horse and burro population levels within established AMLs.	<u>Alt C1:</u> Same as Alternative B.	<u>Alt C2:</u> Associated with the reduction in livestock grazing, reduce wild horse AMLs by 25	Same as Alternative B.	Same as Alternative A.	There are no Forest Service wild horse ranges in the Wyoming-Blacks Fork or Wyoming-Uinta population areas. As such, this section is not applicable to Alternative E2.	MA-WHB-1

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
		percent for management areas that overlap mapped occupied GRSG habitat to reduce grazing pressure on vegetation.				
Prioritize wild horse/burro gathers based on monitoring data.	Prioritize wild horse/burro gathers in PPMAs, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.	Same as Alternative B.	Same as Alternative B.	Same as Alternative A.	This section is not applicable to Alternative E2.	MA-WHB-2
Prepare or amend herd management plans on an as needed basis	Within PPMAs, develop or amend herd management plans to incorporate GRSG habitat objectives and management considerations for all BLM herd management areas (HMAs).	Same as Alternative B.	No similar action.	Same as Alternative A.	This section is not applicable to Alternative E2.	MA-WHB-3
Periodically evaluate and make adjustments to AMLs based on monitoring data.	For all HMAs within PPMAs, prioritize the evaluation of all AMLs based on indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.	No similar action.	Same as Alternative B.	Same as Alternative A.	This section is not applicable to Alternative E2.	MA-WHB-4
No similar action.	Coordinate with other resources (e.g., range, wildlife, and riparian) to conduct land health assessments to determine existing structure/condition/	Same as Alternative B.	Same as Alternative B.	No similar action.	This section is not applicable to Alternative E2.	MA-WHB-5

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
	composition of vegetation within all BLM HMAs.					
No similar action.	When conducting NEPA analysis for wild horse/burro management activities, water developments or other rangeland improvements for wild horses in PPMAs, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in PPMAs.	Same as Alternative B.	When considering wild horse/burro management activities, water developments or other rangeland improvements for wild horses in PPMAs, use the criteria identified for domestic livestock in PPMAs.	No similar action.	This section is not applicable to Alternative E2.	MA-WHB-6
<b>WILDLAND FIRE MANAGEMENT</b>						
No similar action.	No similar action.	No similar action.	BLM and Forest Service planning units (Districts and Forests), in collaboration with the USFWS and relevant state agencies, would complete and maintain GRSG Landscape Wildfire & Invasive Species Habitat Assessments to prioritize at risk habitats, and identify fuels management, preparedness, suppression and restoration priorities necessary to maintain sagebrush habitat to support interconnecting GRSG populations. These assessments and subsequent assessment updates would also be a collaborative effort with an interdisciplinary team to take	Habitat loss due to fire and replacement of (burned) native vegetation by invasive plants is the single greatest threat to GRSG in Utah. Create and implement a statewide fire agency agreement(s) that will eliminate jurisdictional boundaries and allow for immediate response to natural fire in GRSG habitat within SGMA. These should include fire suppression actions recommended locally, including, but not limited to: <ul style="list-style-type: none"> <li>• first strike agreements that allow aggressive fire control on an all-land jurisdictional</li> </ul>	Work collaboratively with partners at the State and local level to maintain and enhance GRSG habitats in a manner consistent with the core population area strategy for conservation.	MA-FIRE-I
		fine, except oppose landscape scale assessments and plans				

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>into account other GRSG priorities identified in this plan. Appendix M, Draft Greater Sage-Grouse Wildland Fire and Invasive Species Assessment, describes a minimal framework example and suggested approach for this assessment.</p> <p>Implementation actions will be tiered to the Local (District/Forest) GRSG Landscape Wildfire &amp; Invasive Species Assessment, using best available science related to the conservation of GRSG.</p> <p>In collaboration with USFWS and relevant state agencies, BLM/Forest Service planning units (Districts/Forests) would identify annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments. Annual treatment needs would be coordinated across state/regional scales and across jurisdictional boundaries for long-term conservation of GRSG.</p> <p>Annually complete a review of landscape assessment implementation efforts with</p>	<p>basis;</p> <ul style="list-style-type: none"> <li>• allocation of resources to maintain enhanced abilities of all fire agencies to combat ignitions in GRSG habitat within SGMAs.</li> <li>• allocation of resources to immediately commence restoration of habitats impacted by wildfire by all responsible agencies; and</li> <li>• removal or establishment of waiver provisions for procedural barriers that may impact the ability of responsible agencies to respond to wildfire with effective reclamation or rehabilitation, such as federal raptor stipulations, cultural assessments, and the like.</li> </ul>	

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p><b>Fuels Management</b> The practices found in Appendix H were provided as BMPs as part of IM 2013-128 and the US Forest Service’s July 3, 2013 Sage Grouse Conservation Methods 2013 letter. As such, they would be applied as BMPs to fuels and fire management action as a matter of compliance to BLM policy.</p>	<p><b>Fuels Management</b> Implement as “required design features”, the measures identified in Appendix H.</p>	<p><b>Fuels Management</b> Same as Alternative B.</p> <p style="border: 1px solid red; padding: 5px; color: red; text-align: center;">subject to review of Appendix H; it implies go full speed ahead on fuel load reduction, but check Ex H for details</p>	<p>appropriate USFWS and state agency personnel.</p> <p><b>Fuels Management</b> Follow the applicable and technically feasible RDFs for fuels management in Appendix H.</p>	<p><b>Fuels Management</b> No similar action.</p>	<p><b>Fuels Management</b> Where applicable and technically feasible, apply BMPs as mandatory COAs within core areas for Vegetation Management and Fire and Fuels Management.</p>	MA-FIRE-2
<p>Design projects to minimize the size of wildfire and prevent the further loss of sagebrush.</p> <p>Existing LUPs typically do not include specific management decisions regarding implementation of fuels treatments in sagebrush habitat. In general, both prescribed fire and non-fire fuels treatments are allowed.</p> <p>Rest treated areas from grazing for two full growing seasons (per BLM policy).</p>	<p>In PPMAs, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems.</p> <ul style="list-style-type: none"> <li>Do not reduce sagebrush canopy cover to less than 15 percent unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of PPMAs and conserve habitat quality for the species.</li> <li>Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in the environmental assessment process.</li> <li>Apply appropriate seasonal restrictions for implementing fuels management treatments according to the</li> </ul>	<p>Design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems.</p> <ul style="list-style-type: none"> <li>Do not reduce sagebrush canopy cover to less than 15 percent unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of mapped occupied GRSG habitat and conserve habitat quality for the species.</li> <li>Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in the assessment process.</li> <li>Apply appropriate seasonal restrictions for implementing fuels management</li> </ul>	<p>Fuel treatments will be designed though an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat.</p> <ul style="list-style-type: none"> <li>Use green strips and/or fuel breaks, where appropriate, to protect seeding efforts from subsequent fire events.</li> <li>In collaboration with USFWS and relevant state agencies, BLM/Forest Service planning units (Districts/Forests) with large blocks of GRSG habitat will develop, using the assessment process described in Appendix M, a fuels management strategy which considers an up-to-date fuels profile, LUP direction, current and potential habitat fragmentation, sagebrush and</li> </ul>	<p>Habitat loss due to fire and replacement of (burned) native vegetation by invasive plants is the single greatest threat to GRSG in Utah. While unscheduled fires may occur, response to fire can have a large impact on the severity of the effects, especially over time as rehabilitation or restoration continues. Implement the following:</p> <ul style="list-style-type: none"> <li>Allow use of fire-retardant vegetation that will buffer areas of high quality GRSG habitat from catastrophic fire.</li> <li>Use prescriptive fire with caution in sagebrush habitat. The WAFWA has prepared information that explains</li> </ul>	<p>In core areas, design and implement vegetation and fuels treatments with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems. For vegetation and fuels treatments, refer to WGFD <i>Protocols for Treating Sagebrush to Benefit Sage-Grouse</i> (WGFD 2011a, as updated) and BLM IM 2013-128 (<i>Sage-grouse Conservation Related to Wildland Fire and Fuels Management</i>), or applicable Forest Service counterpart. These recommended protocols will be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the</p>	MA-FIRE-3

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<p>type of seasonal habitats present in a PPMA.</p> <ul style="list-style-type: none"> <li>• Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.</li> <li>• Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered, in stands where cheatgrass is a very minor component in the understory.</li> <li>• Monitor and control invasive vegetation post-treatment.</li> <li>• Rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise.</li> </ul>	<p>treatments according to the type of seasonal habitats present.</p> <ul style="list-style-type: none"> <li>• Allow no fuels treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.</li> <li>• Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered, in stands where cheatgrass is a very minor component in the understory (Brown 1982).</li> <li>• Livestock grazing should be excluded from burned areas until woody and herbaceous plants achieve GRSG habitat objectives.</li> </ul>	<p>GRSG ecological factors, and active vegetation management steps to provide critical breaks in fuel continuity, where appropriate. When developing this strategy, planning units will consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.</p> <ul style="list-style-type: none"> <li>• Avoid constructing fuel breaks through large areas of intact GRSG habitat.</li> <li>• When possible, locate fuel breaks along existing roads, ROWs, and other suitable topographic or natural features (e.g., areas devoid of vegetation, rock outcrops).</li> <li>• Using an interdisciplinary approach, a full range of fuel reduction techniques will be available. Fuel reduction techniques such as grazing, prescribed fire, chemical, biological and mechanical treatments are acceptable.</li> <li>• Allow the use of prescribed fire within PPMAs if other treatment opportunities have been explored, where site specific variables allow (will</li> </ul>	<p>the risks from using prescribed fire in xeric sagebrush habitats.</p> <ul style="list-style-type: none"> <li>• Prescribed fire should only be used at higher elevations and in a manner designed prescriptively to benefit GRSG.</li> <li>• Conduct effective research into controlling fire size and protecting remaining GRSG areas that are adjacent to high-risk cheatgrass areas.</li> <li>• Focus research efforts on effective reclamation and restoration of landscapes altered by wildfire.</li> <li>• Within winter habitat, manage to maintain maximum amount of sagebrush, especially tall sagebrush, which would be available to GRSG above snow during a severe winter. Tall sagebrush is capable of standing above heavier than normal snowfall.</li> <li>• Sagebrush treatment projects within winter habitat need pre-approval by the appropriate regulatory agency in coordination with the UDWR. Sagebrush</li> </ul>	<p>5 percent threshold for habitat maintenance or not. Additionally, these protocols will be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation. Treatments to enhance sagebrush/grasslands habitat for GRSG will be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p> <p>In addition to Alternative A, for fuels management, consider multiple tools for fuels reduction and analyze in NEPA compliance documentation before electing to implement prescribed fire in core areas. Avoid the use of prescribed fire in areas of Wyoming big sagebrush, other xeric sagebrush species, or where cheatgrass or other fire-invasive species occur and/or within areas of less than 12 inches of annual precipitation.</p> <p>Defer grazing on treated areas for two full growing seasons</p>



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<ul style="list-style-type: none"> <li>Require use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success (Richards et al. 1998). Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet GRSG habitat objectives (Pyke 2011).</li> <li>Design post fuels management projects to ensure long term persistence of seeded or pre-treatment native plants. This may require temporary or long-term changes in livestock grazing management, wild horse and burro management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project (Eiswerth and Shonkwiler 2006).</li> <li>Design fuels management projects in PPMAs to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more</li> </ul>	<ul style="list-style-type: none"> <li>Where burned GRSG habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) should be closed to grazing until recovered.</li> <li>Design post fuels management projects to ensure long term persistence of seeded or pre-treatment native plants, including sagebrush. This may require temporary or long-term changes in livestock grazing management, wild horse and burro management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project (Eiswerth and Shonkwiler 2006).</li> <li>Mowing of grass will be used in any fuelbreak fuels reduction project (roadsides or other areas).</li> </ul>	<p>not likely result in long-term loss of sagebrush), and in areas where risk of conversion to exotic annual dominance is low and/or could be mitigated by chemical or other means. Prescribed fire in areas of low elevation Wyoming sagebrush would be avoided.</p> <ul style="list-style-type: none"> <li>Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, desirable non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and desirable non-native species, as appropriate, to provide for fire breaks.</li> <li>Upon project completion, monitor and manage fuels projects to ensure long-term success, including persistence of seeded species and/or other treatment components. Control invasive vegetation post-treatment.</li> <li>Apply seasonal restrictions, as</li> </ul>	<p>treatment projects within winter habitat should maintain 80 percent of the available habitat as tall sagebrush; 20 percent of the habitat can be managed for younger age classes, if appropriate.</p> <ul style="list-style-type: none"> <li>Coordinate the needs and efforts related to GRSG with the State of Utah committee that was formed to develop a collaborative process to protect the health and welfare by reducing the size and frequency of catastrophic fires.</li> </ul>	<p>unless vegetation objectives or vegetation recovery indicates a shorter or longer rest period is necessary based on vegetation monitoring results.</p> <p>In addition to Alternative A, restore and recover burned areas that are within core areas.</p> <p>The Forest Service will bring in Burn Area Emergency Rehabilitation teams who will work collaboratively with partners at the Federal, State, and local level to maintain and enhance GRSG habitats in a manner consistent with the core population area strategy for conservation. Conduct Density Disturbance Calculation Tool reviews in coordination with the WGFD - Habitat Protection Program located in Cheyenne at the WGFD headquarters. Areas within core habitat are high priority for restoration of GRSG habitat beyond immediate response.</p> <p>Within core areas, design post fuels management projects to ensure long term persistence of seeded or pre-treatment</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
	linear versus block design.		<p>needed, for implementing fuels management treatments according to the type of seasonal habitats present.</p> <ul style="list-style-type: none"> <li>• Prior to conducting any fuels/habitat treatments in known winter range, work closely with the State of Utah to design the treatment to either strategically reduce wildfire risk around or in the winter range or to specifically maintain, increase, or enhance areas of vegetation to function as important winter range (for habitat associated with years of average snowfall and habitat for years with abnormally high snowfall amounts).</li> </ul>		native plants.	
No similar action.	During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al. 2007). Consult with ecologists to minimize impacts to native perennial grasses.	No similar action.	During fuels management project design, consider the use of targeted livestock grazing to strategically reduce fine fuels and, if used, implement grazing management that will accomplish this objective. If implementing targeted grazing, implement measures to minimize impacts to native perennial grasses.	Consider the use of prescriptive grazing to specifically reduce fire size and intensity on all types of landownership, where appropriate. This could be particularly effective in areas where cheatgrass is encroaching on sagebrush habitat. This will require cooperation and coordination among different land managers and owners and livestock owners. In some cases feed supplementation and water hauling may need to be	No similar action.	MA-FIRE-4

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				utilized to obtain the desired results.		
<p><u>Preparedness</u> The practices found in Appendix H were provided as BMPs as part of IM 2013-128 and the US Forest Service’s July 3, 2013 Sage Grouse Conservation Methods 2013 letter.. As such, they would be applied as BMPs to fuels and fire management action as a matter of compliance to BLM policy.</p>	<p><u>Preparedness</u> Implement as “required design features”, the measures identified in Appendix H.</p>	<p><u>Preparedness</u> Same as Alternative B.</p>	<p><u>Preparedness</u> Follow the applicable and technically feasible RDFs for fire and fuels management in Appendix H.</p> <p>Implement a coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions and predicted weather patterns) for GRSG habitat.</p> <p>Develop wildfire prevention plans that explain the resource value of GRSG habitat and include fire prevention messages and actions to reduce human-caused ignitions.</p>	<p><u>Preparedness</u> Create and implement a statewide fire agency agreement(s) that will eliminate jurisdictional boundaries and allow for immediate response to natural fire in GRSG habitat within SGMAs. These should include fire suppression actions recommended locally, including, but not limited to:</p> <ul style="list-style-type: none"> <li>• first strike agreements that allow aggressive fire control on an all-land jurisdictional basis;</li> <li>• allocation of resources to maintain enhanced abilities of all fire agencies to combat ignitions in GRSG habitat within SGMAs.</li> <li>• allocation of resources to immediately commence restoration of habitats impacted by wildfire by all responsible agencies; and</li> <li>• removal or establishment of waiver provisions for procedural barriers that may impact the ability of responsible agencies to respond to wildfire with effective reclamation or</li> </ul>	<p><u>Preparedness</u> Where applicable and technically feasible, apply BMPs as mandatory COAs within core areas for Vegetation Management and Fire and Fuels Management.</p>	MA-FIRE-5

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				rehabilitation, such as federal raptor stipulations, cultural assessments, and the like.		
<p><u>Fire Management – (Suppression)</u> The practices found in Appendix H were provided as BMPs as part of IM 2013-128. As such, they would be applied as BMPs to fuels and fire management action as a matter of compliance to BLM policy.</p>	<p><u>Fire Management – (Suppression)</u> Implement as “required design features”, the measures identified in Appendix H.</p>	<p><u>Fire Management – (Suppression)</u> Same as Alternative B.</p> <p style="border: 1px solid red; padding: 5px; display: inline-block;">subject to review of App H</p>	<p><u>Fire Management – (Suppression)</u> Follow the applicable and technically feasible RDFs for fuels management in Appendix H.</p>	<p><u>Fire Management – (Suppression)</u> No similar action.</p>	<p><u>Fire Management – (Suppression)</u> Where applicable and technically feasible, apply BMPs within core areas for Vegetation Management and Fire and Fuels Management.</p>	MA-FIRE-6
<p>Under current management there is no designated PPMA or PGMA.</p> <p>Prioritize fire suppression to protect human life and high value resources.</p>	<p>In PPMA, prioritize suppression, immediately after life and property, to conserve the habitat.</p> <p>In PGMA, prioritize suppression where wildfires threaten PPMA.</p> <p style="border: 1px solid red; padding: 5px; display: inline-block;">Omit support for everything after 1st paragraph. Suggest a rewrite to D at any reference to PGMA, PPMA, etc., etc. Stick with the State's acronyms.</p>	<p>Same as Alternative B for PPMA. There is no PGMA in this alternative.</p>	<p>Fire fighter and public safety are the highest priority. GRSG habitat will be prioritized commensurate with property values and other critical habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG.</p> <p>Within GRSG habitat, PPMA are the highest priority for conservation and protection during fire operations and fuels management decision making. The PPMA will be viewed as more valuable than PGMA when priorities are established. When suppression resources are widely available, maximum efforts will be placed on limiting fire growth in PGMA polygons</p>	<p>Fire by natural ignition should be addressed as a serious threat.</p> <p>GRSG habitat outside of SGMA would not be managed for the conservation of the species. No specific management actions are provided for this habitat.</p>	<p>In core areas, prioritize suppression, immediately after firefighter and public safety to conserve the habitat.</p> <p>Non-core areas would be assigned a priority commensurate with its importance in the local fire plan.</p>	MA-FIRE-7

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>as well. These priority areas will be further refined following completion of the GRSG Landscape Wildfire &amp; Invasive Species Habitat Assessments described in Appendix M.</p> <p>Limit placement of fire infrastructure (e.g., fire camps, helipads, etc.) in areas of solid sagebrush.</p> <p>In PGMA or areas where treatment/seeding has occurred to improve habitat, prioritize suppression where wildfires threaten adjacent PPMA.</p>			
No similar action.	No similar action.	No similar action.	<p>Within acceptable risk levels use a full range of fire management strategies and tactics, including the management of wildfires to achieve resource objectives, across the range of GRSG habitat consistent with LUP direction.</p> <p>Conduct burn-out/backfiring operations in a manner that minimizes the loss of sagebrush when possible (e.g., rather than using established roads when creating anchor lines, consider using bulldozers to create anchor lines closer to the fire that decrease the size of burnout operations and loss of</p>	No similar action.	No similar action.	MA-FIRE-8

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
<b>LIVESTOCK GRAZING/RANGE MANAGEMENT</b>							
Continue to make GRSG habitat available for livestock grazing. Active AUMs for livestock grazing would be 329,521 on BLM lands and 265,373 on National Forest System lands, though the number of AUMs on a permit may be adjusted during site-specific evaluations conducted during term permit renewals, allotment management plan development, or other appropriate implementation activity. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, season of use, and other aspects of grazing within the terms and conditions of the permit based on the permittees livestock operation and/or an evaluation of a variety of forage and resource site-specific conditions.	Active AUMs for livestock grazing would be 329,521 on BLM lands and 265,373 on National Forest System lands. Permit and annual adjustments to those AUMs would be made consistent with regulation and the direction identified below.	<u>Alt C1:</u> Make mapped occupied GRSG habitat unavailable to livestock grazing for the life of the plan. This would result in a reduction of up to 329,521 permitted AUMs on BLM lands and 265,373 permitted AUMs on National Forest System lands (if all allotments with any overlap with GRSG habitat were closed in their entirety;	<u>Alt C2:</u> Within allotments that overlap mapped occupied GRSG habitat, reduce permitted AUMs by 131,808 permitted AUMs on BLM lands and 106,149 permitted AUMs on National Forest System lands. Reductions by allotment will occur by Field Office based on a review of the site-specific information (e.g., range condition, utilization levels, type and condition of GRSG habitat). Based on the Field Office review, the reductions in	Continue to make GRSG PPMAs and PGMAs available for livestock grazing. Active AUMs for livestock grazing would be 329,521 on BLM lands and 265,373 on National Forest System lands, though the number of AUMs on a permit may be adjusted during site-specific evaluations conducted during term permit renewals, allotment management plan development, or other appropriate implementation activity. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, season of use, and other aspects of grazing within the terms and conditions of the permit based on the permittees livestock operation and/or an evaluation of a variety of forage and resource site-specific conditions.	Continue to make GRSG habitat within and outside of SGMAAs available for livestock grazing. Active AUMs for livestock grazing would be 329,521 on BLM lands and 265,373 on National Forest System lands. Existing grazing operations would utilize recognized rangeland BMPs to increase the necessary vegetation, and thereby increase the potential for nesting success and population recruitment.  Should site-specific concerns be raised about the effect of grazing upon GRSG habitat, and such effects are documented over a sufficiently long time-frame, corrective management actions should be addressed through the application of BMPs, including consideration of those identified by the Department of Agriculture and Food's Grazing Improvement Program.	For those portions of the planning area in Wyoming, continue to make core and non-core areas available for livestock grazing. Active AUMs for livestock grazing would be included with the 265,373 AUMs on National Forest System lands noted for Alternative A, though the number of AUMs (head-months) on a permit may be adjusted during site-specific evaluations conducted during term permit renewals, allotment management plan development (or the Forest Service equivalent), or other appropriate implementation activity. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, season of use, and other aspects of grazing within the terms and conditions of the permit based on the permittees livestock operation and/or an evaluation of a variety of forage and resource site-specific conditions.  In determining appropriate management actions that will	MA-GRA-1

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C		Alternative D	Alternative E1	Alternative E2
		closing just the portions of allotments within GRSG habitats, if possible, could reduce this number).	<p>AUMs would occur in allotments that overlap mapped occupied GRSG habitat, whether partial reductions in active use or closing specific allotments. The reductions would be implemented during renewal of term grazing permits.</p> <p>The resulting AUMs available for permitting for livestock grazing would be 197,713 on BLM lands and 159,224 on National Forest System lands.</p>			<p>be considered, refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance. This peer reviewed document is the result of a collaborative effort in Wyoming to ensure proper livestock grazing practices with GRSG habitats. It is the culmination of efforts to gather and integrate current knowledge and practices regarding livestock grazing in respect to important GRSG habitats within Wyoming.</p> <p>Wyoming Executive Order 2011-05 considers grazing activities compatible with GRSG conservation. The State of Wyoming will collaborate with appropriate Federal agencies in defining a framework for evaluating situations to determine if a causal relationship exists between improper grazing (by wildlife or wild horses or livestock) and GRSG conservation objectives where conservation objectives are not being achieved on federal lands. The State of Wyoming</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
					will also collaborate with appropriate Federal agencies on appropriate site based actions to achieve GRSG conservation objectives within the framework. Monitoring data will at a minimum reflect 5 years of information, include rangeland health assessments and require conclusion or action to be based on 3 out of 5 years of data (Executive Order 2013-03).		
No similar action.	Within PPMAs, incorporate GRSG habitat objectives and management considerations into all BLM and Forest Service grazing allotments through allotment management plans or permit renewals and/or Forest Service Annual Operating Instructions.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	Same as Alternative B.	<b>No similar action.</b>  <div style="border: 1px solid red; padding: 2px; display: inline-block; color: red;">reject B's language</div>	Ensure site-specific, measurable, conservation and mitigation objectives are included in project planning in core GRSG habitats.	MA-GRA-2
Consider adjustments to allotment boundaries that provide for single unit or landscape level grazing approaches to habitat improvement on a case-by-case basis.	In PPMAs, work collaboratively on integrated ranch planning within GRSG habitat so operations with deeded/BLM and/or Forest Service allotments can be planned as single units.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	In PPMAs, consult, cooperate, and collaborate with other land owners and management agencies (e.g., private and SITLA) to develop plans which provide for single unit or landscape level approaches to habitat improvement. In PPMAs with unfenced private and SITLA lands within a grazing allotment that are under exchange of use agreements or percent public land use, manage the allotment as a single unit that will have the	<b>No similar action.</b>	Evaluate opportunities to coordinate management plans and strategies on multiple allotments where coordination under a single management plan/strategy would result in enhancing GRSG populations or its habitat as determined in coordination with the State of Wyoming and the State wildlife agency.	MA-GRA-3



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			same management as the public lands.		
<p>Manage rangeland resources to maintain healthy, sustainable, rangeland ecosystems and to restore degraded rangelands in accordance with Utah's Standards for Rangeland Health or standards or guidelines established in individual Forest Service LRMPs.</p> <p>Monitor vegetation trends (including composition, cover, and age class), noxious weeds, riparian Proper Functioning Condition, etc. as part of the grazing management program.</p> <p>BLM plans do not contain grazing management decisions specific to conserving GRSG habitat.</p> <p>Forest Service LUPs contain specific management actions for permitted livestock grazing that take in to consideration established habitat management objectives.</p>	<p>Prioritize completion of land health assessments (Forest Service may use other analyses) and processing grazing permits within PPMAs. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for GRSG. Utilize BLM ESDs (or comparable Forest Service methods) to conduct land health assessments to determine if standards of range-land health are being met.</p>	<p><u>Alt C1:</u> No similar action.</p>	<p><u>Alt C2:</u> Same as Alternative B.</p> <p>Evaluate Utah's Rangeland Health Standards (Forest Service may use other analyses) and process grazing permits within PPMAs. Focus management activities on allotments found not to be achieving Utah's Rangeland Health Standards and that have the best opportunities for conserving, enhancing or restoring habitat for GRSG.</p> <p>When completing land health assessments, incorporate appropriate indicators and protocols to assess the condition of GRSG habitat considering the objectives (e.g., percent cover and height of sagebrush, grasses, forbs, other shrubs, etc.) (Doherty et al. 2011).</p> <p>Use ESDs or Forest Service equivalent and/or other appropriate information, including GRSG habitat objectives, as the basis to determine the desired plant community or other community within proper functioning ecological processes for conducting land health</p>	<p>No similar action.</p>	<p>In cooperation, consultation, and coordination with permittees / lessees, cooperators, and stakeholders, including interested parties, develop and implement appropriate livestock grazing management actions to address the Wyoming Standards for Healthy Rangelands, improve forage for livestock, and enhance rangeland health. Consider the application of BMPs for the protection of GRSG as terms and conditions of grazing permit/lease renewals. In areas where Wyoming Standards for Healthy Rangelands are not being met or are not making progress towards meeting standards, because of current livestock grazing management, modify existing permits or condition the issuance of new permits on the implementation of new grazing strategies to meet standards in accordance with grazing regulations. Apply appropriate BMPs as terms and conditions of the permit.</p> <p>Within core areas, incorporate GRSG habitat objectives and</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				assessments to evaluate the achievement or non-achievement of rangeland health standards.	management considerations into all Forest Service grazing allotments containing GRSG habitat through allotment management plans or permit renewals. Consider the application of BMPs for the protection of GRSG as terms and conditions of grazing permit/lease renewals. The Forest Service will collaborate with the State of Wyoming and appropriate Federal agencies to develop appropriate conservation objectives. The Forest Service will collaborate with appropriate Federal and State agencies, as directed under Governor Executive Order 2013-3.	
No similar action.	In PPMAs, conduct land health assessments that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. If local/state seasonal habitat objectives are not available, use GRSG habitat recommendations from Connelly et al. 2000 and Hagen et al. 2007.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	Within PPMAs where sagebrush is the current or potential dominant vegetation type or is a primary species within the various states of the ESD (or comparable Forest Service methods), maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, winter, and transition areas. Desired cover percentages and heights for sagebrush, grasses, and forbs in seasonal habitats will be managed to meet habitat guidelines from scientific	No similar action.	Implement direction from Executive Order 2013-03, as described in MA GRA-4.  MA-GRA-5

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			literature (e.g., Connelly et al. 2000 and Hagen et al. 2007), where such standards can be met. Adjustments from the guidelines may be made, but must be based on documented regional variation of habitat characteristics (e.g., sagebrush type, ecological site potential), quantitative data from population and habitat monitoring, and evaluation of local research.		
No similar action.	Develop specific objectives to conserve, enhance or restore PPMAs based on ESDs (or comparable Forest Service methods) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets GRSG habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances GRSG habitat in the NEPA document prepared for the permit renewal.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Develop specific objectives to conserve, enhance or restore occupied GRSG habitat based on GRSG habitat objectives (including within wetlands and riparian areas).	Same as Alternative B.  Ok, but only to the extent consistent with the State plan.	Implement direction from Executive Order 2013-03, as described in MA GRA-4.
				<p>Consider GRSG seasonal habitat requirements when managing sagebrush rangelands. Considerations to be taken into account include the following:</p> <p><u>Leks</u></p> <ul style="list-style-type: none"> <li>• Be cautious of man-made structures on lek sites.</li> <li>• Reduce shrub encroachment and maintain the “open” area that characterizes a typical lek site.</li> <li>• Identify the location of leks through discussions with UDWR biologists.</li> </ul> <p><u>Nesting/Early Brood-Rearing</u></p> <ul style="list-style-type: none"> <li>• Maintain and enhance the existing sagebrush/plant</li> </ul>	MA-GRA-6

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>communities.</p> <ul style="list-style-type: none"> <li>• Manage these areas to increase herbaceous cover by sustaining a mosaic of sagebrush and open areas.</li> <li>• Avoid repeated, annual heavy use of these areas by implementing periodic rest and/or deferment periods during the critical growing season.</li> </ul> <p><u>Late Brood-Rearing</u></p> <ul style="list-style-type: none"> <li>• Avoid continuous (season-long) grazing of wet meadows and riparian habitats, especially under drought conditions when temperatures are high.</li> </ul> <p><u>Winter</u></p> <ul style="list-style-type: none"> <li>• Carefully manage levels of browsing or activities in sagebrush areas that constitute GRSG habitat that would reduce GRSG access to these areas for food and cover.</li> <li>• The potential impact of livestock grazing on winter habitat can be positive or negative depending on scale and location of use</li> </ul>	

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
Consider changes to season of use on a case-by-case basis when resource conditions indicate that a change is needed.	No similar action.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Within GRSG habitat, change season of use so that no grazing occurs during the growing season.  Based on sub-regional climate variations, growing season will be determined on a permit-by-permit basis.	No similar action.	No similar action.	MA-GRA-7	
Consider range improvements and/or adjust permit terms and conditions on a case-by-case basis as necessary to meet land health standards or habitat objectives identified in individual LUPs. Changes may include, but are not limited to: 1. Rotation systems (e.g., rest rotation, deferred rotation) 2. Season or timing of use 3. Distribution of livestock use 4. Type of livestock 5. Class of livestock 6. Duration of grazing use and rest periods	In PPMAs, manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve GRSG seasonal habitat objectives.  Implement management actions (grazing decisions, Annual Operating Instructions [Forest Service only], allotment management plan development, or other agreements) to modify grazing management to meet seasonal GRSG habitat requirements. Consider singly, or in combination, changes in: 1. Season or timing of use	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> In mapped occupied GRSG habitat, manage for vegetation composition and structure consistent with ecological site reference state to achieve GRSG habitat objectives.  Implement management actions (grazing	In PPMAs, manage for vegetation composition and structure consistent with the objectives for GRSG seasonal habitats, as described above. Develop and implement the terms and conditions needed to meet these objectives through the permit renewal process or other appropriate implementation action.  In PGMAs, consider GRSG habitat objectives when making livestock grazing decisions.  As necessary to meet land health standards and objectives for PPMAs, implement	Address incompatible grazing strategies through established rangeland management practices consistent with the maintenance or enhancement of habitat.  Carefully manage the “time,” “timing,” and “intensity” of grazing in sagebrush/GRSG habitats to provide for the seasonal needs of GRSG. Specific prescriptions can be applied through more intensive management to address special needs or weak links in the biological year of GRSG production.	Implement direction from Executive Order 2013-03, as described in MA GRA-4  Within core areas, manage for vegetation composition and structure that reflects ESD or other methods that reference site potential or comparable standard to achieve GRSG and other resource objectives.  Manage for vegetation composition and structure consistent with ecological site potential to achieve GRSG seasonal habitat objectives.  In determining appropriate	MA-GRA-8

marry the best of both D and E here

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<p>2. Numbers of livestock (includes temporary non-use or livestock removal)</p> <p>3. Distribution of livestock use;</p> <p>4. Intensity of use</p> <p>5. Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats)</p>	<p>decisions, allotment management plan/conservation plan development, or other plans or agreements) to modify grazing management to meet seasonal GRSG habitat requirements. Consider singly, or in combination, changes in:</p> <ol style="list-style-type: none"> <li>1. Season, timing, and/or frequency of livestock use</li> <li>2. Numbers/AUMs of livestock (includes temporary non-use or livestock removal)</li> <li>3. Distribution of livestock use</li> <li>4. Intensity of livestock use</li> <li>5. Type of</li> </ol>	<p>management actions (e.g., allotment management plans, term permit renewals, grazing decisions, other agreements) to modify grazing management to meet seasonal GRSG habitat objectives. Consider singly, or in combination, changes in the following:</p> <ol style="list-style-type: none"> <li>1. Rotation systems (e.g., rest rotation, deferred rotation)</li> <li>2. Season or timing of use</li> <li>3. Distribution of livestock use;</li> <li>4. Intensity of use (e.g., objectives for utilization or stubble height)</li> <li>5. Type of livestock (e.g., cattle, sheep, horses, and goats), unless such a change conflicts with other species management</li> <li>6. Class of livestock (e.g., yearlings vs. cow-calf pairs)</li> <li>7. Duration of grazing use and rest periods</li> </ol>	<p>Where time controlled grazing is not an option, moderate use of occupied GRSG habitats will usually leave mosaic or patchy areas where some plants are ungrazed. Managing for moderate utilization levels (40 percent) after the period of rapid vegetation growth may provide enough residual cover for GRSG nesting and early brood-rearing the subsequent spring.</p> <p>Evaluation of GRSG nesting and escape cover must be determined on a site-specific basis.</p> <p>Livestock operations with a small amount of nesting habitat should consider special management activities to protect nesting and early brood-rearing areas. Lighter use of areas may be warranted. In areas with large tracts of contiguous habitat, livestock producers should manage the vegetation on a rotational grazing basis, which may leave 10 - 20 percent of the area ungrazed periodically in combination with deferring or altering timing of grazing in</p>	<p>management actions that will be considered, refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance. This peer reviewed document is the result of a collaborative effort in Wyoming to ensure proper livestock grazing practices with GRSG habitats. It is the culmination of efforts to gather and integrate current knowledge and practices regarding livestock grazing in respect to important GRSG habitats within Wyoming.</p> <p>Use the BLM policy in IM 2009-007 and BLM Handbook H-4180-1 and the equivalent Annual Operating Instructions for the Forest Service to evaluate land health standards achievement in GRSG core habitats and, where not achieved, to determine if existing grazing management practices or levels of grazing use on public lands are causal factors in failing to achieve the standards and conform with the guidelines, which through this process will identify</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
		livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats).		other areas. In areas where GRSG nesting is common, managing for moderate use of plant growth across the landscape would be appropriate. Well-managed ranches with comprehensive grazing strategies that include short-term or duration grazing, higher levels of use may be acceptable, provided these higher levels of use include rested vegetation in nearby areas.	appropriate actions to address non-achievement and non-conformance.		
Livestock grazing program/policy direction allows the BLM/Forest Service to make changes to livestock grazing in response to drought conditions. Changes may include adjusting livestock numbers based on available forage or shortening the season of use.	During drought periods, prioritize evaluating effects of the drought in PPMAs relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought, ensure that post-drought management allows for vegetation recovery that meets GRSG needs in PPMAs.	Alt C1: No similar action.	Alt C2: During drought periods, prioritize evaluating effects of drought in GRSG habitat areas relative to their biological needs, as well as drought effects on ungrazed reference areas. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999; Cagney et al.	During drought periods, prioritize evaluating effects of the drought in PPMAs relative to their needs for food and cover.  Initiate emergency management measures (e.g. delaying turnout, adjusting the amount and/or duration of livestock grazing, implement other terms of the permit) during times of drought to protect GRSG habitat, in accordance with the Resource Management During Drought Handbook (BLM Handbook 1730-1).  Implement post-drought management to allow for vegetation recovery that meets GRSG needs in PPMAs.	No similar action.  so therefore stick with A	In addition to Alternative A, if periods of drought occur, where appropriate, the Authorized Officer will evaluate the season of use and stocking rate and adjust through coordination with grazing permittee/lessee and annual billings processes.	MA-GRA-9

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
		2010), ensure that post-drought management allows for vegetation recovery that meets GRSG needs in GRSG habitat areas based on GRSG habitat objectives.					
Manage, maintain, protect, and restore riparian and wetland areas to the proper functioning condition.	Manage riparian areas and wet meadows for proper functioning condition (Forest Service: or other similar methodology) within PPMAs.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	Same as Alternative B.	Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMA, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.	Same as Alternative A.	MA-GRA-10
Manage, maintain, protect, and restore riparian and wetland areas to the proper functioning condition (or Forest Service equivalent method).	Within PPMAs and PGMA, manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge to minimize elevated mortality during the late brood	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Within GRSG habitats, manage wet meadows to maintain a component of perennial forbs with diverse species richness and productivity relative to site potential (e.g., reference state)	Same as Alternative B.	Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMA, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.	Same as Alternative A.	MA-GRA-11



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
	rearing period.		to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase the amount of edge and cover within that edge to minimize elevated mortality during the late brood-rearing period.				
No similar action.	Where riparian areas and wet meadows meet proper functioning condition (Forest Service – or meet standards using other similar methodology), strive to attain reference state vegetation relative to the ESD.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	No similar action.	Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMAs, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.	Consider the use of range improvement projects to maintain or enhance wet meadows.	MA-GRA-12
Manage rangeland resources to maintain healthy, sustainable, rangeland ecosystems and to restore degraded rangelands in accordance with Utah's Standards for Rangeland Health or standards or guidelines established in	Within PPMAs, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> No similar action.	Within PPMAs, assess livestock grazing in riparian and meadow complexes and ensure recovery or maintenance of appropriate vegetation and water quality. Where recovery or maintenance is not occurring and the causal factor is livestock grazing, reduce pressure on	Continue livestock grazing strategies that have proven effective in maintaining and enhancing GRSG habitat, unless compelling and credible cause-and-effect evidence indicates a disturbance exists.  Address incompatible grazing	Same as Alternative A. If the causal factor of not meeting a standard is due to livestock grazing then follow Executive Order 2013-03.	MA-GRA-13

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
individual Forest Service LRMPs. Rangeland health standards require that riparian areas be managed for proper functioning condition.	to reduce pressure on riparian or wet meadow vegetation used by GRSG in the hot season (summer).		riparian or wet meadow vegetation used by GRSG in the summer by adjusting grazing management practices (e.g., use fencing/herding techniques, or changes in seasonal use or livestock distribution).	strategies through established rangeland management practices consistent with the maintenance or enhancement of habitat.  Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMA, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.			
Consider authorization of new water developments on a case-by-case basis taking into consideration impacts to other resources and resource values.	Authorize new water development for diversion from spring or seep source only when GRSG habitat within PPMAs would benefit from the development. This includes developing new water sources for livestock as part of an allotment management plan/conservation plan to improve GRSG habitat.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Authorize no new water developments for diversion from spring or seep sources within-GRSG habitat.	Limit authorization of new water developments within PPMAs to projects that would have a neutral effect or be beneficial to GRSG habitat (such as by shifting livestock use away from critical areas). New developments that divert surface water must be designed to maintain continuity of predevelopment riparian or wet meadow vegetation and hydrology.	Design water developments to enhance mesic habitat for use by GRSG and maintain adequate vegetation in wet meadows. Within SGMA, GRSG stipulations should take precedence over stipulations for other species if conflicts occur, if otherwise allowable by law.	Continue to authorize water developments in core areas; evaluate all positives and negatives for both upland and riparian habitat.  Plan and authorize range improvement projects on BLM and National Forest System lands in a way that maintains and/or improves GRSG and its habitat within core areas. Analyze through a reasonable range of alternatives any direct, indirect, and cumulative effects of grazing on GRSG and its habitats through the NEPA process.	MA-GRA-14

here let's specifically call out C2, and emphasize that water developments actually help sage grouse

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C		Alternative D	Alternative E1	Alternative E2	
Consider modifications to existing water developments on a case-by-case basis taking into consideration impacts to other resources.	Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within PPMAs. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to GRSG.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Analyze springs, seeps and associated water developments to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within GRSG habitats. Make modifications where necessary, including dismantling water.	Within PPMAs evaluate existing water developments (springs, seeps, etc., and their associated pipelines) to determine if modifications are necessary to maintain or improve riparian areas and GRSG habitat. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to GRSG.	No similar action.  <div style="border: 1px solid red; padding: 5px; color: red;">Could live with D, as long as existing water developments are held harmless, or the water yield capacity of those developments are held harmless</div>	Evaluate existing water developments associated with springs and seeps and modify associated pipelines/structures to those developments having an impact on core areas.	MA-GRA-15
Allow treatments that provide benefits for multiple resources. Additional forage will be appropriate to livestock, wild horses and burros (where applicable), and wildlife.	In PPMAs, only allow treatments that conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock as part of an allotment management plan/ conservation plan to improve GRSG habitat).	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Ensure that vegetation creates landscape patterns which most benefit GRSG. Only allow treatments that are demonstrated to benefit GRSG and retain sagebrush height	In PPMAs, ensure that vegetation and rangeland treatments conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock).	No similar action.	For vegetation treatments in sagebrush within core areas, refer to WGFD <i>Protocols for Treating Sagebrush to Benefit Sage-Grouse</i> (WGFD 2011a, as updated) and IM 2013-128 ( <i>Sage-grouse Conservation Related to Wildland Fire and Fuels Management</i> ).  These recommended protocols will be used in determining whether proposed treatment constitutes a “disturbance” that will	MA-GRA-16

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			and cover consistent with GRSG habitat objectives (this includes treatments that benefit livestock as part of an allotment management plan/ conservation plan to improve GRSG habitat).			contribute toward the 5 percent threshold for habitat maintenance or not. Additionally, these protocols will be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation. Treatments to enhance sagebrush/grasslands habitat for GRSG will be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.  Work collaboratively with partners at the State and local level to maintain and enhance GRSG habitats in a manner consistent with the core population area strategy for conservation.
Most LUPs do not include specific management actions related to seedings.  Plans do include generic decisions that allow maintenance of existing range improvements, which includes maintenance of historical seedings.	Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to PPMAs to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an allotment	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and	Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to PPMAs to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these provide value in conserving or enhancing GRSG	No similar action.  <div style="border: 1px solid red; padding: 5px; color: red;">could live with D, but omit the language about "adjacent" to SGMAs</div>	No similar action.  MA-GRA-17

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>Recently completed LUPs promote use of native species when conducting restoration activities. This would include restoration projects conducted in areas that have perennial grass cover.</p> <p>Older plans do not include a similar management action.</p>	<p>management plan/conservation plan or if they provide value in conserving or enhancing the rest of the PPMA, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments.</p>		<p>adjacent to GRSG habitat to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings provide value in conserving or enhancing GRSG habitats, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat during the land health assessments.</p>	<p>habitats, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat during the land health assessments.</p>		
<p>Consider structural range improvements on a case-by-case basis to provide for livestock grazing while maintaining rangeland health.</p>	<p>In PPMAs, design any new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to:</p>	<p><u>Alt C1:</u> No similar action.</p>	<p><u>Alt C2:</u> Avoid all new structural range developments and location of supplements (salt or protein blocks) in mapped occupied GRSG habitat unless</p>	<p>In PPMAs, design any new structural range improvements to conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, exclosures, corrals or other</p>	<p>Locate livestock fences away from leks and employ the NRCS fence standards (see NRCS/CEAP Conservation Insight Publication “Applying the Sage Grouse Fence Collision Risk Tool to Reduce Bird Strikes.”)</p>	<p>In core areas, continue to evaluate and modify when necessary, existing range improvement (e.g., fences, watering facilities) associated with grazing management operations for impacts on GRSG and its habitat, while recognizing the importance of such structures and activities to meet, maintain or make</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<p>cattleguards, fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.</p>		<p>independent peer-reviewed studies show that the range improvement structure or nutrient supplement placement benefits GRSG. Structural range developments, in this context, include but are not limited to cattleguards, fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species</p>	<p>livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.</p>	<p>progress towards meeting rangeland health standards or ESDs (or Forest Service equivalent).</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
		establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction. Consider the comparative cost of changing grazing management instead of constructing additional range developments.					
Consider modifications to existing structural range improvements on a case-by-case basis taking into consideration impacts to other resources.	In PPMAs, evaluate existing structural range improvements and location of supplements (salt or protein blocks) to make sure they conserve, enhance or restore GRSG habitat.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	In PPMAs, evaluate and assess the need to modify existing improvements to make sure they are neutral, conserve, enhance, or restore GRSG habitat.	No similar action.	In core and non-core areas, continue to evaluate and modify when necessary, existing range improvements (e.g., fences, watering facilities) associated with grazing management operations for impacts on GRSG and its habitat.	MA-GRA-19
No similar action.	To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas within PPMAs based on proximity to lek, lek size, and topography.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Remove, modify or mark fences in areas of moderate or high risk of	Same as Alternative B.  okay with fence removal if done voluntarily by private landowners	Fences should not be located on or adjacent to leks where bird collisions would be expected to occur. Employ NRCS fence collision risk tool (NRCS/CEAP Conservation	In core and non-core, continue to evaluate and modify when necessary, existing range improvements (e.g., fences, watering facilities) associated with grazing management	MA-GRA-20

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2		
			GRSG strikes within GRSG habitat based on proximity to lek, lek size, and topography.		operations for impacts on GRSG and its habitat.		
Implement noxious weed and invasive species control using integrated weed management actions per national guidance and local weed management plans in collaboration with State and Federal agencies, affected counties, and adjoining private lands owners.	In PPMAs, monitor for, and treat invasive species associated with existing range improvements.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	In PPMAs, monitor for and treat noxious weeds and treat invasive species where needed, associated with existing range improvements.	Aggressively respond to new infestations to keeping invasive species from spreading. Every effort should be made to identify and treat new infestations before they become larger problems. Additionally containment of known infestations in or near sagebrush habitats should be a high priority for all land management agencies.	Design all range projects in a manner that minimizes potential for invasive species establishment. Monitor for, and treat invasive species associated with existing range improvements	MA-GRA-21
Consider voluntary relinquishment of grazing permits and preferences, in whole or in part, on a case-by-case basis.	Maintain retirement of grazing privileges as an option in PPMAs when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats in evaluating retirement proposals.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Same as Alternative B.	Within PPMAs, when grazing permits are offered for relinquishment, consider reassigning the available preference and forage allocation if the issuance of a grazing permit implements improved grazing management practices that will enhance and restore GRSG habitat.	No similar action.	Within core areas, incorporate GRSG habitat objectives and management considerations into all BLM and Forest Service grazing allotment management plans or permit renewals and/or Forest Service Annual Operating Instructions.  When livestock grazing permits and/or grazing preference are voluntarily relinquished in portions of or all of an allotment, determine appropriate grazing management including consideration of closure to	MA-GRA-22

say no to altogether to relinquishment of grazing permits, urge no action under A



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
					livestock grazing, based on soil, vegetation and other resources.  Temporary use may be allowed in allotments where grazing preference has been relinquished or non –use warrants, to rest other allotments that include important GRSG habitat.	
No similar action.	No similar action.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Establish and maintain sufficiently large areas free of livestock as reference areas to aid in describing ecological site potential and as a measure of the comparative effects of livestock grazing—and relief from livestock grazing—on GRSG populations.	No similar action.	No similar action.	MA-GRA-23
No similar action.	No similar action.	<u>Alt C1:</u> No similar action.	<u>Alt C2:</u> Any vegetation treatment plan must include	No similar action.	No similar action.	MA-GRA-24

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring where treated areas are monitored for at least 3 years before grazing returns. Continue monitoring for 5 years after livestock are returned to the area, and compare to treated, ungrazed exclosures, as well as untreated areas.</p>			
<p>While most plans are silent on trailing decisions, some include language such as “encourage the avoidance of suitable habitats and known populations of all special status species during herding, trailing...”</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>Livestock trailing that is authorized through crossing permits will include a trailing plan that is designed to avoid sensitive areas and/or time periods for GRSG. The plan will include specific routes and timeframes for trailing.</p> <p>MA-GRA-25</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<b>RECREATION</b>						
Consider BLM special recreation permits (SRPs) and Forest Service recreation special use permits (SUPs) on a case-by-case basis. Consider measures that will minimize impacts to important resources or resource values.	Only allow BLM SRPs and Forest Service recreation SUPs in PPMAs that have neutral or beneficial effects to PPMAs.	Only allow BLM SRPs and Forest Service recreation SUPs that have demonstrated neutral or beneficial affects to mapped occupied habitat areas.	<p>Only allow BLM SRPs and Forest Service recreation SUPs in PPMAs that have neutral or beneficial effects to PPMAs.</p> <p>Evaluate existing SRPs/and Forest Service recreation SUPs for adverse effects to GRSG and their habitat. Modify or cancel the permit, as appropriate and where possible to avoid or mitigate effects of habitat alterations or other physical disturbances to GRSG (e.g., breeding, brood-rearing, migration patterns, or winter survival).</p> <p>Identify permit stipulations that require the permittee to implement any necessary habitat restoration activities after SRP events. Restoration activities must be consistent with GRSG habitat objectives as determined by the BLM field office/National Forest in collaboration with the State of Utah.</p>	<p>Limit or ameliorate impacts from recreation activities through the use of the following stipulations:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> <li>• Avoid activities (construction, vehicle noise, etc.) in the following</li> </ul>	In addition to Alternative A, allow Forest Service recreation SUPs in core areas unless negative impacts to GRSG cannot be adequately mitigated.	MA-REC-1
						so long as all of these are actually consistent with and taken from the written State Plan

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>seasons and habitats:</p> <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>○ In winter habitat from Nov 15 – Mar 15.</li> <li>○ Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> <li>● Avoid disturbance within SGMA (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>● If avoidance in SGMA is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian</li> </ul>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				<ul style="list-style-type: none"> <li>vegetation).</li> <li>After minimization, mitigation is required (see mitigation section).</li> <li>Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA.</li> <li>Manage SGMAs to avoid barriers to migration, if applicable.</li> </ul>		
No similar action.	No similar action.	Seasonally prohibit camping and other non-motorized recreation within 4 miles of occupied GRSG leks.	No similar action.	No similar action.	No similar action.	MA-REC-2
<b>COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT</b>						
<p>Manage OHV use in GRSG habitat as follows (Map 2.44, OHV Area Designations–Alternative A):</p> <ul style="list-style-type: none"> <li>Open to cross-country use: 797,000 acres</li> <li>Limited to existing routes: 437,400 acres</li> <li>Limited to designated routes: 1,217,700 acres</li> <li>Closed: 32,200 acres</li> <li>No decision mapped: 15,100 acres</li> <li>Forest Service: 814,400 acres (the Forest Service does not use similar OHV management categories).</li> </ul>	<p>Manage OHV use in GRSG habitat as follows (Map 2.45, OHV Area Designations–Alternative B):</p> <ul style="list-style-type: none"> <li>Open to cross-country use: 34,600 acres</li> <li>Limited to existing routes: 1,213,500 acres</li> <li>Limited to designated routes: 1,217,700 acres</li> <li>Closed: 32,200 acres</li> <li>No decision mapped: 1,400 acres</li> <li>Forest Service: 814,400 acres (the Forest Service does not use similar OHV management categories).</li> </ul>	<p>Manage OHV use in GRSG habitat as follows (Map 2.46, OHV Area Designations–Alternative C):</p> <ul style="list-style-type: none"> <li>Open to cross-country use: 0 acres</li> <li>Limited to existing routes: 1,016,700 acres</li> <li>Limited to designated routes: 927,000 acres</li> <li>Closed: 555,700 acres</li> <li>No decision mapped: 0 acres</li> <li>Forest Service: 814,400 acres (the Forest Service does not use similar OHV management categories. OHV use on National Forest</li> </ul>	<p>Manage OHV use in GRSG habitat as follows (Map 2.47, OHV Area Designations–Alternative D):</p> <ul style="list-style-type: none"> <li>Open to cross-country use: 0 acres</li> <li>Limited to existing routes: 1,249,500 acres</li> <li>Limited to designated routes: 1,217,700 acres</li> <li>Closed: 32,200 acres</li> <li>No decision mapped: 0 acres</li> <li>Forest Service: 814,400 acres (the Forest Service does not use similar OHV management categories. OHV use on National Forest Lands within</li> </ul>	<p>Manage OHV use in GRSG habitat as follows (Map 2.48, OHV Area Designations–Alternative E):</p> <ul style="list-style-type: none"> <li>Open to cross-country use: 351,700 acres</li> <li>Limited to existing routes: 888,000 acres</li> <li>Limited to designated routes: 1,217,700 acres</li> <li>Closed: 32,200 acres</li> <li>No decision mapped: 9,800 acres</li> <li>Forest Service: 814,400 acres (the Forest Service does not use similar OHV management categories).</li> </ul>	<p>All acres of the planning area in Wyoming are National Forest System lands. The Forest Service does not use similar OHV management categories to the BLM’s. OHV use on National Forest System Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process. As such, all acres of the planning area within Wyoming are included in the Alternative E1 bullet that addresses the Forest Service.</p>	MA-TTM-1

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
OHV use on National Forest Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.)	OHV use on National Forest Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.)	Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.)	the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.)	OHV use on National Forest Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.)		
Under current management, there are no PPMAs.  OHV use will be managed as identified in the area-designations above.	In PPMAs, limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.	Same as Alternative B.  <div style="border: 1px solid red; padding: 5px; color: red; width: fit-content; margin: 10px auto;">as always our agreement with D is contingent on using the proper maps</div>	PPMAs and PGMAs that do not have designated routes in a Travel Management Plan would be managed at least as limited to existing routes (i.e., could maintain existing OHV closures) until a Travel Management Plan designates routes.  PPMAs that have undergone Travel Management Planning with route designation would be managed at least as limited to designated routes (i.e., would maintain existing OHV closures). In these areas, existing route designations would be reviewed and adjusted through future travel management planning efforts where impacts to GRSG from route presence or use may exist.	SGMAs with nesting and winter habitat that do not have designated routes in a Travel Management Plan would be managed at least as limited to existing routes (i.e., could maintain existing OHV closures) until a Travel Management Plan designates routes.  SGMAs with nesting and winter habitat that have undergone Travel Management Planning with route designation would be managed at least as limited to designated routes (i.e., could maintain existing OHV closures). In these areas, existing route designations would be reviewed and adjusted where impacts to GRSG from route presence or use may exist.	All acres of the planning area in Wyoming are National Forest System lands. The Forest Service does not use similar OHV management categories to the BLM's. OHV use on National Forest System Lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.	MA-TTM-2
Under current management there are no designated PPMAs.	In PPMAs, travel management should evaluate the need for permanent or seasonal road closures.	Close approximately 555,700 acres of mapped occupied habitat to OHV use. In addition, during	During implementation-level travel planning, threats to GRSG and their habitat would be considered when evaluating	No similar action.  <div style="border: 1px solid red; padding: 5px; color: red; width: fit-content; margin: 10px auto;">essentially saying stick with No Action</div>	No similar action.	MA-TTM-3

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
No similar action. Under current policy, the need for permanent or seasonal road closures is evaluated during travel management planning.		implementation-level travel planning, consider additional route closures.	route designations and/or closures.			
Consider route and trail modifications (new or existing) on a case-by-case basis.  Identify travel management areas and prioritize travel management planning in areas where it would provide the most resource benefit.	Complete activity level plans within 5 years of the ROD. During activity level planning, where appropriate, designate routes in PPMAs with current administrative/agency purpose or need to administrative access only.	Same as Alternative B.	Complete transportation plans in accordance with National BLM Travel Management guidance, requiring the BLM to maintain a current action plan and planning schedule to most effectively target available resources. The following GRSG population areas are Utah's top priority areas to designate comprehensive travel plans: <ul style="list-style-type: none"> <li>• Sheeprocks</li> <li>• Bald Hills</li> <li>• Box Elder</li> <li>• Rich</li> <li>• Ibapah</li> <li>• Hamlin Valley</li> </ul>	<del>Counties should adopt and enforce travel management plans that include consideration for GRSG.</del>  rewrite this to support the principle that counties' travel management plans do NOT yield to greater sage grouse restrictions.	All acres of the planning area in Wyoming are National Forest System lands. The Forest Service does not use similar OHV management categories to the BLM's. OHV use on National Forest System lands within the planning area is limited to roads, trails, and areas that have been designated through a transportation planning process.	MA-TTM-4
Under current management there are no designated PPMAs.  Consider route and trail modifications (new or existing) on a case-by-case basis using the designation criteria.	In PPMAs, limit route construction to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety.	Limit route construction to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any impacts to offset the loss of GRSG habitat.	Travel systems would be managed with an emphasis on improving the sustainability of the travel network in a comprehensive manner to minimize impacts to GRSG, maintain motorist safety, and prevent unauthorized cross country travel while meeting access needs. To do so, it may be necessary to improve portions of existing routes, close existing routes or create	No similar action.	Construct roads to minimum design standards needed for production activities within core areas.	MA-TTM-5

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			new routes that meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within PPMAs would be placed on having a neutral or positive effect on GRSG habitat.			
No similar action. Allow upgrades to existing roads on a case-by-case basis subject to site-specific environmental review.	In PPMAs, allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on GRSG habitat, is necessary for motorist safety, or eliminates the need to construct a new road.	Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless it is necessary for motorist safety, or eliminates the need to construct a new road. Any impacts shall be mitigated with methods that have been demonstrated to be effective to offset the loss of GRSG habitat.	In PPMAs, when considering upgrade of existing routes that would change route category (BLM route category: road, primitive road, or trail; Forest Service route category: level 1, level 2, or level 3) or capacity, consider the larger transportation network while providing for protection of GRSG habitat.	No similar action.	Within core areas, allow no upgrading of existing routes that would change route category (BLM route category: road, primitive road, or trail; Forest Service route category: level 1, level 2, or level 3) or capacity unless the upgrading would have minimal impact on GRSG in core areas, is necessary for motorist safety, or eliminates the need to construct a new road.	MA-TTM-6
All LUPs include management actions that encourage the administrating agency to follow BMPs that reduce or minimize the impacts of development, including use of existing roads where possible.	In PPMAs, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMAs. If that disturbance exceeds 3 percent for that area, then	Prohibit new road construction in mapped occupied GRSG habitat within 4 miles of occupied GRSG leks, and avoid new road construction in mapped occupied GRSG habitat.  In mapped occupied habitat, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing	In PPMAs, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMAs. Apply additional effective mitigation necessary to offset the resulting loss of GRSG habitat. Plan for	No similar action.	In core areas, limit route construction to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety.  New primary and secondary roads would avoid areas within 1.9 miles of the perimeter of occupied GRSG leks within core areas.	MA-TTM-7



**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E1</b>	<b>Alternative E2</b>	
	make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.	rights cannot be accessed via existing roads, then, following the 4-mile prohibition from leks, build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMAs. If that disturbance exceeds 3 percent for that area, then make additional, mitigation necessary to offset the resulting loss of GRSG habitat.	new routes in consideration of the larger transportation network objectives and needs while providing for protection of GRSG habitat.		Other new roads would avoid areas within 0.6-mile of the perimeter of occupied GRSG leks within core areas.	
No similar action. The need for restoration of linear disturbances (unauthorized routes) is identified during the implementation-level travel management process or on a case-by-case basis.	In PPMAs, conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected for protection.	Same as Alternative B.	In PPMAs, conduct restoration of roads, primitive roads and trails not designated for motorized or non-motorized travel in travel management plans.	No similar action.	Within core areas, allow natural deterioration of roads or conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected to be managed to retain those characteristics for protection.	MA-TTM-8
When reseeding roads, primitive roads and trails use appropriate seed mixes and consider the use of transplanted sagebrush.	When reseeding roads, primitive roads and trails in PPMAs, use appropriate seed mixes and consider the use of transplanted sagebrush.	When reseeding closed roads, primitive roads and trails, use appropriate native seed mixes and require the use of transplanted sagebrush.	Same as Alternative B.	No similar action.	Within GRSG habitats, when reseeding, use appropriate seed mixtures and consider the use of transplanted sagebrush.	MA-TTM-9
No similar action.	No similar action.	No similar action.	No similar action.	Develop an educational process to advise OHV users of the potential for conflict with GRSG.	No similar action.	MA-TTM-10

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<b>LANDS AND REALTY</b>					
<p>Manage BLM ROWs and Forest Service special use authorizations (SUAs) in GRSG habitat as follows (Map 2.7, ROW Avoidance and Exclusion Areas–Alternative A):</p> <ul style="list-style-type: none"> <li>• Open: 3,219,000 acres</li> <li>• Avoided: 67,200 acres</li> <li>• Excluded: 27,600 acres</li> </ul> <p>Manage ROWs/SUAs outside of GRSG habitat but in population areas as follows (Map 2.7):</p> <ul style="list-style-type: none"> <li>• Open: 2,344,400 acres</li> <li>• Avoided: 50,800 acres</li> <li>• Excluded: 74,900 acres</li> </ul>	<p>Manage BLM ROWs and Forest Service SUAs in GRSG habitat as follows (Map 2.8, ROW Avoidance and Exclusion Areas–Alternative B):</p> <ul style="list-style-type: none"> <li>• Open: 529,600 acres</li> <li>• Avoided: 0 acres</li> <li>• Excluded: 2,784,200 acres</li> </ul> <p>Manage ROWs/SUAs outside of GRSG habitat but in population areas the same as Alternative A.</p>	<p>Manage BLM ROWs and Forest Service SUAs in GRSG habitat as follows (Map 2.9, ROW Avoidance and Exclusion Areas–Alternative C):</p> <ul style="list-style-type: none"> <li>• Open: 0 acres</li> <li>• Avoided: 0 acres</li> <li>• Excluded: 3,313,800 acres</li> </ul> <p>Manage ROWs/SUAs outside of GRSG habitat but in population areas the same as Alternative A.</p>	<p>Manage BLM ROWs and Forest Service SUAs in GRSG habitat as follows:</p> <p><u>Above-Ground Linear ROWs/SUAs</u> (Map 2.10, Avoidance and Exclusion Areas for Above Ground Linear ROWs–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 522,600 acres</li> <li>• Avoided – 1,368,900 acres</li> <li>• Excluded – 1,422,300 acres</li> </ul> <p><u>Underground/Surface Linear ROWs/SUAs</u> (Map 2.11, Avoidance and Exclusion Areas for Surface and Underground ROWs–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 532,000 acres</li> <li>• Avoided – 2,754,200 acres</li> <li>• Excluded – 27,600 acres</li> </ul> <p><u>Above-Ground Site-Type ROWs/SUAs (non-wind or solar)</u> (Map 2.12, Avoidance and Exclusion Areas for Above Ground Site Types–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 531,900 acres</li> <li>• Avoided – 2,562,000 acres</li> <li>• Excluded – 219,900 acres</li> </ul>	<p>Manage BLM ROWs and Forest Service SUAs in GRSG habitat as follows (Map 2.13, ROW Avoidance and Exclusion Areas–Alternative E):</p> <ul style="list-style-type: none"> <li>• Open: 632,200 acres</li> <li>• Avoided: 2,654,000 acres</li> <li>• Excluded: 27,600 acres</li> </ul> <p>Manage ROWs/SUAs outside of GRSG habitat but in population areas as follows (Map 2.13, ROW Avoidance and Exclusion Areas–Alternative E):</p> <ul style="list-style-type: none"> <li>• Open: 2,292,000 acres</li> <li>• Avoided: 103,200 acres</li> <li>• Excluded: 74,900 acres</li> </ul>	<p>MA-LAR-1</p>

to the extent consistent with the actual State plan

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>Manage ROWs outside of GRS habitat but in population areas as follows:</p> <p><u>Above-Ground Linear ROWs/SUAs</u>                      (Map 2.10, Avoidance and Exclusion Areas for Above Ground Linear ROWs–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 1,925,900 acres</li> <li>• Avoided – 462,500 acres</li> <li>• Excluded – 81,700 acres</li> </ul> <p><u>Underground/Surface Linear ROWs/SUAs</u>                      (Map 2.11, Avoidance and Exclusion Areas for Surface and Underground ROWs–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 2,337,000 acres</li> <li>• Avoided – 58,200 acres</li> <li>• Excluded – 74,900 acres</li> </ul> <p><u>Above-Ground Site-Type ROWs/SUAs (non-wind or solar)</u>                      (Map 2.12, Avoidance and Exclusion Areas for Above Ground Site Types–Alternative D)</p> <ul style="list-style-type: none"> <li>• Open – 2,337,100 acres</li> <li>• Avoided – 51,700 acres</li> <li>• Excluded – 81,300 acres</li> </ul>		

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>No similar action.</p>	<p>All ROWs/SUAs in PPMAs                      Make PPMAs exclusion areas for new ROWs/SUAs.</p>	<p>All ROWs/SUAs in PPMAs                      Mapped occupied GRSG habitat areas shall be exclusion areas for new ROWs/SUAs.</p>	<p>Above-Ground Linear ROWs/SUAs (e.g., transmission lines, distribution lines, telephone lines):                      PPMAs within 4 miles of an occupied lek, if the lek is located within a PPMA, would be designated as an exclusion area for new above-ground linear ROWs/SUAs, unless there is a designated corridor present.</p> <p>PPMAs beyond 4 miles of an occupied lek, if the lek is located within a PPMA, would be designated as an avoidance area for new above-ground linear ROWs/SUAs. Development within the avoidance areas could occur if:</p> <ul style="list-style-type: none"> <li>• the GRSG population trend within the disturbance calculation area is stable;</li> <li>• the development meets noise restrictions;</li> <li>• the development meets tall structure restrictions;</li> <li>• the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</li> <li>• mitigation is implemented to offset impacts to GRSG and their habitats (see mitigation</li> </ul>	<p>All ROWs/SUAs in Habitat within SGMAs                      Management stipulations and conditions should focus on mitigating direct disturbance during construction. Should new research demonstrate indirect impacts to GRSG production, additional mitigation measures may be required.</p> <p>SGMAs would be designated as an avoidance area for new ROWs/SUAs. Apply stipulations as follows, as well as BMPs accepted by industry and state and federal agencies:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day</li> </ul>	<p>All SUAs in Core Habitat                      GRSG core areas would be managed as an exclusion area for new SUAs.</p>	<p>MA-LAR-2</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>decision in the GRSG section); and</p> <ul style="list-style-type: none"> <li>the development does not exceed the 5 percent disturbance limit.</li> </ul> <p>Areas outside PPMA's but within 1 mile of an occupied lek, if the lek is located within a PPMA would be designated as an exclusion area for new above-ground linear ROWs/SUAs.</p> <p>Areas outside PPMA's and between 1 and 4 miles of an occupied lek, if the lek is located within a PPMA, would require surveys for GRSG habitat in areas that ecologically could provide GRSG habitat. If the area is determined to provide habitat that contributes to GRSG life-cycle, the area would be designated as an exclusion area. If inventories do not identify GRSG habitat, the area would be designated as an avoidance area (to address indirect impacts) for new ROWs/SUAs. Development within the avoidance areas could occur if:</p> <ul style="list-style-type: none"> <li>the development meets noise restrictions; and</li> <li>the development meets tall structure restrictions.</li> </ul>	<p>stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</p> <ul style="list-style-type: none"> <li>Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:                             <ul style="list-style-type: none"> <li>On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>In winter habitat from Nov 15 – Mar 15.</li> </ul> </li> <li>Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> <li>Avoid disturbance within SGMA's, if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>If avoidance in SGMA's is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen</li> </ul>	<div style="border: 1px solid red; padding: 5px; color: red;">                     go with state's lek restrictions feb - may, but go with fed's nesting and brood rearing restrictions that end in July                 </div>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p><u>Above-Ground Site-Type ROWs/SUAs (not wind/solar) (e.g., communication towers, cell towers):</u></p> <p>Areas outside PPMA's but within 1 mile of an occupied lek that is located within a PPMA would be designated as an exclusion area for new above-ground site-type ROWs/SUAs (excluding wind or solar).</p> <p>PPMA's beyond 1 mile of an occupied lek, if the lek is located within a PPMA, would be designated as an avoidance area for new above-ground site-type ROWs/SUAs. Development within the avoidance areas could occur if:</p> <ul style="list-style-type: none"> <li>• the development meets noise restrictions;</li> <li>• the development meets tall structure restrictions;</li> <li>• the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</li> <li>• mitigation is implemented to offset impacts to GRSG and their habitats (see mitigation decision in the GRSG section); and</li> <li>• the development does not</li> </ul>	<p>the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</p> <ul style="list-style-type: none"> <li>• After minimization, mitigation is required (see mitigation section).</li> <li>• Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within the SGMA's.</li> <li>• Manage SGMA's to avoid barriers to migration, if applicable.</li> </ul> <p>Engage in reclamation efforts as projects are completed.</p> <p>Recognize that stipulations for other species (e.g. raptors) may impede the ability to effectively reclaim disturbed areas, and remove those barriers in order to achieve immediate and effective reclamation, if otherwise allowable by law.</p>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>exceed the 5 percent disturbance limit.</p> <p>Exceptions to the avoidance area could be granted by the Authorized Officer if the new ROW/SUA were constructed entirely within the footprint of an existing site-type ROW/SUA or an existing designated communication site, if the new development meets noise restrictions, and if the development does not occur during sensitive seasonal periods.</p> <p><u>Underground/On-Ground ROWs/SUAs (e.g., buried and surface pipelines, roads)</u>                      PPMAs would be designated as an avoidance area for new permanent underground and on-ground linear ROWs/SUAs. Development within the avoidance areas could occur if:</p> <ul style="list-style-type: none"> <li>• the GRSG population trend within the disturbance calculation area is stable;</li> <li>• the long-term development meets noise restrictions;</li> <li>• there are no above ground structures or operational facilities associated with the ROW/SUA;</li> <li>• the construction of the</li> </ul>		

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</p> <ul style="list-style-type: none"> <li>mitigation is implemented to offset impacts to GRSG and their habitats (see mitigation decision in the GRSG section); and</li> <li>the surface disturbance from the development does not exceed the 5 percent disturbance limit.</li> </ul>			
<p>No similar action.</p>	<p>Consider the following exceptions:</p> <ul style="list-style-type: none"> <li>Within designated ROW/SUA corridors encumbered by existing ROW/SUA authorizations: new ROWs may be co-located only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs/SUAs.</li> <li>Subject to valid, existing rights: where new ROWs/SUAs associated with valid existing rights are required, co-locate new ROWs within existing</li> </ul>	<p>Consider the following exceptions:</p> <ul style="list-style-type: none"> <li>In mapped occupied GRSG habitat within 4 miles of active GRSG leks, there would be no exceptions to the exclusion area, unless legally required.</li> <li>In mapped occupied GRSG habitat beyond 4 miles of active GRSG leks, subject to valid, existing rights: where new ROWs/SUAs associated with valid existing rights are required, co-locate new ROWs within existing ROWs or where it best minimizes GRSG impacts. Use existing roads, or realignments as described above, to access valid</li> </ul>	<p>The BLM may grant new FLPMA Title 5 ROWs for existing roads within PPMA's so long as the road would remain in the existing condition and same physical location (as is, where is), unless a realignment would benefit GRSG. Seasonal restrictions (breeding and nesting, brood rearing, winter) would be placed on maintenance of new Title 5 ROWs to minimize disruption of GRSG, subject to the exceptions noted in the Special Status Species section.</p> <p>Where new ROWs/SUAs associated with valid existing rights are required within a PPMA, co-locate new ROWs as close as technically possible to</p>	<p>For electrical transmission lines, and where feasible and consistent with federally required electrical separation standards, site new linear transmission features in existing corridors, or at a minimum, in concert with existing linear features in GRSG habitat. Siting linear features accordingly shall be deemed to be mitigation for the siting of that linear feature. Mitigation for the direct effects of construction is still required.</p>	<p>Consider the following exceptions:</p> <p>Existing designated ROW/SUA corridors crossing core areas could be retained in the following circumstance:</p> <ul style="list-style-type: none"> <li>New SUAs may be issued in existing designated corridors for buried utilities with appropriate GRSG seasonal timing constraints applied.</li> </ul>	<p>MA-LAR-3</p>



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
	<p>ROWs or where it best minimizes GRSG impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMA. If that disturbance exceeds 3 percent for that area, then make additional effective mitigation necessary to offset the resulting loss of GRSG.</p>	<p>existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMA. If that disturbance exceeds 3 percent for that area, then make additional mitigation that has been demonstrated to be effective to offset the resulting loss of GRSG habitat.</p>	<p>existing ROWs or where it best minimizes GRSG impacts. Use existing roads, or realignments as described above, to access valid existing rights within PPMA that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the PPMA. If that disturbance exceeds 5 percent for that area, then make additional effective mitigation necessary to offset the resulting loss of GRSG.</p>			
<p>Designate ROW corridors within GRSG habitat as identified on Map 2.14, Designated ROW Corridors–Alternative A (177,700 acres)</p>	<p>Designate ROW corridors as identified on Map 2.15, Designated ROW Corridors–Alternative B (130,200 acres). Undesignate ROW corridors that currently do not have any ROWs authorized in them (47,500 acres).</p>	<p>Undesignate all designated ROW corridors within GRSG mapped occupied habitat as identified on Map 2.16, Designated ROW Corridors–Alternative C. New ROWs are excluded from GRSG mapped occupied habitat.</p>	<p>Designate ROW corridors as identified on Map 2.17, Designated ROW Corridors–Alternative D :</p> <ul style="list-style-type: none"> <li>• Retain 89,400 acres of existing designated ROW corridor</li> <li>• Retain 48,400 acres of existing designated ROW corridor, but stipulate new developments be limited to underground use only</li> <li>• Undesignate 39,700 acres of existing designated ROW corridor</li> </ul>	<p>No similar action.</p> <div style="border: 1px solid red; padding: 5px; color: red; width: fit-content; margin: 10px auto;"> <p>study both maps, 2.14 and 2.17 and take the one that is less restrictive, alt D or alt A</p> </div>	<p>Within GRSG core areas new transmission projects would be considered where it can be demonstrated that declines in GRSG populations could be avoided through project design and/or mitigation (e.g., raptor perch and nest deterrents). In conducting review of powerline transmission proposals, the use of the Framework for Sage-Grouse Impacts Analysis for Interstate Transmission Lines or other appropriate documents, is necessary.</p>	<p>MA-LAR-4</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<ul style="list-style-type: none"> <li>Designate 31,700 acres as new designated ROW corridor (where new corridors would be designated, there are existing lines or disturbance already in place)</li> </ul> <p>While new ROWs can be developed within designated ROW corridors, the preference is to avoid GRSG habitat altogether. If this is not possible, development will be limited to the designated corridors.</p> <p>New designated corridors within PPMAs will not exceed 3,500 feet in width. New above-ground ROWs within designated corridors will be constructed as close as technically feasible to existing above-ground lines to limit disturbance to the smallest footprint. Mitigation will be required for construction of new lines in designated corridors located in GRSG habitat in PPMAs.</p>		<p>New transmission projects would be allowed within 1/2 mile on either side of existing 115 kilovolt or larger transmission lines creating a corridor no wider than 1 mile. Construction should occur between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas).</p>	
No similar action.	Evaluate and take advantage of opportunities, to remove, bury, or modify existing power lines within PPMAs.	Same as Alternative B.	During renewal, amendment, or reauthorization of existing permits, evaluate and where appropriate, work with existing ROW holders to modify existing power lines within	No similar action.	Maintenance/replacement of existing structures would be allowed subject to valid and existing rights. Upgrades would be considered, subject to mandatory BMPs.	MA-LAR-5

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			PPMA to mitigate impacts of existing powerlines, taking into account the potential impacts of the mitigation (relocation, burying, etc.) with the existing impacts of the line.		Any new or replaced powerline or powerpole will be fitted with anti-perching devices.	
All LUPs include management actions that require reclamation/restoration of disturbed areas that are no longer used in support of authorized actions.	Where existing leases or ROWs/SUAs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat.	Same as Alternative B.	Same as Alternative B.  <span style="border: 1px solid red; padding: 2px;">So go with A</span> →	No similar action.	Same as Alternative B.	MA-LAR-6
No similar action.	All ROWs/SUAs: Make PGMAs “avoidance areas” for new ROWs/SUAs.	No similar action.	All ROWs/SUAs: PGMAs within 1 mile of an occupied lek, if the lek is located within a PGMA, would be designated as an avoidance area for new ROWs (Maps 2.10, Avoidance and Exclusion Areas for Above Ground Linear ROWs–Alternative D, Map 2.11, Avoidance and Exclusion Areas for Surface and Underground ROWs–Alternative D, and Map 2.12, Avoidance and Exclusion Areas for Above Ground Site Types–Alternative D). Development within the avoidance areas could occur if: <ul style="list-style-type: none"> <li>the development (during construction and after) meets noise restrictions;</li> <li>the structures remaining after development meet tall</li> </ul>	GRSG habitat outside SGMAs would not be managed for the conservation of the species. No specific management actions are provided for this habitat.	All SUAs: Noncore areas would be managed as SUA avoidance areas for new SUAs, except for areas currently managed as SUA exclusion areas.  Develop criteria that would be used to determine if a proposed SUA could be sited in an avoidance area or not.	MA-LAR-7

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			structure restrictions; • mitigation is implemented to offset impacts to GRSG and their habitats (see mitigation decision in the GRSG section); and • the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter).  PGMAs within and beyond the 1 mile avoidance area would require discussion with the State of Utah during project implementation, and implementation of BMPs (e.g., anti-perch devices for raptors).  The avoidance area could be waived, except for the seasonal restrictions, if off-site mitigation coordinated with BLM/Forest Service and the State of Utah is successfully completed in PPMAs.			
Most LUPs include a management action that encourages placement of new ROWs in designated utility corridors and/or co-location of new ROWs adjacent to existing ROWs.	Where new ROWs/SUAs are necessary in PGMAs, co-locate new ROWs/SUAs within existing ROWs/SUAs, where possible.	No similar action.	Same as Alternative B.	GRSG habitat outside SGMAs would not be managed for the conservation of the species. No specific management actions are provided for this habitat.	Same as Alternative B.	MA-LAR-8
<u>Land Tenure (BLM land only):</u> Make approximately 24,400	<u>Land Tenure (BLM land only):</u> Retain public ownership of	<u>Land Tenure (BLM land only):</u> Same as Alternative B, without	<u>Land Tenure (BLM land only):</u> Retain public ownership of	<u>Land Tenure (BLM land only):</u> No similar action.	Same as Alternative B, except no specific acreages would	MA-LAR-9

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>acres of land within in GRSG habitat available for FLPMA Section 203 sale (Map 2.18, Land Tenure Adjustments–Alternative A).</p> <p>In order to be considered for any form of land tenure adjustment, all lands not specifically identified for disposal must meet criteria included in FLPMA and in each LUP.</p>	<p>PPMA. Consider exceptions where there is mixed ownership, and land tenure adjustments would allow for additional or more contiguous federal ownership patterns within PPMA.</p> <p>Under PPMA with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure consideration should be given to pursuing a permanent conservation easement.</p> <p>For BLM lands, approximately 5,490 acres of PGMA would still be available for disposal through FLMPA Section 203 sale (Map 2.19, Land Tenure Adjustments–Alternative B).</p>	<p>exceptions for disposal to consolidate ownership that would be beneficial to GRSG. No BLM or National Forest System lands within mapped occupied habitat would be available for land tenure adjustments (Map 2.20, Land Tenure Adjustments–Alternative C).</p>	<p>PPMA. Consider exceptions where there is mixed ownership, and land tenure adjustments would allow for additional or more contiguous federal ownership patterns within PPMA, so long as potential land tenure adjustments benefit GRSG, and do not negatively impact other federally listed threatened or endangered species.</p> <p>Under PPMA with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land.</p> <p>For BLM lands, approximately 5,540 acres of PGMA would still be available for disposal through FLMPA Section 203 sale (Map 2.21, Land Tenure Adjustments–Alternative D).</p>	<p>Policy on land acquisition by feds is no net gain of federal land</p>	<p>apply.</p>	
<p>Most LUPs include a management action that allows for acquisition of lands that have important resource values including crucial wildlife habitat and land tenure adjustments to improve the manageability of public lands.</p>	<p>Where suitable conservation actions cannot be achieved in PPMA, seek to acquire state and private lands with intact federal mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore GRSG habitat.</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative B.</p> <p>so go with alt A →</p>	<p>No similar action.</p>	<p>Utilize GRSG habitat requirements for acquisition within core areas.</p>	<p>MA-LAR-10</p>
<p><u>Withdrawal:</u> Recommend approximately</p>	<p><u>Withdrawal:</u> Recommend federal lands and</p>	<p><u>Withdrawal:</u> Recommend federal lands and</p>	<p><u>Withdrawal:</u> Do not recommend additional</p>	<p><u>Withdrawal:</u> Same as Alternative D.</p>	<p><u>Withdrawal:</u> Recommend withdrawal from</p>	<p>MA-LAR-11</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
498,700 acres of federal lands and non-federal lands with federal mineral interests within GRSG habitat for mineral withdrawal (Map 2.22, Locatable Mineral Withdrawals–Alternative A).	non-federal lands with federal mineral interests within PPMAs for mineral withdrawal (3,650,900 acres of new Recommended withdrawals) (Map 2.23, Locatable Mineral Withdrawals–Alternative B).	non-federal lands with federal mineral interests within mapped occupied GRSG habitat for mineral withdrawal (4,008,580 acres) (Map 2.24, Locatable Mineral Withdrawals–Alternative C).	federal lands or non-federal lands with federal mineral interests within PPMAs or PGMA for locatable mineral withdrawal.		mineral entry based on risk to the GRSG and its habitat in core areas from conflicting locatable mineral potential and development, and the ability to meet the Density Disturbance Calculation Tool thresholds.	
No similar action.	In PPMAs, do not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example; in a recommended withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures.)	Do not approve withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example, in a recommended withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures that have been demonstrated to be effective, or according to the joint BLM-DOD management.)	No similar action.	No similar action.	Recommend withdrawal proposals not associated with mineral activity, assessing the need to protect GRSG habitat versus the recommended withdrawal activity.	MA-LAR-12
<p><u>Wind Energy Development</u> Evaluate wind energy development on a case-by-case basis, subject to other ROW/SUA management decisions.</p> <p>Manage ROWs/SUAs in GRSG habitat as follows (Map 2.7, ROW Avoidance and Exclusion Areas–Alternative A):</p> <ul style="list-style-type: none"> <li>• Open: 3,219,000 acres</li> <li>• Avoided: 67,200 acres</li> <li>• Excluded: 27,600 acres</li> </ul>	<p><u>Wind Energy Development</u> Make PPMAs exclusion areas for new leases or ROWs/SUAs permits (2,781,700 acres) (Map 2.8, ROW Avoidance and Exclusion Areas–Alternative B).</p>	<p><u>Wind Energy Development</u> Do not site wind energy development in mapped occupied GRSG habitat (3,313,800 acres) (Map 2.9, ROW Avoidance and Exclusion Areas–Alternative C).</p>	<p><u>Wind Energy Development</u> PPMAs would be designated as exclusion areas for wind energy development (2,760,300 acres) (Map 2.25, Avoidance and Exclusion Areas for Wind Energy–Alternative D).</p> <p>Manage wind energy development in GRSG habitat as follows (Map 2.25, Avoidance and Exclusion Areas for Wind Energy–Alternative D):</p> <ul style="list-style-type: none"> <li>• Open – 522,500 acres</li> <li>• Avoided – 9,400 acres</li> </ul>	<p><u>Wind Energy Development</u> SGMAs would be available for wind energy development, though they would be designated as avoidance areas for wind energy development.</p> <p>Manage wind energy development in GRSG habitat as follows (Map 2.13, ROW Avoidance and Exclusion Areas–Alternative E):</p> <ul style="list-style-type: none"> <li>• Open: 632,200 acres</li> <li>• Avoided: 2,654,000 acres</li> <li>• Excluded: 27,600 acres</li> </ul>	<p><u>Wind Energy Development</u> Acreages associated with the WY-Uinta and WY-Blacks Folk population areas are included in the acreages for Alternative E1, as avoidance areas with the stipulation on development as described below.</p> <p>Wind Energy development is not allowed inside core areas unless it can be sufficiently demonstrated that the development activity would not result in declines of core</p>	MA-LAR-13

so reject Alts B and C →

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>Manage ROWs/SUAs outside of GRSG habitat but in population areas as follows (Map 2.7, ROW Avoidance and Exclusion Areas–Alternative A):</p> <ul style="list-style-type: none"> <li>• Open: 2,344,400 acres</li> <li>• Avoided: 50,800 acres</li> <li>• Excluded: 74,900 acres</li> </ul>			<ul style="list-style-type: none"> <li>• Excluded – 2,781,900 acres</li> </ul> <p>Manage wind energy development outside of GRSG habitat but in population areas as follows (Map 2.25, Avoidance and Exclusion Areas for Wind Energy–Alternative D):</p> <ul style="list-style-type: none"> <li>• Open – 1,925,200 acres</li> <li>• Avoided – 462,500 acres</li> <li>• Excluded – 82,400 acres</li> </ul> <p>Areas outside PPMA's but within 1.0 mile of an occupied lek, if the lek is located within a PPMA, would also be excluded from wind energy development.</p> <p>Areas outside PPMA's but within 4 miles of an occupied lek located within a PPMA (not including the 1.0 mile exclusion) would be designated as an avoidance area for wind energy development. Development within the avoidance areas can occur if:</p> <ul style="list-style-type: none"> <li>• the development meets noise restrictions; and</li> <li>• the development meets tall structure restrictions;</li> </ul> <p>Exclude wind energy development within 1.0 mile of an occupied lek located in</p>	<p>Manage wind energy development outside of GRSG habitat but in population areas as follows (Map 2.13, ROW Avoidance and Exclusion Areas–Alternative E):</p> <ul style="list-style-type: none"> <li>• Open: 2,292,000 acres</li> <li>• Avoided: 103,200 acres</li> <li>• Excluded: 74,900 acres</li> </ul> <p>Apply stipulations as follows, as well as BMPs accepted by industry and state and federal agencies:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-</li> </ul>	<p>area populations. Sufficient demonstration of “no declines” should be coordinated with the WGFD and USFWS. Areas that are currently unavailable due to the need to protect sensitive resources would remain unavailable to wind energy development.</p> <p>Avoid the use of guy wires for turbines or MET tower supports within core areas. All existing and any new unavoidable guy wires should be marked with recommended bird deterrent devices.</p> <p>The siting of new temporary MET towers within core areas will be avoided within 2 miles of active GRSG leks, unless they are out of the direct line of sight of the active lek.</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>PGMA, whether mapped occupied GRSG habitat or not.</p> <p>The exclusion could be waived outside of PGMA if applicable seasonal restrictions are implemented (breeding and nesting, brood rearing, winter) and if off-site mitigation coordinated with BLM/Forest Service and the State of Utah is successfully completed in PPMAs.</p> <p>Development within PGMAs beyond the 1.0 mile exclusion area would require discussion with the State of Utah during project implementation, and implementation of BMPs, including potential off-site mitigation in PPMAs.</p>	<p>hours after sunrise)</p> <ul style="list-style-type: none"> <li>• Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:                             <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>○ In winter habitat from Nov 15 – Mar 15.</li> <li>○ Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> </ul> </li> <li>• Avoid disturbance within SGMAs, if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>• If avoidance in SGMAs is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing</li> </ul>	



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				wet meadow and riparian vegetation). • After minimization, mitigation is required (see mitigation section). • Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within the SGMA. • Manage SGMAs to avoid barriers to migration, if applicable.  Engage in reclamation efforts as projects are completed.  Recognize that stipulations for other species (e.g. raptors) may impede the ability to effectively reclaim disturbed areas, and remove those barriers in order to achieve immediate and effective reclamation, if otherwise allowable by law.		
No similar action.	No similar action.	Site wind energy development at least 5 miles from occupied GRSG leks.	No similar action. <b>so reject Alt C</b> →	<b>No similar action.</b>	No similar action.	MA-LAR-14
<b>MINERAL DEVELOPMENT (APPLICABLE TO ALL TYPES OF MINERALS AND ALL MINERALS DEVELOPMENT ACTIVITIES)</b>						
No similar action.	No similar action.	No similar action.	No similar action.	<b>Within SGMAs, limit or ameliorate impacts through the use of the general stipulations identified in the</b>	No similar action.	MA-MIN-1

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				GRSG section.  Engage in reclamation efforts as projects advance or are completed.  Recognize that stipulations for other species (e.g. raptors) may impede the ability to effectively reclaim disturbed areas, and remove those barriers in order to achieve immediate and effective reclamation, if otherwise allowable by law.  Prioritize areas for habitat improvement to make best use of mitigation funds.		
Allow geophysical exploration in areas that are not closed to fluid mineral leasing. Geophysical exploration in GRSG habitat shall be subject to seasonal restrictions discussed above.	Allow geophysical exploration within PPMAs to obtain exploratory information for areas outside of and adjacent to PPMAs.  Allow geophysical operations only by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply.	No new geophysical exploration permits will be issued.	Allow geophysical exploration within mapped occupied GRSG habitat areas to obtain exploratory information. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood rearing and winter habitats during their season of use by GRSG.	Allow geophysical exploration within SGMAs to obtain exploratory information. Geophysical exploration would be subject to the same seasonal (TL), no surface occupancy (NSO), and controlled surface use (CSU) stipulations as would be applied to leases within SGMAs.	In addition to Alternative A, geophysical exploration projects that are designed to minimize habitat fragmentation within core areas would be allowed, except were prohibited or restricted by existing LUP decisions.	MA-MIN-2
<b>Nonenergy Leasable Minerals</b>						
Under current management there are no designated PPMAs.	Close federal lands and non-federal lands with federal mineral interests within PPMAs	Close federal lands and non-federal lands with federal mineral interests within	<u>Proposed Leases Associated with Surface Mining:</u> Manage nonenergy leasable	Manage nonenergy leasable minerals on federal lands and non-federal lands with federal	Acreages associated with the WY-Uinta and WY-Blacks Folk population areas are included	MA-MIN-3

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>Manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests within GRSG habitat as follows (Map 2.26, Non-Energy Solid Leasable Minerals–Alternative A):</p> <ul style="list-style-type: none"> <li>• Open to Leasing Consideration – 3,870,080 acres</li> <li>• Closed to Leasing – 138,500 acres</li> </ul> <p>Recent plans may apply stipulations identified for fluid mineral leasing to all surface disturbing activities. In addition, existing leases include other mitigation actions on a lease-by-lease basis. Reclamation of disturbed areas is also required under existing leases.</p>	<p>to nonenergy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.</p> <p>Manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests within GRSG habitat as follows (Map 2.27, Non-Energy Solid Leasable Minerals–Alternative B):</p> <ul style="list-style-type: none"> <li>• Open to Leasing Consideration – 667,280 acres</li> <li>• Closed to Leasing – 3,341,300 acres</li> </ul>	<p>mapped occupied GRSG habitat to nonenergy leasable mineral leasing (4,008,580 acres) (Map 2.28, Non-Energy Solid Leasable Minerals–Alternative C). This includes not permitting any new leases to expand an existing mine.</p>	<p>minerals on federal lands and non-federal lands with federal mineral interests within GRSG habitat as follows (Map 2.29, Non-Energy Solid Leasable Minerals–Alternative D):</p> <ul style="list-style-type: none"> <li>• Open to Leasing Consideration – 705,680 acres</li> <li>• Closed to Leasing with Development by Surface Mining – 2,905,100 acres</li> <li>• Closed to All Leasing– 397,800 acres</li> </ul> <p>PPMAs would be closed to new leasing or lease modification of surface nonenergy leasable minerals. This includes not issuing or modifying leases to expand existing mines that would result in surface mining.</p> <p>New or modified leases in areas outside PPMAs and within 4 miles of an occupied lek located within a PPMA would have use stipulations attached. Development within these areas could occur if:</p> <ul style="list-style-type: none"> <li>• the development meets noise restrictions both during development and after development; and</li> <li>• the structures remaining after</li> </ul>	<p>mineral interests within GRSG habitat as follows (Map 2.30, Non-Energy Solid Leasable Minerals–Alternative E):</p> <ul style="list-style-type: none"> <li>• Open to Leasing Consideration – 3,870,080 acres</li> <li>• Closed to Leasing – 138,500 acres</li> </ul> <p>Consider leasing federal lands and non-federal lands with federal mineral interests within SGMA for nonenergy leasable minerals. Limit or ameliorate impacts from development through the use of the following stipulations:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the</li> </ul>	<p>in the acreages for Alternative E1, though the stipulations on development will be as described below.</p> <p>In addition to Alternative A, core area would be open to new nonenergy leasing</p> <p>make sure this is consistent with state written plan and map</p> <p>Disturbance Calculation Tool and project implementation is developed with appropriate GRSG protections / management strategies. Within project areas where the Density Disturbance Calculation Tool analysis is approved, modification of existing leases is allowed without additional, density analyses if the project is maintained within the original Density Disturbance Calculation Tool analysis area and Density Disturbance Calculation Tool disturbance acreage limits would be maintained through reclamation/restoration to suitable GRSG habitat.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>development meet tall structure restrictions.</p> <p>PGMAs within 1 mile of an occupied lek, if the lek is located within a PGMA, would have no surface disturbance stipulations associated with leasing of surface nonenergy leasable minerals.</p> <p><u>Leases Associated with Underground Mining:</u>            Consider leasing PPMAs for nonenergy leasable minerals that would be extracted through underground mining. Require the following stipulations, as applicable, as part of any new mining leases or lease modification for underground nonenergy mines:</p> <ul style="list-style-type: none"> <li>• Appurtenant facilities would not be placed within PPMAs, where technically feasible.</li> <li>• If placement of facilities outside of PPMAs is not technically feasible while still protecting GRSG habitat, surface disturbances associated with the lease can be allowed if they meet the following criteria:               <ul style="list-style-type: none"> <li>○ No surface facilities (e.g., mine entrances, vent shafts, etc.) would be located</li> </ul> </li> </ul>	<p>lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</p> <ul style="list-style-type: none"> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> <li>• Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:               <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>○ In winter habitat from Nov 15 – Mar 15.</li> </ul> </li> <li>• Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> <li>• Avoid disturbance within SGMA (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must</li> </ul>	

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>within 1 mile of an occupied lek that is located within a PPMA.</p> <ul style="list-style-type: none"> <li>○ the long-term development meets noise restrictions, including from supporting traffic along roads;</li> <li>○ restrictions on permanent tall structures are required to minimize increases in predation and area avoidance by GRSG;</li> <li>○ the construction of the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter); avoidance periods and necessary mitigation may be dependent on site specific conditions and noise levels;</li> <li>○ the surface disturbance from the development does not exceed the 5 percent disturbance limit; and</li> <li>○ Additional mitigation methods applicable to the specific project are conducted, including off-site mitigation.</li> </ul> <p>If the above criteria cannot be met, do not grant new leases or modifications.</p>	<p>demonstrate why avoidance is not possible.</p> <ul style="list-style-type: none"> <li>● If avoidance in SGMA is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</li> <li>● After minimization, mitigation is required (see mitigation section).</li> <li>● Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA.</li> <li>● Manage SGMA to avoid barriers to migration, if applicable.</li> <li>● Recognize that surface vents associated with underground mining are essential for human safety, and must be permitted under the provisions of this alternative.</li> </ul>		
Under current management	No similar action.	No similar action.	Consider leasing PGMA for	GRSG habitat outside SGMA	No similar action.	MA-MIN-4

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>there are no designated PGMA's.</p> <p>Recent plans may apply stipulations identified for fluid mineral leasing to all surface disturbing activities. In addition, existing leases include other mitigation actions on a lease-by-lease basis. Reclamation of disturbed areas is also required under existing leases.</p>			<p>nonenergy leasable minerals that would be extracted through underground mining. Minimize surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on GRSG habitats. Use additional, onsite or off-site mitigation to offset impacts as technically appropriate (determined by local options/needs). Determine which measures are needed to protect PGMA's during activity level planning, which may include applying the criteria identified for PPMA's.</p> <p>The above stipulations may be waived if off-site mitigation coordinated with BLM/Forest Service and the State of Utah is successfully completed in PPMA's.</p>	<p>would not be managed for the conservation of the species. No specific management actions are provided for this habitat.</p> <div style="border: 1px solid red; padding: 5px; color: red;"> <p>making allowance for current RMP's/ EIS's existing outside SGMA's across the State which do carry GRSG management provisions</p> </div>		
<p>Recent plans may apply stipulations identified for fluid mineral leasing to all surface disturbing activities. In addition, existing leases include other mitigation actions on a lease-by-lease basis. Reclamation of disturbed areas is also required under existing leases.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>Prospecting activities associated with nonenergy leasable minerals would be required to comply with the following criteria:</p> <ul style="list-style-type: none"> <li>• <b>Strong statement that this depends on use of Alt E maps</b></li> <li>• The non-casual use activity does not occur during sensitive seasonal periods</li> </ul>	<p>Prospecting activities associated with nonenergy leasable minerals would be required to comply with the same stipulations identified for leasing and development, above.</p>	<p>Exploration licenses and prospecting permits would be considered with appropriate mitigating measures (e.g., timing limitations, Density Disturbance Calculation Tool thresholds).</p>	<p>MA-MIN-5</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>(i.e., breeding and nesting, brood rearing, winter);</p> <ul style="list-style-type: none"> <li>• Any facilities associated with prospecting activities will be removed before the next breeding season; and</li> <li>• Any disturbances will be reclaimed.</li> </ul>			
<p>No similar action.</p> <p>Individual LUPs may contain an appendix that outlines BMPs that are applied on a case-by-case basis.</p>	<p>For existing nonenergy leasable mineral leases in PPMAs, in addition to the solid minerals RDFs (Appendix I, Best Management Practices for Locatable Minerals and Required Design Features for Other Solid Minerals), follow the same RDFs applied to Fluid [redacted]; Required for Fluid wells are used [redacted].</p>	<p>Same as Alternative B.</p>	<p>For existing nonenergy leasable mineral leases in PPMAs, apply the applicable solid minerals RDFs (Appendix I, Best Management Practices for Locatable Minerals and Required Design Features for Other Solid Minerals) and Fluid Minerals RDFs (Appendix J, Required Design Features for Fluid Minerals) when permitting site-specific projects on the lease (e.g., wells used for solution mining), unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project:</p> <ul style="list-style-type: none"> <li>• A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>• A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> </ul>	<p>No similar action.</p>	<p>Where applicable and technically feasible, apply BMPs as mandatory COAs within core areas for nonenergy solid leasables.</p>	<p>MA-MIN-6</p>

subject to review of referenced appendices for protection of timing restrictions, etc.

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<ul style="list-style-type: none"> <li>Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul>			
<b>Coal</b>						
<p><u>Leases Associated with Surface Mining:</u> Under current management there are no designated PPMAs.</p> <p>Find approximately 22,900 acres of mapped occupied GRSG habitat unsuitable for surface mining of coal under the criteria set forth in 43 CFR 3461.5 (Map 2.31, Coal Suitability–Alternative A).</p> <p>For all other areas, upon receipt of a coal lease application in GRSG habitat, the BLM will review criterion 15 set forth in 43 CFR 3461.5 to determine if the specific area being proposed for lease is suitable. If the BLM and the State of Utah “jointly agree” the federal lands do not contain GRSG habitat that is “of high interest to the state and which are essential for maintaining [this] priority</p>	<p><u>Leases Associated with Surface Mining:</u> In PPMAs, find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 (3,328,760 acres) (Map 2.32, Coal Suitability–Alternative B).</p>	<p><u>Leases Associated with Surface Mining:</u> In mapped occupied habitat, find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 (4,008,580 acres) (Map 2.33, Coal Suitability–Alternative C).</p>	<p><u>Leases Associated with Surface Mining:</u> No areas of GRSG mapped occupied habitat would meet the unsuitability criterion 15. The 22,900 acres of mapped occupied GRSG habitat that are currently unsuitable for surface mining of coal resources would continue to be unsuitable. The remainder of the mapped occupied GRSG habitat would not be unsuitable for further consideration of coal leasing under surface mining methods.</p> <p>Where coal leasing that involves surface mining methods is considered in PPMAs, apply the following stipulations:</p> <ul style="list-style-type: none"> <li>new disturbance associated with the development does not result in total disturbance exceeding the 5 percent disturbance limit.</li> <li>the development meets noise restrictions;</li> </ul>	<p><u>Leases Associated with Surface Mining:</u> SGMAs would be considered to be suitable for further coal leasing consideration. However, special conditions, conservation measures, and pre-project mitigation requirements that include successful criteria of habitat suitability and GRSG occupancy could be required as identified during the leasing process to protect GRSG habitat. Impacts to GRSG within leasing areas would be limited or ameliorated through the use of the following stipulations:</p> <ul style="list-style-type: none"> <li>New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to</li> </ul>	<p><u>Leases Associated with Surface Mining:</u> Upon receipt of a coal lease application on which underground mining methods that include associated surface uses and impacts in GRSG core areas are proposed, the BLM will consult with the State of Utah, the GRSG management agency, to determine that all or certain stipulated methods of coal mining will not have a significant long-term impact on the GRSG. Special conditions could be required as identified during the leasing process to protect GRSG resources.</p>	MA–MIN-7

Don't like this last part

subject to being consistent with state plan and maps



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>wildlife...species," the area shall be considered suitable for further coal leasing consideration. The determination would be that "all or certain stipulated methods of coal mining would not have a significant long-term impact" on the GRSG. However, special conditions, conservation measures, and pre-project mitigation requirements that include successful criteria of habitat suitability and GRSG occupancy could be required as identified during the leasing process to protect GRSG habitat.</p> <p>If, upon receipt of a coal lease application, the BLM and the State of Utah "jointly agree" that the federal lands contain GRSG habitat that is "of high interest to the state and which are essential for maintaining [this] priority wildlife...species," the area shall be considered unsuitable for further coal leasing consideration.</p>			<ul style="list-style-type: none"> <li>• the development meets tall structure restrictions;</li> <li>• initial activity within the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</li> <li>• where possible, the development is located adjacent to the footprint of existing disturbances; and</li> <li>• extraction or crushing operations do not occur in GRSG habitat during seasonal restriction times; however, removal of material from existing stockpiles would be allowed.</li> </ul>	<ul style="list-style-type: none"> <li>• the GRSG using the lek.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> <li>• Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:             <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>○ In winter habitat from Nov 15 – Mar 15.</li> <li>○ Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in</li> </ul> </li> </ul>	

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				<p>coordination with the local UDWR biologist.</p> <ul style="list-style-type: none"> <li>• Avoid disturbance within SGMA (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>• If avoidance in SGMA is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</li> <li>• After minimization, mitigation is required (see mitigation section).</li> <li>• Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA.</li> <li>• Manage SGMA to avoid barriers to migration, if applicable.</li> </ul>		
<u>Leases Associated with</u>	<u>Leases Associated with</u>	<u>Leases Associated with</u>	<u>Leases Associated with</u>	<u>Leases Associated with</u>	<u>Leases Associated with</u>	MA-MIN-8

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p><u>Underground Mining:</u> Under current management there are no designated PPMA's.</p> <p>Most LUPs do not identify areas that are specifically closed to coal leasing.</p> <p>Some LUPs apply stipulations identified for fluid mineral leasing to all surface disturbing activities, others have coal-specific stipulations, or mineral specific standards and guidelines. Surface use stipulations may also be identified during site-specific NEPA, or be identified through Unsuitability Determination at 43 CFR 3461.</p>	<p><u>Underground Mining:</u> Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the PPMA's.</p>	<p><u>Underground Mining:</u> Same as Alternative B.</p>	<p><u>Underground Mining:</u> Consider leasing PPMA's for coal that would be extracted through <u>underground</u> mining. Require the following stipulations, as applicable, as part of any new mining leases or lease modification for <u>underground</u> coal mines:</p> <ul style="list-style-type: none"> <li>• Appurtenant facilities would not be placed within PPMA's, where technically feasible.</li> <li>• If placement of facilities outside of PPMA's is not technically feasible while still protecting GRSG habitat, surface disturbances associated with the lease can be allowed if they meet the following criteria:                             <ul style="list-style-type: none"> <li>○ No surface facilities (e.g., mine entrances, vent shafts, etc.) would be located within 1 mile of an occupied lek that is located within a PPMA.</li> <li>○ the long-term development meets noise restrictions, including from supporting traffic along roads;</li> <li>○ restrictions on permanent tall structures are required to minimize increases in predation and area avoidance by GRSG;</li> <li>○ the construction of the</li> </ul> </li> </ul>	<p><u>Underground Mining:</u> Consider leasing SGMA's for coal that would be extracted through underground mining. Impacts would be limited or ameliorated through adherence to the following stipulations:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> </ul>	<p><u>Underground Mining:</u> Upon receipt of a coal lease application proposing underground mining methods that include surface operations and impacts within GRSG core areas, apply Criterion 15 and identify the area as suitable for further coal leasing consideration after consultation where applicable management determine the stipulated mining will not have significant long-term impacts on the GRSG. Stipulations may include (but not limited to) underground mining methods with no placement of surface facilities.</p> <p>Unsuitability is not applied to underground operations without surface impacts (43 CFR 3461.1). This would be consistent with BLM IM WY-2012-019, which says that the BLM will assess potential impacts to GRSG through the NEPA process, and that the State regulatory agency would apply this mitigation, as well protective measures consistent with the State Policy for solid</p>

go with state's lek restrictions feb - may, but go with fed's nesting and brood rearing restrictions that end in July

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter); avoidance periods and necessary mitigation may be dependent on site specific conditions and noise levels;</p> <ul style="list-style-type: none"> <li>○ Surface disturbance from the development does not exceed the 5 percent disturbance limit; and</li> <li>○ Additional mitigation methods applicable to the specific project are conducted, including off-site mitigation.</li> </ul> <p>If the above criteria cannot be met, do not grant new leases or modifications.</p>	<ul style="list-style-type: none"> <li>● Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:               <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>○ In winter habitat from Nov 15 – Mar 15.</li> <li>○ Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> </ul> </li> <li>● Avoid disturbance within SGMAs (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>● If avoidance in SGMAs is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen</li> </ul>	<p>leasable mining action at the permitting stage.</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
				the disturbance, or maintaining and enhancing wet meadow and riparian vegetation). • After minimization, mitigation is required (see mitigation section). • Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA. • Manage SGMAs to avoid barriers to migration, if applicable. • Recognize that surface vents associated with underground mining are essential for human safety, and must be permitted under the provisions of this alternative.		
Under current management there are no designated PGMA.  Most LUPs do not identify areas that are specifically closed to coal leasing.  Some LUPs apply stipulations identified for fluid mineral leasing to all surface disturbing activities, others have coal-	No similar action.	No similar action.	Consider leasing PGMA for coal that would be extracted through underground mining. Minimize surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on GRS habitat. Use additional, onsite or off-site mitigation to offset impacts as technically appropriate (determined by	GRS habitat outside SGMAs would not be managed for the conservation of the species. No specific management actions are provided for this habitat.	No similar action.	MA-MIN-9

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>specific stipulations, or minerals-specific standards and guidelines. Surface use stipulations may also be identified during site-specific NEPA, or be identified through Unsuitability Determination at 43 CFR 3461.</p>			<p>local options/needs). Determine which measures are needed to protect PGMAs during activity level planning, which may include applying the criteria identified for PPMAs.</p> <p>The above restrictions may be waived if off-site mitigation coordinated with BLM/Forest Service and the State of Utah is successfully completed in PPMAs.</p>			
<p>Under current management there are no designated PPMAs. Exploration activities are required to comply with season stipulations (i.e., brooding/nesting and winter) included in existing plans, where such exists.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>Exploration activities within PPMAs needed to meet data adequacy standards associated with potential coal leasing would be required to comply to the following criteria:</p> <ul style="list-style-type: none"> <li>• Surface disturbance from the activity does not exceed the 5 percent disturbance limit;</li> <li>• The activity does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</li> <li>• Any facilities associated with exploration activities will be removed before the next breeding season; and</li> <li>• Any disturbances will be reclaimed.</li> </ul>	<p>Exploration activities within SGMA's would be required to comply with the same stipulations identified for leasing and development, above.</p>	<p>Coal exploration activities are allowed in GRSG core areas if acceptable after density calculation with applicable stipulations.</p>	<p>MA-MIN-10</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
No similar action.	<p>For coal mining operations on existing leases:</p> <p><i>Underground mining:</i> in PPMAs, place any new appurtenant facilities outside of PPMAs. Where new appurtenant facilities associated with the existing lease cannot be located outside the PPMA, locate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the absolute minimum standard necessary.</p>	Same as Alternative B.	Same as Alternative B	No similar action.	<p>Upon receipt of a coal lease application proposing underground mining methods that include surface operations and impacts within GRSG core area, apply Criterion 15 and identify the area as suitable for further coal leasing consideration after consultation with the state and where applicable, surface management agency, to determine that all or certain stipulated methods of coal mining will not have a significant long-term impact on the GRSG. Stipulated methods may include (but not limited to) underground mining methods with no placement of surface facilities.</p> <p>Unsuitability is not applied to underground operations without surface impacts (43 CFR 3461.1) This would be consistent with BLM IM WY-2012-019 says that BLM will assess potential impacts on GRSG through the NEPA process, and that the State regulatory agency would apply this mitigation, as well protective measures consistent with the State Policy for solid leasable mining action at the</p>	MA-MIN-11

So reject Alt B and stick with no action

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
All LUPs include management actions based on specific program direction. These management actions require the BLM to consider measures that would reduce or eliminate impact of human activities during activity level planning.	For coal mining operations on existing leases:  In PGMAs, apply minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity level planning.  Use additional, effective mitigation to offset impacts as appropriate (determined by local options/needs).	Same as Alternative B.	Same as Alternative B	GRSG habitat outside SGMAs would not be managed for the conservation of the species. No specific management actions are provided for this habitat.	permitting stage. No similar action.	MA-MIN-12
<b>Locatable Minerals</b>						
Under current management there are no designated PPMAs. Approximately 498,700 acres of mapped occupied GRSG habitat are recommended for withdrawal from mineral entry (Map 2.22, Locatable Mineral Withdrawals–Alternative A).	In PPMAs, recommend withdrawal from mineral entry based on risk to the GRSG and its habitat from conflicting locatable mineral potential and development (3,650,900 acres) (Map 2.23, Locatable Mineral Withdrawals–Alternative B). • Make any existing claims within the withdrawal area subject to validity exams or buy out. Include claims that have been subsequently determined to be null and void in the recommended withdrawal. • In plans of operations	In mapped occupied habitat, recommend withdrawal from mineral entry based on risk to the GRSG and its habitat from conflicting locatable mineral potential and development (4,008,580 acres) (Map 2.24, Locatable Mineral Withdrawals–Alternative C).  Everything else, same as Alternative B.	PPMAs and PGMAs that are not already withdrawn or recommended for withdrawal would be available for locatable mineral entry.  To the extent allowable by law, work with claimants to apply the seasonal restrictions and use restrictions for PPMAs and PGMAs identified in the Special Status Species section. To the extent consistent with the rights of a mining claimant under existing laws and regulations, limit surface disturbance from locatable mineral development	GRSG habitat within or outside of SGMAs that is not already withdrawn or recommended for withdrawal would be available for locatable mineral entry.  To the extent allowable by laws and regulations and to the extent the claimant would be willing to apply the standards, impacts would be limited or ameliorated through the use of the following conservation measures: • New permanent	Recommend withdrawal from mineral entry based on risk to the GRSG and its habitat in core areas from conflicting locatable mineral potential and development, and the ability to meet the Density Disturbance Calculation Tool thresholds.  Operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact GRSG core area habitats. The Authorized Officer may convey to the operator	MA-MIN-13



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
	<p>required prior to any proposed surface disturbing activities, include the following:</p> <ul style="list-style-type: none"> <li>○ Additional, effective mitigation in perpetuity for conservation (In accordance with existing policy, BLM IM 2008-204). Example: purchase private land and mineral rights or severed federal mineral rights within the PPMA and deed to US Government).</li> <li>○ Consider seasonal restrictions if deemed effective.</li> </ul>		<p>in PPMAs within leks, nesting habitat, and early brood-rearing habitat and as possible, limit surface disturbance to under the 5 percent disturbance limit, or provide for enhancement of PPMAs through on-site and/or off-site mitigation.</p> <p>Regardless of whether agreements with the claimant incorporates the 5 percent disturbance limit, disturbance from locatable mineral development would be included as disturbance when calculating disturbance for other land uses.</p>	<p>disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</p> <ul style="list-style-type: none"> <li>• No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> <li>• Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats: <ul style="list-style-type: none"> <li>○ On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>○ In nesting and brood-</li> </ul> </li> </ul>	<p>suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations [also called the project area which is defined in 43 CFR 3809.5].</p> <p>These suggested conservation measures include measures that support the overall goals and objectives of the core population area strategy, though measures listed for protection of GRSG breeding, nesting, brood-rearing, and wintering may not be reasonable or applicable to the BLM’s determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5. The request containing the suggested conservation measures must make clear that the operator’s compliance is not mandatory.</p> <p>Notices or Plans of Operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15 day completeness review of notices [or modifications</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>rearing areas from Apr 1 – Aug 15.</p> <ul style="list-style-type: none"> <li>○ In winter habitat from Nov 15 – Mar 15.</li> <li>○ Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> <li>● Avoid disturbance within SGMA (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>● If avoidance in SGMA is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</li> <li>● After minimization, mitigation is required (see</li> </ul>	<p>thereto] and 30 day completeness review of plans of operations [or modifications thereto], the proposed project area(s) where exploration, development, mining, access and reclamation would take place should be reviewed for overlap of GRSG core areas in the corporate geographic information systems (GIS) database. If there is overlap, the BLM/Forest Service Authorized Officer may notify the operator of ways that they may minimize impacts to core area habitats and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator’s compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.</p> <p><u>Existing Notices and Approved</u></p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
				<p>mitigation section).</p> <ul style="list-style-type: none"> <li>• Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMAs.</li> <li>• Manage SGMAs to avoid barriers to migration, if applicable.</li> <li>• Recognize that surface vents associated with underground mining are essential for human safety, and must be permitted under the provisions of this alternative.</li> </ul>	<p><u>Plans of Operations under 43 CFR 3809<sup>1</sup>:</u>                      For projects that overlap core areas, operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact core area habitats. The Authorized Officer may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations [also called the project area which is defined in CFR 3809.5]. These suggested conservation measures include measures that support the overall goals and objectives of the core population area strategy may not be reasonable or applicable to the BLM's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5. The request containing the suggested conservation</p>

<sup>1</sup> These regulations apply to the exploration and development of locatable minerals on placer claims and lode claims, as well as exploration on tunnel sites and mineral processing operations on mill sites. The location and maintenance of claims and sites are regulated under 43 CFR Subpart 3830.

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
					<p>measures must make clear that the operator's compliance is not mandatory.</p> <p>Notices or Plans of Operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15 day completeness review of notices [or modifications thereto] and 30 day completeness review of plans of operations [or modifications thereto], the proposed project area(s) where exploration, development, mining, access and reclamation would take place should be reviewed for overlap of GRSG core areas in the corporate GIS database. If there is overlap, the BLM Authorized Officer may notify the operator of ways that they may minimize impacts to core area habitats and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's compliance is not mandatory and that including such measures is not a requirement for completeness of either the</p>

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
					notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.	
No similar action.	BMPs outlined in Appendix I would be applied as appropriate and to the extent allowable by law within PPMAs.	Same as Alternative B.	Apply the BMPs identified in Appendix E (of the NTT report) (included as Appendix I of this LUPA/EIS), to the extent allowable by law, unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project: <ul style="list-style-type: none"> <li>• A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>• A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> <li>• Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul>	No similar action.	Where applicable and technically feasible, BMPs would be applied as appropriate and to the extent allowable by law within core GRSG habitat for Locatable Minerals.	MA-MIN-14
<b>Mineral Materials</b>						
Manage mineral materials in GRSG habitat as follows (Map 2.34, Saleable Minerals Materials–Alternative A):	Manage mineral materials in GRSG habitat as follows (Map 2.35, Saleable Minerals Materials–Alternative B):	Manage mineral materials in GRSG habitat as follows (Map 2.36, Saleable Minerals Materials–Alternative C):	Manage mineral materials in GRSG habitat as follows (Map 2.37, Saleable Minerals Materials–Alternative D):	Manage mineral materials in GRSG habitat as follows (Map 2.38, Saleable Minerals Materials–Alternative E):	Acres for mineral materials under Alternative E2 are reported under E1. The portions of the decision area	MA-MIN-15

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<ul style="list-style-type: none"> <li>open to mineral materials development: 3,935,080 acres</li> <li>closed to mineral materials development: 73,500 acres</li> </ul> <p>Some LUPs apply stipulations identified for fluid mineral leasing to all surface disturbing activities, others have mineral-specific standards and guidelines. Surface use restrictions may also be identified during site-specific NEPA.</p>	<ul style="list-style-type: none"> <li>open to mineral materials development: 668,580 acres</li> <li>closed to mineral materials development: 3,340,000 acres</li> </ul>	<ul style="list-style-type: none"> <li>open to mineral materials development: 0 acres</li> <li>closed to mineral materials development: 4,008,580 acres</li> </ul>	<ul style="list-style-type: none"> <li>open to mineral materials development: 688,280 acres</li> <li>closed to commercial mineral materials development, open to non-commercial: 2,967,500 acres</li> <li>closed to mineral materials development: 352,800 acres</li> </ul>	<ul style="list-style-type: none"> <li>open to mineral materials development: 3,935,080 acres</li> <li>closed to mineral materials development: 73,500 acres</li> </ul>	<p>specific to Wyoming are included in those acres, though the stipulations, as applicable, are derived from Alternative E2.</p>	
Same as previous decision.	Close PPMA to mineral material sales.	Close mapped occupied habitat to mineral material sales.	<p>Areas, whether within mapped occupied habitat or not, within 1 mile of an occupied lek in either a PPMA or a PGMA would be closed new to mineral material development.</p> <p>PPMAs beyond 1 mile of an occupied lek that is located within a PPMA would be closed to commercial development of mineral materials.</p> <p>Non-commercial development of mineral materials (e.g., community pits, free-use permits) within PPMA beyond 1 mile of an occupied lek, if the lek is located within a PPMA, could only occur if the following conditions are met:</p>	<p>SGMAs would be open to mineral materials. Impacts would be limited or ameliorated through the use of the following stipulations:</p> <ul style="list-style-type: none"> <li>New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>No permanent disturbance within 1 mile of an occupied lek, unless it is not visible to the GRSG using the lek.</li> <li>New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> </ul>	<p>Core areas would be open to mineral material exploration, sales, and free use permits, except in areas that are closed to leasing or no surface occupancy due to the need to protect other resources values.</p> <p>In core areas, locate, where possible, mineral material mining sites in or adjacent to existing disturbances to minimize number of disturbances, in order to not exceed the 1 site per 640 acres and Density Disturbance Calculation Tool 5 percent disturbance threshold.</p> <p>Mineral material extraction or</p>	MA-MIN-16

go with state's lek restrictions feb - may, but go with fed's nesting and brood rearing restrictions that end in July

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
		<p>not okay with .25 mile limit from roads on new development</p>	<ul style="list-style-type: none"> <li>the development meets noise restrictions;</li> <li>the development meets tall structure restrictions;</li> <li>initial activity within the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter);</li> <li>new disturbance associated with the development does not result in total disturbance exceeding the 5 percent disturbance limit.</li> <li>where possible, the development is located adjacent to the footprint of existing disturbances; and</li> <li>extraction or crushing operations do not occur in GRSG habitat during seasonal restriction times; however, removal of material from existing stockpiles would be allowed.</li> <li>new developments are located within 0.25 mile of existing roads.</li> </ul> <p>Development of mineral materials within PGMA's beyond 1 mile of an occupied lek, if the lek is located within a PGMA, could occur if:</p>	<ul style="list-style-type: none"> <li>A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>Apply time-of-day stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</li> <li>Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:                             <ul style="list-style-type: none"> <li>On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>In winter habitat from Nov 15 – Mar 15.</li> <li>Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> </ul> </li> <li>Avoid disturbance within SGMA's (nesting and brood-rearing areas, winter habitat, other habitat), if</li> </ul>	<p>crushing operations would be prohibited in core areas during seasonal restriction times; however, removal of material from existing stockpiles would be allowed.</p> <p style="border: 1px solid red; padding: 5px; display: inline-block;">pick from the best of both D &amp; E</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<ul style="list-style-type: none"> <li>the development meets noise restrictions;</li> <li>the development meets tall structure restrictions;</li> <li>initial activity within the development does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter).</li> </ul> <p>PPMAs and PGMA's beyond the 1 mile closures would require discussion with the State of Utah during project implementation, and implementation of BMPs (e.g., anti-perch devices for raptors, etc.).</p> <p>The stipulations within PGMA's (closure or restrictions) could be waived, except for the seasonal stipulations, if off-site mitigation coordinated with the proponent, BLM/Forest Service and the State of Utah is successfully completed in PPMAs.</p>	<ul style="list-style-type: none"> <li>possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>If avoidance in SGMA's is not possible, minimize as appropriate to the area (e.g., try to minimize effects by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</li> <li>After minimization, mitigation is required (see mitigation section).</li> <li>Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA's.</li> <li>Manage SGMA's to avoid barriers to migration, if applicable.</li> </ul>	
No similar action.	In PPMAs, restore mineral materials pits no longer in use to meet GRSG habitat conservation objectives.	Same as Alternative B.  <div style="border: 1px solid red; padding: 2px; display: inline-block;">so reject alt b and stick with no action</div>	No similar action.	No similar action.	Consider restoration of saleable mineral pits no longer in use to meet GRSG habitat conservation objectives. Emphasis needs to be given to reclamation/restoration of core areas as a viable long



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
					term goal to improve the GRSG habitat.	
<b>Fluid Minerals</b>						
<p>Manage fluid mineral leasing in GRSG habitat as follows (Map 2.39, Fluid Minerals Leasing Categories–Alternative A ):</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 1,333,380 acres</li> <li>• open to leasing, subject to CSU and/or timing (TL) stipulations: 1,300,400 acres</li> <li>• open to leasing, subject to NSO stipulations: 483,500 acres</li> <li>• closed to leasing: 138,500 acres</li> <li>• no fluid minerals allocation: 187,000 acres</li> <li>• planning decision not mapped: 565,800 acres</li> </ul> <p>Manage fluid minerals outside of GRSG habitat but in population areas as follows:</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 893,100 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 580,700 acres</li> <li>• open to leasing, subject to NSO stipulations: 594,100 acres</li> </ul>	<p>Manage fluid mineral leasing in GRSG habitat as follows (Map 2.40, Fluid Minerals Leasing Categories–Alternative B ):</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 246,680 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 255,900 acres</li> <li>• open to leasing, subject to NSO stipulations: 24,400 acres</li> <li>• closed to leasing: 3,341,300 acres</li> <li>• no fluid minerals allocation: 43,400 acres</li> <li>• planning decision not mapped: 96,900 acres</li> </ul> <p>Manage fluid minerals outside of GRSG habitat but in population areas the same as Alternative A.</p>	<p>Manage fluid mineral leasing in GRSG habitat as follows (Map 2.41, Fluid Minerals Leasing Categories–Alternative C ):</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 0 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 0 acres</li> <li>• open to leasing, subject to NSO stipulations: 0 acres</li> <li>• closed to leasing: 3,821,580 acres</li> <li>• no fluid minerals allocation: 187,000 acres</li> <li>• planning decision not mapped: 0 acres</li> </ul> <p>Manage fluid minerals outside of GRSG habitat but in population areas the same as Alternative A.</p>	<p>Manage fluid mineral leasing in GRSG habitat as follows (Map 2.42, Fluid Minerals Leasing Categories–Alternative D ):</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 0 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 1,829,980 acres</li> <li>• open to leasing, subject to NSO stipulations: 1,853,100 acres</li> <li>• closed to leasing: 138,500 acres</li> <li>• no fluid minerals allocation: 187,000 acres</li> <li>• planning decision not mapped: 0 acres</li> </ul> <p>Manage fluid minerals outside of GRSG habitat but in population areas as follows:</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 761,100 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 765,300 acres</li> <li>• open to leasing, subject to NSO stipulations: 598,800 acres</li> <li>• closed to leasing: 196,800</li> </ul>	<p>Manage fluid mineral leasing in GRSG habitat as follows (Map 2.43, Fluid Minerals Leasing Categories–Alternative E):</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 247,200 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 2,637,580 acres</li> <li>• open to leasing, subject to NSO stipulations: 688,100 acres</li> <li>• closed to leasing: 138,500 acres</li> <li>• no fluid minerals allocation: 187,000 acres</li> <li>• planning decision not mapped: 110,200 acres</li> </ul> <p>Manage fluid minerals outside of GRSG habitat but in population areas as follows:</p> <ul style="list-style-type: none"> <li>• open to leasing, subject to standard stipulations: 858,600 acres</li> <li>• open to leasing, subject to CSU and/or TL stipulations: 630,100 acres</li> <li>• open to leasing, subject to NSO stipulations: 594,100 acres</li> </ul>	<p>Acres for fluid minerals under Alternative E2 are reported under E1. The portions of the decision area specific to Wyoming are included in those acres, though the stipulations, as applicable, are derived from Alternative E2.</p> <p>Exception modifications stipulations, COAs, terms and conditions, etc. for GRSG will continue to be considered on a case-by-case basis consistent with approved LUPs and other BLM/Forest Service policy and regulations as they relate to exceptions within GRSG core and non-core areas.</p>	<p>MA–MIN-18</p>

ok, provided it is consistent with map and written plan

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<ul style="list-style-type: none"> <li>closed to leasing: 196,800 acres</li> <li>no fluid minerals allocation: 285,700 acres</li> <li>planning decision not mapped: 234,500 acres</li> </ul>			<ul style="list-style-type: none"> <li>acres</li> <li>no fluid minerals allocation: 285,700 acres</li> <li>planning decision not mapped: 177,200 acres</li> </ul>	<ul style="list-style-type: none"> <li>closed to leasing: 196,800 acres</li> <li>no fluid minerals allocation: 285,700 acres</li> <li>planning decision not mapped: 219,600 acres</li> </ul>		
<b>Unleased Federal Fluid Mineral Estate</b>						
<p><u>Unleased Areas within PPMAs:</u> Under current management there are no designated PPMAs. Fluid mineral leasing in GRSG mapped occupied habitat will be managed as discussed above.</p> <p>Most LUPs include a management action that prohibits surface disturbing or other disruptive within GRSG breeding and nesting habitat within a certain distance and between certain dates. The protect buffers around leks vary from 0.25 miles and 3.1 miles. In general, recently completed plans include a larger protective buffer.</p> <p>Recently completed plans also include a management action that prohibits surface disturbing activity or disruptive activities during certain dates in winter habitat.</p>	<p><u>Unleased Areas within PPMAs:</u> Close PPMAs areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within PPMAs.</p>	<p><u>Unleased Areas within PPMAs:</u> No new leases or permits will be issued in mapped occupied GRSG habitat. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within mapped occupied habitat.</p>	<p><u>Unleased Areas within PPMAs:</u> Areas outside PPMAs but within 1 mile of an occupied lek, if the lek is located within a PPMA, would be open to leasing fluid minerals, subject to NSO stipulations.</p> <p>PPMAs within 4 miles of an occupied lek, if the lek is located within a PPMA, would be designated as open to oil and gas leasing subject to NSO stipulations (see Appendix K, Stipulations Associated with Land Use Authorizations, for modifications, waivers, and exceptions).</p> <p>PPMAs beyond 4 miles of an occupied lek, if the lek is located within a PPMA, would be designated as open to oil and gas leasing subject to CSU stipulations (see list below) and the following timing stipulations:</p> <ul style="list-style-type: none"> <li>Winter habitat from Nov 15 – Mar 15</li> </ul>	<p><u>Unleased Areas within SGMA's Habitat:</u> SGMA's would be designated as open to oil and gas leasing subject to NSO and CSU stipulations (see list below) and the timing stipulations.</p> <p>Habitat within SGMA's would have no permanent disturbance (NSO stipulation) within 1 mile of an occupied lek, if the lek is located with an SGMA, unless the disturbance is not visible to the GRSG using the lek (see Appendix K, Stipulations Associated with Land Use Authorizations, for modifications, waivers, and exceptions).</p> <p>Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats (specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in</p>	<p><u>Unleased Areas within Core Areas:</u> Fluid mineral leasing would be allowed in core areas, except in areas that are unavailable for leasing due to the need to protect other sensitive resources (Map 2.43, Fluid Minerals Leasing Categories–Alternative E).</p> <p>Work with project proponents to site their projects in locations that minimize impacts to sensitive resources. If the lease is partially or entirely within core areas, subject to topographic and other environmental constraints, require any development within core habitat to be placed in the area least harmful to GRSG based on vegetation, topography, or other habitat features.</p> <p>GRSG leks inside core areas, surface occupancy and surface disturbing activities would be</p>	MA–MIN-19

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<ul style="list-style-type: none"> <li>• Brood rearing habitat from Apr 15 – Jul 15</li> <li>• Breeding and nesting habitat from Feb 15 – Jun 15</li> </ul> <p>Where leasing/development is allowed within PPMA's,</p> <p>development could occur if it meets the following CSU stipulations:</p> <ul style="list-style-type: none"> <li>• The development meets noise requirements.</li> <li>• The development meets tall structure restrictions;</li> <li>• The applicant submit a site-development plan that shows pipelines and other infrastructure prior to any development being authorized; this plan should outline how development on the lease will limit habitat fragmentation; and</li> <li>• the development does not exceed the 5 percent disturbance limit.</li> </ul> <p>Areas outside PPMA's and within 4 miles of an occupied lek, if the lek is located within a PPMA, would be designated as open to oil and gas leasing subject to CSU stipulations. Development in these areas could occur if it adhered to the following CSU</p>	<p>coordination with the local UDWR biologist):</p> <ul style="list-style-type: none"> <li>• Winter habitat from Nov 15 – Mar 15.</li> <li>• Nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>• On leks from Feb 15 – May 15</li> </ul> <p>Where leasing/development is allowed within SGMA's, impacts from development would be limited or ameliorated through the use of the following CSU stipulations:</p> <ul style="list-style-type: none"> <li>• New permanent disturbance, including structures, fences, and buildings, should not be located within the occupied lek itself.</li> <li>• New permanent tall structures should not be located within 1 mile of the lek, if visible by the birds within the lek.</li> <li>• A disturbance outside the lek should not produce noise which rises more than 10 decibels above the ambient (background) level at the edge of the lek during breeding season.</li> <li>• Apply time-of-day</li> </ul>	<p>prohibited on or within a six tenths (0.6) mile radius of the perimeter of occupied GRSG leks. Additionally, disruptive activity is restricted on or within a six tenths (0.6) mile radius of the perimeter of occupied GRSG leks from 6 pm to 8 am from March 1 – May 15, except for production/maintenance activities for existing permits. Noise levels at the 0.6 mile perimeter of the lek, should not exceed 10 decibels above ambient noise.</p> <p>Surface disturbing and/or disruptive activities are prohibited from March 15– June 30 within core areas, regardless of distance from a lek and the suitability of the habitat. Where credible data support different timeframes for this seasonal restriction, dates may be expanded by up to 14 days prior to or subsequent to the above dates.</p> <p>Within winter concentration areas, surface disturbing and/or disruptive activities in GRSG winter concentration areas are prohibited from December 1–March 14 to</p>

go with state's lek restrictions feb - may, but go with fed's nesting and brood rearing restrictions that end in July

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>stipulations:</p> <ul style="list-style-type: none"> <li>the development meets noise restrictions; and</li> <li>the development meets tall structure restrictions.</li> </ul> <p>The RDFs identified in Appendix J, Required Design Features for Fluid Minerals, would be attached as lease notices to all new leases in PPMAs and would be applied during the permitting process as COAs, unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project:</p> <ul style="list-style-type: none"> <li>A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> <li>Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul> <p>A minimum lease size of 640</p>	<p>stipulations when the lek is active (e.g., no activity from 2-hours before sunrise to 2-hours after sunrise)</p> <ul style="list-style-type: none"> <li>Avoid activities (construction, vehicle noise, etc.) in the following seasons and habitats:                             <ul style="list-style-type: none"> <li>On leks from Feb 15 – May 15 to avoid activities that will disturb lek attendance or breeding.</li> <li>In nesting and brood-rearing areas from Apr 1 – Aug 15.</li> <li>In winter habitat from Nov 15 – Mar 15.</li> <li>Specific time and distance determinations for seasonal stipulations would be based on site-specific conditions, in coordination with the local UDWR biologist.</li> </ul> </li> <li>Avoid disturbance within SGMA (nesting and brood-rearing areas, winter habitat, other habitat), if possible. Project proponents must demonstrate why avoidance is not possible.</li> <li>If avoidance in SGMA is not possible, minimize as appropriate to the area (e.g., try to minimize effects</li> </ul>	<p>protect priority populations of GRSG that use these winter concentration habitats (independent of habitat suitability). Protection of additional areas of winter concentration that are not located within the current core area boundaries, may be necessary where winter concentration areas or important late brood-rearing areas are identified as supporting populations of GRSG that attend leks within core areas. Appropriate seasonal timing restrictions and habitat protection measures must be considered and evaluated in all winter concentration areas habitats identified (independent of habitat suitability).</p> <p>Work with proponents to limit project related noise where it would be expected to reduce functionality of habitats that support core area populations. Evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate. Forest Service’s near-term goal is to limit noise sources that would be expected to</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			<p>contiguous acres of federal mineral estate would be applied within PPMAs. Smaller parcels may be leased only when 640 contiguous acres of federal mineral estate is not available and leasing is necessary to remain in compliance with laws, regulations and policy; for example, to protect the federal mineral estate from drainage or to commit the federal mineral estate to unit or communitization agreements.</p>	<p>by locating development in habitat of the least importance, take advantage of topographic to screen the disturbance, or maintaining and enhancing wet meadow and riparian vegetation).</p> <ul style="list-style-type: none"> <li>• After minimization, mitigation is required (see mitigation section).</li> <li>• Cumulative new permanent disturbance should not exceed 5 percent of surface area of nesting, winter, or other habitat, within SGMA.</li> <li>• Manage SGMAs to avoid barriers to migration, if applicable.</li> </ul>	<p>negatively impact core area GRSG populations and to continue to support the establishment of ambient baseline noise levels for occupied core area leks. As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate limitations will be implemented where necessary to minimize potential for noise impacts on GRSG core population behavioral cycles.</p> <p>A minimum lease size of 640 contiguous acres of federal mineral estate would be applied within core areas. Smaller parcels may be leased only when 640 contiguous acres of federal mineral estate is not available and leasing is necessary to remain in compliance with laws, regulations and policy; for example, to protect the federal mineral estate from drainage or to commit the federal mineral estate to unit or communitization agreements.</p>	
Under current management	No similar action.	No PGMA are identified.	Unleased Areas within PGMA:	GRSG habitat outside SGMAs	Unleased Areas within Non-	MA-MIN-20

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
<p>there are no designated PGMA. Fluid mineral leasing in GRSG mapped occupied habitat will be managed as discussed above.</p>			<p>Any areas, whether within mapped occupied GRSG habitat or not, within 1 mile of an occupied lek, if the lek is located within a PGMA, would be open to leasing fluid minerals, subject to NSO stipulations.</p> <p>PGMAs beyond 1 mile of an occupied lek, if the lek is located within a PGMA, would be designated as open to oil and gas leasing subject to CSU stipulations (see list below) and the following timing stipulations:</p> <ul style="list-style-type: none"> <li>• Winter habitat from Nov 15 – Mar 15</li> <li>• Brood rearing habitat from Apr 15-Jul 15</li> <li>• Breeding and nesting habitat from Feb 15-Jun 15</li> </ul> <p>Where leasing/development is allowed within PGMAs, development could occur if it adhered to the following CSU stipulations:</p> <ul style="list-style-type: none"> <li>• the development meets noise restrictions; and</li> <li>• the development meets tall structure restrictions.</li> </ul> <p>PGMAs within and beyond the 1.0 mile NSO area would require collaboration with the</p>	<p>would not be managed for the conservation of the species. No specific management actions are provided for this habitat.</p>	<p><u>Core Areas:</u> GRSG leks in non-core areas, surface occupancy and Surface occupancy and surface disturbing activities would be prohibited or restricted on or within a one-quarter (0.25) mile radius of the perimeter of occupied GRSG leks.</p> <p>In nesting/early brood-rearing habitat in non-core areas, surface disturbing and/or disruptive activities are limited from March 15–June 30 to protect GRSG nesting and early brood rearing habitats within 2 miles of the lek perimeter of any occupied lek located outside core areas. Where credible data support different timeframes for this restriction, dates may be expanded by 14 days prior or subsequent to the above dates.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>State of Utah during project implementation, and implementation of BMPs (e.g., anti-perch devices for raptors).</p> <p>The RDFs identified in Appendix J would be attached as lease notices to all new leases in PGMA and would be applied as COAs during the permitting process, unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project:</p> <ul style="list-style-type: none"> <li>• A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>• A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> <li>• Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul> <p>The stipulations within PGMA (closure or restrictions) could be waived, except for the seasonal stipulations, if off-site</p>		

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			mitigation coordinated with BLM/Forest Service and the State of Utah is successfully completed in PPMAs.			
<b>Leased Federal Fluid Mineral Estate</b>						
No similar action.	In PPMAs, apply the following conservation measures through RMP implementation decisions (e.g., approval of an Application for Permit to Drill (APD), Sundry Notice, Master Development Plans, Surface Use Plan of Operations {Forest Service}, etc.) and upon completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, among other things: 1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and 2. Whether the action is in conformance with the approved LUP.	Apply the following conservation measures as COAs at the project and well permitting stages, and through RMP implementation decisions and upon completion of the environmental record of review (43 CFR § 3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, among other things: 1. Whether the conservation measure is “reasonable” (43 CFR § 3101.1-2) with the valid existing rights; and 2. Whether the action is in conformance with the approved LUP.	In PPMAs, apply the following conservation measures through implementation decisions (e.g., approval of an APD, Sundry Notice, Master Development Plans, Surface Use Plan of Operations {Forest Service}, etc.) and upon completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA. In this process evaluate, among other things: 1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and 2. Whether the action is in conformance with the approved LUP.	All existing uses are explicitly recognized by this alternative and shall not be affected by the implementation of this alternative. The GRSG conservation measures identified in the associated NEPA documents for each of these projects would continue to be implemented to protect GRSG and its habitat. Provisions of this plan would not be added to the measures identified each specific project.	Overall consideration shall be given to minimizing the impact to GRSG through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to GRSG habitat or use and includes applicable and technical COAs. Selection and application of these measures shall be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas. For proposed operations in core areas, the Surface Use Plan of Operations (see 43CFR 3162.3-1(f)) shall address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and temporary facilities, traffic, phases of development over time, offsite mitigation, and expected periods of use associated with the proposed project. Seasonal habitats or project features	MA-MIN-21



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
					<p>related to potential GRSG impacts that are not addressed in the Surface Use Plan of Operations based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale for not including them. In this process evaluate, among other things:</p> <ul style="list-style-type: none"> <li>• Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) and consistent with valid existing rights;</li> <li>• Whether the action is in conformance with the approved LUP; and the effectiveness of the proposed mitigation measures.</li> </ul> <p>In cases where Federal oil and gas leases have been issued without adequate stipulations for the protection of GRSG or their habitats being provided in the applicable LUP decision, as revised or amended, consider their inclusion as permit COAs when approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5), including appropriate</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
No similar action. Measures that reduce or eliminate impacts to GRSG are considered on a case-by-case basis during implementation-level planning.	Do not allow new surface occupancy on federal leases within PPMAs, this includes winter concentration areas (Doherty et al. 2008, Carpenter et al. 2010) during any time of the year. Consider an exception: <ul style="list-style-type: none"> <li>• If the lease is entirely within PPMAs, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3 percent surface disturbance in that section.</li> <li>• If the entire lease is within the 4 mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or, depending on topography and other habitat aspects, in an area that is less demonstrably harmful to GRSG.</li> </ul>	Same as Alternative B.	<p>Apply the 5 percent disturbance limitation for development within PPMAs.</p> <p>Where GRSG conservation opportunities exist, work in collaboration with operators in PPMAs and PGMAs to minimize habitat loss, fragmentation, and direct and indirect effects to GRSG and habitat.</p> <p>Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations and habitat.</p> <p>In areas where GRSG populations have been substantially diminished, and where few birds remain, include actions in the authorization (e.g., siting/designing infrastructure, hastened habitat restoration) that will minimize habitat loss and promote restoration of habitat when development activities cease.</p> <p>In addition to considering</p>	<p>All existing uses are explicitly recognized by this alternative and shall not be affected by the implementation of this alternative. The GRSG conservation measures identified in the associated NEPA documents for each of these projects would continue to be implemented to protect GRSG and its habitat. Provisions of this plan would not be added to the measures identified each specific project.</p>	<p>documentation of compliance with NEPA.</p> <p>Many GRSG seasonal habitats within and outside of core areas are encumbered by valid existing rights, such as mineral leases or existing ROW. Fluid mineral leases often will include less stringent lease stipulations than the timing, distance, and density requirements identified for consideration in this policy. Agencies (BLM/Forest Service) will work with proponents holding valid existing leases that include less stringent lease stipulations than the timing, distance, and density restrictions described within this plan to ensure that measurable GRSG conservation objectives such as, but not limited to, consolidation of infrastructure to reduce habitat fragmentation and loss, and effective conservation of seasonal habitats and habitat connectivity to support population management objectives set by the WGFD, are included in all project proposals.</p>

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
			<p>opportunities for onsite mitigation, collaboration with project proponents to develop and consider implementing appropriate off-site mitigation that the BLM/Forest Service, collaborating with the respective state wildlife agency, determines would avoid or minimize habitat and population-level effects. Where possible, off-site mitigation should occur within the same population area where the impact is incurred. When developing such mitigation, consider compensating for the short-term and long-term direct and indirect loss of GRSG and its habitat.</p> <p>For geophysical exploration activities, include seasonal timing limitations and RDFs as permit COAs to eliminate or minimize surface-disturbing and disruptive activities within nesting and brood-rearing habitat and winter concentration areas.</p> <p>Ensure authorizations under Onshore Oil and Gas Order No. 7 (Disposal of Produced Water) consider the potential impacts to GRSG from West Nile virus and develop appropriate mitigation measures</p>		

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>Most LUPs include a management action that prohibits surface disturbing or other disruptive within GRSG breeding and nesting habitat within a certain distance and between certain dates. The protect buffers around leks vary from 0.25 miles and 3.1 miles. In general, recently completed plans include a larger protective buffer.</p> <p>Recently completed plans also include a management action that prohibits surface disturbing activity or disruptive activities during certain dates in winter habitat.</p>	<p>Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all PPMAs during this period.</p>	<p>Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and brood-rearing season in mapped occupied GRSG habitat during this period. This seasonal restriction shall also apply to related activities that are disruptive to GRSG, including vehicle traffic and other human presence.</p>	<p>and apply RDFs (Appendix L, Required Design Features for Preventing West Nile Virus).</p> <p>Same as Alternative B.</p>	<p>Allow exploratory drilling within SGMAs, subject to the same seasonal, NSO and CSU stipulations as would be applied to leases within SGMAs.</p>	<p>GRSG nesting/early brood-rearing habitat in core areas:</p> <ul style="list-style-type: none"> <li>• Surface disturbing and/or disruptive activities are prohibited from March 15–June 30 within core areas regardless of distance from a lek and the suitability of the habitat.</li> <li>• Where credible data support different timeframes for this seasonal restriction, dates may be expanded by up to 14 days prior to or subsequent to the above dates.</li> </ul>	MA–MIN-23
<p>No similar action.</p>	<p>Closely examine the applicability of categorical exclusions in PPMAs. If extraordinary circumstances review is applicable, determine whether those circumstances exist.</p>	<p>Same as Alternative B.</p>	<p>No similar action.</p>	<p>No similar action.</p>	<p>Within core and non-core areas, BLM/Forest Service should closely examine the applicability of categorical exclusions. If extraordinary circumstances review is applicable, BLM/Forest Service should determine whether those circumstances exist.</p>	MA–MIN-24
<p>No similar action.</p>	<p>Complete Master Development Plans in lieu of APD-by APD but wild</p>	<p>Same as Alternative B.</p>	<p>Within PPMAs, operators must submit a site-specific plan of development for roads, wells, pipelines and other infrastructure prior to any</p>	<p>No similar action.</p>	<p>Consider or encourage Master Development Plans for projects involving multiple proposed disturbances within a lease or core area.</p>	MA–MIN-25

So reject Alt B and stick with no action →

so reject alts D and B and stick with no action →

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
			development being authorized. The BLM/Forest Service will evaluate the plan through the NEPA process.			
No similar action.	<p>When permitting APDs on existing leases that are not yet developed, the proposed surface disturbance cannot exceed 3 percent for that area. Consider an exception if:</p> <ul style="list-style-type: none"> <li>• Additional, effective mitigation is demonstrated to offset the resulting loss of GRSG (see Objectives).                             <ul style="list-style-type: none"> <li>○ When necessary, conduct additional, effective mitigation in 1) PPMAs or – less preferably – 2) PGMAs (dependent upon the area-specific ability to increase GRSG populations).</li> <li>○ Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same MZ as the impact, per 2006 WAFWA Strategy (pg 2-17).</li> </ul> </li> </ul>	<p>When permitting APDs on existing leases that are not yet developed, the proposed surface disturbance cannot exceed 3 percent per section for that area. Consider an exception if:</p> <ul style="list-style-type: none"> <li>• Additional, effective mitigation is demonstrated to offset the resulting loss of GRSG (see Objectives).                             <ul style="list-style-type: none"> <li>○ When necessary, conduct additional, effective mitigation in PPMAs.</li> <li>○ Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same MZ as the impact, per 2006 WAFWA Strategy (pg 2-17).</li> </ul> </li> </ul>	<p>When permitting APDs on existing leases that are not yet developed, the proposed surface disturbance cannot exceed 5 percent for that area. Consider an exception if:</p> <ul style="list-style-type: none"> <li>• Additional, effective mitigation is demonstrated to offset the resulting loss of GRSG (see Objectives).                             <ul style="list-style-type: none"> <li>○ When necessary, conduct additional, effective mitigation in 1) PPMAs or – less preferably – 2) PGMAs (dependent upon the area-specific ability to increase GRSG populations).</li> <li>○ Conduct additional, effective mitigation prioritized first onsite where the impacts occurred, then within the disturbance calculation area, then within the same population area where the impact is realized, and if not possible then conduct mitigation within the same MZ as the impact, per 2006 WAFWA Strategy (pg 2-17).</li> </ul> </li> </ul>	<p>All existing uses are explicitly recognized by this alternative and shall not be affected by the implementation of this alternative. The GRSG conservation measures identified in the associated NEPA documents for each of these projects would continue to be implemented to protect GRSG and its habitat. Provisions of this plan would not be added to the measures identified each specific project.</p>	<p>Within core areas, when mitigation is required, the agencies in coordination with WGFD and partners would use the following mitigation hierarchy: in-kind and onsite mitigation as first priority or in-kind mitigation offsite mitigation as second priority.</p> <p>When additional offsite mitigation is necessary, conduct it within the same population area where the impact occurs if possible or, if that is not possible, within the same MZ per 2006 WAFWA Strategy as the impact.</p>	MA-MIN-26

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E1</b>	<b>Alternative E2</b>	
No similar action. Current policy allows unitization to occur on a case-by-case basis.	Require unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts to GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.	Same as Alternative B.	Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts to GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.	No similar action.	Within core areas, encourage unitization as a means of minimizing adverse impacts to GRSG to reduce fragmentation and surface disturbing and disruptive activities.	MA-MIN-27
Most LUPs include a management action that allows for acquisition of lands that have important resource values including crucial wildlife habitat and land tenure adjustments to improve the manageability of public lands.  In order to be considered for any form of land tenure adjustment, all lands not specifically identified for disposal must meet criteria included in the LUPs.	Identify areas where acquisitions (including federal mineral rights) or conservation easements, would benefit GRSG habitat.	Same as Alternative B.	Same as Alternative B.	No similar action.  which implies no action alternative - A	Same as Alternative B.	MA-MIN-28
No similar action. Current policy provides for the establishment of reclamation bonds on a case-by-case basis.	For future actions, require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, 3104.5, and 36 CFR 228.109. Insure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000, Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. Base the	Same as Alternative B.	Same as Alternative B.	No similar action.  which implies no action alternative - A	Require reclamation bond commensurate with the scope, scale, size of the project within core areas. Partial bonding may be appropriate depending on the above factors.	MA-MIN-29

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
	reclamation costs on the assumption that contractors will perform the work.					
No similar action.  Individual LUPs may contain an appendix that outlines BMPs that are applied on a case-by-case basis.	Make applicable RDFs (see Appendix J) mandatory as COAs within PPMAs.	Same as Alternative B.	The RDFs identified in Appendix J would be attached as mandatory COAs during development of a lease, unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project: <ul style="list-style-type: none"> <li>• A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>• A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> <li>• Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul>	No similar action.  subject to review of Appendix J	Where applicable and technically feasible, apply BMPs as mandatory COAs within core GRSG habitat for Fluid Minerals, Lands and Realty, West Nile, and Noise.	MA-MIN-30
No similar action.	No similar action.	Any oil, gas, geothermal activity will be conducted to maximize avoidance of impacts, including evolving scientific impacts.	No similar action.	No similar action.	No similar action.	MA-MIN-31
<b>Mineral Split-Estate</b>						
Under current management, there are no PPMAs. Decision	Where the federal government owns the mineral estate in	Same as Alternative B.	Same as Alternative B.	Because the surface estate is the key to conservation of	Where the federal government owns the mineral estate, and	MA-MIN-32

implying rejection of alt c and stick with no action →

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<p>included in current management plans apply to both federal surface and mineral estate.</p>	<p>PPMAs, and the surface is in non-federal ownership, apply the conservation measures applied on public lands.</p>			<p>habitat, the GRSG habitat has been mapped according to surface ownership. However, implementation of his alternative will have to accommodate the dominant nature of the mineral estate, and react accordingly.</p>	<p>the surface is non-federal ownership, apply the same GRSG conservation measures as applied on public land, for core and non-core areas respectively, working cooperatively with permittees, lessees and other surface landowners.</p>	
<p>No similar action.</p> <p>Under current management, there are no PPMAs. Decision included in current management plans apply to both federal surface and mineral estate.</p> <p>Individual LUPs may contain an appendix that outlines BMPs that are applied on a case-by-case basis.</p>	<p>Where the federal government owns the surface, and the mineral estate is in non-federal ownership in PPMAs, apply appropriate Fluid Mineral RDFs (see Appendix J) to surface development.</p>	<p>Same as Alternative B.</p>	<p>Where the federal government owns the surface, and the mineral estate is in non-federal ownership in PPMAs, the RDFs identified in Appendix J would be applied to surface developments, unless at least one of the following can be demonstrated in the NEPA analyses associated with the specific project:</p> <ul style="list-style-type: none"> <li>• A specific design feature is documented to not be applicable to the site-specific conditions of the project/activity;</li> <li>• A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat;</li> <li>• Analyses conclude that following a specific feature will provide no more protection to GRSG or its habitat than not following it, for the specific project being proposed.</li> </ul>	<p>No similar action.</p> <div style="border: 1px solid red; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Review Appendix J and study further - defer to Uintah and Duchesne County</p> </div>	<p>Where the federal government owns the surface, and the mineral estate is in non-federal ownership, apply the same GRSG conservation measures as applied on public land, for core and non-core areas respectively. Working cooperatively with permittees, lessees and other surface landowners.</p>	<p>MA-MIN-33</p>



**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
<b>AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs)</b>						
No existing ACECs include GRSG as a relevant and important value.	No similar action.	Designate and manage the following 15 areas (2,233,800) as ACECs (BLM) and GRSG Zoological Areas (Forest Service) to function as sagebrush reserves to conserve GRSG (Map 2.49, Potential ACECs and Zoological Areas—Alternative C): <ul style="list-style-type: none"> <li>• Three Corners/                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 5,000</b></li> <li>○ BLM acres – 5,000</li> <li>○ Forest Service acres – 22,500</li> </ul> </li> <li>• Diamond Mountain                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 139,500</b></li> <li>○ BLM acres – 110,300</li> <li>○ Forest Service acres – 29,200</li> </ul> </li> <li>• Little Mountain/Halfway Hollow                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 74,900</b></li> <li>○ BLM acres – 60,700</li> <li>○ Forest Service acres – 14,200</li> </ul> </li> <li>• Blue Mountain                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 18,900</b></li> <li>○ BLM acres – 18,900</li> <li>○ Forest Service acres – 0</li> </ul> </li> <li>• Emery                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 11,500</b></li> <li>○ BLM acres – 0</li> <li>○ Forest Service acres – 11,500</li> </ul> </li> </ul>	No similar action.	No similar action.	No similar action.	MA-ACEC-1

implying rejection of alt c and sticking with no action →

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
		<ul style="list-style-type: none"> <li>• Parker Mountain                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 350,500</b></li> <li>○ BLM acres – 201,800</li> <li>○ Forest Service acres – 148,700</li> </ul> </li> <li>• Southern Mountain Valleys                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 171,300</b></li> <li>○ BLM acres – 105,300</li> <li>○ Forest Service acres – 66,000</li> </ul> </li> <li>• Buckskin Valley                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 46,000</b></li> <li>○ BLM acres – 34,900</li> <li>○ Forest Service acres – 11,100</li> </ul> </li> <li>• Black Mountains                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 256,800</b></li> <li>○ BLM acres – 256,800</li> <li>○ Forest Service acres – 0</li> </ul> </li> <li>• Southern Great Basin                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 101,000</b></li> <li>○ BLM acres – 101,000</li> <li>○ Forest Service acres – 0</li> </ul> </li> <li>• Sheep Creek Mountains                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 398,100</b></li> <li>○ BLM acres – 316,700</li> <li>○ Forest Service acres – 81,400</li> </ul> </li> <li>• Ibapah                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 47,000</b></li> <li>○ BLM acres – 47,000</li> <li>○ Forest Service acres – 0</li> </ul> </li> <li>• Box Elder/Grouse Creek                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 364,100</b></li> <li>○ BLM acres – 364,100</li> </ul> </li> </ul>			

**Table 2.1  
Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2	
		<ul style="list-style-type: none"> <li>○ Forest Service acres – none in planning area</li> <li>• Rich County                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 171,800</b></li> <li>○ BLM acres – 166,600</li> <li>○ Forest Service acres – 5,200</li> </ul> </li> <li>• Strawberry                             <ul style="list-style-type: none"> <li>○ <b>Total acres – 9,800</b></li> <li>○ BLM acres – 0</li> <li>○ Forest Service acres – 9,800</li> </ul> </li> </ul>				
No similar action.	No similar action.	<p>Manage the relevant and important value (GRSG habitat) for the 15 GRSG ACECs/GRSG Zoological Areas as prescribed in this table above. In addition, implement the following management for these areas:</p> <ul style="list-style-type: none"> <li>• Manage the GRSG ACECs/ Zoological Areas minimize anthropogenic disturbances to consistent with rights.</li> <li>• Prioritize withdrawal from mineral location in the ACECs/Zoological Areas. Make any existing claims within the ACECs/Zoological Areas subject to validity patent examinations.</li> <li>• Require Plans of Operations for any Notice level</li> </ul>	No similar action.	No similar action.	No similar action.	MA-ACEC-2

implying rejection of alt c and sticking with no action →

**Table 2.1**  
**Description of Alternatives A, B, C1, C2, D, E1, and E2**

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E1	Alternative E2
		locatable mineral development per 43 CFR 3809 regulations. • Prioritize the removal of unneeded infrastructure (including mining or ROW equipment, roads, range developments and fencing).			



Beck, Jonathan &lt;jmbeck@blm.gov&gt;

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**RE: ID & SW MT GRSG FEIS Comments**

1 message

SHIRLEY, ROBERT M GS-14 USAF HAF AFCEC/SAF/IEE REO-W

Wed, May 13, 2015 at 7:41

&lt;robert.shirley.2@us.af.mil&gt;

PM

To: "jmbeck@blm.gov" &lt;jmbeck@blm.gov&gt;

Cc: "Huber, Michael J CIV USN COMNAVREG SW (US) (michael.huber@navy.mil)" <michael.huber@navy.mil>,  
"Mahoney, Mark A CIV USARMY HQDA ASA IEE (US) (mark.a.mahoney.civ@mail.mil)"

&lt;mark.a.mahoney.civ@mail.mil&gt;

Mr. Beck,

Attached are DoD comments on the BLM Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS) for the Idaho and Southwest Montana Sub-Region submitted in accordance with the Memorandum of Understanding between DoD and BLM establishing DoD as a Cooperating Agency.

The comments include a request to add language similar to text included in the Nevada and NE California Greater Sage-Grouse Proposed LUPA/Final EIS stating the BLM does not have the authority to regulate aircraft activities that are under the jurisdiction of the Federal Aviation Administration and the Department of Defense, and requests for exemption for projects which have military and national security requirements.

Due to the size of the document and abbreviated document review time line it is possible that additional DoD comments may be received which will be immediately forwarded for BLM consideration.

Thank you very much for the opportunity to review and comment on the document. If you have any questions, please let me know.

//SIGNED//

Robert M. Shirley, DAF

DoD Regional Environmental Coordinator, Region 10

AF Western Regional Environmental Office, San Francisco

(415 )977-8846

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**2 attachments**

ID GRSG\_Admin FEIS\_Comment Form\_(ID &amp; SW MT).docx

45K



smime.p7s

6K

***Preliminary Proposed LUPA/Final EIS for Cooperating Agency Review***

**To Cooperating Agencies:**

The **Preliminary Proposed LUPA/Final EIS** is intended for internal review by the Cooperating Agencies from April 29 – May 13, 2015. Please do not distribute.

- Email your comments on the Preliminary Proposed RMPA/FEIS for by close of business Wednesday, **May 13, 2015**
- Contact Jonathan Beck, with questions: 208-373-4070, or [jmbeck@blm.gov](mailto:jmbeck@blm.gov)

***How to Provide Valuable Feedback***

**Commenting:**

Compared to the Draft EIS, there have been very few changes to Chapter 2, Detailed Description of Draft Alternatives (FEIS Section 2.10) and Chapter 3, as well as Appendices G, I, J, Q, S, and V.

Please focus your review on those areas of special expertise associated with your role and responsibility that were recognized in the Memorandum of Understanding between the BLM and your agency.

If providing input on consistency with plans of other Federal agencies, state and local governments, and Indian tribes, please be consistent with the regulations regarding such at 43 CFR 1610.3

For each comment, please fill in the page number, line number, or table number on which you are commenting under the appropriate column heading in the matrix. **The page and line numbers in the PDF file MUST be used.**

To be most helpful, your comments **must be specific**. Please be unambiguous, clear, and directive, with exact wording changes stated. Ambiguous comments, such as “What?,” “Poor,” or “Is this right?,” are not helpful and will not be considered.

If you have the same comment more than once, do not refer back to a previous comment number. Instead, please copy and paste your comment to a new row in the matrix and provide the specific page number, etc.

If you need additional space for comments, click in the table cell where you would like to comment, select the *Table* menu, *Insert*, and either *Rows Above* or *Rows Below*.

**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
1.	Executive Summary, Introduction and Chapter 5, beginning, and page 5-1 and elsewhere in document as appropriate.	Introduction, end of section 5.1.7, and elsewhere as appropriate.	Bob Shirley	AF/DoD Regional Environmental Coordinator	Add text: "Aircraft Overflights are outside the scope of the FEIS. The BLM does not have the authority to regulate aircraft activities that are under the jurisdiction of the Federal Aviation Administration and the Department of Defense."
2.	Page G-26	Table 2	Bob Shirley	USAF	List numbering is incorrect for site scale and disturbance calculation tables.
3.	Chapter 2	Figure 2-4	Carl Ruden	Mountain Home AFB, USAF	Some of the area identified as "Open" and "Avoidance" for wind and solar development fall under the Jarbidge North and Owyhee North MOAs and Restricted Airspace R3202 and R3204. Some wind and solar development may not be compatible with military aircraft operations, radar, and communications.
4.	Chapter 2, Page 19	27	Carl Ruden	Mountain Home AFB, USAF	AD-1 could restrict Mountain Home AFB (MHAFB) and Mountain Home Range Complex (MHRC) ability to acquire and build structures, conduct construction or repair on access roads, conduct military exercises adjacent to LFs or MAFs, and acquire and construct new emitter and no-drop sites and their associated roads. Request exemption for projects which have military and national security requirements.
5.	Chapter 2, Page 22	19	Carl Ruden	Mountain Home AFB, USAF	AD-5 could restrict MHAFB and MHRC ability to construct new communications sites and powerlines. Request exemption for projects which have military and national security requirements.
6.	Chapter 2, Page 23	13	Carl Ruden	Mountain Home AFB, USAF	AD-9. MHAFB and MHRC currently have use restrictions for select emitter sites to mitigate impacts to sage-grouse. This objective has the potential to further restrict emitter operations and military training. Request exemption for projects which have military and national security requirements.
7.	Chapter 2, Page 28	6	Carl Ruden	Mountain Home AFB, USAF	Invasive species management, particularly cheatgrass control, on BLM lands surrounding the MHRC will benefit AF management of national/cultural resources in the MHRC.
8.	Chapter 2, Page 28	23	Carl Ruden	Mountain Home AFB, USAF	Wildland Fire Management Objectives will directly benefit the protection of USAF personnel, facilities, and natural/cultural resources.
9.	Chapter 2, Page 34	28	Carl Ruden	Mountain Home AFB, USAF	RM-5 Analyzing how changes in grazing management affects fuel loads is an important part of wildfire management and has the potential to affect wildfires in the Mountain Home Range Complex.

**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
10.	Chapter 2, Page 38	2	Carl Ruden	Mountain Home AFB, USAF	LR-1 could restrict MHAFB and MHRC ability to acquire and construct new emitter and no-drop sites and their associated roads Request exemption for projects which have military and national security requirements.
11.	Chapter 2, Page 183	7	Carl Ruden	Mountain Home AFB, USAF	Closing access to off-road driving may affect military operations, training and scientific studies & monitoring. Limiting OHV use to existing roads and trails is reasonable. Seasonally closing roads might impact MHAFB and MHRC activities. Request exemption for projects which have military and national security requirements.
12.	Chapter 5, Page 18	24	Carl Ruden	Mountain Home AFB, USAF	MHAFB has mitigation measures in place to prevent fires caused by AF activities. Mitigation measures taken during fire season include: restrictions on flare use, ordnance dropping restrictions, overland travel restrictions, restrictions in the use of smoke (CERE), firefighters and equipment onsite during training activities, mowing grasses in roads, maintaining/installing firebreaks.
13.	Chapter 5, Page 20		Carl Ruden	Mountain Home AFB, USAF	MHAFB has an active weed suppression program for our BLM Right-of-Ways, included noxious weed control along 81 miles of BLM roads annually.
14.	Chapter 5, Page 23		Carl Ruden	Mountain Home AFB, USAF	MHAFB has an active weed suppression program for our BLM Right-of-Ways, included noxious weed control along 81 miles of BLM roads annually.
15.	Chapter 5, Page 107	Table 5-26	Carl Ruden	Mountain Home AFB, USAF	Military Training-Location should identify Bruneau, Owyhee, and Jarbidge Field Offices or Boise District Office. Road and Emitter use occur in the Bruneau and Jarbidge Field Offices. Bombing ranges occur in the Jarbidge field office. Acres/miles can be calculated if required.
16.	2.7.3, 2-66	32-34	Sharon Geil	USAF	Include DoD within the list of Federal agencies, mention of DoD and DoD mission requirements seems lacking except within land ownership and similar all-inclusive tables.
17.	Chapter 2, Page 22	19	Elin Pierce Julie Jeter	Malmstrom AFB	AD-5 could restrict our ability to erect new power lines or communications site along access roads to missile sites or MAFs. Request exemption for projects which have military and national security requirements.
18.	Chapter 2, Page 30	27	Elin Pierce Julie Jeter	Malmstrom AFB	Measures outlined in the section Fuels Management (FM 1-7) can impact AF negatively by potentially increasing the occurrence of invasive species, enhancing access into remote sagebrush steppe, and (with respect to roads) potentially result in more wildfires – which endangered AF personnel and equipment.



**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
19.	Chapter 2 Page 32	20	Julie Jeter	Air Force AFCEC/CZTQ	Recommend thorough analysis of potential effects of using non-native seed or plant stock. Consider using sterile grass seed while allowing native plants time to thrive.
20.	NA	NA	Julie Jeter	Air Force AFCEC/CZTQ	General Comment: please include a table of contents and list of acronyms.



Beck, Jonathan &lt;jmbeck@blm.gov&gt;

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## Sage-Grouse preliminary final EIS

1 message

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Depperschmidt, Jack D <depperjd@id.doe.gov>  
To: "jmbeck@blm.gov" <jmbeck@blm.gov>

Wed, May 13, 2015 at 1:43 PM

Jim,

As you may know, The Department of Energy (DOE) already has a candidate conservation agreement (CCA) for sage-grouse on the INL Site. The actions within the proposed plan would be implemented on the INL Site for those actions BLM has management responsibility for under our MOU with the Upper Snake Field Office for BLM. It is a unique situation and little complicated (not unlike your proposed plan) but DOE would probably roll the final applicable requirements for the applicable actions into our existing CCA and BLM would continue to manage those resources under their authority. If you would like to have a discussion about this please let me know. The "conservations measures" in the proposed plan appear to provide adequate mitigation to address the threats and it is probably going to be tough implementing those measures. Anyway, I have no comments and if you would like a copy of our CCA, please let me know.

Cheers,

Jack Depperschmidt  
NEPA Compliance Officer  
Department of Energy, Idaho Operations Office  
1955 Fremont Avenue  
Idaho Falls, Idaho 83415-1216  
(208) 526-5053



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May 15, 2015

John Beck, Project Lead  
Greater Sage-Grouse LUP Amendments  
Idaho and Southwestern Montana Sub-Region  
Bureau of Land Management, Idaho State Office  
1387 S. Vinnell Way  
Boise, Idaho 83709

Tel: (208) 373-4070

Sent via email: [jmbeck@blm.gov](mailto:jmbeck@blm.gov)

**Custer County Idaho Comments on Idaho and Southwestern Montana Greater Sage-Grouse Administrative Draft of Proposed Land Use Plan Amendment and Final Environmental Impact Statement**

On behalf of the Custer County Idaho Board of Commissioners, please incorporate the following comments into the above referenced documents. All prior Custer County comments to this NEPA process are herein incorporated by reference.

**1. FEIS Chapter 1, Page 2:** *“While historical Euro-American settlement of these lands has been slower and sparser than in other regions of the country, habitat conversion to suit human purposes has contributed to widespread loss and decline of sagebrush habitat availability or quality and associated wildlife populations. These human purposes include agriculture and urban development, energy and mineral resource development, and a long history of dispersed (but sometimes intensive) uses such as domestic grazing.”*

Comment:

The Land Use Plan Amendment (LUPA) and Final Environmental Impact Statement (FEIS) for Idaho and southwestern Montana are based on a series of false assumptions including the statement quoted above. As testimonials from Custer County Commissioners and residents show, before enactment of the ESA, sage-grouse were abundant. Sage-grouse populations thrived in the era of agriculture in Idaho and southwest Montana. This fact is understated in the FEIS in favor of hypothetical pre-European settlement “make-believe” maps that are not

based on science. The artificial stories and maps created by federal biologists leave out the fact that when ranchers, farmers and miners settled in Idaho and Montana in the 1800s and 1900s they cleared trees, leveled land, planted crops, created year round water sources and increased the abundance of sage-grouse and the diversity of habitat the sage-grouse needed for optimum year round survival.

The false assumptions throughout the FEIS result in a proposed action that would harm the Greater Sage-Grouse as well as the economy of Custer County and other counties in Idaho and southwestern Montana. The proposed action would also harm the economic well being of our nation as a whole by destroying the very industries that have helped sage-grouse habitat diversification over time. The proposed action would also harm our military defense system by adding restrictions that are unnecessary and expensive. Every hour and every dollar the military spend on this false crisis is time and money that is urgently needed to strengthen our national defenses.

The false assumptions and incorrect political rationalizations in the name of the Endangered Species Act (ESA) are disingenuous and need to be corrected. For the reasons listed below and those itemized in past comments, the Custer County Board of Commissions recommends the No Action Alternative as the preferred alternative.

**2. FEIS Page 1 -9. “Within the Idaho and southwestern Montana sub-region, the PACs consist of a total 11,232,800 acres.”**

Comment:

Custer County is opposed to restrictions within over 11.2 million acres of Priority Areas for Conservation (PACs) including each and every proposed land withdrawal, restriction on land disposal, leasing closure, leasing constraint, non-energy leasing closure, saleable mineral material leasing closure, travel management restriction, ban from surface occupancy, anthropomorphic surface disturbance limitation and other action that prohibits economic opportunities, scientific vegetative management, and predator control options outlined clearly and succinctly in the Custer County Land Use Plan.

**3. FEIS Figure 1-1**

Comment:

This figure demonstrates that the Greater sage-grouse habitat is widespread and abundant. The proposed action is based on the premise that sage-grouse are declining due to man induced factors related to livestock grazing, oil and gas development, roads, and mining.



Instead, the science shows the sage-grouse populations fluctuate in relation to climate and predators and that sage-grouse are not threatened with extinction. Genetic work by Dr. Zink, discussed in previous comments submitted by Custer County, clearly demonstrates the genetic health of the Greater sage-grouse population across the eleven states where listing is proposed but not warranted.

The very work federal land management agencies should be taking to enhance sage-grouse habitat would be severely restricted by the proposed alternative. The proposed plan of action would limit options to manage sagebrush and riparian communities as well as predators, thus harming sage-grouse populations in Idaho and southwestern Montana.

**4. FEIS Table 1-3 Lists Predators as a threat to sage-grouse in all three documents cited:**

<b>USFWS 2010 Finding</b>	<b>2006 Idaho GRSG Conservation Plan</b>	<b>2005 Montana GRSG Management Plan</b>
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Comment

FEIS Table 1-3 clearly demonstrates that USFWS, Idaho and Montana all consider predators a significant threat to sage-grouse. This fact contradicts Appendix R, Page R 15 which states:

*“The [Catron] county plan identifies predation as the primary threat in the county (p. 14). This threat is not shown as a primary threat on other threat descriptions (BLM, State, USFWS, Local Working Group). **Predator control is not under the jurisdiction or authority of the BLM or FS** (emphasis added) and a specific alternative to address predator control has been eliminated from detailed analysis”*

The FEIS and Appendix R need to be corrected so they don't contradict each other.

Please answer the question of why BLM and FS personnel think they can manage game bird populations (sage-grouse) and their habitat and why they think they can't manage predator populations (foxes, badgers, ravens, etc) and their habitat.

Also, if *“**Predator control is not under the jurisdiction or authority of the BLM or FS**”* (emphasis added) why are the two agencies involved in interdisciplinary teams to manage wolves? Wolves are predators. Wolves prey on sage-grouse.

Stating that BLM and FS can manage sage-grouse and wolves, but not “predators” is illogical and contradicts ongoing actions by both agencies. The statement that predator control is not under the jurisdiction or authority of BLM or FS is false and needs to be corrected. Both agencies know that they currently, through agreements with state and other federal agencies, jointly perform predator management control activities. The statement was merely placed in



Appendix R to discard the Custer County recommendation for predator control actions as a mechanism to increase sage-grouse numbers. The statement is political and it is false.

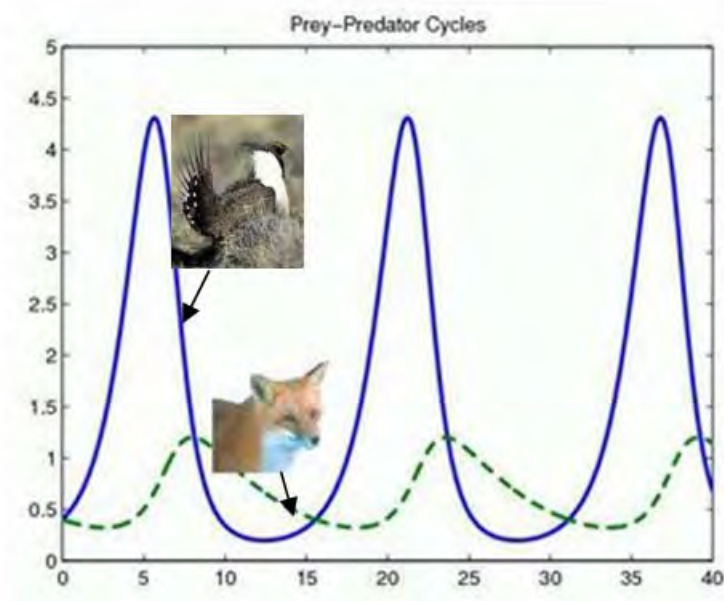
Please rewrite Appendix R as it relates to the Custer County Land Use Plan predator control recommendations and what BLM and FS can and cannot do through interagency agreements to control predators and to fund predator control programs when they so desire.

Why is it that BLM and Forest Service seem to think they can create rules and restrictions for sage-grouse and wolf habitat, hire biologists to count sage-grouse and wolves, radio track sage-grouse and wolves, map sage-grouse and wolf movements, etc. yet the same federal agencies say they can't count badgers, radio track badgers, map badger movements, or otherwise "manage" predators such as badgers?

What federal laws create the distinction between when the BLM and Forest Service can manage a particular species? BLM and Forest Service biologists are involved in programs to track deer and elk, yet these species are not listed as sensitive, threatened or endangered.

The FEIS needs to analyze predators as well a prey. The two are directly related and inseparable.

Anyone with basic wildlife management training knows that there is a predator – prey cycle:



Prior to enacting the ESA, predator control was a key factor in keeping sage-grouse numbers high. This is a well documented fact that recent agency biologists choose to ignore.

The presence or absence of predators is a key population factor in the survival and population viability of sage-grouse and cannot be categorically ignored. By ignoring the predator prey cycle in the FEIS, the agencies have missed a key factor in sage-grouse management that is critical to their decision. The lack of a detailed predator prey analysis negates the ability of the agencies to make an informed decision. The lack of a predator prey analysis makes the current FEIS proposed decision arbitrary and/or capricious.

## **5. FEIS Figure 3-3**

Comment:

This figure demonstrates that catastrophic fires are significant in Idaho and southwestern Montana. Science proves sage-grouse habitat is dynamic and vulnerable to catastrophic fires if left unmanaged (Davies et al 2011). The catastrophic fires that would be perpetuated by the proposed action will destroy soil microbes necessary to restore vegetation.

Livestock grazing prevents blazing, yet livestock grazing is severely restricted under the proposed action. The result of implementing the proposed action would be massive fuel loads that build up and burn hot, requiring federal, state and local resources to fight fires instead of producing food and economic prosperity.

## **6. FEIS Appendix D**

Comment:

Though the federal agencies assess fire strategies, they fail to include the private land and the value of partnerships with private landowners to create an ecosystem approach to fire management. Their analysis also fails to consider the large amount of revenue generated from mining, oil and gas, and livestock grazing that would be available to implement the fire management strategies if these resource uses were allowed to persist and thrive under Congressionally mandated multiple use guidelines.

The combination of natural resource use and mitigation provided when industry is involved in natural resource management, while at the same time creating wealth from food and energy producers, was not analyzed. Money matters. The Big Green organizations are not spending enough of their money on land management. Instead they spend it on litigation and lobbying. The litigation takes money away from federal land management agencies that would be better spent on managing wildlife habitat.



Natural resource users will spend money to manage the land so they can continue to use it wisely. Federal agencies should ally with livestock producers, mining companies, oil and gas companies, hunters and other natural resource users to find ways to work towards the goal of bringing both healthy natural resources and healthy economic metrics into balance. Government would be better served to work with producers instead of against them. The current plan of action works against industry.

The current plan of action did not take into account the comments provided by Custer County to date in regard to this NEPA decision. The proposed action is inconsistent with the Custer County Land Use Plan and the economic needs and willingness of the County and its constituents to work to assure the health of sage-grouse populations and their habitat.

## **7. FEIS Appendix R**

Comment:

Though Appendix R of the FEIS purports to take into account relevant County Land Use Plans, it does nothing to create consistency between federal and local plans. The Custer County Board of Commissioners adopted their Land Use Plan in hopes that it would be relevant to the decisions of federal land managers within the County. Instead, the Custer County Land Use Plan was largely ignored because it did not fit with the easier and less expensive government GIS models that lock up the land instead of managing land as evidenced by the millions of acres that would be withdrawn or restricted from multiple use under the proposed alternative.

## **8. Appendix AA**

Comment

The IMPLAN addressed in Appendix AA is deceiving in respect to tables that show no decrease in AUMs under the proposed action. The problem is that the price of the AUMs increases to the point that livestock producers will not be able to afford the AUMs (Appendix AA).

This real and significant economic impact was not analyzed in the FEIS, in direct violation of NEPA, CEQ regulations, the Regulatory Flexibility Act and a variety of other laws, policies and Executive Orders detailed in previous Custer County comments. Based on a lack of a proper economic analysis, any decision from the FEIS is by nature arbitrary and/or capricious.





The IMPLAN is akin to stating that the number of federal employees in BLM and Forest Service will stay the same, though in a different part of the analysis, their salaries will be cut 90%. Logic tells you the federal employees will leave if their salaries are significantly cut. Why wasn't the same logic used to state that AUMs will be significantly reduced under the proposed action alternative due to the significant increase in the cost of each AUM?

## **9. Appendix R**

Comment:

The LUPA/FEIS continue to ignore the Custer County Land Use Plan as evidenced in Appendix R of the FEIS. Custer County Commissioners have watched as ESA actions to bring back species such as the spotted owl, gray wolf and grizzly bear have restricted perceived threats such as livestock grazing, timber harvest, oil and gas development, mining and other natural resource uses. The result is unhealthy and unbalanced. Custer County Commissioners reacted by writing their own land use plan that should become part of any federal plans within the County. Instead, the proposed action is inconsistent with the County Land Use Plan and the federal government is negligent in its actions to dismiss the County Plan as irrelevant.

The proposed action further restricts land uses and land management tools that constituents of Custer County need to utilize in order to keep sagebrush from becoming decadent. Old growth climax sagebrush is not used by sage-grouse, yet that is what the proposed action will create, to the detriment of the very species the federal agencies purport to want to protect.

How did federal agencies get off track? The answer is simple. Politics, emotions and egos are overtaking science and facts. Many federal biologists have put their careers on the line to get promoted, make friends in Washington DC and become Hollywood – type stars in the eyes of people who trust them to save a species that would be best left to local management.

Pro-sage-grouse organizations are making billions of dollars off this false crisis. Politicians are getting reelected based on the lobbying efforts of these Big Green organizations that know the real issue is not sage-grouse. The real issue is power and wealth, big government control and a wildlands network where rural populations are exterminated for the perceived greater good of the country.

The crime is in the fact that rural Americans that feed the world are the heart and soul of our country. They should not be destroyed in favor of zealots that believe humans are a parasite on this earth. By writing Appendix R in a way that dismissed the Custer County Land Use Plan, the federal agencies are buying into a false premise that will actually put the security of



our nation at risk as we become dependent on other nations for food, energy, minerals, and other necessities of life.

The ESA action to place Canadian timber wolves in Idaho and southwest Montana has created a significant increase in predators which in turn threatens sage-grouse. As documented in earlier Custer County comments, raven numbers have increased thousands of fold in certain areas of Idaho due to the carcasses left by wolves. Ravens and other predators eat sage-grouse eggs and sage-grouse chicks. Why is the fact that ravens and other predators are causing a decline in sage-grouse ignored? The answer has to be political because it certainly isn't scientific. Many members of the Custer County Commission have seen the benefits of predator control. Many of the people who live in Custer County grew up in the County. They know the history, customs and culture of their ancestors. They know wildlife management. They know more about sage-grouse and sage-grouse habitat than federal biologists. Custer County Commissioners know that the proposed action is bad for sage-grouse and bad for their County.

## **10. FEIS Appendix BB**

Comment:

The federal agencies do not see the hypocrisy of their thinking. In Appendix BB they discuss nonmarket values including *“value from using these non-market resources, such as photographing ranch houses, old barns ... driving backcountry roads.”* They don't stop to think that the proposed action will destroy the very values they weigh. The proposed action will cause ranch houses and old barns to crumble and high density subdivisions to be built (Davies et al. 2011). Backcountry roads will either disappear or become paved roads with more traffic. The nonmarket analysis is fatally flawed because it places values on so many resources that will disappear if the proposed action is implemented. The nonmarket analysis must be re-written to take into account this factor.

## **SUMMARY**

In summary, the only acceptable alternative is the No Action Alternative. Idaho and Montana fish and wildlife management agencies need to work with local governments and multiple use groups to keep a wide diversity of habitat, with vegetation in various seral stages, to recreate an ecosystem where sage-grouse and other wild animals thrive. Predator control must be part of the solution.

The western eleven states where Greater sage-grouse are found should not become part of a conservation system that creates protection akin to national parks or wilderness. Sage-grouse



thrive on agriculture and a diversity of land uses and seral stages of vegetation. Sage-grouse do not thrive in climax communities of old growth sagebrush with unpalatable vegetation. The proposed action will exacerbate a situation where a spark of lightening is enough to start a catastrophic fire that burns millions of acres of sage-grouse habitat where fuel loads are so high that the habitat is lost for decades to come.

The FEIS needs to be rewritten to analyze the impacts the proposed action will have as fires increase and add more carbon to the environment than what was analyzed in the FEIS. (See <http://www.lanl.gov/discover/news-release-archive/2013/July/07.09-wildfires-may-contribute-to-global-warming.php>).

Please choose the No Action Alternative and work with local and state governments to manage sage-grouse and their habitat in balance with all wildlife and human activities. To do otherwise will rapidly result in the demise of sage-grouse and their habitat.

Respectfully Submitted on Behalf of Custer County by  
Darling Geomatics Sage-Grouse Biologist

*/s/ Mary E. Darling*

Mary E. Darling, MS, JD





## Montana Fish, Wildlife & Parks

PO Box 200701  
Helena, MT 59620-0701  
406-444-3186  
FAX: 406-444-4952  
Ref: DO 132-15

May 13, 2015

Dear BLM Project Managers:

Montana Fish, Wildlife and Parks, a Cooperating Agency with the BLM, has received electronic copies of the Administrative Draft Greater Sage-grouse Proposed Resource Management Plan Amendment/Final Environmental Impact Statement (FEIS) or Administrative Draft Proposed Resource Management Plan/Final Environmental Impact Statement (FEIS) for each of the field offices within the range of sage-grouse in Montana. This letter pertains to management decisions related to Greater Sage-grouse. FWP Regional Offices may provide additional comments on other aspects of Resource Management Plan revisions separately.

We have limited our review to the first section of Chapter 2 that details the changes between the Draft and Final EIS because of the limited time provided for review. The BLM's landscape-scale approach that prioritizes conservation action in the most important landscapes (e.g., Core Areas) yet honors valid and existing rights is consistent with Montana's Sage-grouse Habitat Conservation Program – Executive Order 10-2014. The BLM objectives of minimizing new or additional surface disturbance and improving habitat conditions directly align with Montana's program. We are supportive of the BLM's intent to maintain a surface disturbance limit of 3% in the absence of a Montana state program, but to adjust that limit to 5% to be consistent with the state program when the state program becomes fully functional. This consistency among regulatory processes will be easier to communicate with the public and will ultimately provide greater benefits to sage-grouse.

Thank you for the opportunity to review the Administrative Draft. Montana Fish, Wildlife and Parks looks forward to continuing to work with the BLM on implementation of the Resource Management Plans and Greater Sage-grouse conservation efforts.

Sincerely,

A handwritten signature in blue ink that reads "Paul C. Sihler". The signature is written in a cursive, flowing style.

Paul Sihler  
Chief of Field Operations

CC: Jeff Hagener, Ken McDonald, Gary Bertellotti, Brad Schmitz, Tom Flowers, Sam Sheppard, Gary Hammond, Catherine Wightman



Beck, Jonathan &lt;jmbeck@blm.gov&gt;

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## Idaho swMontana Sage-Grouse LUPA/FEIS Administrative Draft May 2015 - Custer County Comments

1 message

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Mary Darling <marydarling@darlingltd.com>

Fri, May 15, 2015 at 2:52 PM

Reply-To: marydarling@darlingltd.com

To: jmbeck@blm.gov, Brent Ralston <bralston@blm.gov>

Cc: wayne\_butts@gmail.com, Lura Baker <lbaker@co.custer.id.us>, lin.hintze@gmail.com, Jim & Tina Hawkins <hawkins@custertel.net>, Margaret Byfield <margaret@americanstewards.us>, Harriet Henderson <harrietmagee@hotmail.com>, dmlamb01@gmail.com

On behalf of Custer County Board of Commissioners, please accept and consider the attached comments to the administrative copy of the Greater Sage-Grouse LUPA and FEIS for Idaho and sw Montana.

Kind regards, Mary



**Mary E. Darling, MS, JD**

**CEO/Principal Owner/Biologist**

*Darling Geomatics*

*Award Winning Aerial UAV Surveying, 3D Scanning, Land Surveying, & Environmental*

*Immediate Past President So AZ Post Society of American Military Engineers*

**Certified DBE, WBE, WOSB, SBE**


**University of Arizona Tech Park**


**9040 South Rita Road, Ste #2350, Tucson, AZ 85747**

**Ph (520) 298-2725 / Fax (520) 298-2767/Cell (520) 954-4050**

**www.darlingltd.com**

2 attachments

 Custer Co Comments - Sage-Gr Adm DR Idaho sw MT LUPA and FEIS May 2015 Fnl.pdf  
117K

 Custer Co Comments - Sage-Gr Adm DR Idaho sw MT LUPA and FEIS May 2015 Fnl.pdf  
117K

## Idaho Greater Sage-Grouse LUPA/EIS

May 13, 2015

### *Preliminary Proposed LUPA/Final EIS for Cooperating Agency Review*

#### To Cooperating Agencies:

The **Preliminary Proposed LUPA/Final EIS** is intended for internal review by the Cooperating Agencies from April 29 – May 13, 2015. Please do not distribute.

- Email your comments on the Preliminary Proposed RMPA/FEIS for by close of business Wednesday, **May 13, 2015**
- Contact Jonathan Beck, with questions: 208-373-4070, or [jmbeck@blm.gov](mailto:jmbeck@blm.gov)

### *How to Provide Valuable Feedback*

#### Commenting:

Compared to the Draft EIS, there have been very few changes to Chapter 2, Detailed Description of Draft Alternatives (FEIS Section 2.10) and Chapter 3, as well as Appendices G, I, J, Q, S, and V.

Please focus your review on those areas of special expertise associated with your role and responsibility that were recognized in the Memorandum of Understanding between the BLM and your agency.

If providing input on consistency with plans of other Federal agencies, state and local governments, and Indian tribes, please be consistent with the regulations regarding such at 43 CFR 1610.3

For each comment, please fill in the page number, line number, or table number on which you are commenting under the appropriate column heading in the matrix. **The page and line numbers in the PDF file MUST be used.**

To be most helpful, your comments **must be specific**. Please be unambiguous, clear, and directive, with exact wording changes stated. Ambiguous comments, such as “What?,” “Poor,” or “Is this right?,” are not helpful and will not be considered.

If you have the same comment more than once, do not refer back to a previous comment number. Instead, please copy and paste your comment to a new row in the matrix and provide the specific page number, etc.

If you need additional space for comments, click in the table cell where you would like to comment, select the *Table* menu, *Insert*, and either *Rows Above* or *Rows Below*.

**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
1.	Executive Summary, Introduction and Chapter 5, beginning, and page 5-1 and elsewhere in document as appropriate.	Introduction, end of section 5.1.7, and elsewhere as appropriate.	Bob Shirley	AF/DoD Regional Environmental Coordinator	Add text: "Aircraft Overflights are outside the scope of the FEIS. The BLM does not have the authority to regulate aircraft activities that are under the jurisdiction of the Federal Aviation Administration and the Department of Defense."
2.	Page G-26	Table 2	Bob Shirley	USAF	List numbering is incorrect for site scale and disturbance calculation tables.
3.	Chapter 2	Figure 2-4	Carl Ruden	Mountain Home AFB, USAF	Some of the area identified as "Open" and "Avoidance" for wind and solar development fall under the Jarbidge North and Owyhee North MOAs and Restricted Airspace R3202 and R3204. Some wind and solar development may not be compatible with military aircraft operations, radar, and communications.
4.	Chapter 2, Page 19	27	Carl Ruden	Mountain Home AFB, USAF	AD-1 could restrict Mountain Home AFB (MHAFB) and Mountain Home Range Complex (MHRC) ability to acquire and build structures, conduct construction or repair on access roads, conduct military exercises adjacent to LFs or MAFs, and acquire and construct new emitter and no-drop sites and their associated roads. Request exemption for projects which have military and national security requirements.
5.	Chapter 2, Page 22	19	Carl Ruden	Mountain Home AFB, USAF	AD-5 could restrict MHAFB and MHRC ability to construct new communications sites and powerlines. Request exemption for projects which have military and national security requirements.
6.	Chapter 2, Page 23	13	Carl Ruden	Mountain Home AFB, USAF	AD-9. MHAFB and MHRC currently have use restrictions for select emitter sites to mitigate impacts to sage-grouse. This objective has the potential to further restrict emitter operations and military training. Request exemption for projects which have military and national security requirements.
7.	Chapter 2, Page 28	6	Carl Ruden	Mountain Home AFB, USAF	Invasive species management, particularly cheatgrass control, on BLM lands surrounding the MHRC will benefit AF management of national/cultural resources in the MHRC.
8.	Chapter 2, Page 28	23	Carl Ruden	Mountain Home AFB, USAF	Wildland Fire Management Objectives will directly benefit the protection of USAF personnel, facilities, and natural/cultural resources.
9.	Chapter 2, Page 34	28	Carl Ruden	Mountain Home AFB, USAF	RM-5 Analyzing how changes in grazing management affects fuel loads is an important part of wildfire management and has the potential to affect wildfires in the Mountain Home Range Complex.



**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
10.	Chapter 2, Page 38	2	Carl Ruden	Mountain Home AFB, USAF	LR-1 could restrict MHAFB and MHRC ability to acquire and construct new emitter and no-drop sites and their associated roads Request exemption for projects which have military and national security requirements.
11.	Chapter 2, Page 183	7	Carl Ruden	Mountain Home AFB, USAF	Closing access to off-road driving may affect military operations, training and scientific studies & monitoring. Limiting OHV use to existing roads and trails is reasonable. Seasonally closing roads might impact MHAFB and MHRC activities. Request exemption for projects which have military and national security requirements.
12.	Chapter 5, Page 18	24	Carl Ruden	Mountain Home AFB, USAF	MHAFB has mitigation measures in place to prevent fires caused by AF activities. Mitigation measures taken during fire season include: restrictions on flare use, ordnance dropping restrictions, overland travel restrictions, restrictions in the use of smoke (CERE), firefighters and equipment onsite during training activities, mowing grasses in roads, maintaining/installing firebreaks.
13.	Chapter 5, Page 20		Carl Ruden	Mountain Home AFB, USAF	MHAFB has an active weed suppression program for our BLM Right-of-Ways, included noxious weed control along 81 miles of BLM roads annually.
14.	Chapter 5, Page 23		Carl Ruden	Mountain Home AFB, USAF	MHAFB has an active weed suppression program for our BLM Right-of-Ways, included noxious weed control along 81 miles of BLM roads annually.
15.	Chapter 5, Page 107	Table 5-26	Carl Ruden	Mountain Home AFB, USAF	Military Training-Location should identify Bruneau, Owyhee, and Jarbidge Field Offices or Boise District Office. Road and Emitter use occur in the Bruneau and Jarbidge Field Offices. Bombing ranges occur in the Jarbidge field office. Acres/miles can be calculated if required.
16.	2.7.3, 2-66	32-34	Sharon Geil	USAF	Include DoD within the list of Federal agencies, mention of DoD and DoD mission requirements seems lacking except within land ownership and similar all-inclusive tables.
17.	Chapter 2, Page 22	19	Elin Pierce Julie Jeter	Malmstrom AFB	AD-5 could restrict our ability to erect new power lines or communications site along access roads to missile sites or MAFs. Request exemption for projects which have military and national security requirements.
18.	Chapter 2, Page 30	27	Elin Pierce Julie Jeter	Malmstrom AFB	Measures outlined in the section Fuels Management (FM 1-7) can impact AF negatively by potentially increasing the occurrence of invasive species, enhancing access into remote sagebrush steppe, and (with respect to roads) potentially result in more wildfires – which endangered AF personnel and equipment.

**BLM – IDAHO SUB-REGION  
LAND USE PLAN AMENDMENTS AND ENVIRONMENTAL IMPACT STATEMENT**

**Comments on Preliminary Proposed Land Use Plan Amendment/Final EIS for Cooperating Agency Review  
April 29, 2015**

<b>Cmt #</b>	<b>Chapter and Page #</b>	<b>Row # or Line #</b>	<b>Reviewer Name</b>	<b>Reviewer Affiliation</b>	<b>Comment</b>
19.	Chapter 2 Page 32	20	Julie Jeter	Air Force AFCEC/CZTQ	Recommend thorough analysis of potential effects of using non-native seed or plant stock. Consider using sterile grass seed while allowing native plants time to thrive.
20.	NA	NA	Julie Jeter	Air Force AFCEC/CZTQ	General Comment: please include a table of contents and list of acronyms.



Beck, Jonathan <jmbeck@blm.gov>

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## State of Idaho Comments -GRSG Admin Draft FEIS

1 message

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Dustin T. Miller <Dustin.Miller@osc.idaho.gov>  
To: "Foss, Jeffery" <jfoss@blm.gov>  
Cc: "Beck, Jonathan" <jmbeck@blm.gov>

Wed, May 13, 2015 at 11:58 PM

Jeff,

Please find the comments attached. Call me with any questions.

thanks.

Dustin



State of Idaho Comments - Admin Draft FEIS for GRSG 5-13-15.pdf  
301K



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



In Reply Refer To:  
6500 (ID-931)

**APR 28 2015**

Chairman Lindsey Manning  
Shoshone-Paiute Tribes  
PO Box 210  
Owyhee, NV 89832

Dear Chairman Manning:

In accordance with our unique government to government relationship, enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review by your staff will be limited to two weeks, as it is for the Governor's office, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck (jmbeck@blm.gov) at the Idaho State Office by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State, tribal and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands.

The administrative draft of this FEIS is not a public document and is being provided for your review prior to its public release and based on your unique government to government relationship with the Bureau of Land Management (BLM). We ask that you maintain the confidentiality of these documents throughout your review and until such time as the BLM (and the U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, the BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at jmbeck@blm.gov. Thank you for your assistance in our efforts for the conservation of the Greater Sage-grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director

cc: Ted Howard, Tribal Cultural Resource Director



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



APR 28 2015

In Reply Refer To:  
6500 (ID-931)

Chairman Silas Whitman  
Nez Perce Tribe  
PO Box 365  
Lapwai, ID 83540

Dear Chairman Whitman:

In accordance with our unique government to government relationship, enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review by your staff will be limited to two weeks, as it is for the Governor's office, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)) at the Idaho State Office by May 13, 2015.

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If you have any questions, please contact Jonathan Beck, the BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director

cc: Mike Lopez, Staff Attorney



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



APR 28 2015

In Reply Refer To:  
6500 (ID-931)

Chief Allen, Tribal Chairman  
Coeur d'Alene Tribe  
PO Box 408  
Plummer, ID 83851

Dear Chairman Allen:

In accordance with our unique government to government relationship, enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review by your staff will be limited to two weeks, as it is for the Governor's office, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck (jmbeck@blm.gov) at the Idaho State Office by May 13, 2015.

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If you have any questions, please contact Jonathan Beck, the BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at jmbeck@blm.gov. Thank you for your assistance in our efforts for the conservation of the Greater Sage-grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director

cc: Alfred Nomee, Director  
Tiffany Allgood, Environmental Programs Office



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



In Reply Refer To:  
6500 (ID-931)

APR 28 2015

Chairman Nathan Small  
Shoshone-Bannock Tribes  
PO Box 306  
Fort Hall, ID 83203

Dear Chairman Small:

In accordance with our unique government to government relationship, enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review by your staff will be limited to two weeks, as it is for the Governor's office, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)) at the Idaho State Office by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State, tribal and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands.

The administrative draft of this FEIS is not a public document and is being provided for your review prior to its public release and based on your unique government to government relationship with the Bureau of Land Management (BLM). We ask that you maintain the confidentiality of these documents throughout your review and until such time as the BLM (and the U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, the BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director

cc: Carolyn Smith, Tribal Cultural Resource Director  
Chad Colter, Fish & Wildlife Director



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



APR 28 2015

In Reply Refer To:  
6500 (ID-931)

Chairman Gary Aitken, Jr.  
Kootenai Tribe of Idaho  
PO Box 1269  
Bonners Ferry, ID 83805

Dear Chairman Aitken:

In accordance with our unique government to government relationship, enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review by your staff will be limited to two weeks, as it is for the Governor's office, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)) at the Idaho State Office by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State, tribal and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands.

The administrative draft of this FEIS is not a public document and is being provided for your review prior to its public release and based on your unique government to government relationship with the Bureau of Land Management (BLM). We ask that you maintain the confidentiality of these documents throughout your review and until such time as the BLM (and the U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, the BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-grouse. I look forward to receiving your input.

Sincerely,

Jeffrey L. Foss  
Acting State Director

cc: Patty Perry, Tribal Natural Resources





United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



APR 28 2015

In Reply Refer To:  
6500 (ID-931)

Dear Cooperating Agencies:

In accordance with our Cooperating Agency Memorandum of Understanding (MOU), enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review will be limited to two weeks, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)), at the Idaho State Office by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands. Please refer back to our MOU to focus on issues associated with your role and responsibility for this review.

Please remember the administrative draft of this FEIS is not a public document and is being provided for your review based on your Cooperating Agency relationship with the Bureau of Land Management (BLM). Be sure to maintain the confidentiality of these documents throughout your review and until such time as the BLM (and U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-Grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



In Reply Refer To:  
6500 (ID-931)

**APR 27 2015**

Mr. Dustin Miller  
Office of Species Conservation  
304 N. 8<sup>th</sup> St., Room 149  
Boise, ID 83702

Dear Mr. Miller:

In accordance with our Cooperating Agency Memorandum of Understanding (MOU), enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review will be limited to two weeks, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)), at the Idaho State Office, by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands. Please refer back to our MOU to focus on issues associated with your role and responsibility for this review.

Please remember the administrative draft of this FEIS is not a public document and is being provided for your review based on your Cooperating Agency relationship with the Bureau of Land Management. Be sure to maintain the confidentiality of these documents throughout your review and until such time as the BLM (and U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-Grouse. I look forward to receiving your input.

Sincerely,

  
Jeffery L. Foss  
Acting State Director



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Idaho State Office  
1387 South Vinnell Way  
Boise, Idaho 83709-1657



**APR 27 2015**

In Reply Refer To:  
6500 (ID-931)

Mr. Virgil Moore, Director  
Idaho Fish & Game  
PO Box 25  
Boise, ID 83707

Dear Mr. Moore:

In accordance with our Cooperating Agency Memorandum of Understanding (MOU), enclosed for your review is an electronic version (CD) of the Idaho Southwest Montana Sub-Region Administrative Draft for the Greater Sage-Grouse Proposed Plan Amendment/Final Environmental Impact Statement (FEIS). It is important to note that this review will be limited to two weeks, and any information that you would like to share with us will need to be mailed or e-mailed back to Jonathan Beck ([jmbeck@blm.gov](mailto:jmbeck@blm.gov)), at the Idaho State Office, by May 13, 2015.

Under the Federal Land Policy and Management Act (FLPMA), land use plans of the Secretary of the Interior shall be consistent with State and local plans to the maximum extent consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands. Please refer back to our MOU to focus on issues associated with your role and responsibility for this review.

Please remember the administrative draft of this FEIS is not a public document and is being provided for your review based on your Cooperating Agency relationship with the Bureau of Land Management. Be sure to maintain the confidentiality of these documents throughout your review and until such time as the BLM (and U.S. Forest Service) release this information to the public.

If you have any questions, please contact Jonathan Beck, BLM Project Manager for the Greater Sage-Grouse LUP Amendments, Idaho Southwest Montana Sub-Region, at 208-373-4070, or e-mail at [jmbeck@blm.gov](mailto:jmbeck@blm.gov). Thank you for your assistance in our efforts for the conservation of the Greater Sage-Grouse. I look forward to receiving your input.

Sincerely,

Jeffery L. Foss  
Acting State Director

cc: Don Kemner, Idaho Fish & Game

**Idaho and Southwestern Montana Greater Sage-Grouse  
Proposed Land Use Plan Amendment and  
Final Environmental Impact Statement**

**Responsible Agencies:** United States Department of the Interior  
Bureau of Land Management (Lead Agency)

United States Department of Agriculture  
Forest Service

**Type of Action:** Administrative (X) Legislative ( )

**Document Status:** Draft ( ) Final (X)

**Abstract:** This Proposed Land Use Plan Amendment (LUPA) and Final Environmental Impact Statement (EIS) has been prepared by the United States Department of the Interior, Bureau of Land Management (BLM) and United States Department of Agriculture, Forest Service (Forest Service) with input from 26 cooperating agencies. This document is considering amendments to 26 BLM and 8 Forest Service land use plans to address management of Greater Sage-Grouse habitat in Idaho and portions of Montana and Utah. The Proposed LUPA and Final EIS describe and analyzes alternatives for managing Greater Sage-Grouse habitat on approximately 9.2 million acres of BLM-administered lands and 1.9 million acres of National Forest System lands. Major planning issues addressed include energy and minerals, lands and realty (including rights-of-way), wildfire, vegetation management (including invasive species and conifer encroachment), livestock grazing, recreation and travel management, and socioeconomics. To assist the agencies decision makers and the public in focusing on appropriate solutions to the planning issues, the Final EIS considers 7 alternative LUPAs. **Alternative A** is a continuation of current management (No Action Alternative); use of public lands and resources would continue to be managed under the current BLM and Forest Service land use plans, as amended. **Alternative B** is based on management actions from the Sage-Grouse National Technical Team's *A Report on National Greater Sage-Grouse Conservation Measures*. **Alternative C** is based on management actions submitted by various groups during public scoping. **Alternative D** was developed by the agencies' interdisciplinary team to address local ecological site variability and address conservation of Greater Sage-Grouse in context with other competing human interests. **Alternative E** is based on the State of Idaho's Governor's Alternative, developed from recommendations by the State of Idaho's Greater Sage-Grouse Task Force. Similar to Alternative C, **Alternative F** was derived from individual and conservation group scoping comments. The **Proposed Plan** is a mix of management actions selected from the range of alternatives in the Draft LUPA/EIS and is based on best science, public scoping comments, public comments on the Draft LUPA/EIS and internal agency discussion. **Alternatives D and E** were the agencies' co-preferred alternatives in the Draft EIS.

**Protest Period:** Protests must be postmarked or received no later than 30 days after publication of the US Environmental Protection Agency Notice of Availability in the *Federal Register*. Refer to the instructions in the letter preceding this abstract for additional information on how to protest. The close of the protest period will be announced in news releases and on the Idaho website: [http://www.blm.gov/id/st/en/sage-grouse\\_rmp\\_revision.html](http://www.blm.gov/id/st/en/sage-grouse_rmp_revision.html).

**For further information, contact:**

Jon Beck, Project Lead, Greater Sage-Grouse LUP Amendments, Idaho and Southwestern Montana  
Sub-Region  
Telephone: (208) 373-4070  
Bureau of Land Management, Idaho State Office  
1387 S. Vinnell Way  
Boise, Idaho 83709  
Web site: [http://www.blm.gov/id/st/en/sage-grouse\\_rmp\\_revision.html](http://www.blm.gov/id/st/en/sage-grouse_rmp_revision.html)

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Administrative Draft  
Cooperating Agency Review



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

*Idaho State Office  
1387 South Vinell Way  
Boise, Idaho 83709-1657*

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08/26/2015

TAKE PRIDE®  
IN AMERICA

In reply refer to: 1610-5.G.1.4

May, 2015

Dear Reader:

Enclosed is the Idaho and Southwestern Montana Greater Sage-Grouse Sub-regional Greater Sage-Grouse (GRSG) Proposed Resource Management Plan Amendment (PRMPA) and Final Environmental Impact Statement (FEIS), one of fifteen sub-regional efforts being conducted as part of the Bureau of Land Management (BLM) National Greater-Sage Planning Strategy. The BLM prepared the PRMPA/FEIS in consultation with cooperating agencies, taking into account public comments received during this planning effort. The purpose of the PRMPA is to amend: 1) the following Idaho BLM plans: Birds of Prey NCA RMP (2008); Bruneau RMP revision (and existing 1983 Bruneau RMP); Challis RMP (1999); Craters of the Moon NM RMP (2006); Four Rivers RMP revision (and existing 1988 Cascade and 1983 Kuna RMPs); Jarbidge RMP revision; Lemhi RMP (1987); Owyhee RMP (1999); Pocatello RMP revision; Shoshone-Burley RMP revision (and existing 1980 Bennett Hills/Timmerman Hills, 1985 Cassia, 1975 Magic, 1985 Monument, 1981 Sun Valley, and 1982 Twin Falls MFPs/RMPs); Upper Snake RMP revision (and existing 1983 Big Lost, 1985 Medicine Lodge, 1981 Big Desert, and 1981 Little Lost-Birch Creek MFPs/RMPs); 2) the following Idaho Forest Service Plans: Curlew National Grassland Management Plan (2002) (FS); Caribou National Forest Revised Forest Plan (2003) (FS); Sawtooth National Forest Revised Forest Plan (2003) (FS) and 3) The following Montana BLM plans: Butte RMP (2009) and Dillon RMP (2006) RMPs to identify and incorporate appropriate conservation measures to conserve, enhance and/or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The need for action is in response to the US Fish and Wildlife Service's (USFWS) March 2010 "warranted, but precluded" Endangered Species Act listing petition. The USFWS found that the inadequacy of regulatory mechanisms was identified as a significant threat to GRSG in their finding on the petition to list the GRSG. RMP conservation measures were identified as the BLM's principal regulatory mechanism.

This PRMPA and FEIS have been developed in accordance with the National Environmental Policy Act of 1969, as amended, and the Federal Land Policy and Management Act of 1976, as amended. The PRMPA is largely based on Alternatives D and E, the co-preferred alternatives in the Draft Resource Management Plan Amendment/Environmental Impact Statement (DRMPA/DEIS), which was released on November 1, 2013. The PRMPA/FEIS contains the Proposed Plan, a summary of changes made between the DRMPA/DEIS and PRMPA/FEIS, impacts of the Proposed Plan, a summary of the written and verbal comments received during the public review period for the DRMPA/DEIS, and responses to the comments.

IDMT\_0074969

Pursuant to BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for this PRMP and has an interest which is or may be adversely affected by the planning decisions may protest approval of the planning decisions within 30 days from date the Environmental Protection Agency (EPA) publishes the Notice of Availability of the FEIS in the Federal Register. For further information on filing a protest, please see the accompanying protest regulations in the pages that follow (labeled as Attachment # 1). The regulations specify the required elements of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g. meeting minutes or summaries, correspondence, etc.).

Emailed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular mail or overnight delivery postmarked by the close of the protest period. Under these conditions, the BLM will consider the emailed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct emailed protests to: [protest@blm.gov](mailto:protest@blm.gov).

All protests must be in writing and mailed to one of the following addresses:

Regular Mail:

Director (210)  
Attn: Protest Coordinator  
P.O. Box 71383  
Washington, D.C. 20024-1383

Overnight Delivery:

Director (210)  
Attn: Protest Coordinator  
20 M Street SE, Room 2134LM  
Washington, D.C. 20003

Before including your address, phone number, email address, or other personal identifying information in your protest, be advised that your entire protest – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior on each protest. Responses to protest issues will be compiled and formalized in a Director's Protest Resolution Report made available following issuance of the decisions.

Upon resolution of all land use plan protests, the BLM will issue an Approved RMPA and Record of Decision (ROD). The Approved RMPA and ROD will be mailed or made available electronically to all who participated in the planning process and will be available on the BLM website at [http://www.blm.gov/id/st/en/prog/nepa\\_register/sage-grouse\\_rmp\\_revision.html](http://www.blm.gov/id/st/en/prog/nepa_register/sage-grouse_rmp_revision.html).

Unlike land use planning decisions, implementation decisions included in this PRMPA/FEIS are not subject to protest under the BLM planning regulations, but are subject to an administrative review process, through appeals to the Office of Hearings and Appeals (OHA), Interior Board of Land Appeals (IBLA) pursuant to 43 CFR, Part 4 Subpart E. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed. Where implementation decisions are made as part of the land use planning process, they are still subject to the appeals process or other administrative review as prescribed by specific resource program

regulations once the BLM resolves the protests to land use planning decisions and issues an Approved RMP and ROD. The Approved RMP and ROD will therefore identify the implementation decisions made in the plan that may be appealed to the Office of Hearing and Appeals.

Sincerely,

Timothy M. Murphy  
State Director, Idaho

Administrative Draft  
Cooperating Agency Review



## Protest Regulations

[CITE: 43CFR1610.5-2]

TITLE 43--PUBLIC LANDS: INTERIOR  
CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR  
PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents  
Subpart 1610--Resource Management Planning  
Sec. 1610.5-2 Protest procedures.

- (a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.
- (1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.
- (2) The protest shall contain:
- (i) The name, mailing address, telephone number and interest of the person filing the protest;
  - (ii) A statement of the issue or issues being protested;
  - (iii) A statement of the part or parts of the plan or amendment being protested;
  - (iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
  - (v) A concise statement explaining why the State Director's decision is believed to be wrong.
- (3) The Director shall promptly render a decision on the protest.
- (b) The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be the final decision of the Department of the Interior.

## Background

In 2010, the U.S. Fish and Wildlife Service (“Service”) found the Greater Sage- Grouse (“sage-grouse”) warranted for listing under the Endangered Species Act (“ESA”), but precluded due to higher listing priorities.<sup>1</sup> The Service ranks candidate species on a scale of 1 to 12, with 1 as the highest priority for listing. Sage-grouse received a rank of 8 (“moderate”). The Service based this determination primarily on Factors A and D, “present or threatened destruction, modification, or curtailment of habitat or range” and the “inadequacy of regulatory mechanisms,” provided in Section 4(a)(1) of the Endangered Species Act (“ESA”).<sup>2</sup> The primary causes of Factor A were infrastructure development, wildfires, and invasive plants.<sup>3</sup> Existing regulatory mechanisms were inadequate to adequately address these primary threats due to lack of sage- grouse specific directives and certainty of implementation, particularly for wildfire prevention and suppression.

The Center for Biological Diversity and other environmental groups sued the Obama Administration to act on species with “warranted but precluded” status. In 2012, The Obama Administration agreed to settle the lawsuit with the environmental organizations and act under the ESA on some 750 species, including 251 previously listed as “warranted but precluded.”<sup>4</sup> This settlement included sage-grouse and the deadline for determination was set for September 2015. In a 2012, the Western Watersheds Project challenged the Service’s “but precluded” portion of the 2010 decision in Idaho District Court. As part of Judge Winmill’s decision, he judicially ratified this September 2015 date for a new sage-grouse listing determination.

In response, the Bureau of Land Management (“BLM”) announced it would undertake an unprecedented land use planning effort to include sage-grouse specific measures for 88 Resource Management Plans (“RMP”). This effort also includes some Forest Service LUPs. To aid in this effort, the BLM released the National Technical Team Report (“NTT Report”) and Instructional Memorandum (“IM”) 2012-43 in December 2011. That same month, Secretary of the Interior Ken Salazar invited western states to develop their own state plans, similar to the effort already undertaken by Wyoming that could be included in the BLM’s Land Use Plan Amendment Environmental Impact Statement “LUPA” and “EIS”. And Secretary Salazar committed that if these state plans or portions thereof were approved by the Service, the state plans could replace

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<sup>1</sup> 12-Month Findings for Petitions for List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered; Proposed Rule, 75 Fed. Reg. 55, 13976-79 (proposed March 23, 2010) (to be codified at 50 C.F.R. pt. 17).

<sup>2</sup> 16 U.S.C. §§ 1533 *et seq.*

<sup>3</sup> *Supra*, note 1.

<sup>4</sup> See *In re Endangered Species Act Section 4 Deadline Litig.*, Misc. Action No. 10-377 (EGS), MDL Docket No. 2165 (D.D.C.)

the National IM 2012-043 until the BLM completed the EIS process. Governor Otter accepted the Secretary's invitation.

Governor Otter, through Executive Order 2012-02, created a Sage- Grouse Task Force consisting of a variety of stakeholders to develop recommendations for an Idaho specific alternative.<sup>5</sup> The Task Force held 12 public meetings across Idaho and received advice from the Service, BLM and the Idaho Department of Fish and Game guided the process. The Task Force also opened up a comment period before submitting to BLM.

In August, Governor Otter sent a letter to Brian Kelly, State Director for the Service requesting feedback on the Alternative.<sup>6</sup> Brian's response gave a strong indication that the Alternative's map would be sufficient.<sup>7</sup> His response also encouraged Governor Otter to better define the adaptive triggers, enhance measure to address the primary threat of wildfire, and better integrate the secondary threat of improper grazing into the overall strategy. In September 2012, Governor Otter adopted recommendations of the Task Force and submitted the first draft to BLM. (Alternative E). In March 2013, Governor Otter, consistent with IM 2012-043, submitted a "Concurrence Request" (D-93) to the Service.

The Service favorably responded, "concurring" that the four foundational elements – namely, the State's map with habitat zones and conservation areas, adaptive regulatory triggers, and population objectives -- were consistent with the Conservation Objectives Team Report ("COT Report"). The Service also conditionally concurred with the livestock grazing management and infrastructure components subject to more detail regarding the Implementation Team (D-123). In May 2013, and based on the Service's concurrence letter, the BLM requested further clarification and refinement of the Alternative E so the Alternative was accurately captured and analyzed in the EIS (D-131). On July 1, 2013, the State submitted his response, further clarifying the adaptive triggers, infrastructure, mitigation, and wildfire measures (D-145). The rationale and justification of Alternative E's triggers, along with the studies and data relied on is on page D-178 of the DEIS. The September 2012 draft of the Alternative, the March 2013 Concurrence Request, and the July 2013 Clarification and Refinement Letter collectively constitute Alternative E.

The State of Idaho strongly believes Alternative E best meets the purpose and need of this analysis as it provides the greatest opportunity to preclude an ESA listing. Alternative E represents the best available science for the Greater Sage-Grouse in Idaho because it is the product of a diverse group of stakeholders relying on Fish and Game's decades of on-the-ground information. Governor Otter modeled this approach based on Idaho's successful roadless rule that passed judicial muster in Idaho and at the Ninth Circuit Court of Appeals. Alternative E focuses on addressing the primary threats identified by the Service, while also providing

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<sup>5</sup> See Idaho Executive Order 2012-02, available at: [http://gov.idaho.gov/mediacenter/execorders/eo12/eo\\_12\\_02.pdf](http://gov.idaho.gov/mediacenter/execorders/eo12/eo_12_02.pdf)

<sup>6</sup> Appendix B

<sup>7</sup> Appendix C

management flexibility consistent with the BLM's multiple-use mandate. And as detailed in the Service's letters, including the agency's comments on the Administrative DEIS, Alternative E also comports most closely with the COT Report, which will guide the Service 2015 listing analysis. In short, as detailed in Governor Otter's June 16 memo to Secretary Jewell, the State believes the Service's concurrence letter provides the best roadmap for successfully resolving this issue.<sup>8</sup> To be sure, the State is aware that further refinement is needed, especially with the implementation plan; we look forward to working with the BLM and other stakeholders to complete that process.

And Alternative E is more attuned to local concerns than the other alternatives. Many of the areas impacted by this planning analysis form the identity for rural Idaho communities and are still a significant part of the State's identity. Local communities are sensitive to the economic consequences of federal land management decisions; whether for recreation or other multiple-use purposes. Further, Alternative E accounts and acknowledges the State's 2006 plan which was largely the effort of Local Working Groups. By contrast, Alternatives B, C, and F are not sensitive to these concerns and represent a one-species management regime wholly divorced from BLM's multiple-use mandate. Alternative D better recognizes these local issues, but is still overvalues the needs of the species to the detriment of multiple-use management and local concerns. Idaho strongly encourages the BLM to select a final alternative that balances local, state and national interests, BLM's multiple-use mandate, and the needs of the species. Not only is this possible, but Alternative E provides the roadmap for doing so. Collaborating and cooperating with the State regarding the long-term strategy for these lands and the species is critical. The BLM should give weight to the unique perspectives and knowledge provided by the State through the scientific expertise of the Idaho Department of the Fish and Game, Dr. Jack Connelly, Dr. Karen Launchbaugh from the University of Idaho, and Dr. Steve Knick and the recommendations from the Task Force.

### State Conservation Plans

Alternative E follows a long line of successful state-based conservation strategies. The Service has a history of concurring with State plans before making a final ESA determination. The Service concurred with Idaho management plans for wolves and the Yellowstone Grizzly Bear population. As mentioned above, the Idaho Roadless Rule, while not a species-driven effort, was the result of State and federal collaboration and passed judicial muster. This process has been no different with the State consistently seeking the iterative feedback from the relevant federal agencies, notably the Service, to ensure Idaho's plan is best positioned to preclude the need to list and maintain predictable levels of land use.

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<sup>8</sup> Appendix D

The staying power of the roadless rule is due to the Forest Service’s recognition that resolving these complex environmental issues requires the involvement of the State and other stakeholders. And the roadless rule considered the unique characteristics of each individual inventoried roadless area, rather than mandating a one-size-fits-all management approach.

## STATE OF IDAHO COMMENTS

### I. Alternative E Best Addresses the Issues in the 2010 Finding

Governor Otter applauds the BLM for recognizing the importance of State and local perspectives by choosing Alternative E as “co-preferred” alternative. The Service’s 2010 warranted but precluded determination found that BLM did not provide enough information to analyze their regulatory mechanisms or RMPs.<sup>9</sup> Further; the BLM’s only mechanisms for wildfire management were Instructional Memorandum (IM) documents that had expiration dates. BLM had no long-term measures and an inadequate track record of implementing and monitoring their internal Manual 6840. The Service also noted that the information received was vague and:

...did not specify what requirements, direction, measures, or guidance has been included in the newly revised RMPs to address threats to sage-grouse and sagebrush habitat.

Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of the greater sage-grouse.<sup>10</sup>

The Service needed predictability in BLM’s regulatory mechanisms to push the extinction risk curve past the foreseeable future. But the Service did not appear to suggest a complete overhaul of BLM’s existing RMPs. This is the approach of Alternatives B, C, and F; and moreover, targeting activities that have not demonstrated a meaningful impact to the species at the expense of grappling with wildfire and invasive species is not a wise approach.

Alternative E, by contrast, provides long term, measurable objectives for the most important threats—fire and infrastructure. Governor Otter applauds the BLM for recognizing the importance of State and local perspectives by choosing Alternative E as “co-preferred” alternative. It also addresses the most relevant secondary threats in the appropriate context.

The Task Force sent its recommendations to the Governor in June 2012. These recommendations were the result of eight public meetings, held across the state over the course of three months. These recommendations were guided by of technical expertise of the Idaho Department of Fish and Game, the U.S. Fish and Wildlife Service, and other relevant state and federal agencies.

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<sup>9</sup> *Supra*, note 1.

<sup>10</sup> *Id.*

The State's management approach was designed to be clear and measurable over varying spatial and temporal scales. This approach consists of management objectives attempting to address key decision points outlined in the Service's 2010 determination. The Idaho Sage-Grouse management approach includes implementation of regulatory mechanisms to support the overall management, conservation objectives of the species and stabilization of habitats and populations, including a systematic review of habitat and population status, and development of adaptive regulatory triggers to address sudden and unanticipated changes.

One of the most important recommendations from the Task Force was to adopt the Sage-Grouse Management Area (SGMA) with three distinct management zones: Core Habitat (CHZ), Important Habitat (IHZ) and General Habitat (GHZ). These management zones outline a suite of basic management activities that may or may not occur in a given area. These management zones represent a management continuum with a more restrictive approach at one end providing a high level of protection to the species within CHZ and a more flexible approach for GHZ, allowing for more multiple use activities. IHZ acts as a "buffer zone" for CHZ, providing more restrictions than GHZ, but more flexibility than CHZ, and has the potential to operate as CHZ if necessary. These three management zones provide an array of permitted and prohibited activities.

The State developed a suite of regulatory measures to address the primary threats to sage-grouse as well as some of the activities identified by the Service as secondary threats. These measures were the result of analyzing the best available information on the primary and secondary threats. The measures for each threat will be discussed in more detail below and through comments of relevant state agencies.

The State also anticipated the potential for unexpected and catastrophic events as the result of wildfire and West Nile Virus. Thus, the State developed an adaptive regulatory trigger to ensure the populations and habitats within CHZ and IHZ are maintained and enhanced. These regulatory triggers were intended to provide a regulatory backstop for navigating unanticipated and deleterious impacts to the species. If these measures prove necessary, the State would still be well positioned to conserve the species and its habitat, while maintaining predictable levels of land use.

To aid in the assessment of this management approach, the State divided the SGMA into four individual Conservation Areas. Each conservation area is divided into CHZ, IHZ, and GHZ based upon modeling of sage-grouse breeding bird density, habitat connectivity and persistence, scientific knowledge based on surveys and radio telemetry studies, and the recommendations of the task force.

The Governor's Alternative developed two management objectives to ensure that the requirements outlined in the 2010 finding are met. The first objective is to implement regulatory mechanisms. This objective responds to the Service's determination that BLM did not have adequate regulatory mechanisms to manage the primary threats to sage-grouse. The Governor's objective is to implement regulatory mechanisms to maintain and enhance sage-grouse habitats, populations and connectivity in areas within CHZ, buffered by strategic areas within IHZ, dominated by sage-brush. This will allow the state to conserve at least 65% of current known leks within the state and 95% of the male population of sage-grouse.

The second management objective is to ensure the effectiveness of the first objective. This is done through monitoring the stability of habitat and population trends over time. The State recognizes the need to regularly analyze the effectiveness of the regulatory measures as well as to discern whether active conservation and restoration efforts, including conifer control, wildfire suppression, and more passive habitat protection techniques such as fuel breaks are effective strategies. The adaptive triggers of Alternative E were the result of developing this objective.

The result of these two objectives is that the state is able to respond to threats in virtually real time, instead of implementing top down restrictions or trying to make management decisions based on predictions and assumptions of future habitat and population growth or decline.

The adaptive triggers are intended to improve sage-grouse population trends, protect the overall baseline population, preserve a buffer population, and conserve habitat. The triggers have both population and habitat components. Population components consider population growth and change in lek size. The habitat component considers loss of breeding and/or winter habitat. The population trigger is measured in this way because numerous studies show that lek size is related to population change.<sup>11</sup> Additionally, several researchers have shown that loss of winter or breeding habitats resulted in decreased sage-grouse populations.<sup>12</sup> Both population and habitat triggers are tripped at 20% loss within a conservation area.

The population trigger is measured by calculating a finite rate of change between successive years for sage-grouse population. The ratio of males counted in a pair of successive years estimates the finite rate of change at each lek site in that one year interval. These ratios can be combined across leks within a population for each year to estimate that finite rate of change for the entire population of a habitat zone within a conservation area.

The population is measured across successive years because small game populations typically fluctuate among years due to weather and other environmental variables. A finite rate

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<sup>11</sup> Connelly and Braun 1997; Connelly et al. 2004, Baumgaurt 2011, Garton et al. 2011

<sup>12</sup> Swensen et al. 198, Connelly et al 2000a, Miller et al. 2011

of change for any given year is not very meaningful. However, a series of years where the finite rate of change remains at or above 1.0 indicates a stable to increasing population.

Lek attendance by males has been used as an indicator of a population trend in some areas since the early 1950s. However, male lek attendance can be influenced by severity of the previous winter, weather, timing of counts during the spring, and other factors.<sup>13</sup> Lek data provide a powerful data set for assessing population trends over time, but counts for a single year may not reflect trends accurately.

Since these populations vary from year to year, it was important to determine at what point a drop in lek attendance meant a population decline. Published information suggests that a change in maximum number of males counted on leks of 10-15% cannot confidently be considered a reflection of population status. However, a 20% decline would likely not be related to lek attendance patterns but would instead reflect a population decline. This is why Alternative E sets its hard population trigger at 20%.

Sage-grouse populations are affected by habitat loss, which is why the primary threat to sage-grouse is wildfire. Several studies have shown that sage-grouse are particularly sensitive to loss of nesting and wintering habitat. A 30% loss of breeding/winter habitat is thus far the lowest amount of habitat loss for which a population response could be detected. Additionally, landscapes with less than 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. In response to these data, Alternative E takes a conservative approach to allow for quicker reaction time. A soft trigger is set at a 10% loss of breeding or wintering habitat in CHZ or IHZ within a Conservation Area. A hard trigger is set at a 20% loss of breeding or winter habitat in CHZ within a Conservation Area.

Originally, the habitat and population triggers were tied together. The habitat trigger can trip causing change in management before a population trigger for the same area may trip. This is because a large wildfire will cause a level of loss that we know will result in a significant population decline. However, the population decline may not manifest itself until 2-4 years after the habitat loss because sage-grouse are long-lived birds. This improved adaptive trigger program allows BLM to be proactive to prevent further habitat loss during the time it takes for the population declines to occur. The rationale and justification of Alternative E's triggers, along with the studies and data relied on is on page D-178 of the DEIS.

#### A. Alternatives B, C, and F Do Not Meet the Purpose and Need

The purpose and need of a proposed action delineates the range of alternatives in an EIS. As such, the purpose and need cannot be so narrowly defined that it precludes other reasonable

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<sup>13</sup> Emmons and Braun 1984, Hupp 1987, Baumgart 2011



alternatives.<sup>14</sup> “If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Nor can the agency satisfy the Act.<sup>15</sup> The evaluation of alternatives required under NEPA provides alternative means to accomplish the *general goal* of a major federal action. "The [EIS] shall briefly specify the underlying purpose and need".<sup>16</sup> The protection of sage-grouse and sage-grouse habitat is the general goal of the LUPA revisions. Noticeable absent from the purpose and need statement is mention of the 2010 decision or any commitment to precluding a “threatened” listing determination. The inclusion of alternatives in an EIS must achieve the stated Purpose of the EIS *within the framework of the planning criteria*. This EIS's broad purpose and need is

...to identify and incorporate appropriate conservation measures into LUPs [Land Use Plans] to conserve, enhance, and restore GRSG [Greater Sage-Grouse] habitat by reducing, eliminating, or minimizing threats to that habitat.

The other alternatives are either a laundry list of best management practices (BMPs), sometimes overly draconian, without a cogent strategy, or target a specific use that fails to address the primary threats identified by the Service. Accordingly, Alternatives B, C, and F should be rejected for not meeting the purpose and need.

Alternative A and E are the only proposals that meet the purpose and need statement because they are the only ones that adequately respond to the 2010 Warranted but Precluded determination and meet BLM’s multiple-use mandate. Alternative D gets closer to the purpose and need, but still locks up too much land without justification and lacks certainty. Despite adopting a similar adaptive management construct, Alternative D still relies on the overly restrictive BMPs from Alternative B, which are inconsistent with BLM’s multiple use mandate.

The State would like to a more complete analysis of Alternative A. Following the 2010 decision, threat levels for sage-grouse were moderate. The Service’s concern was long-term implementation. It’s possible that BLM could have satisfied the Service’s determination if it developed a better implementation structure for existing regulations. BLM’s response to Governor Otter’s Consistency Review indicated Wyoming’s plan was satisfactory for threats in that region, which accounts for roughly 50% of the sage-grouse population.<sup>17</sup> Yet, this analysis seems wholly lacking in this present document. Instead, BLM arbitrarily re-calibrated the environmental baseline for the species through NTT. The EIS does not justify this. As the State has been on record before, and will provide more detail below, the NTT Report is a complete non-starter for Idaho. The BLM must remember that the U.S. Supreme Court held that

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<sup>14</sup> *Simmons v. U.S. Army Corps of Engineers*, 120 F. 3d at 664, 27 (7<sup>th</sup> Cir.)

<sup>15</sup> 42 U.S.C. § 4332(2)(E)”).

<sup>16</sup> 40 C.F.R. § 1502.13

<sup>17</sup> Appendix E

implementation of the ESA must not result in “needless economic dislocation,” or be based on “speculation or surmise.”<sup>18</sup>

## B. Reasonable Range of Alternatives

NEPA requires agencies to provide a reasonable range of alternatives for Environmental Impact Statements.<sup>19</sup> However, this requires more than merely providing several alternatives. The “heart of the environmental impact statement” is considering alternatives.<sup>20</sup> The NEPA process requires an agency to rigorously explore and objectively evaluate all reasonable alternatives so decision-makers and the public are fully informed. NEPA documents are intended to be used as a tool during the planning and decision-making process.<sup>21</sup> The “rule of reason” guides both the choice of alternatives as well as the extent to which the Environmental Impact Statement must discuss each alternative.<sup>22</sup> The Environmental Impact Statement need not consider an infinite range of alternatives, only reasonable or feasible ones.<sup>23</sup> Substantial case law exists regarding the range of alternatives that need to be included in an Environmental Impact Statement (EIS), and “[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate”.<sup>24</sup> Section 6.6.3 of BLM’s NEPA Manual (Handbook H-790-1) provides clear guidance on when BLM should eliminate an alternative from detailed analysis:

You may eliminate an action alternative from detailed analysis if:

It is ineffective (it would not respond to the purpose and need)(e.g. Alternatives B, C, and F).

It is inconsistent with the basic policy objectives for the management of the area.

Project alternatives derive from an EIS’s “Purpose and Need” section, which briefly defines “the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.”<sup>25</sup> The stated goal of a project necessarily dictates the range of “reasonable” alternatives and an agency cannot define its objectives in unreasonably narrow terms.<sup>26</sup> This EIS has six alternatives. However, two of the alternatives are based on the NTT Report. One of these should be removed. Instead of putting together an alternative that addressed the specific needs of Idaho public lands, and based on the primary threats to the

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<sup>18</sup> See *Bennett v. Spear*, 520 U.S. 154, 176 (1997).

<sup>19</sup> 40 C.F.R. § 1502.14

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C.Cir.1991) (quoting *State of Alaska v. Andrus*, 580 F.2d 465, 475 (D.C.Cir.1978)).

<sup>23</sup> *Supra* note 19.

<sup>24</sup> *Resources Ltd. v. Robertson*, 35 F.3d 1300, 1307 (9th Cir. 1993).

<sup>25</sup> 40 C.F.R. § 1502.13

<sup>26</sup> See *Citizens Against Burlington*, *supra* note 22.

species, BLM used their NTT Report as the foundation of their sub-regional planning efforts. In some cases, such as infrastructure development, especially in BLM's priority habitat, the other co-preferred appears to be more restrictive than the NTT Report. This does not meaningfully solve the problems identified in the 2010 decision; rather these alternatives employ an unnecessary top-down, one-size-fits-all approach of the NTT Report. And it likely does not meet the COT as evidenced by Service's letter on DEIS. Instead, it creates redundancy, as analysis of both alternative B and D reaches nearly identical conclusions throughout the entire document, despite significant revisions to Alternative D to make it look more like Alternative E from the Administrative draft phase to the published draft phase. Alternatives C and F are no different. Environmental interest groups developed both of those incomplete alternatives which do not address the primary threats to sage-grouse, opting instead to use the NTT report to fill in the gaps. Alternative C's exclusive focus is to eliminate grazing on public land. Eliminating grazing is not only inconsistent with BLM's multiple use mandate, it also would likely exacerbate the primary threat of wildfire by increasing fuels across the range. These alternatives are inappropriate for several reasons, including the most important, that it does not address the primary threats. And these alternatives are outside the scope of Secretary Salazar's December 2011 statement that BLM needed to preclude the need to list while maintaining predictable levels of land use. Alternative F falls short too, which means BLM is spending time and resources analyzing two incomplete alternatives from environmental interest groups.

These alternatives do not adequately disclose the impact to the human environment as required by NEPA. This is either because BLM did not sufficiently take a "hard look" at this impact as required by NEPA, or they failed to disclose this impact with the public. Without disclosing these impacts or analyzing whether these measures will indeed meet the purpose and need, BLM failed to take the requisite hard look.

### C. BLM Did Not Take the Requisite "Hard Look"

NEPA has twin aims. First, the agency is obligated to consider every significant aspect of the environmental impact of a proposed action. However, that does not necessarily mandate a particular result. Instead, it just prescribes the process. If the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs.<sup>27</sup>

Second, it ensures the agency will inform the public that it considered environmental concerns-including human environmental concerns-in its decision making process.<sup>28</sup> Under NEPA, environmental impact statements must precede "major Federal actions" and agencies

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<sup>27</sup> See *Strycker's Bay Neighborhood Council, Inc. v Karlen*, 444 U.S. 223, 227-228 (1980).

<sup>28</sup> *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983).

must take “a ‘hard look’ at “environmental consequences” of their actions,<sup>29</sup> “sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public.”<sup>30</sup>

To take the required “hard look” at a proposed project’s effects, an agency may not rely on incorrect assumptions or data in an EIS.<sup>31</sup> The agency is required to insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements.<sup>32</sup> An agency’s EIS violates NEPA where it corrupts its environmental analysis with irrational assumptions or methodologies.<sup>33</sup> BLM violated NEPA by developing two alternatives (B and D) based on a document severely lacking in scientific integrity and comprised of irrational assumptions and methodologies. Alternatives C and F also incorporate elements of Alternative B, so those components must be set aside as well. Further, BLM’s economic analysis is inadequate and fails to provide meaningful public evaluation.

#### D. Multiple- Use

Under the Federal Land Policy and Management Act (“FLPMA”) BLM is required to manage the public lands on the basis of multiple use and sustained yield.<sup>34</sup>

Multiple use management’ is a deceptively simply term that describes the enormously complicated task of striking a balance among the many competing uses on public lands, ‘including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and [uses serving] natural scenic, scientific and historical values.’<sup>35</sup>

We recognize the difficult task the BLM faces in managing public lands; however, three of the alternatives do not fit within BLM’s mission as a land manager. Alternative B is overly restrictive for infrastructure development and oil and gas activities. Alternative C would eliminate livestock grazing entirely and the addition of ACECs through Alternative F would restrict a variety of uses. Restricting uses or unnecessarily reducing agency discretion may seem to be the prudent course of action, but the result is BLM will lose the flexibility needed to anticipate future uses and needs of the country. Without a more complete analysis of how

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<sup>29</sup> *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976).

<sup>30</sup> 40 C.F.R. 1502.14

<sup>31</sup> *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9<sup>th</sup> Cir. 2005). (Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.)

<sup>32</sup> *Supra*, note 30.

<sup>33</sup> *Supra*, note 31 at 964-965 (finding NEPA violation where agency applied incorrect data that skewed wildlife impact assessment for logging project.) *See also* *Native Ecosystems Council v. Tidwell*, 599 F.3d 926, 937 (9<sup>th</sup> Cir. 2010) (where agency applied irrational methodology to measure wildlife habitat conditions); *Natural Res. Def. v. U.S. Forest Serv.*, 421 F.3d 797, 810-13 (9<sup>th</sup> Cir. 2005)(where agency presented misleading economic information that skewed public evaluation of proposed action.)

<sup>34</sup> 43 USC § 1701(a)(7) (2006).

<sup>35</sup> *Norton v. Southern Utah Wilderness Alliance*, 542 U.S. at 58 (quoting 43 U.S.C. § 1702(c)).

infrastructure projects in the past decade have impacted the population of the species, such an overreaching proposal is unnecessary.

## II. The NTT REPORT IS NOT THE BEST AVAILABLE SCIENCE

The NTT Report is part of the BLM’s National Sage-Grouse Conservation Strategy. This strategy is highly bureaucratic, relying on the development of 15 or more teams. It is led by a sage-grouse coordinator that appears to have no real experience with either sage-grouse or sagebrush. This approach is heavily dependent on the National Technical Team. The goal of the National Technical Team was to ensure BLM management actions were effective and based on the “best available science.” Should not the test isn’t best available science it’s the data that matters and that data comes from the species manager – the State. To achieve that end, logically, the team would be comprised of highly qualified and knowledgeable scientists that would largely be independent of BLM. Instead, 78% of this 23 member team were federal employees; with 61% coming directly from BLM. Of the 23 members, none have more than 15 years of experience with sage-grouse or sagebrush or a substantial publication record. This is not for lack of highly knowledgeable, independent scientists to call on for such a study. In fact, at least two state and two university biologists, one of which Idaho heavily relied on, with a combined total of more than 100 years of experience dealing with sage-grouse were not involved. Out of twenty senior authors of chapters in the SAB volume on sage-grouse, only two were on the Technical Team. Neither of those two team members has more than 15 years working on sage-grouse. There were four authors of sage-grouse management guidelines, which were used in Alternative E, but none of these authors were on the Technical Team. This seems to violate the decision in *Western Watersheds* where the court found that while the Service consulted experts, the agency excluded them from the listing decision, thus violating the statutory requirement that “best science” be applied.<sup>36</sup> This creates “opacity when transparency is required.”<sup>37</sup>

In the Craters of the Moon litigation in 2012, Winmill declared in his decision that testimony established the NTT Report as the best available science on sage-grouse. However, this claim is disingenuous. What actually happened makes a less compelling case for the NTT Report. Judge Winmill made an assumption that the NTT Report was the best available science during a discussion of an objection between the BLM attorney and himself during questioning of *Western Watersheds* Project witness, Clait Braun. In fact, the only person in that trial to discuss the merits of the NTT Report was Clait Braun, a witness for the party *opposing* the BLM. No

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<sup>36</sup> See *Western Watersheds Project v. U.S. Fish and Wildlife Service*, 535 F.Supp.2d 1173, 1176 (Idaho 2007). See also, Memorandum Decision, Appendix E, attached.

<sup>37</sup> *Id.*

BLM or objective outside scientist testified about the NTT Report. Nor did the briefings or declarations discuss the scientific merit of the Report.<sup>38</sup>

In December 2012, Secretary Salazar responded to a series of inquiries from House Natural Resources Committee Chairman Doc Hastings regarding the ongoing RMP process with particular emphasis on the NTT Report.<sup>39</sup> Interior also attached an outside scientific review of the NTT Report that was highly critical of the 2011 draft report. For example, one outside scientist said the document was “an odd mix of scientific citations and policy decisions with no real tie between the two.”<sup>40</sup> Another said it “seem[ed] a strange blend of policy loosely backed by citations with no analysis of the science.”<sup>41</sup> The outside science review uncovered numerous flaws in the document and prompted the Governor’s Office of Species Conservation (“OSC”) to file a Freedom of Information Act Request with the Department of Interior, seeking all documents related to the development of the NTT Report. Interior only released documents under repeated threats of legal action and then, only in pieces, over a period of several months. OSC submitted the request in January 2013, but Interior did not respond in full until late summer 2013.

In June 2013, concerned over Interior’s inadequate response and uncertainty about the EIS process, Governor Otter wrote a letter to Secretary of the Interior Sally Jewell.<sup>42</sup> This letter served as an opportunity to inform Secretary Jewell of the importance of this present EIS process and also to share the information he learned from the FOIA response. Governor Otter pointed out that the NTT Report was legally flawed, scientifically flawed, incompatible with the COT Report, and procedurally deficient under Federal Advisory Committee Act requirements.

The FOIA documents reveal this group’s work significantly departed from the 2010 finding without disclosing any rationale. In fact, this report arbitrarily re-calibrated the environmental baseline for sage-grouse, established through the 2010 Warranted but Precluded decision. The State believes the BLM lost some perspective after that decision. In 2010, the Service determined that while sage-grouse *could* have been listed as “threatened,” its priority was low because threats were not as immediate as other “warranted” species. In fact, the only reason for the abbreviated timeline under which BLM and the Service are operating under is due to a court order that set arbitrary deadlines for the Service to make decisions on 250 candidate species. The Service’s 2015 deadline was not chosen due to any increased risk of extinction to the species, as evidenced by the number 8, instead, a settlement between the federal government and environmental activist groups.

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<sup>38</sup> Appendix G

<sup>39</sup> Appendix H

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> Appendix D

#### A. The NTT Report May Include Illegal Management Actions

Shortly before the release of the document, senior BLM staff expressed concern that the measures included in the NTT Report were inconsistent with the BLM's statutory duty under the Federal Land Policy and Management Act (FLPMA).<sup>43</sup> In fact, in a document titled, "How the NTT Report Changes the way BLM Operates," it clearly states that for the fluid minerals program: "The BLM would *preclude* fluid mineral development within designated priority sage-grouse habitat. Where the BLM cannot preclude development due to valid existing rights, the BLM *would attach* moderate to major restrictions to the development...."<sup>44</sup> Such a policy, reminiscent of the failed "Wildlands Policy", would result in approximately 40 million acres treated as *de facto* Wilderness.

A December 21, 2011 email exchange between Dwight Fielder (BLM Washington Office, Chief of Fish and Wildlife Conservation) and Pat Deibert (Service; National Sage-Grouse Coordinator) recognizes that some of the measures in the report were legally flawed, as described in a December 20, 2011 email from Jim Perry (BLM Washington Office, Senior Natural Resource Specialist). The BLM attempted to paper over this issue by adding a caveat that the document had not undergone policy or legal review.

In response to the caveat suggestion, Deibert states:

**"I would only consider adding this to a cover memo. This report is a science document period."**

Fielder to Deibert: "But, does the NTT really want to recommend something that is blatantly illegal?"

Deibert reinforces to Fielder: "**The NTT is providing the science. That does not change with the laws that BLM works under.**"

Fielder to NTT Team Leader Raul Morales: "I don't know how to respond to this and am thinking that I shouldn't."<sup>45</sup>

Granted, this type of exchange is common within the federal family; however, the troubling aspect is that the Department and senior-level BLM would knowingly release a flawed report. Equally troubling is the Service's insistence on measures more stringent than the science underlying their 2010 decision would require. The Service describes the threat level as

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<sup>43</sup> Appendix I

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

“moderate” in the 2010 finding – a 40 million acre withdrawal is certainly unnecessary to preclude the listing of this species.

B. The NTT Report does not meet the Data Quality Act

The Data Quality Act requires that agencies “ensure public confidence and trust,” and uphold the “highest level of integrity....”<sup>46</sup> But the development of the NTT alternatives falls short of the high degree of transparency required by the Data Quality Act. Idaho is not the only State to raise these concerns. Other Western states such as Wyoming, Colorado, and Utah share these concerns.<sup>47</sup>

The released documents raised even more concerns for the State. The BLM deliberately kept the NTT Report close to the vest throughout its development. The team leader asked members not to share drafts of the document, even though some of those members represented States, and the team appears to have violated the requirements of the Federal Advisory Committee Act (FACA). Raul Morales, BLM Team Leader, actually commended the Team for maintaining a tight grip on the report:

I have been very impressed by the excellent job everyone on the NTT has done in keeping a very close hold on our report... You also let them know that since I understand that the API has been in to visit with Bob Abbey and Mike Pool over BLM’s National Interim policy make [sic] you wonder how they got word of our Interim Policy since the review for this policy was ‘restricted’ to our Federal and State family members. I can only imagine what will happen once the NTT Report is released.<sup>48</sup>

To qualify for an exemption from FACA, the State representatives to the NTT Team must have a letter from their respective governor.<sup>49</sup> These letters were sent only after the NTT Team met, developed a draft, and the issue was identified by the Office of the Solicitor on or around September 22, 2011. The Team leader, Raul Morales wrote

Regarding the NTT Report, I have been asked by our Washington Office (WO) to hold on to it for a bit longer. The solicitors have been talking and have decided, to be safe, that

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<sup>46</sup> *Memorandum on Scientific Integrity from the Administration of Barack H. Obama for the Heads of Executive Departments and Agencies*, Fed. Reg. 10671 (Mar. 11, 2009), available at: <http://www.gpo.gov/fdsys/pkg/FR-2009-03-11/pdf/E9-5443.pdf>. (“Obama Memorandum on Scientific Integrity”)

<sup>47</sup> Appendices K, L, and M

<sup>48</sup> Included in Appendix I

<sup>49</sup> 2 U.S.C.A. § 1534(b). *See also* Idaho Wool Growers Assoc. v. Shafer, 637 F.Supp.2d 868, 875-876 (Idaho 2009).



they are going to want letter from the Governor's [sic] office from OR, UT, NV, CO to go along with Governor Otter's letter...<sup>50</sup>

This action is disconcerting to the State as Governor Otter only appointed a representative to provide "technical advice" and not to make management recommendations. Failure to obtain the FACA letter in a timely manner coupled with such an implicit restriction on the Team's ability to share the draft, provided governors no opportunity to evaluate whether appointees were actually adhering to the instructions of their sponsor states.

And, alarmingly, the NTT appears to tailor the recommendations to be consistent with legal settlements with environmental litigants, rather than an unbiased assessment of conservation alternatives. In an email dated December 17, 2011, Raul Morales states:

The solicitors were struggling with having a Policy recommendations piece in the NTT report due to ongoing negotiations with current litigants over a lawsuit affecting 16 BLM LUP's. So we removed the Policy recommendation piece from this draft report...the wording describing some conservation measures is different, again to address solicitors [sic] concerns...<sup>51</sup>

This seems very pre-decisional. The State has serious concerns with the integrity of the peer review process and the NTT Report itself as a result of these discoveries and numerous others that will be discussed in greater detail in the following pages.

### C. The NTT Report is Not the Best Available Science

The NTT Report's sweeping measures were an effort to preclude development across 40 million acres; often supported by nothing more than "best professional judgment" instead of credible scientific information. At some point, the "science" crossed into advocacy.

The primary objective of the NTT is "to protect sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse" (NTT at 7). To achieve the primary objective the NTT sets forth sub-objectives. Two of the four sub-objectives assert that 70% of the range within priority habitat needs to provide "adequate" sagebrush habitat to meet sage-grouse needs, and that discrete anthropogenic disturbances in priority habitat be limited to less than 3% of the total sage-grouse habitat regardless of ownership (NTT at 7). But the report does not address the issue of scale very clearly, so the accuracy of this data is questionable. Nor do these recommendations account for State specific differences as noted in

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<sup>50</sup> Appendix I

<sup>51</sup> *Id.*

Gov. Mead's letter.<sup>52</sup> For example, habitat loss and accompanying population decline due to infrastructure development in Idaho does not resemble the on-the-ground reality.

The outside science reviewers' concerns related to the lack of discussion on limiting habitat does not appear to have been adequately addressed, and is a significant omission because it fails to provide a mechanism for prioritizing management efforts and assumes the same risks are representative across the entire range.<sup>53</sup> The NTT and "Appendix A" of the DEIS fail to provide reason or support for consolidating all sage-grouse seasonal habitat range-wide, regardless of relative importance or quality to sage-grouse populations.

### 1. Internal BLM Staff Questioned the Credibility of Science

Some NTT Team members even questioned the hastiness of the process. On September 16, 2011, Robin Sell (CO) stated,

I don't feel like we really got into (or had time to discuss) the current science out there on SG...so I would propose that the researchers and biologists on the NTT --maybe a few other bios if appropriate – meet again in the next months (maybe Nov/Dec) for about 3 days to have a frank discussion on various studies/papers out there...the good, bad & ugly so to speak. *It would not hold up the current document...* The reality, the science folks were not going to have this kind of discussion with program leads in the group, and our timeline did not allow this *review and scrutiny*. But I think this kind of full disclosure will really benefit the Bureau, FWS, and SG down the road.<sup>54</sup>

On November 7, 2011, and acutely aware of these shortcomings, Team Lead Morales recounted the NTT's response to the group.

A small team of us completed changes to the report that reflected *some* of the review made by outside scientists commissioned by NDOW Director, Ken Mayer. The outside scientists *only reviewed the Conservation measures section of the report* and not the Policy recommendations. Our team only addressed the quick comments made by the science team. Some of the "longer" term comments (as depicted in the text box to the right) made by the science team *were not addressed* and can be discussed by the National Policy Team at some point to determine the need for our conservation measures to address some of the science "short falls" brought up by the science team.<sup>55</sup>

If this is indeed was a "science" document comprised of "scientists" –the science underlying these "game-changing" measures should have been completely validated before

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<sup>52</sup>

<sup>53</sup> Appendix B.

<sup>54</sup> Appendix I.

<sup>55</sup> *Id.*

releasing the document. Notwithstanding the fact that BLM had almost three more years until the RMP revisions were due, the agency nonetheless felt it mission critical to release a flawed document.

On December 13, 2011, Morales updated the group regarding feedback he received from the National Policy Team.

...[W]hat the NPT charged me to do was to convene a small team of NTT members (mainly scientist folks) and with the help of a WAFWA appointed scientist (former Colorado Division of Wildlife Director, Tom Remington) they asked that we further strengthen the science underpinnings to our conservation measures... This small team met last week in Phoenix for 2½ days and we are currently in the process of formatting and updating the NTT Report to reflect the efforts of the science team last week... Due to concerns by solicitors in DC the NTT report will look different. However *the content is generally the same* and due to the science review we did make changes to the Goals and Objectives section, some conservation measure[s] in fluid minerals have been updated (i.e. 2.5% has been changed to 3% with rationale)... the solicitor concerns with the Policy recommendation piece stems from *ongoing litigation discussions* they [are] currently having with litigants over BLM's recently completed LUPs.<sup>56</sup>

In sum, while it seems like the NTT Report did change between the initial November draft based on solicitor and outside science review, the record reflects a fatally flawed draft document that was “generally the same” as the content in the final report.

## 2. The NTT Report Does Not Provide Adequate Support for its Conclusions

The NTT Report has been used to support anthropogenic disturbance caps of less than five percent and total disturbance caps of less than 30 percent without any scientific data that they are: (1) scientifically defensible; (2) achievable; (3) would result in stable GSG populations; (4) would not result in irreparable harm to other species; and (5) would not unnecessarily have a negative effect on local economies.

The NTT report recommended numerous one-size-fits-all regulatory prescriptions, and made no allowance for recommendations for including local sage grouse conservation plans (i.e. county-level, working group, or private land) that have tailored conservation measures to local conditions, including unique habitat and threats, and socio-economic factors.

The new best management practices (BMP) proposed by the NTT are unnecessarily restrictive, are not supported by scientific information, and do not address specific cause and effect mechanisms that are known to be deleterious to sage grouse. The imposition of new

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<sup>56</sup> Appendix I

BMPs was made without any tracking and testing of the effectiveness of currently required BMPs.

#### D. The NTT Report Does Not Account for Developments in this Issue

The NTT Report was published in December 2011; over two years ago. Since then, the Serviced published its final version of the COT Report and the State submitted Alternative E to BLM. These documents should all be used together when determining what is the “best available science” for sage-grouse management. Western Association of Wildlife Agencies (“WAFWA”), agreed, stating in a letter that the NTT alone is not the best available science for sage-grouse.<sup>57</sup>

According to WAFWA, the NTT report provides valuable information, but it does not reflect all of the current science, especially that found in the Studies in Avian Biology volume “Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and Its Habitats” and other recent peer-reviewed publications.<sup>58</sup> Idaho did not adopt or endorse any one publication to the exclusion of the others in developing Alternative E. Instead, Idaho believes that a number of peer-reviewed publications collectively constitute the best available science for sage-grouse and should be used in our effort to conserve the species and preclude the need for listing under the Endangered Species Act (ESA).

For example, management and regulatory mechanisms should be based upon the best available science, reflected in multiple peer-reviewed publications and which embrace empirically derived knowledge and local variation in environmental conditions. This approach provides the best strategy for near and long-term management of sage-grouse and provides the best opportunity for precluding the need to list the species under ESA.

In addition, the “one-size-fits-all” approach in the NTT Report is at odds with the sage-grouse guidelines paper cited favorably elsewhere in the January 15 letter. The authors of this paper argued that “Because of gaps in our knowledge and regional variation ... the judgment of local biologists and quantitative data from population and habitat monitoring are necessary to implement the guidelines correctly.”<sup>59</sup> The guidelines paper concludes “Local differences in conditions that affect sage-grouse populations may occur and should be considered in conservation plans.” This is the approach we have taken in Idaho and have recommended the BLM and U.S. Forest Service use to revise land use plans. BLM needs to disclose these issues and be consistent with WAFWA’s interpretation.

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<sup>57</sup> Appendix J

<sup>58</sup> *Id.*

<sup>59</sup> Appendix J

### III. COMPARISON OF THE CO-PREFERRED ALTERNATIVES

The Service believes States should be especially important partners in managing public land and natural resources. States in the West own and manage large tracts of land with tremendous social and biological value. State governments also frequently pioneer innovative land management programs and policies and exert considerable influence over statewide economic development and private land use, both of which significantly affect natural resource management. Accordingly, following the Service's example, the BLM must not discount the insight of state conservation agencies as the wildlife manager of this particular species.

The Service identified habitat destruction as the result of infrastructure development as the primary threat to sage-grouse. Wyoming's Core Strategy focuses on this threat because 50 % of the sage-grouse population lives within Wyoming's boundaries. Wyoming focused on this threat because of the oil and gas production occurring in its state. Idaho has not seen the effects of oil and gas production nor is development occurring at an unsustainable rate across sage-grouse habitat. In fact, infrastructure development of the magnitude raised by the Service is not significant. Thus, for the Great Basin states, the other primary threats of wildfire and invasive weeds may be more relevant.

Accordingly, the best alternative for this Sub-Basin region should have a strong strategy for mitigating the effects of wildfire both in the short- and long-term. While better than Alternative B, C, and F, Alternative D still unnecessarily restricts large-scale infrastructure development across 8.3 million acres within Idaho, appears to lack a coherent strategy to address wildfire, and incorporates many of the same BMPs from the flawed NTT Report. In fact, the primary distinction is Alternative D utilizes an adaptive management construct. The rest of the measures are nearly the same, or in some cases more restrictive. Thus, if the NTT Alternative, (Alternative B) does not meet the purpose and need, Alternative D similarly cannot meet the purpose and need either. Alternative E is the only alternative that proposes a strategy that meaningfully helps the sage-grouse and preserves predictable uses of land, which is an integral part of BLM's mission to maintain multiple uses on public lands.

#### A. Management Zones and Conservation Areas

In Brian Kelly's April 2013 letter to the Governor, he identified Alternative E's four Foundational elements as consistent with the General Conservation Objectives and Specific Conservation Objectives related to Priority Areas for Conservation (PACs) in the COT report. These foundational elements include the designation of a Core Habitat Zone, which is home to 73% of the male sage-grouse population in Idaho. The designation of CHZ also addresses the

primary threat of infrastructure development by prohibiting it, but providing a process for limited exceptions. The Service commended the State for ensuring that any exception must still meet the standards for development in the IHZ.

The second foundational element was the designation of the IHZ. This zone includes 22% of the male sage-grouse in Idaho. This zone captures the intent of the COT report by stopping population decline in that while infrastructure is permitted, it is permitted in a way that must demonstrate it will not affect the population trend for the relevant Conservation Area. It also serves an important role as a buffer for habitat loss due to fire.

Alternative E's Conservation Areas and management zones include the total habitat identified as PACs. This is reflective of focusing on responding to what the Service has identified as the most serious threats, and the most crucial habitats for sage-grouse. Alternative E prioritizes focusing resources on the most important regions for sage-grouse. Alternative E's map meets the COT's objective of retaining sage-grouse habitats within PACs. .

Four conservation areas in which adaptive triggers are individually applied ensures a high level of sensitivity to change, that will translate to more timely changes in management if necessary, which creates an enhanced ability to ensure the population objective for Alternative E is met state-wide.

In contrast, Alternative D has 10 Population Areas, that with individually applied adaptive triggers. While some of these Population Areas align well with Alternative E's Conservation Areas, several go beyond Alternative E's designated habitat and are relatively small areas. For example, Alternative D's Sawtooth population is roughly 27,000 acres. Tripping a trigger in this area is likely to occur often, due to its small size. Further, a trigger in this small of an area is likely not going to impact sage-grouse in the same way as a trigger would in a larger Population Area, like the Mountain Valleys population, which is over 4 million acres. This disparity makes it difficult for BLM to prioritize resources and land management decisions.

Further, if BLM adopts Alternative D's Population Areas as its method of delineating sage-grouse habitat, it may unwittingly give itself an unfunded mandate. Currently, little to no monitoring occurs in the East Central Idaho, Weiser, and the Sawtooth populations. This is for a variety of reasons, only one of which is funding. The primary reason for the lack of monitoring is that these populations are small and relatively unimportant to the overall sage-grouse population in Idaho. Thus, even if funding was available to monitor these areas, it would be very hard to justify diverting resources to these areas. Yet, Alternative D delineates all three of its zones in each of these populations, thus *requiring* monitoring to determine if triggers have been tripped. This is unnecessary and an unwise use of BLM resources. In contrast, Idaho Fish and Game currently monitors all of the lek routes in Alternative E's CHZ and IHZ, and has requested additional funding from the State to improve this monitoring. This means that Alternative E's

trigger program can be implemented immediately, with no additional funding from the State or from BLM, because IDFG is already collecting the data required to do so.

Alternative D's Population Areas are an unrealistic method of categorizing sage-grouse habitat. In fact, Alternative D includes protections for an additional 700,000 acres. Alternative D's Priority zone contains 7 million acres and the medial zone has 1.3. This is in contrast to Alternative E's more balanced approach of 4.9 million acres in CHZ and 2.7 million acres in IHZ. As Alternative D is written, its trigger program is rendered largely ineffective because tripping a trigger only extends protection to an additional 1.3 million acres. Alternative E is able to protect twice that, so triggers will actually have an impact. Alternative E includes 95% of the sage-grouse population in Idaho within CHZ and IHZ's 7.6 million acres. Thus, BLM's inclusion of an additional 700,000 acres equates to saving at best, a few more percentage points, without affecting a listing determination. BLM would be required to spend time and effort monitoring areas that the Service has not identified as significant for sage-grouse.

BLM argues that these areas are important for "connectivity" for sage-grouse, as the bird cannot appreciate the boundaries the government has created for it. However, the Service still has determined that these areas are relatively unimportant to the entire population and has excluded these areas from its PACs. It is unclear why BLM continues to insist on expending limited resources on these additional acres, when both the Service and the State identified other areas as higher priorities. This is unnecessary and an unwise use of BLM resources. Alternative E's CHZ contains 73% of the male sage-grouse population, whereas GHZ contains 5%. Alternative D would require BLM to expend time and resources areas outside of PACs because it has designated these areas as higher priority. Alternative E's Conservation areas enable resources to be allocated to the most important areas for sage-grouse, ensuring that the Idaho population remains viable.

#### B. Adaptive Triggers allow BLM to Manage the Primary Threats

The Service recognized the importance of Alternative E's measurable population objective, and how the Alternative utilizes monitoring to ensure the objective is met. It also sets metrics that trigger changes in practices or review of current practices to ensure the Strategy's conservation objective is met long-term. Alternative E's monitoring program and triggers meet's the COT's objective of implementing appropriate restoration efforts if PACs are lost to catastrophic events. It also meets the objective of restoring and rehabilitating degraded sage-grouse habitat within PACs.

Alternative E's adaptive triggers also meet the COT's objective to re-evaluate the status of PACs and adjacent sage-grouse habitat at least once every 5 years or when important new information becomes available. Alternative E accounts for this through the annual habitat monitoring and corresponding adaptive triggers. The Implementation Team will meet annually to discuss loss of habitat and/or population and make appropriate recommendations as needed.

For both Alternative D and E, the triggers are individualized per conservation or population area. That means in Alternative D, a hard trigger, requiring immediate management change would become operative in any of the ten areas. This makes Alternative D's trigger mechanism extremely sensitive. The Governor is not sure that this type of sensitive trigger is actually implementable by BLM. Further, BLM has not provided any scientific justification for this sensitive of a trigger. In contrast, Alternative E's triggers are spread over much larger areas, providing a more manageable, practical mechanism for changing management when necessary. Even Alternative E's trigger mechanism is conservative, and more sensitive than necessary. However, the Governor believed it was important to be proactive in addressing and minimizing threats across sage-grouse's range. Alternative D goes too far and will ultimately be too sensitive to allow for efficient allocation of time and resources.

### C. The Implementation Commission

Both alternatives include a team that is designed to oversee the trigger strategy of each plan. However, Alternative D's Technical Advisory Team (TAT) cuts out the long term role of the state to help on triggers that apply across all jurisdictions. The other missing component of Alternative D is the ability for stakeholders to review infrastructure projects and recommend appropriate compensatory mitigation before a project proponent submits their permit application to the BLM.

Alternative E's Implementation Commission makes recommendations on future on-the-ground management actions following the record of decision. This group will be similar to Idaho's Roadless Commission.<sup>60</sup> Should the BLM select Alternative E, the State anticipates through a Memorandum of Understanding with BLM and the US Forest Service, the State through the Office of the Governor will become a cooperating agency. Governor Otter by Executive Order will establish the Implementation Commission, similar in composition to the original Task Force, to serve in an advisory capacity. The Commission will submit management recommendations to the Governor, who will then make management recommendations to BLM and the Forest Service. The group will be comprised of agency officials from The Governor's Office of Species Conservation, the Idaho Department of Fish and Game, the BLM, the US Forest Service, and the US Fish and Wildlife Service. The relevant federal agency would still retain discretion over the ultimate decision.

Bi-annually, the Commission will hear presentations from a technical team from the Idaho Department of Fish and Game and BLM on the population and habitat data collected. If the data shows that a soft trigger has tripped, the Commission may decide whether any action should be taken, and make recommendations to the Governor. The Governor will use that

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<sup>60</sup> See Idaho Executive Order 2011-09, *available at*: <http://adminrules.idaho.gov/rules/2012/EXOOrders/2011-09-exo.pdf>



information to make a recommendation to the BLM or Forest Service regarding any potential management changes.

If the data shows that a hard trigger is tripped, as defined above, the Commission must recommend making management changes based on an analysis of the threats causing the decline. For example, the management provisions of the CHZ would also apply to the IHZ. However, the Commission may decide additional management changes are necessary to respond to that particular hard trigger.

Another part of the Implementation Commission will focus on infrastructure projects. This group, will be established in the same way, but will be comprised similarly to the Sage-Grouse Task Force. This group will review potential infrastructure projects and mitigation packages and will make recommendations in the manner described above. This group will meet as needed to review potential infrastructure projects. And this group will review whether projects fall into a category that would potentially allow them to develop in CHZ. However, this group's role is to allow the permit applicant the opportunity to explain the benefits and burdens of such a project. They will also assess a project's mitigation proposal and will determine the appropriate cost for both direct and indirect effects. They will also decide what mitigation projects will be implemented for each development. This group will then work with the trigger group of the Commission to utilize mitigation for priority restoration areas.

#### D. Primary Threats

##### 1. Infrastructure

Alternative E's plan for Infrastructure development again allows BLM to focus its resources on the most important habitat, which allows greater flexibility for economic development and growth in less important areas. While very little development has occurred within CHZ in the last ten years, or that BLM has disclosed in the document, there does not appear to be any new infrastructure projects on the horizon. Based on the actual impacts of this threat, Alternative E provides a more properly tailored approach specific to Idaho than Alternative D. In CHZ, infrastructure is generally prohibited, unless a project proponent can meet several stringent criteria including compensatory mitigation. These criteria are likely to ensure infrastructure projects do not adversely impact the species in CHZ. In contrast, Alternative B does not provide an exemption process and as suggested above by emails discussing the NTT Report, may restrict beyond BLM's authority.

Infrastructure development in IHZ is slightly more flexible because of this zone's dual role as a short-term hedge against losing birds and/or habitat in the CHZ and a meaningful opportunity to develop projects. These projects are generally permitted if they meet certain requirements, particularly, whether the project demonstrates a high value benefit to the State. Additionally, the project proponent must also show that the project cannot be reasonably

achieved outside of IHZ, and to the extent practicable, it must co-locate the project with existing infrastructure. The project should not result in undue habitat fragmentation or other impacts that cause a decline in the population of the species within that Conservation Area. The project proponent must also mitigate unavoidable impacts with an appropriate compensatory mitigation plan. Alternative D's "medial" habitat intends to create a similar buffer zone, but it is too small to have a substantial impact when a trigger is tripped. It is also very restrictive, which means fewer developments and less opportunity for mitigation.

Alternative D is unnecessarily restrictive for an additional 2.1 million acres in their Priority designated areas, and 700,000 additional acres in total. In CHZ, infrastructure is generally precluded except for valid existing rights, rights and/or incremental upgrade and/or capacity increase of existing subject to some limitations (2-82). Essentially, CHZ is as restrictive as is legally allowed. The CHZ protects 73% of the male lek population. Infrastructure is generally permitted subject to certain criteria in IHZ. This is a practical approach, reflective of what sage-grouse actually need, in contrast to blanket restrictive policies across a large landscape. The CHZ and IHZ were the result of Dr. Jack Connelly's extensive study of sage-grouse and his determination of how resources could be prioritized to ensure maximum viability and long-term preservation. This is also a realistic approach to future economic development in Idaho, being flexible to accommodate the needs of Idaho as its population grows.

Alternative E also applies many of the conservation measures identified in the COT's energy development objective to design energy development to insure that it will not impinge upon stable or increasing sage-grouse population trends. The COT conservation measures stress avoiding energy development in PACS. However, the COT also recognizes that due to valid existing rights, avoidance is not always possible. If development must occur, it should only be in non-habitat areas, including all appurtenant structures, with an adequate buffer that is insufficient to preclude impacts to sage-grouse habitat from noise, and other human activities. If development must occur in sage-grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage-grouse and be designed to ensure at a minimum that there are no detectable declines in sage-grouse population trends. Alternative E addresses these issues in its infrastructure measures by restricting development in CHZ, with an exemption process for valid existing rights, and by allowing more flexibility for development in IHZ and GHZ. This is coupled with adequate monitoring and adaptive management.

The final alternative should provide the discretion for BLM to be a good neighbor by achieving a shared responsibility for siting of infrastructure on federal, state and private lands. Alternative D will not permit BLM to be a good neighbor by requiring the private lands to accept most of the burden. However, Alternative E would give the BLM the tools to be a good neighbor while protecting the habitat necessary for sustaining a viable population of the species.

i. Mitigation

Alternative D's mitigation strategy is "no net unmitigated loss" which means at best, a 1:1 ratio of acres. However, Alternative D essentially excludes infrastructure in its most restrictive management zone, so there would be no real opportunity for mitigation. Further, "no net unmitigated loss" is vague. BLM needs to clarify concerns such as issues of habitat quality within a particular category. For example, Alternative E's CHZ includes restoration habitat that is either grassland or invaded by juniper. Restoration of these areas to meet sage-grouse habitat needs doesn't change the number of acres in CHZ and so would not meet the "net" definition. This description does not specify whether mitigation or restoration of lower quality habitat could allow it to become higher quality habitat, thus meeting "net" criteria. Further clarification of how project proponents' mitigation strategies meet these criteria is necessary. Protection mitigation should also be clarified. This type of mitigation can protect thousands of acres from burning, but could potentially not meet the "net" criteria. This definition does not define how maturation of seeded restoration projects is calculated. And this is only appropriate for large-scale infrastructure, not other activities. Overall, this idea needs to be fleshed out to determine whether it is an effective strategy for infrastructure development and mitigation. The Governor does not support mitigation in advance of a project. This method increases the likelihood of litigation, especially if this process moves forward without a role for the State of Idaho. Governor Otter does not believe that disturbance caps are appropriate for Idaho; however, the concept of "no net unmitigated loss" needs further clarification and refinement before the state can support it.

2. Wildfire

Wildfire is a difficult threat to prevent and control. However, the adaptive construct of Governor's Alternative provides a mechanism to prevent sage-grouse from any likelihood of becoming endangered in the foreseeable future. The short-term use of triggers and zones will provide the time to develop more proactive measures that demonstrate long-term success on the landscape.

The employment of specific, more aggressive wildlife and invasive species management practices to prevent further encroachment into the CHZ and IHZ should be driven by local planning efforts at the field office and ranger district level. As referenced above, the creation of RFPAs throughout the Sage-Grouse Management Area (SGMA) is a regulatory mechanism that will ensure better and faster initial attack on wildfires threatening the CHZ and IHZ through the employment of additional trained firefighters and resources in rural parts of the SGMA. From a regulatory mechanism standpoint, Idaho Code Chapter 1, Title 38 was recently amended to allow for the creation of Rural Fire Protections Associations (RFPAs). Additionally, this spring the Idaho Legislature authorized funding to help cover start-up costs for 4 RFPAs in southwest Idaho.

The emphasis for fuel break prioritization should be in areas within the Wildland-Urban Interface (WUI) where human life and safety are at risk. For instance, the Boise District BLM is currently in the planning phase of a fuel-break project within the Interstate-84 corridor between Boise and Mountain Home, Idaho referred to as the “Paradigm Project”. The idea behind the project is to strategically place and improve upon fuel breaks within this corridor, therefore keeping wildfires to more manageable sizes thus requiring fewer firefighting resources. The State of Idaho supports this project, as well as other similar fuel-break projects designed to secure the WUI and free up firefighting resources to be focused on providing initial attack on wildfires in areas that have the potential to impact greater sage-grouse habitat within the CHZ and IHZ. After securing the WUI, prioritization of fuels breaks should go to areas of high human ignition based upon ignition data and maps produced by BLM districts and field offices.

As will be discussed in greater detail by comments provided by the Idaho Department of Lands, Alternative E is the only alternative that provides certainty of implementation for its measures. The amended July 1 fire table, on page D-157 of Appendix D, is divided into three categories-prevention, suppression, and restoration. This table identifies specific actions, where they will be implemented, how they will be implemented, how much of a specific action is necessary, when it will be implemented, and what mechanism will be used to implement the action. Strategies to develop these specific actions will be completed at the most local level of management. This gives local fire managers a framework under which to operate while still providing flexibility for them to make appropriate decisions for their area.

Alternative E’s prevention measures include fuel breaks, fuels reduction, and fire restrictions and closures. Alternative E requires that strategy and associated NEPA for these prevention efforts should be completed within two years of signing the Record of Decision for this current EIS. Fire suppression measures include creating additional Rural Fire Protection Associations (RFPAs), response time analysis, suppression capacity analysis, water capacity analysis and implementation, and firefighter education on the importance of protection CHZ and IHZ. These measures should be implemented within one year of the Record of Decision for this EIS.

Restoration efforts include reseeding, sagebrush seedlings, invasive annual grass expansion prevention, reseeding on State owned lands by federal contractors, and conifer removal on state owned lands by federal contractors. A reseeding strategy must be completed within one year of signing the Record of Decision and implementation of restoration to offset wildfire losses in CHZ and IHZ since 2011 must be completed within 2 years of signing the Record of Decision. Offset models of wildfire losses in CHZ and IHZ should be completed 3 years after signing the Record of Decision. A sagebrush seedlings strategy should be completed within one year of the Record of Decision. Planting should be completed in CHZ within two years of signing the Record of Decision and within 3 years for IHZ. For invasive annual grass prevention, modeling and strategy should be completed within 1 year of signing the Record of

Decision. Techniques to prevent further spread in CHZ and IHZ should be implemented within 2 years of signing the record of decision. Offset of annual grass spread in CHZ and IHZ should occur within 3 years of signing the Record of Decision. A Memorandum of Understanding (MOU) for reseeding on state-owned lands should be signed within 1 year of the Record of Decision. State lands should be reseeded within one year of a wildfire. An MOU for conifer removal should be signed within 1 year of the Record of Decision. Conifer removal on state lands should occur within the timeframe of federal projects.

Alternative E addresses the COT's conservation objective to retain and restore healthy native sagebrush communities within sage-grouse range. Alternative E applies the COT's conservation measure to design and implement restoration of burned sagebrush habitats to allow for natural succession to healthy native sagebrush plant communities. This is also addressed through Alternative E's habitat monitoring program and adaptive triggers.

The COT also stresses the importance to immediately suppress fire in all sagebrush habitats. Alternative E addresses this in both CHZ and IHZ and also through its monitoring and adaptive management.

Alternative E addresses the COT objective to maintain and restore healthy native sagebrush communities. Alternative E shares the conservation measure to reduce or eliminate disturbances that promote the spread of invasive species. Alternative E further supports this measure through monitoring and adaptive triggers. Alternative E also requires best management practices for construction projects in and adjacent to sagebrush habitats to prevent invasion.

#### E. Alternative E Addresses Secondary Threats in the Appropriate Context

##### 1. Improper Grazing

Alternative E best addresses the secondary threat of improper grazing. Alternative E provides a mechanism for renewing grazing permits in the most important sage-grouse habitats first and provides an objective way of measuring whether permit holders are meeting the rangeland health standards most important to protecting and conserving sage-grouse habitat.

There are two pathways where this management framework is applicable: (1) in conjunction with scheduled term grazing permit renewals; and (2) where the adaptive regulatory trigger has been tripped (as described in section 3) and livestock grazing is identified as a potential causal factor. See Concurrence Request at 6.

Under the first path, the Governor's Alternative provides a framework for BLM to assess Standard 8 and Standards 2 and 4 based on the Conservation Objectives Team Report (COT Report) with respect to sage-grouse. As described in more detail below, if no trigger has been tripped across a Conservation Area, the Standard 8 analysis for sage-grouse should be a straightforward process.

Standard 8 of the IRHS establishes that the habitat important to threatened and endangered plants and animals meet a “maintain a viable population” threshold with respect to livestock grazing.<sup>61</sup> Consistent with the overall approach of the Governor’s Alternative, utilizing an outcome-based conservation strategy within an adaptive construct, the State of Idaho has identified an overall population target buttressed by regulatory mechanisms and adaptive regulatory triggers. Where these population and habitat triggers are being maintained within a Conservation Area, there is a rebuttable presumption that current grazing systems are adequate to maintain viable sage-grouse populations; and therefore, absent compelling information, no further changes to the grazing systems will be required pursuant to the Standard 8 analysis with respect to sage-grouse.

There are several similarities and consistencies between Alternative D and Alternative E for grazing. However, the most important distinction between the two alternatives is that Alternative D does not provide certainty of implementation. Instead, Alternative D and the measures pulled from Alternative B merely provide best management practice suggestions, with no mechanism to ensure that they will be implemented. Further discussion of these similarities and differences can be found in comments submitted by the Idaho Department of Agriculture.

The COT’s objective for grazing management focuses on consistency with local ecological conditions that maintain and restore healthy sagebrush shrub and native perennial grass and forb communities and conserve the essential habitat components for sage-grouse. Areas which do not currently meet this standard should be managed to restore these components. Adequate monitoring of grazing strategies and their result, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and sage-grouse response are achieved. Livestock number must be managed at levels that allow native sagebrush vegetative communities to minimally achieve Rangeland Health Standards. Alternative E addresses this objective by prioritizing the assessment process on sage-grouse population change. Alternative E would also implement desired habitat conditions and initiate measures to maintain essential habitat components. Monitoring and associated triggers are also integral to this objective.

Alternative E is consistent with the COT’s determination that range management structure should be designed and placed to be neutral or beneficial to sage-grouse. Alternative E addresses this through its identified Best Management Practices. Idaho provided the definitive science on fences and sage-grouse and is now engaged in long term work to better understand the relationship between livestock grazing and sage-grouse. Through this and other efforts like it, Idaho is leading the charge on sage-grouse conservation.

Alternative E is also consistent with the COT’s objective to protect sage-grouse from negative influences of grazing by free roaming equids. This means managing free roaming equids at levels that allow native sagebrush vegetative communities to minimally achieve PFC or

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<sup>61</sup> 43 C.F.R. Subpart 4160

Rangeland Health Standards. Alternative E maintains rangeland health standards, but also provides BLM with an objective way to measure these standards

## 2. Recreation

Idaho believes the conservation measures identified in both Alternative D and E are relatively compatible for Recreation management. However, this is discussed in greater detail in the comments provided by the Idaho Department of Parks and Recreation.

## 3. West Nile

The State does not find any conflicts between the conservation measures in Alternative D and E for the prevention and management of the West Nile Virus

## F. Alternative A Is Incomplete

BLM does not include existing conservation efforts, such as the Rangeland Fire Protection Associations when discussing the current status of sage-grouse conservation. These associations operated for the entire 2013 fire season; putting out fires before BLM could even arrive. Yet, this was not included in the Alternative A's discussion. BLM did not include any discussion of this effort, despite it being a collaborative process between the agency and landowners across Idaho. BLM's analysis should have included the impacts these associations already had on the ground.

# IV. CHAPTER 4 ANALYSIS

## A. The Impact Analysis is Insufficient

The Chapter 4 impact analysis is insufficient. This was an issue that the State attempted to address throughout the Administrative Draft phrase of the document, but still has not been satisfactorily improved. This is primarily because this chapter ignores the beneficial impacts of monitoring, adaptive management and how the specific conservation measures for each threat would be implemented.

### 1. Adaptive Management

The adaptive management strategy is an integral component of Alternative E. Without this mechanism, Alternative E is just a list of conservation measures, no more implementable than anything BLM was doing before the 2010 determination. However, the addition of this component provides certainty of implementation and measurable reduction of the impacts of current threats on sage-grouse. This concept, as discussed above, allows BLM and the State to respond to present challenges and to react appropriately when new issues arise. The adaptive

management mechanism is also a crucial part of how conservation measures for each threat are implemented. To discuss them separately leads to an incorrect analysis and a misleading conclusion about the impacts of Alternative E. In fact, these alternatives are quite distinguishable in their effects on sage-grouse conservation.

Further, the BLM cannot just make conclusory statements as, “Impacts are similar to those under Alternative B” or “Same as Alternative A” with no statements to support the claim.

Alternative E impacts are unique from Alternative B in that Alternative E includes a mechanism that provides certainty of implementation for conservation measures for all threats. The adaptive triggers allow the State and BLM to keep a close eye on what happens in sage-grouse habitat and to respond accordingly.

## 2. Implementation Team

As discussed in greater detail above, the Implementation Team operates the adaptive management strategy by receiving the data collected by Idaho Fish and Game and the BLM and makes recommendations to the Governor who then advises BLM and the Forest Service on any necessary management changes. This happens annually. This group’s existence ensures that when management changes are necessary, they are reasonably certain to occur. However, the impact analysis does not accommodate for this fact and thus, the analysis is incorrect as to the effectiveness of Alternative E.

## 3. Specific Measures

When measured in isolation any of the conservation measures outlined in Alternative E very likely produce similar results as those identified in Alternative B and D. However, these measures cannot be assessed in a vacuum, as BLM did here. Instead, these measures should be analyzed in relationship to the triggers that make them operational. A conservation measure is just an idea, unless a management plan states how it will be implemented and then actually implements it.

### i. Wildfire

The July 1 Clarification and Refinement letter sent to BLM by the Governor outlines a wildfire strategy that focuses on prevention, suppression, and restoration. These measures also require BLM to take certain actions within one year of signing the Record of Decision. This strategy provides certainty that the measures will be implemented and that action will be taken.

Additionally, in 2012, Idaho, in collaboration with BLM established Rural Fire Protection Associations. These Associations, discussed in further detail in the attached comments from the Idaho Department of Lands, have already been established, and funded by the Idaho State Legislature and assisted BLM in the 2013 fire season. Additional Associations continue to be added and IDL recently established a full time position in their office to manage them.



In contrast, under Alternative B and D, “impacts on sage-grouse from fire suppression activities would largely be the same as Alternative A.” This determination is shocking, considering inadequate regulatory mechanisms for wildfire control was the primary purpose for the “warranted but precluded” determination. However, Alternative B does not alter the status quo. BLM reaches the same conclusions for Alternative D, saying on page 4-55, “overall, Alternative D would reduce impacts to wildfire similar to Alternative B.” If the measures from this alternative are selected for the final, it is likely the Service will be forced to list sage-grouse as threatened, because regulatory mechanisms are still inadequate for dealing with the primary threats. This goes against BLM’s original objective for this EIS, handed down to them from Secretary Salazar- “preclude the need to list while maintaining predictable levels of land use.”

It may be possible that this conclusion, despite proper analysis, is correct, as BLM is currently able to put out 97% of wildfires during fire season. So, new measures may not increase this number substantially. However, the distinction between Alternative E and its co-preferred partner Alternative D is that Alternative E is the only one that responds to the Service’s concern that existing fire mechanisms were only implemented through temporary IMs that expired every two years. The table provided in Appendix D for Alternative E and also noted as Table 2-13 in this EIS provides timelines for both BLM and the Forest Service to implement long term fire management measures. This ensures that measures are not only effective in reducing the impact of fires, but also that fires can continue to be managed consistently at the local level. No other Alternative in the DEIS addresses fire in this way. In fact, Alternatives C and F merely defer to Alternative B for the primary threat facing sage-grouse. Thus, while the impacts of the measures themselves may not differ substantially from Alternative A or B, Alternative E’s impacts are much bigger as they are paired with a mechanism to ensure they are actually implemented.

The DEIS also includes language that the Governor specifically requested be removed from the Administrative EIS as it was vague, conclusory, and inaccurate. On page 4-105 in Volume II B, BLM states that Alternative E “*does not provide much guidance regarding other fuel treatments and ESR, which could limit the success of fire suppression and regrowth of desired vegetation after a fire.*” This causes the reader to wonder what BLM’s measure for “much guidance” on fuel treatments is and whether any alternatives meet this rigid, yet mysterious standard. This type of statement is inappropriate for an EIS. Further, it is inaccurate. In fact, Alternative E provides extensive guidance on fuel treatments and ESR. This statement was actually in the Administrative EIS before BLM reviewed the July 1 letter. BLM promised to remove this statement upon review of the new information and agreed that these types of subjective statements would be removed before the DEIS was published. The Governor expects this error to be corrected before the Final EIS is published.

## ii. Infrastructure

BLM failed to state why further restrictions on infrastructure are necessary in the Great Basin region. Under existing RMPs, no large scale infrastructure has been built in CHZ. In fact,

the only potential project, known as the China Mountain Wind Energy project's EIS was put on hold, despite creating a sage-grouse conservation plan, an off-site mitigation plan with 1:3 and 1:5 ratios of acres lost and acres restored. This project is currently on hold. Another more recent example is the Gateway West Transmission project. The current proposal recommends building on private land to avoid what Alternative E maps as primarily IHZ, but is identified as PPH for BLM. This shows that existing regulations for site specific NEPA analysis works for restricting infrastructure development in the most important sage-grouse habitat in Idaho, and may already be overly restrictive. Yet, BLM does not address what existing infrastructure impacts on sage-grouse are and what, specifically, its regulations in Idaho are lacking.

BLM provides an analysis for three separate types of infrastructure development and the impacts for each under Alternative E. Surprisingly, different conclusions are reached for each type, despite the fact that Alternative E makes no such distinction itself. In fact, Alternative E defines infrastructure quite broadly. This definition of "infrastructure" includes

discrete, large-scale anthropogenic features, including but not limited to highways, high voltage transmission lines, commercial wind projects, energy development (e.g. oil and gas development, geothermal wells), airports, mines, cell phone towers, landfills, residential and commercial subdivisions. (page 30, Governor's Alternative.)

Thus, while the state recognizes the potential need to discuss the effects of each type of development separately, the state is perplexed as to why the conclusions are different, if any conclusions are made at all.

BLM states that Alternative E does not provide assurance that oil and gas development would only occur in IHZ if it would not cause a decline in sage-grouse populations. However, this assurance is provided through the Implementation Commission, as discussed in detail above. The Implementation Commission will review development projects and make recommendations to the Governor, who in turn will make recommendations to BLM, as to whether certain projects would activate a hard or soft trigger. This is possible with development in IHZ. Based on this recommendation, BLM can choose not to grant a development permit for projects. The Implementation Commission is empowered to make a strong recommendation due to the information it receives annually from the Idaho Department of Fish and Game. With this data, the Implementation Team would be able to determine with confidence the likelihood that a development project would result in a population decline.

BLM does not provide a conclusion as to the impacts from Land Uses and Realty Management with respect to wind energy for Alternative E. Again, the Implementation Commission would make a recommendation for any potential wind energy project, relying on the data provided by the Idaho Department of Fish and Game. Infrastructure development also has the potential to activate a trigger. If a necessary development activates a hard trigger, IHZ is managed as CHZ for the purposes of future infrastructure development. Thus, BLM should have

concluded that impacts from wind energy would be reduced, relative to Alternative A. Further, BLM should have concluded that because of Alternative E's adaptive trigger strategy, that impacts would be reduced as compared to any other alternative included in the DEIS.

Further, without providing any evidence to support it, BLM concludes that Impacts with respect to geo-thermal energy are the same as Alternative A. Again, impacts here would be the same as other types of energy development. It is unclear why BLM reached this determination and why, if Alternative E treats all types of development the same, why geothermal impacts would be the same as Alternative A, while oil and gas development impacts would be reduced relative to Alternative A. What distinction has BLM found in the state's treatment of these types of infrastructure development? There should be none and thus, BLM's conclusion that impacts from geothermal energy would be the same as Alternative A, with no supporting analysis is incorrect.

#### B. Cumulative Effects

NEPA requires that where several actions have a cumulative ... environmental effect, this consequence must be considered in an EIS.<sup>62</sup> Cumulative impacts on the environment:

Result from the incremental impact an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.<sup>63</sup>

A cumulative impact analysis "must be more than perfunctory; it must provide 'a useful analysis of the cumulative impacts of past, present, and future projects.'"<sup>64</sup> To be useful to decision makers and the public, the cumulative impact analysis must include "some quantified or detailed information; ... general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided."<sup>65</sup>

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<sup>62</sup> *Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 608 F.3d 592, 602 (9th Cir.2010) (citation and internal quotation marks omitted).

<sup>63</sup> 40 C.F.R. § 1508.7

<sup>64</sup> *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1075 (9th Cir.2002) (quoting *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 810 (9th Cir.1999)).

<sup>65</sup> *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 868 (9th Cir.2005) (quoting *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379–80 (9th Cir.1998)). Federal agencies may "aggregate [ ] cumulative effects analysis" for NEPA purposes. *League of Wilderness Defenders–Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 549 F.3d 1211, 1217 (9th Cir.2008)

("[A]gencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effects of all past actions combined."<sup>66</sup>

Prior to this EIS process, Idaho attempted to address sage-grouse issues on state and private land, including a Candidate Conservation Agreement with Assurances ("CCAA") in the Weiser area. BLM makes no mention of this process but it is illustrative of the larger issue. There is little doubt that BLM's final alternative will drive land management decisions in southern Idaho for many years. This even applies, in some instances, to State Endowment Land because of the checkerboard nature of the land ownership. So if BLM effectively withdraws all development in priority habitat it makes it very difficult to develop on adjoining state and private land. But the State has not completely left the field with regard to State/Private lands. RFPAs deal with highest threat across all landscapes and the Idaho Department of Fish and Game monitors bird populations across the state which informs the triggers. And if the BLM adopts Alternative E, Idaho is willing to examine other BMPs if necessary and appropriate.

The present DEIS is comprised of general statements about possible effects and do not constitute a "hard look." For example, on page 4-296, the DEIS is quick to dismiss Alternative E's extensive fire management approach because it "overall has fewer management actions to protect [sage-grouse] from fire than other action alternatives." In contrast, the DEIS praises Alternative B, while providing vague descriptions of how that alternative can affect the impacts of fire. Again, BLM fails to understand that the Service wanted a coherent strategy to address this threat, rather than a laundry list of conservation measures. This effects analysis does not address the fact that only Alternative E provides certainty of implementation for fire management, and every other threat. BLM does recognize, however, that management under Alternatives B, C, or F would most likely push Right of Way development on private lands, resulting in more loss of sage-grouse habitat long term. Idaho is already seeing the effects of this with the Gateway West project. Alternative E can site infrastructure in a way that minimizes loss and fragmentation of habitat, predation risk, and other threats while keeping right of way development on public land.

BLM's analysis of cumulative effects is lacking for vegetation. BLM assumes because Alternative E's CHZ is smaller than BLM's PPMA that cumulative effects would be greater than other alternatives. However, even though Alternative E's CHZ is smaller than BLM's PPMA, it doesn't mean the rest of the zones are any less protected. 73% of the male population resides in CHZ and 22% are in IHZ. Alternative E allows BLM to prioritize its resources. In spite of the PPMA designation, BLM may not be able to commit adequate resources to respond to threats within all of PPMA.

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<sup>66</sup> (quoting Council on Environmental Quality Memorandum, "Guidance on Consideration of Past Actions in Cumulative Effects Analysis" (June 24, 2005)).

The DEIS does recognize the strength of Alternative E's flexible grazing management strategy. This strategy allows any potential management changes to occur at the site-specific level.

Overall, BLM's Chapter 4 analysis is inadequate, vague, and often inaccurate. Many conclusions are without support. Even when the conclusion is correct, it is difficult to determine why. Alternatives are lumped together in groups for various stages in the analysis, where BLM determines they all have similar effects. This is unhelpful because this type of analysis does not allow the reader to distinguish between the effects of each individual alternative. It is also unlikely that 6 unique alternatives could all, at times, produce the exact same effects.

### CONCLUSION

The final alternative must take a balanced approach recognizing both local and national interests, and BLM's multiple-use mandate for the management of these lands. While the State believes that Alternative E is the only alternative that meets the objective of this planning effort, there may be some details of Alternative D that can be folded into the Governor's Alternative.



# United States Department of the Interior

## Fish and Wildlife Service

### Idaho Fish and Wildlife Office

1387 S. Vinnell Way, Room 368

Boise, Idaho 83709

Telephone (208) 378-5243

<http://www.fws.gov/idaho>



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08/25/2015

JUL 23 2013

#### Memorandum

To: Steve Ellis, Idaho State Director, Bureau of Land Management, Boise, Idaho

From: Brian T. Kelly, State Supervisor, U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, Boise, Idaho

Subject: Comments on the Administrative Draft: Idaho and Southwestern Montana Sub-regional Greater Sage-grouse Resource Management Plan and Environmental Impact Statement

Thank you for the opportunity to provide comments relative to the subject June 24, 2013, Administrative Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS). The EIS describes and analyzes six alternatives (A through F) for managing public lands and resources in the planning area. The planning area consists of Bureau of Land Management (BLM) and U.S. Forest Service (FS)-administered lands and minerals in Idaho, excluding the panhandle, and Southwestern Montana. The specific BLM field offices (FO) and national forests (NF) included in the planning area are: Bruneau FO, Burley FO, Challis FO, Four Rivers FO, Jarbidge FO, Owyhee FO, Pocatello FO, Salmon FO, Shoshone FO, Upper Snake FO, Boise NF, Caribou-Targhee NF, Curlew National Grassland, Salmon-Challis NF, and Sawtooth NF in Idaho.

As a cooperating agency, our comments are provided pursuant to the National Environmental Policy Act (NEPA), 40 Code of Federal Regulations Part 1500-1508, and as requested per the March 2012 Memorandum of Understanding between the BLM, the U.S. Fish and Wildlife Service (Service), and the FS. Our comments are authorized under the Endangered Species Act, of 1973, as amended (16 U.S.C. 703 *et seq.*), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

You have stated that the Administrative Draft is still undergoing further refinement and the Sub Regional Interdisciplinary Team's intent is for specific components to be finalized in the next version scheduled to be completed by early August. Therefore, due to the incomplete nature of the current draft and the short time line provided to us for review and comment, our comments are as a result limited at this time. We have primarily focused our review of the EIS on the sections regarding Greater sage-grouse issues and conservation actions that may address the threats detailed in the Service's 2010 Warranted but Precluded Finding. To do this, we have reviewed the EIS alternatives for their consistency with the conservation objectives identified in the Service's Conservation Objective Team (COT) report.

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Throughout Table 2.x (Chapter 2, Management Actions by Alternative) of the EIS, there is lack of specificity regarding where, when, and how management actions will be implemented. Increased specificity of these management actions will increase our certainty of effectiveness and implementation.

There are substantial differences between the FS's Standards and Guidelines as well as between BLM's Management Actions and Best Management Practices. Many of the actions currently contained in Table 2.x may be interpreted as FS Guidelines or BLM Best Management Practices rather than FS Standards or BLM Management Actions. Understanding how these will be incorporated into Land Use Planning (LUP) documents directly affects our ability to determine whether they will provide sufficient regulatory mechanisms. We suggest providing increased clarity regarding how these will be incorporated into future LUP documents.

Long-term conservation of sage-grouse will depend on a continued commitment to adequately manage threats to the species and its habitat and to ensure a robust monitoring and adaptive management strategy. The State of Idaho developed alternative (Alternative E), is currently the only alternative that substantively addresses these topics. Although we fully realize that Alternative E will require further effort to bring it to full development, currently, it most closely meets the goals and objectives of the COT.

As noted above, the ability to implement any one alternative or a combination of alternatives is an important consideration in the Service's listing evaluation. We look forward to further coordination with you in developing the EIS so that we can provide more substantive comments to assist you in ensuring that the final version meets with the objectives for long-term conservation of Greater sage-grouse and is implementable under BLM policies and regulations. Thank you again for the opportunity to review and provide comment on the RMP and EIS. Please do not hesitate to contact me at 208-378-5243 or Jason Pyron of my staff at 208-685-6958.

cc: USFWS, State Supervisor, West Valley City, UT (L. Crist)  
USFWS, State Supervisor, Reno, NV (T. Koch)  
USFWS, State Supervisor, Helena, MT (J. Bush)

**Brent Ralston**

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**From:** Gardetto, Jessica  
**Sent:** Tuesday, August 12, 2014 10:19 AM  
**To:** Brent Ralston  
**Subject:** Re: DEIS Comments  
**Attachments:** CA\_reply\_8.12.14.docx

Here you go. I put it in a Word Document so I could save it for future reference. I don't actually have a copy of the recent FEIS, so I couldn't figure out how to reference the Cooperating Agencies section, "Section 5XX." I have a copy of the proposed plan, but couldn't find a section on CAs in it. I hope I'm not being stupid. Sorry if I am!

Let me know if you want me to work on this more, or of course, if you need anything else. Grazie!

Jessica Gardetto  
Office of Communications  
Idaho BLM  
1387 S. Vinnell Way  
Boise, ID 83709  
(208) 373-4060  
Cell: (208) 957-1355  
[jdgardetto@blm.gov](mailto:jdgardetto@blm.gov)

On Fri, Aug 8, 2014 at 10:51 AM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Jessica,

Can you fill in the blanks for this response and send it back to me.

Thanks!



Cooperating agency relationships are described in the Final EIS in Section 5.XX, Cooperating Agencies. In December 2011, the BLM sent letters to XX tribal governments inviting them to be cooperating agencies. The BLM also sent letters to XX local, state, and federal agencies inviting them to participate as cooperating agencies for the LUPA/EIS. [NOTE TO BLM: use this if applies to ID subregion or delete: Subsequently, the State of Wyoming and 4 local government agencies in Wyoming requested and were granted cooperating agency status for the Idaho Sub-regional LUPA/EIS effort, given the portions of two National Forests that overlap into Wyoming and their proximity to the Idaho planning area.] To date, XX agencies agreed to participate on the EIS as designated cooperating agencies, XX of which have signed Memoranda of Understanding with the BLM's Idaho State Office (Table 5.XX, Cooperating Agencies).

Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

Cooperating agency relationships are described in the Final EIS in Section 5.XX, Cooperating Agencies. In December 2011, the BLM sent letters to ~~xx~~five tribal governments within the Idaho and Southwestern Montana Sub-region inviting them to be cooperating agencies. The BLM also sent letters to ~~xx~~over 60 local, state, and federal agencies inviting them to participate as cooperating agencies for the LUPA/EIS. [NOTE TO BLM: use this if applies to ID sub-region or delete: Subsequently, the State of Wyoming and 4 local government agencies in Wyoming requested and were granted cooperating agency status for the Idaho Sub-regional LUPA/EIS effort, given the portions of two National Forests that overlap into Wyoming and their proximity to the Idaho planning area.] To date, ~~xx~~29 agencies agreed to participate on the EIS as designated cooperating agencies, ~~xx~~of which and have signed Memoranda of Understanding with the BLM's Idaho State Office (Table 5.XX, Cooperating Agencies).

**Commented [GJD1]:** I counted 62 to be exact, so if you want to use that number, you can. I just figured that, by averaging, we are covered in case my numbers are off by 1 or 2, but I counted three times and kept coming up with 62.

**Commented [GJD2]:** All 29 have signed the MOU, so it seems like this is the same number and we don't have to differentiate, right?

**From:** Lauren Mermejo  
**Sent:** Monday, July 28, 2014 9:07 AM  
**To:** Kathryn Stangl; Matthew Magaletti  
**Subject:** FW: ID swMT FWS Crosswalk  
**Attachments:** Idaho ADPP COT Evaluation.pdf; IDswMT FWS Crosswalk.docx

Here is Idaho's crosswalk for resolution.....  
Lauren

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**From:** Brent Ralston [mailto:[bralston@blm.gov](mailto:bralston@blm.gov)]  
**Sent:** Thursday, July 24, 2014 9:17 PM  
**To:** Lauren Mermejo  
**Cc:** Kurt Wiedenmann  
**Subject:** ID swMT FWS Crosswalk

Lauren,

Here is our FWS Crosswalk. One file follows the format requested, the other file uses the COT table format. We are still working with FWS locally and may have some additions/revisions to this prior to final submission to Kathy Stangl in WO.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<b>PACs: Snake-Salmon-Beaverhead (SSB), 23; Northern Great Basin (NGB), 26a.</b>	Retain sage-grouse habitats within PACs <i>(pertains to PAC designation; actions below this line are evaluated independent of PAC designation for each Alternative)</i>	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Priority, Medial, and General habitats identified.	Core, Important, and General habitats identified.	<b>Core, Important and General Management Zones designated.</b>
	If PACs are lost to catastrophic events, implement appropriate restoration efforts.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.	Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.	<b>Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.</b>
	Restore and rehabilitate degraded sage-grouse habitat within PACS.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.	Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.	<b>Passive and acitve conservation measures identified for restoration and prioritization of restoration activities. Adaptive management (AM) will ensure appropriate priortization.</b>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
	Identify areas and habitats outside of PACs which may be necessary to maintain viability of sage-grouse. If development or vegetation manipulation activities outside of PACs are proposed, the project proponent should work with federal, state or local agencies and interested stakeholders to ensure consistency with sage-grouse habitat needs.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Priority, Medial, and General areas include habitats outside of PACs, but lacks specific discussion of habitats that may or may not be necessary outside of PACs.	Core and Important Habitat Zones directly overlay with the PACs. General habitats outside of PACs. Lacks specific discussion of habitats that may or may not be necessary outside of PACs.	<b>Core, Important and General Management Zones are designated which include PAC areas as well as areas outside the PAC with associated management direction to maintain and enhance GRSG habitat. (MA-2, MA-4, MA-6 and Map 2)</b>
	Re-evaluate the status of PACs and adjacent sage-grouse habitat at least once every 5-years, or when important new information becomes available.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Adaptive Management strategy identifies a population and habitat re-evaluation process.	Adaptive Management strategy identifies a population and habitat re-evaluation process.	<b>Adaptive Management strategy identifies a population and habitat re-evaluation process.</b>
	Actively pursue opportunities to increase occupancy and connectivity between PACs.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Priority and Medial areas include habitats outside of PACs, but lacks specific discussion of habitats necessary for increased occupancy or connectivity.	Core and Important Habitat Zones directly overlay with the PACs. No habitats outside of PACs identified. Lacks specific discussion of habitats necessary for increased occupancy or connectivity.	<b>Core, Important and General Management Zones are designated which include PAC areas as well as areas outside the PAC with associated management direction to maintain and enhance GRSG habitat. (MA-2, MA-4, MA-6 and Map 2)</b>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
	Maintain or improve existing habitat conditions in areas adjacent to burned habitat.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Lacks conservation measures to adequately address this objective. Lacks specific measures for habitats adjacent to burned areas or integration with AM process.	Lacks conservation measures to adequately address this objective. Lacks specific measures for habitats adjacent to burned areas or integration with AM process.	Conservation measures are included to assess and adjust activities post fire in both fire, rehabilitation and adjacent areas to both ensure successful post-fire recovery and to mitigate the effect of the burn on GRSG populations. (ESR-3 & ESR-4)
Fire - SSB = Y; NGB = Y	Retain and restore healthy native SB communities within GSG range	Restrict or contain fire within the normal range of fire activity (assuming a healthy native perennial sagebrush community), including size and frequency, as defined by the best available science.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM. Increased specificity and integration of conservation measures for prevention, suppression, and restoration.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM. Increased specificity and integration of conservation measures for prevention, suppression, and restoration. Fire Actions table (D-156) provides some good examples.	Conservation measures identified that provide certainty of implementation and effectiveness needed to meet this measure. (WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 & FM-6) Includes adequate monitoring and AM. Increased specificity and integration of conservation measures for prevention, suppression, and restoration.
		Eliminate intentional fires in sagebrush habitats, including prescribed burning of breeding and winter habitats.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Lacks conservation measures to adequately address this measure. Should include conservation measures that directly address appropriate use of prescribed burning. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
		Design and implement restoration of burned sagebrush habitats to allow for natural succession to healthy native sagebrush plant communities.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
		Implement monitoring programs for restoration activities. To ensure success, monitoring must continue until restoration is complete, with sufficient commitments to make adequate corrections to management efforts if needed.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
		Immediately suppress fire in all sagebrush habitats.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.

Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<p><b>Non-native, Invasive Plant Species - Weeds/Annual Grasses SSB = Y; NGB = Y</b></p>	<p>Maintain and restore healthy, native SB communities</p>	<p>Retain all remaining large intact sagebrush patches, particularly at low elevations.</p>	<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Increased specificity and integration of conservation measures for prevention, suppression, and restoration. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Increased specificity and integration of conservation measures for prevention, suppression, and restoration. Fire Actions table (D-156) provides some good examples. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that provide certainty of implementation and effectiveness needed to meet this measure. (AD-1, AD-2, MIT-3, WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 &amp; FM-6) Includes adequate monitoring and AM. Increased specificity and integration of conservation measures for prevention, suppression, and restoration.</p>
		<p>Reduce or eliminate disturbances that promote the spread of these invasive species.</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>
		<p>Monitor and control invasive vegetation post-wildfire for at least three years.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>
		<p>Require best management practices for construction projects in and adjacent to sagebrush habitats to prevent invasion.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>



Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
		Restore altered ecosystems such that non-native invasive plants are reduced to levels that do not put the area at risk of conversion if a catastrophic event were to occur.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM.	Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. (Table 1 - Treatment Objectives, WFS-1, INV-1) Includes adequate monitoring and AM.
Energy Development SSB = Y; NGB = L	Energy development should be designed to insure that it will not impinge upon stable or increasing GSG population trends	Avoid energy development in PACs.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. "No net habitat loss" versus 3% disturbance cap. Further clarity of "no net habitat loss". Application across all PACs.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Application of 3% across all PACs and inclusion of other infrastructure (as discussed in letter).	Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. "No net unmitigated habitat loss" and 3% disturbance cap have both been included and further described. (AD-1, AD-2, MIT-4 and Appendix K)

Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
		<p>If avoidance is not possible in PACs due to pre-existing valid rights, adjacent development, or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage-grouse habitat from noise, and other human activities.</p>	<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM. See specific comments above.</p>	<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Includes adequate monitoring and AM. See specific comments above.</p>	<p><b>Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. (AD-3, AD-4, AD-5 and Appendix C - Buffers) Includes adequate monitoring and AM.</b></p>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
		If development must occur in sage-grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage-grouse and be designed to ensure at a minimum that there are no detectable declines in sage-grouse population trends (see row below and COT report for measures to implement to facilitate this).	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
<b>Sagebrush Removal / Elimination</b> SSB = L; NGB = L	Avoid SB removal or manipulation in GSG breeding or wintering habitats.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Lacks conservation measures to adequately address this measure. Should include conservation measures that directly address appropriate removal or manipulation of sagebrush in GRSG habitats. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<p><b>Grazing SSB = Y; NGB = Y</b></p>	<p>Conduct grazing management for all ungulates in a manner consistent with local ecological conditions that maintains or restores healthy SB shrub and native perennial grass and forb communities and conserves the essential habitat components for GSG (shrub and nesting cover). Areas which do not currently meet this standard should be managed to restore these components. Adequate monitoring of grazing strategies and their results, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and GSG response are achieved. Livestock and wild ungulate numbers must be managed at levels that allow native</p>	<p>No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</p>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
Range Management Structures (no ratings)	Avoid or reduce the impact of RMS on GSG.	Range management structures should be designed and placed to be neutral or beneficial to sage-grouse.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
		Structures that are currently contributing to negative impacts to either sage-grouse or their habitats should be removed or modified to remove the threat.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
FR Equid Management SSB = Y; NGB = L	Protect sage-grouse from the negative influences of grazing by free roaming equids.	Develop, implement, and enforce adequate regulatory mechanisms to protect sage-grouse habitat from negative influences of grazing by free-roaming equids.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	This alternative meets the objective for this issue, but lacks specificity to adequately meet this measure. Should include conservation measures that specifically address FR equids and GRS habitat.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.
		Manage free-roaming equids at levels that allow native sagebrush vegetative communities to minimally achieve PFC (for riparian areas) or RHS (for uplands).	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<b>Pinyon-juniper Expansion / Conifers SSB = L; NGB = Y</b>	Remove pinyon-juniper from areas of SB that are most likely to support GSG (post-removal) at a rate at least equal to the rate of p-j incursion	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Conservation measures should include a commitment to a "rate" or a "no net gain" of p-j. Includes adequate monitoring and AM.	Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this measure. Conservation measures should include a commitment to a "rate" or a "no net gain" of p-j. Includes adequate monitoring and AM.	<b>Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. Conservation measures include a treatment objective supporting a "no net gain" of conifer. (Table 1 - Treatment Objectives) Includes adequate monitoring and AM.</b>
<b>Agricultural Conversion SSB = L; NGB = L</b>	Avoid further loss of sagebrush habitat for agricultural activities (both animal and plant production) and prioritize restoration. In areas where taking agricultural lands out of production has benefited GSG, the programs supporting these actions should be targeted and continued (e.g., CRP/SAFE). Threat amelioration activities should, at a minimum, be prioritized within PACS, but should be considered in all GSG habitats.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Lacks conservation measures to adequately address this measure. Should include conservation measures that directly address loss of sagebrush/GRSG habitats to Ag Conversion. Includes adequate monitoring and AM.	<b>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</b>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<b>Mining SSB = L; NGB = L</b>	Maintain stable to increasing GSG populations and no net loss of GSG habitats in areas affected by mining	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Recognizing that this threat has limited and localized impacts, this alternative meets the objective for this issue pending increased specificity on the mitigation strategy.	Recognizing that this threat has limited and localized impacts, this alternative meets the objective for this issue pending increased specificity on the mitigation strategy.	<b>Recognizing that this threat has limited and localized impacts, this alternative meets the objective for this issue pending increased specificity on the mitigation strategy.</b>
<b>Recreation SSB = L; NGB = Y</b>	In areas subjected to recreational activities, maintain healthy native SB communities based on local ecological conditions and with consideration of drought conditions, and manage direct and indirect human disturbance (including noise) to avoid interruption of normal GSG behavior.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	<b>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</b>
<b>Ex-Urban Development / Urbanization SSB = N; NGB = Y</b>	Limit urban and exurban development in GSG habitats and maintain intact native SB communities.	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.	Lacks conservation measures to adequately address this measure. Should include conservation measures that directly address loss of sagebrush/GRSG habitats to ex-urban development. Includes adequate monitoring and AM.	<b>Conservation measures identified that adequately address this measure. Includes adequate monitoring and AM.</b>

**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<p><b>Infrastructure</b>  <b>SSB = L; NGB = Y</b></p>	<p>Avoid development of infrastructure within PACs.</p>	<p>No new development of infrastructure within PACs. Designated, but not yet developed infrastructure corridors should be re-located outside of PACs unless it can be demonstrated that these corridors will have no impacts on the maintenance of neutral or positive sage-grouse population trends or habitats. New infrastructure should be avoided where individual state plans have identified key connectivity corridors outside of PACs.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this objective. Increased clarity regarding the exemption process and associated mitigation. Includes adequate monitoring and AM.</p>	<p>Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.</p>
		<p>Where state sage-grouse management plans provide an effective strategy for infrastructure those strategies should be implemented. In all other situations the conservation options in the COT report should be considered.</p>		<p>Conservation measures identified, but lack certainty of implementation and effectiveness needed to meet this objective. Increased clarity regarding the exemption process and associated mitigation. Includes adequate monitoring and AM.</p>	<p><b>The State of Idaho is supportive of the Proposed Plan and is working towards additional State regulatory mechanisms that would manage state, and to a certain extent, private lands, consistent with this plan. Conservation measures are identified clarifying the</b></p>



**Idaho and Southwest Montana Administrative Draft Proposed Plan Response to FWS Comments on Draft Preferred Alternatives**

Issue <sup>1</sup>	Conservation Objective from COT Report	Conservation Measures / Options from COT Report	Alternative D (Subregion)	Alternative E (State)	Alternative G (Proposed Plan)
<b>Fences (no ratings)</b>	Minimize the impact of fences on GSG populations	No conservation measures specified. Are locally-derived actions/measures consistent with conservation objective?	Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.	Conservation measures identified that adequately address this objective. Includes adequate monitoring and AM.

<sup>1</sup>Threat Ratings from COT Report      <sup>2</sup>Subjective Consistency (with COT Report) Rating Continuum

Y: Pres. and Widespread	High Concern &/or Very Low Consistency
L: Pres. and Localized	↑
N: Not Known to be Pres.	Lower Concern &/or Higher Consistency
NA	NA

**Idaho and Southwestern Montana Greater Sage-Grouse Plan Amendment  
Response and Consistency with COT Recommendation Comments on Draft EIS Preferred Alternatives**

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
<b>Adaptive Management</b>	1. We recommend that the FEIS include both a hard and a soft [adaptive management] trigger... We believe that inclusion of a soft trigger (10%) in the FEIS would provide increased responsiveness to stochastic threats and additional flexibility for proactive management; both important elements that increase stakeholder participation and early implementation of incentive-based conservation actions.	The PP includes both hard and soft adaptive management triggers. (AM-7, AM-8, AM-9 & AM-10)
<b>Adaptive Management</b>	2. We recommend that an Implementation Team/Commission process be included in the FEIS. The process should also include specificity regarding team composition and how science will inform the process and ultimate decision regarding remediation actions.	The PP includes direction to coordinate with the State of Idaho and Montana on both adaptive management and mitigation to support implementation and consideration of both adaptive management responses and mitigation requirements. (CC-2, CC-4, AM-11, AM-12, MIT-1 & MIT-2)
<b>Adaptive Management</b>	3. An explanation should be provided for why the identified baseline year was selected for the adaptive management triggers.	The PP includes an appendix that describes the delineation and rationale supporting the data sets used to develop the baseline maps. (Appendix I & Appendix H)
<b>Conifer Encroachment</b>	4. We recommend the selected alternative identify a rate at which treatments should be implemented to meet the COT objective. Additionally, removal of pinyon-juniper trees encroaching within 1000 meters of a lek should be the highest priority.	The PP includes conservation measures with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. Conservation measures include a treatment objective supporting a "no net gain" of conifer. (Table 1 - Treatment Objectives)
<b>Disturbance</b>	5. The DEIS does not provide adequate specificity regarding how the "no net habitat loss" standard would be implemented to determine its consistency with the COT report or whether it would be a suitable replacement for a disturbance cap. Please provide further clarification of how this approach would be consistent with the COT report.	The PP includes both a disturbance cap (3%) and a requirement for no net unmitigated loss resulting from development activities. (AD-1, MIT-3, MIT-4 & Appendix K)
<b>Disturbance</b>	6. Alternative E prescribes a 3 percent anthropogenic disturbance cap in the Core Habitat Zone (CHZ) and a	The PP includes a disturbance cap (3%) that applies to

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
	<p>5 percent anthropogenic disturbance cap in the Important Habitat Zone (IHZ). Both of these caps would only apply to fluid mineral development (pg. 2-100). We recommend that a 3 percent disturbance cap be applied to the CHZ and the IHZ and that the cap include other anthropogenic disturbances (for example, Infrastructure as defined by Alternative E, pg. D-33).</p>	<p>large scale anthropogenic disturbance. (AD-1 &amp; Appendix H)</p>
<b>Disturbance</b>	<p>7. The available scientific literature discusses several different spatial scales and evaluates different land use activities than those assessed in the DEIS. Therefore, we recommend that you provide a clear analysis and rationale in the DEIS of the methods you will use to calculate disturbance to sage-grouse habitat.</p>	<p>The PP defines an appropriate analysis scale which is consistent with the broad scale monitoring framework and supports a step-down or roll-up consistent with that direction to appropriately apply to the local scale and consistently relate to the broader scale. (AD-1 &amp; Map 3)</p>
<b>Disturbance</b>	<p>8. The DEIS does not provide adequate specificity regarding how the "no net habitat loss" standard would be implemented to determine its consistency with the COT objective. If it is the intent of Alternative D to implement a 3 percent disturbance cap as well as the above mentioned NSOs and noise stipulations, it would be consistent with the COT objective. Although Alternative E is largely consistent with the COT, we would recommend that the 3 percent disturbance cap be consistently applied across the P ACs (CHZ and the IHZ) and that it include other anthropogenic disturbances (as discussed above).</p>	<p>The PP includes conservation measures with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. "No net unmitigated habitat loss" and 3% disturbance cap have both been included and further described. (AD-1, AD-2, MIT-4 and Appendix K)</p>
<b>Effects Analysis</b>	<p>9. We recommend that the impact analysis be improved through the following ways:                      a. We need more clarity as to the extent to which proposed actions within each alternative would ameliorate the threats to GRSG within the identified analysis areas. This is not to suggest that the current conservation measures within the range of alternatives are inadequate, but rather to emphasize the need for a more comprehensive impact analysis. Currently, the analysis demonstrates the extent to which an impact is</p>	<p>While the effects analysis is not complete and is undergoing revision and development, USFWS staff is involved in this process and are helping to identify and work with the effects analysis teams to ensure these components are sufficiently addressed in the Final EIS.</p>

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
	<p>reduced within a Population Area. However, it should also incorporate the best available science to show how that reduction could ameliorate the associated threat and consequently impact GRSG individuals and populations. The impacts to individuals and associated populations should then be compared across alternatives.</p> <p>b. The analysis should consider the beneficial impacts of best management practices and required specific design features where appropriate.</p> <p>c. The analysis should address the extent to which conservation measures within the alternatives meet the objectives of the COT. For example, we recommend inclusion of the COT matrix with an associated narrative.</p>	
<b>Fire and Invasives</b>	<p>10. We also recommend incorporating literature by the Fire and Invasive Species Team (FIST), which is currently developing landscape prioritization for fire and invasive species, as well as step down assessments.</p>	<p>The PP includes conservation measures that address the step down assessments and wildfire prevention, suppression and post-fire restoration and the commitment to implement findings from these assessments. (WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 &amp; FM-6)</p>
<b>General</b>	<p>11. We encourage the BLM and FS to resolve any inconsistencies across planning boundaries where these differences do not have a clear basis. Where differences in management are warranted, the rationale for divergent management approaches should be fully explained as they pertain to meeting the COT objectives.</p>	<p>The Proposed Plan (PP) conforms to the NPT guidance on land allocation decisions that are consistent with adjacent planning areas. There are several minor divergences that are more protective of GRSG and their habitat than described in the NPT guidance (fluid minerals, ROWs). (MA-2)<sup>1</sup></p>
<b>General</b>	<p>12. We hope that through our comments, the BLM and FS will expand the detail of several key components to a level where we can fully evaluate the FEIS pursuant to the COT. Some key components include:</p> <p>a. Details on how habitat and disturbance will be monitored;</p> <p>b. Methods of landscape-scale prioritization and implementation of step-down assessments for addressing</p>	<p>The PP includes a description of the monitoring efforts that will be completed to support implementation and evaluation of the PP. (MON-1, MON-2, MON-3, MON-4, MON-5, MON-6, MON-7, Appendix E &amp; Appendix F)</p> <p>The PP includes conservation measures that address the</p>

<sup>1</sup> All references are based on the June 27, 2014 version of the BLM administrative draft proposed plan.

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
	<p>threats from fire and invasive species; and                      c. Details on how mitigation will be applied.</p>	<p>step down assessments and wildfire prevention, suppression and post-fire restoration. (WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 &amp; FM-6)                      The PP includes a more detailed description of the mitigation program and also identifies specific implementation actions to develop a detailed mitigation plan in coordination with the states utilizing their frameworks as a foundation. The state framework identifies metrics and conservation measures to be considered as well as identification of service area considerations. (MIT-1, MIT-2 &amp; Appendix J)</p>
<p><b>General – COT Evaluation Table</b></p>	<p>13. There are several management actions within both Alternatives D and E that lack the specificity needed to ensure conservation measures are consistent with the COT.</p> <ul style="list-style-type: none"> <li>a. lacks specific discussion of habitats that may or may not be necessary outside of PACs.</li> <li>b. lacks specific measures for habitats adjacent to burned areas or integration with AM process.</li> <li>c. lacks specificity and integration of conservation measures for fire prevention, suppression, and restoration.</li> <li>d. lacks specificity regarding "No net habitat loss" versus 3% disturbance cap. Further clarity of "no net habitat loss". Application across all PACs; lacks application of 3% across all PACs and inclusion of other infrastructure (as discussed in letter).</li> <li>e. lacks inclusion of a "rate" or a "no net gain" of p-j.</li> <li>f. lacks clarity regarding the exemption process and associated mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>a. Core, Important and General Management Zones are designated which include PAC areas as well as areas outside the PAC with associated management direction to maintain and enhance GRSG habitat. (MA-2, MA-4, MA-6 and Map 2)</li> <li>b. Conservation measures are included to assess and adjust activities post fire in fire, rehabilitation and adjacent areas to both ensure successful post-fire recovery and to mitigate the effect of the burn on GRSG populations. (ESR-3 &amp; ESR-4)</li> <li>c. Conservation measures identified that provide certainty of implementation and effectiveness needed to meet this measure. (WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 &amp; FM-6) Includes adequate monitoring and AM. Increased specificity and integration of conservation measures for prevention, suppression, and restoration.</li> <li>d. Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. "No net unmitigated habitat loss" and 3%</li> </ul>

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
		<p>disturbance cap have both been included and further described. (AD-1, AD-2, MIT-4 and Appendix K)</p> <p>e. Conservation measures identified with sufficient specificity to ensure certainty of implementation and effectiveness needed to meet this measure. Conservation measures include a treatment objective supporting a "no net gain" of conifer. (Table 1 - Treatment Objectives)</p> <p>f. Conservation measures are identified clarifying the exemption process and associated mitigation. (AD-3 &amp; AD-4)</p>
<b>Invasives</b>	<p>14. We need additional clarity for both Alternative D and E as to site-specific actions to meet the COT objective. Both preferred alternatives have appropriately identified the need to work more extensively at a local scale to coordinate and implement actions that will result in improved wildfire and invasive species management strategies. As discussed above for fire, inclusion of commitments to implement conservation projects identified in the step-down assessments will be needed to increase our certainty that actions, necessary for GRSG conservation, will occur.</p>	<p>The PP includes conservation measures that address the step down assessments and invasive species and the commitment to implement findings from these assessments. (WFS-1, ESR-1 &amp; INV-1)</p>
<b>Management Areas</b>	<p>15. We recommend that the habitat categories included in the FEIS be biologically meaningful and pragmatically effective.</p>	<p>BLM and FS have worked in coordination with FWS and the State of Idaho to adjust management zones to more accurately delineate biologically relevant and meaningful areas that are appropriate in coordination with the adaptive management strategy and disturbance threshold. (MA-2)</p>
<b>Mining</b>	<p>16. The COT objective is to maintain stable to increasing GRSG populations and no net loss of GRSG habitats in areas affected by mining. Both Alternative D and Alternative E propose to implement conservation</p>	<p>The PP includes a more detailed description of the mitigation program and also identifies specific implementation actions to develop a detailed mitigation plan in coordination with the states utilizing their</p>

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
	measures that meet the COT objective; however, we will need further specificity on mitigation requirements (see general comment on mitigation).	frameworks as a foundation. The state framework identifies metrics and conservation measures to be considered as well as identification of service area considerations. (MIT-1, MIT-2 & Appendix J)
<b>Mitigation</b>	17. To meet several conservation objectives within the COT, a "meaningful mitigation" program must be implemented. Both Alternatives D and E contain some essential elements for a comprehensive mitigation strategy, but we need additional details. We also encourage the inclusion of the concept of "additionality" and a "net conservation benefit" standard. We encourage close coordination with the State on this mitigation element in order to maintain their important collaborative conservation process.	The PP includes a more detailed description of the mitigation program and also identifies specific implementation actions to develop a detailed mitigation plan in coordination with the states utilizing their frameworks as a foundation. (MIT-1, MIT-2 & Appendix J)
<b>Mitigation</b>	18. We need additional detail for both Alternatives D and E regarding how mitigation will be accomplished in future decision making processes. Further clarity is needed in the following areas: a. Methodologies or metrics that will be used to determine expected impacts of actions and conservation measures used to offset them. b. Identification of "service areas," or areas where offsets would be focused. c. Inclusion of a transparent and accountable monitoring program that includes performance standards that are used to ensure conservation measures meet predetermined goals and objectives. d. The role of the land management agency(s) if the Alternative E mitigation program were implemented.	The PP includes a more detailed description of the mitigation program and also identifies specific implementation actions to develop a detailed mitigation plan in coordination with the states utilizing their frameworks as a foundation. The state framework identifies metrics and conservation measures to be considered as well as identification of service area considerations. (MIT-1, MIT-2 & Appendix J)
<b>Monitoring</b>	19. Both Alternatives D and E currently lack a clear explanation of how implementation monitoring would be executed (including intervals and standards). Such an explanation is needed for us to fully evaluate the efficacy of the monitoring being proposed.	The PP includes a description of the monitoring efforts that will be completed to support implementation and evaluation of the PP. (MON-1, MON-2, MON-3, MON-4, MON-5, MON-6, MON-7, Appendix E & Appendix F)

Topic	FWS Comments on DEIS	BLM Proposed Plan Resolution
<b>Monitoring</b>	20. With regard to habitat monitoring, it is currently unclear how habitat change will be monitored within either Alternative D or Alternative E. For example, habitat monitoring discussed in Alternative D (Chapter 2) is significantly different than the Monitoring Framework Plan discussed in Appendix E. While we support the habitat characteristics identified in Alternative E, a more robust description of the habitat monitoring program should be provided.	The PP includes a more detailed description of habitat monitoring efforts. (MON-3, MON-4, MON-5, MON-6, MON-7, Appendix E & Appendix F)
<b>Noise</b>	21. Noise and seasonal stipulations should be considerations during the construction and long-term implementation of land use activities. Your proposed implementation of noise and seasonal stipulations across all alternatives appears to be applied only to initial construction activities.	The PP includes required design features which apply to noise levels associated with leks, these RDFs would be applied to project proposals and developments where and when these concerns exist as either stipulations or conditions of approval. They would apply to both construction and operation (when taken in combination with seasonal restrictions also included as RDFs). (GD-16, GD-17, GD-18, GD-19, Appendix A & Appendix B)
<b>Prescribed Fire</b>	22. We recommend that the FEIS include provisions to eliminate prescribed burning in sage-grouse wintering and breeding [i.e., lekking, nesting and early brood rearing (Connelly et al. 2004, Connelly et al. 2011)] habitats unless biologically justified; If prescribed fire is allowed in GRSG habitats, then we recommend that the FEIS commit to using the risk analysis tool currently in development by WAFWA.	The PP includes conservation measures to address treatments, including prescribed fire. (FM-3)
<b>Wildfire</b>	23. We need additional clarity for...wildfire and invasive species management strategies. The step-down assessments, as identified in Alternative D (Appendix K), provide a sound framework upon which to complete these actions. Inclusion of commitments to implement conservation projects identified in these step-down assessments will be needed to increase our certainty that actions, necessary for GRSG conservation, will occur.	The PP includes conservation measures that address the step down assessments and wildfire prevention, suppression and post-fire restoration and the commitment to implement findings from these assessments. (WFS-1, WFS-2, WFS-3, WFS-4, WFS-7, FM-4, FM-5 & FM-6)





**Brent Ralston**

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**From:** Schmidt, Barbara  
**Sent:** Wednesday, June 04, 2014 8:39 AM  
**To:** ccolt@fs.fed.us  
**Cc:** Mark Robertson; Brent Ralston; Kathleen Hendricks; Jason Pyron; Katie Powell  
**Subject:** Section 7 Coordination for BLM/USFS LUP Amdnements

Hi, Chris. My name is Barb Schmidt, and I am a section 7 biologist with the Idaho Fish and Wildlife Office (IFWO) in Boise. I understand that you are the lead biologist writing the biological assessment for the BLM and USFS Land Use Plan Amendments in Idaho and SW Montana to include conservation measures for greater sage-grouse. The IFWO will be the lead FWS office working with you to complete this consultation. Would it be possible for the IFWO to review your preliminary biological assessment or to let us know what your effects determinations will be for the species being addressed in your document? This will help IFWO to ensure that the final biological assessment contains adequate information to complete our section 7 consultation/conference for BLM/FS in order to meet the timelines for signing of the ROD. Many thanks, Chris, for any information that you can provide. Barb

Barbara Schmidt (formerly Barbara Chaney)  
US Fish and Wildlife Service  
1387 South Vinnell Way, Room 368  
Boise, Idaho 83709  
208-378-5259  
<http://www.fws.gov/idaho/>

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

## Brent Ralston

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**From:** Colt, Chris J -FS  
**Sent:** Tuesday, June 10, 2014 5:40 PM  
**To:** Davidson, Bruce L -FS; Carsey, Kathy S -FS; Moser, Janet S -FS; Kozlowski, Steve -FS; Malengo, Katherine -FS; Colt, Chris J -FS  
**Cc:** Stein, Glen -FS; Dillon, Madelyn -FS; Munson, Johanna (jmunson@blm.gov); Mermejo, Lauren (lmermejo@blm.gov); Bahr, Quincy (qfbahr@blm.gov); Brent Ralston (bralston@blm.gov); jsuther@blm.gov; jtague@blm.gov; sharphay@att.net; erjones@blm.gov; Bridget Clayton (bclayton@blm.gov)  
**Subject:** GRSG: BA Team Meeting Minutes 06/09/2014  
**Attachments:** BA\_TeamMeetingMinutes06062014.docx

Attached are the meeting minutes from the GRSG LUP Amendment EIS Biological Assessment writing team this last Monday.

Cheers,

Chris

**Chris Colt**

Wildlife Biologist  
USFS Sage-Grouse NEPA Support ID Team (NeST)  
[ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)  
208-236-7506



Link: [FS Greater Sage-Grouse Website](#)

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GRSG LUP Amendment EIS Biological Assessment  
Planning Meeting Minutes 6/9/2014

1. Introductions

- Bruce Davidson – Botany: (559-920-6349)
- Kat Carsey – Botany: (559-793-8145)
- Janet Moser – Wildlife: (559-341-6812)
- Steve Kozlowski – Wildlife: (307-745-2343)
- Katherine Malengo - Wildlife: (831-674-0685)
- Chris Colt – EIS Wildlife Lead: (208-236-7506w. 208-881-1975c.)

2. What are we up to? (explanation)

- a. First, our team is tasked with writing six Biological Assessments (NWCO, UT, ID/SW MT, NV/CA, OR, Dakota Prairies) for the greater sage-grouse Land Use Plan Amendment EISs covering both FS and BLM planning units. (Note: the WY9 plan EIS BA has been contracted to a private contractor and we are not responsible for writing this document.)
- b. Second, we are tasked with revising the five FS Biological Evaluations from the DEIS for the FEIS (NWCO, UT, ID/SW MT, NV/CA, WY9). This includes the sage-grouse viability analysis within each BE. Also, we are tasked with writing the BE for the Dakota Prairies. (Note: there are no FS lands within the Oregon EIS, therefore there is no FS BE required.)

3. Timeline

- a. For each EIS there will be two Records of Decision, one for the BLM and one for the FS. The Records of Decision are scheduled to be signed by the end of December 2014.
- b. Each of the FEISs are scheduled to be released to the public October 15<sup>th</sup>, 2014.
- c. The responses from the FWS, either Biological Opinion or letter of concurrence are needed prior to the signing of the RODs. The FWS requires a 135-day review period, therefore, we need to have the BAs to them by July 15<sup>th</sup>, 2014

4. O: drive file structure: O:\NFS\Collaboration\SageGrouseConservation\05 Resources\02 BA\_BE

- a. Everyone should have read/write access to this folder on the O: drive. Please verify this.
- b. Structure: 02 BA\_BE → EIS → DEIS (for older materials used in the DEIS)  
**FEIS** (use this folder).

Subfolders:

Example BA\_BOs (BAs and BOs from most of the BLM and FS units)

Literature (pdf documents of any literature cited in the analysis)

Proposed Plan (proposed plan/proposed action/selected alternative for BLM and FS)

Species List (finalized species list for the analysis, verified by the FWS)

Working DocumentsBA: (working draft of the BA, use subfolders as necessary when several people are working on the BA)

Botany

WildlifeFish

5. How to dissect an elephant/plan of attack:

- First, get TEAMS folks up to speed on the project by reviewing the *FS Draft BE* to get a sense for the type of analysis we will be conducting, then review the *proposed plan* to understand the actions, finally review the *BA template*.
- We will start on the NW Colorado BA. Bruce and Kat will break up the workload on the botany section and Katherine will work with Janet and Steve on the wildlife/Fish section.
- Once we have completed a working draft of the NWCO BA, we will divide up the remaining BAs between the specialists as appropriate based on workload and personnel.
- We will hold a weekly call on Mondays at 10:00 MDT for the next month to keep the project on track. (888-844-9904; 7251216#)

6. Tasks: (for this week)

- Meeting minutes – **Chris**
- Send out Proposed Plan & BA Template – **Chris**
- Organize O: drive directory (insure there is a finalized species list for each EIS) – **Katherine**
- Clean up FWS comments on BA Template – **Katherine**
  - Contact FWS (Terry Ireland) on hanging issues - **Chris**
- **Bruce & Kat** – review NWCO plant list and available time and divide workload
- Gather critical habitat spatial data – **Chris**
- GIS overlay of critical habitat and GRSG habitat – BLM NOC
- .
- .
- .

List of EISs and BLM/FS planning units:

## **Rocky Mountain Region**

### **NW Colorado Sub-region EIS:**

BLM: Grand Junction, White River, Kremmling, Colorado River Valley, and Little Snake  
Forest Service: Routt NF

### **WY 9 plan Sub-region EIS:**

BLM: Pinedale, Kemmerer, Rock Springs, Rawlins, Casper, and Newcastle  
Forest Service: Bridger-Teton NF, Medicine Bow NF, Thunder Basin National Grassland

### **Dakota Prairies National Grassland EIS:**

Dakota Prairie NG (ND/SD) - (note: No BLM)

## **Great Basin Region:**

### **Utah Sub-region EIS:**

BLM: Kanab, Grand Staircase Escalante National Monument, Richfield, Price, Vernal, Pinyon, Cedar-Beaver-Garfield-Antimony, House Range, Warm Springs, Box Elder, Pony Express, Randolph, and Park City.

Forest Service: Ashley NF (UT/WY), Dixie NF, Fishlake NF, Manti-LaSal NF, Uinta NF, Wasatch-Cache NF (UT/ID).

### **Idaho/SW Montana Sub-region EIS:**

BLM (Idaho): Birds of Prey National Conservation Area, Bruneau, Challis, Craters of the Moon National Monument, Cascade, Kuna, Jarbidge, Lemhi, Owyhee, Pocatello, Bennett Hills/Timmerman Hills, Cassia, Magic, Monument, Sun Valley, Twin Falls, Big Lost, Medicine Lodge, Big Desert, and Little Lost-Birch Creek

BLM (Montana): Dillon

Forest Service: Beaverhead-Deerlodge NF (MT), Caribou NF, Challis NF, Curlew NG, Salmon NF, Sawtooth NF (ID/UT), Targhee NF

### **Nevada/California Sub-region EIS:**

BLM California: Alturas, Eagle Lake, and Surprise

BLM Nevada: Black Rock, Desert-High Rock Canyon National Conservation Area, Carson City, Elko, Ely, Paradise-Denio, Shoshone-Eureka, Tonopah, Sonoma Gerlach (MFP), and Wells.

Forest Service: Humboldt NF, Toiyabe NF (NV/CA)

### **Oregon Sub-region EIS:**

BLM: Upper Deschutes, Brothers-La Pine, Three Rivers, Steens Mountain Cooperative Management and Protection Area, Andrews Management Area, Southeast Oregon, Baker, and Lakeview.

(Note: No Forest Service)

## Brent Ralston

---

**From:** Makela, Paul  
**Sent:** Monday, June 16, 2014 7:55 AM  
**To:** Brent Ralston; Scott Hoefer  
**Subject:** Re: FW: GRSG LUP Amendment EIS Consultation Agreement for final review in preparation for signature

Looks fine to me.

Paul

On Fri, Jun 13, 2014 at 10:14 AM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Here is the consultation agreement – please take a look and provide me any comments you have by Wednesday, June 25 so I can consolidate and send to Lauren.

Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

---

**From:** Lauren Mermejo [mailto:[lmermejo@blm.gov](mailto:lmermejo@blm.gov)]  
**Sent:** Wednesday, June 11, 2014 5:04 PM  
**To:** Melvin (Joe) Tague; Suther, Joan; Quincy Bahr; Brent Ralston  
**Cc:** [ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)  
**Subject:** FW: GRSG LUP Amendment EIS Consultation Agreement for final review in preparation for signature

Hi All –

Chris has forwarded the Section 7 Consultation Agreement for final review and preparation for signature. You have until June 27<sup>th</sup> to give me any proposed changes to this. I will consolidate all proposed changes for the Great Basin and forward back to Chris. Please forward to your T&E Specialists and ask for their comments or concerns as well. Be aware that this has been thru a lot of review and scrutiny already....so unless it's a big red flag hanging out there....(you know the answer!)

Thanks,

Lauren

---

**From:** Colt, Chris J -FS [mailto:[ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)]  
**Sent:** Wednesday, June 11, 2014 2:43 PM  
**To:** Doug Laye ([doug\\_laye@fws.gov](mailto:doug_laye@fws.gov)); Tripp, Kim ([KTripp@blm.gov](mailto:KTripp@blm.gov))  
**Cc:** Mermejo, Lauren ([lmermejo@blm.gov](mailto:lmermejo@blm.gov)); Munson, Johanna ([jmunson@blm.gov](mailto:jmunson@blm.gov)); Stein, Glen -FS  
**Subject:** GRSG LUP Amendment EIS Consultation Agreement for final review in preparation for signature

Attached is the section 7 Consultation Agreement for the greater sage-grouse land use plan amendment effort. It is ready for final review in preparation for signature. Please route through the appropriate folks for their briefing and review of this document by Friday, June 27<sup>th</sup>, 2014. Earlier drafts of this document have been routed through the sub-regional, regional, and WO levels over the past couple of months, so I believe folks should be familiar with the agreement and its purpose. Thank you for this final review and push for signature.

Sincerely,

Chris Colt

**Chris Colt**

Wildlife Biologist

USFS Sage-Grouse NEPA Support ID Team (NeST)

[ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)

208-236-7506



Link: [FS Greater Sage-Grouse Website](#)



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Paul Makela  
Wildlife Program Lead  
Idaho BLM State Office  
Branch of Resources and Science  
1387 S. Vinnell Way  
Boise, ID 83709

Office (208) 373-3809  
Fax (208) 373-3805 Fax  
[pmakela@blm.gov](mailto:pmakela@blm.gov)

CONSULTATION AGREEMENT

BETWEEN

BUREAU OF LAND MANAGEMENT,

U.S. FOREST SERVICE

AND

U.S. FISH AND WILDLIFE SERVICE

For

Amendments to BLM Resource Management Plans and  
National Forest Land and Resource Management Plans  
for Greater Sage-Grouse Conservation

**A. Purpose:**

This Consultation Agreement (Agreement) establishes the cooperative process, products, schedules, and expectations for conducting Section 7 consultation and voluntary conferencing under the Endangered Species Act of 1973, as amended (ESA), on amendments to Bureau of Land Management (BLM) Resource Management Plans or Management Framework Plans (RMPs) and U.S. Forest Service (FS) Land and Resource Management Plans (LRMPs) (collectively referred to as land use plans or land use plan amendments). The purpose of these land use plan amendments is to identify and incorporate appropriate conservation measures to conserve, enhance, and restore Greater Sage-grouse (sage-grouse) habitat by reducing, eliminating, or minimizing threats to that habitat.

This Agreement addresses consultation/ conferencing on all species listed under the ESA as threatened or endangered, or proposed for listing, and all designated or proposed critical habitat on BLM-administered and NFS lands that may be affected by implementation of BLM and FS land use plan amendments for sage-grouse conservation. The BLM, FS, and FWS will identify staff from the BLM State Offices and FS Regional Offices to ensure that consultation products are developed on schedule as identified herein. In addition, the BLM, FS, and FWS will identify an Issue Resolution Group (IRG), which will be convened to resolve issues during consultation/conferencing.

**B. Scope of the Agreement:**

The BLM will complete sub-regional planning efforts to amend the following RMPs:

**Nevada and Northeastern California Sub-Regional Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM California RMP Amendments:** Alturas, Eagle Lake, and Surprise;
- **BLM Nevada RMP Amendments:** Black Rock, Desert-High Rock Canyon National Conservation Area, Carson City, Elko, Ely, Paradise-Denio, Shoshone-Eureka, Tonopah, Sonoma Gerlach (MFP), and Wells.

**Idaho and Southwestern Montana Sub-Regional Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Idaho RMP Amendments:** Birds of Prey National Conservation Area, Bruneau, Challis, Craters of the Moon National Monument, Cascade, Kuna, Jarbidge, Lemhi, Owyhee, Pocatello, Bennett Hills/Timmerman Hills, Cassia, Magic, Monument, Sun Valley, Twin Falls, Big Lost, Medicine Lodge, Big Desert, and Little Lost-Birch Creek.
- **BLM Montana RMP Amendments:** Dillon.

**Utah Sub-Regional Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Utah RMP Amendments:** Kanab, Grand Staircase Escalante National Monument, Richfield, Price, Vernal, Pinyon, Cedar-Beaver-Garfield-Antimony, House Range, Warm Springs, Box Elder, Pony Express, Randolph, and Park City.

**Oregon Sub-Regional Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Oregon RMP Amendments:** Upper Deschutes, Brothers-La Pine, Three Rivers, Steens Mountain Cooperative Management and Protection Area, Andrews Management Area, Southeast Oregon, Baker, and Lakeview.

**Northwest Colorado Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Colorado RMP Amendments:** Grand Junction, White River, Kremmling, Colorado River Valley, and Little Snake.

**Lewiston Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Montana/Dakotas RMP Amendments:** Headwaters and Judith.

**North Dakota Greater Sage-Grouse RMP Amendments/EIS:**

- **BLM Montana/Dakotas:** North Dakota.

**Wyoming Nine-Plan Greater Sage-Grouse RMP Amendment/EIS:**

- **BLM Wyoming RMP Amendments:** Pinedale, Kemmerer, Rock Springs, Rawlins, Casper, and Newcastle.

The FS will complete sub-regional planning efforts to amend the following LRMPs:

**Northern Region 1:** National Forests: Beaverhead-Deerlodge (MT)

National Grasslands: Dakota Prairie (ND/SD)

**Rocky Mountain Region 2:** National Forests: Medicine Bow (WY), Routt (CO),

National Grasslands: Thunder Basin (WY)

**Intermountain Region 4:** National Forests: Ashley (UT/WY), Boise (ID), Bridger-Teton (WY), Caribou (ID), Challis (ID), Dixie (UT), Fishlake (UT), Humboldt (NV), Manti-LaSal (UT), Salmon (ID), Sawtooth (ID/UT), Targhee (ID), Toiyabe (NV/CA), Uinta (UT), Wasatch-Cache (UT/ID).

National Grasslands: Curlew

**C. Background:**

In March 2010, the FWS determined that the listing of the Greater Sage-grouse for protection under the Endangered Species Act (ESA) was “warranted but precluded” (75 FR 13910). By September 30, 2015, the FWS must either propose the sage-grouse for listing under the ESA or determine that listing is no longer warranted.

Based on the FWS’s timeline for making a listing decision on the sage-grouse, the BLM and the FS intend to complete their land use plan amendments by the end of 2014. As the steward of more than half of all remaining sagebrush habitat in the United States, the BLM has the lead role in this land use planning effort. The FS is the steward of an estimated 8% of greater sage-grouse habitat nationwide and is a Cooperating Agency in this land use planning effort.

**D. Authority:**

This Agreement is developed and implemented under the authority of:

1. The Federal Land Policy and Management Act of 1976 (43 USC 1712);
2. The National Forest Management Act of 1976 (16 USC 1600);
3. The Endangered Species Act of 1973, as amended (16 USC 1531-1544); and
4. The MOA on Endangered Species Act section 7 programmatic consultations and coordination among the BLM, National Marine Fisheries Service, Fish and Wildlife Service, and Forest Service, dated August 30, 2000.

**E. Consultation Action:**

The BLM and FS will consult/confer with the FWS on the land use plan amendments associated with each of the sub-regional planning efforts identified in Section B of this Agreement. Each of the land use plan amendment decisions will reflect the unique factors within each agency’s administrative area and land use planning process. The focus of the section 7 consultation/conference will be to examine the expected effects of the amendments to the existing land use plans on listed and proposed species, and designated and proposed critical

habitat to ensure that the actions will not jeopardize the continued existence of those species or destroy or adversely modify critical habitat.

**F. Roles and Responsibilities:**

**The BLM and FS agree to:**

1. In coordination with the FWS, develop one Biological Assessment for each sub-regional EIS.
2. Coordinate with the FWS to identify the required information and analysis presented in the Biological Assessments. The Biological Assessments will provide at a minimum:
  - a. A description of the proposed action.
  - b. Any required design features (RDF) and additional conservation measures for species/habitat protection.
  - c. Maps and a description of the areas that may be affected by the action.
  - d. A summary of the status and conditions for Threatened, Endangered and Proposed (TEP) species and proposed or designated Critical Habitat in the action area.
  - e. Analysis of the direct, indirect, and cumulative effects of the proposed action on TEP species and proposed or designated Critical Habitat.
  - f. A determination of effects and rationale for each TEP species and any proposed or designated Critical Habitat.
3. Identify a lead contact for each agency and for each sub-regional EIS project to facilitate coordination and communication among affected administrative units.
4. Informally consult/ confer with the FWS pursuant to section 7 of the ESA during the development and refinement of the proposed land use plan amendments.
5. Submit one Biological Assessment for each sub-regional EIS in conjunction with a request to the FWS for formal consultation.
6. In coordination with FWS, develop conservation measures to reduce adverse effects to listed species (or critical habitat) and include them in the proposed action. If incidental take is anticipated and quantified any reasonable and prudent measures and terms and conditions that the FWS proposes to minimize the impact of any anticipated take shall be discussed by the interagency consultation team for each of the EIS efforts prior to issuance of a final Biological Opinion.

**The FWS agrees to:**

1. Identify a lead Regional Office that will coordinate the FWS consultation/ conferencing efforts.
2. Prepare a Biological Opinion (or appropriate consultation/conference document) for each proposed action for which a Biological Opinion is necessary, and provide the BLM and the FS an opportunity to review and comment on any such Biological Opinion at the draft stage.

3. Identify a lead office and staff point of contact for each of the sub-regional EIS efforts to facilitate communication and coordination among the appropriate agency offices.
4. Provide a draft of the consultation response to the BLM and the FS for review no later than two weeks before the end of the consultation period. In coordination with the FS and BLM, develop conservation measures to reduce adverse effects to listed species (or critical habitat) and include them in the proposed action. If incidental take is anticipated and quantified as necessary, any reasonable and prudent measures and terms and conditions that the FWS proposes to minimize the impact of any anticipated take shall be discussed by the interagency consultation team for each of the EIS sub-regional efforts prior to issuance of a final Biological Opinion.

**The BLM, FS, and FWS mutually agree to:**

1. Work cooperatively to complete conferencing/ consultation in an effective and efficient manner within the appropriate timeframes established by policy and regulation or an agreed upon timeframe.
2. Designate representatives for the IRG:
  - BLM: Steve Small, Chief, Division of Fish and Wildlife; and
  - FS: Christopher Worth, Assistant Director, Wildlife, Planning, TES, Air and Soil.
  - FWS: Nicole Alt, Deputy Assistant Regional Director, Lakewood, CO Region 6.
3. Provide early notification to the IRG if any problems arise that would affect the content of consultation-related documents or agreed upon timeframes and deadlines for completing the consultations/conferences under this Agreement.
4. The IRG will meet within 10 days of the identification of an issue on an as needed basis to resolve any issues that arise during the consultation/conference process.
5. Meet or otherwise communicate on a bi-weekly basis during the FWS’ review of the Biological Assessments and the development of any Biological Opinion (or final consultation /conference document)(s), to resolve any material issues that may arise during the consultation/conference process covered by this Agreement.
6. Meet the time commitments indicated in the table below.

**G. Estimated Time Frame for Consultation Process (recognizing the multiple planning efforts will follow slightly different timelines):**

<b>Task</b>	<b>Estimated Date for Completion</b>
<ul style="list-style-type: none"> <li>• BLM/FS: Initiate informal consultation/conference with FWS during preparation of the Draft EIS for the proposed amendment of one or more RMPs or LRMPs.</li> </ul>	July 2013 (Completed)
<ul style="list-style-type: none"> <li>• BLM/FS: Release of the individual Draft EISs for the proposed action amendment(s)</li> </ul>	December 2013 (Completed)

for public review.	
• BLM/FS: Identify selected alternative	Estimated Date: June 16, 2014
• BLM/FS: Submit Biological Assessments of the proposed action to the FWS	Estimated Date: July 15, 2014
• FWS: Complete consultation/conference process on the proposed action. <sup>1</sup>	Estimated Date: December 1, 2014

<sup>1</sup>Submission of the BA initiates the statutory/policy timelines for FWS. If concurrence, within 30 days of receipt of BA. If BO, within 135 days of receipt of BA and acknowledgement of adequacy of information. If BO, FWS will seek to provide an expedited review and draft copy for review to BLM and FS prior to finalization.

#### **H. General Provisions:**

1. This Agreement and the above timelines can be amended by mutual agreement of the parties.
2. This Agreement is only intended to improve the internal management of consultation on amended plans by the BLM, FS, and the FWS. It is not intended to, nor does it, create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person. Nothing in this Agreement will be construed as obligating the BLM, FS, and the FWS to the expenditure of funds.
3. Each agency will maintain a copy of this Agreement.

**I. This Agreement is entered into by:**

\_\_\_\_\_  
*Edwin Roberson*  
*BLM, Assistant Director,*  
*Renewable Resources and Planning*

\_\_\_\_\_ Date

\_\_\_\_\_  
*Chris Iverson*  
*US Forest Service, Deputy Regional Forester,*  
*Region 4*

\_\_\_\_\_ Date

\_\_\_\_\_  
*Michael Thabault*  
*US Fish & Wildlife Service, Assistant Regional Director,*  
*Ecological Services, Region 6*

\_\_\_\_\_ Date



## Brent Ralston

---

**From:** Brent Ralston  
**Sent:** Monday, June 23, 2014 11:52 AM  
**To:** Scott Hoefer (shoefer@blm.gov)  
**Subject:** FW: GRSG: BA strike team meeting notes 6/16/2014  
**Attachments:** BA\_TeamMeetingMinutes06162014.pdf

FYI

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Colt, Chris J -FS [<mailto:ccolt@fs.fed.us>]  
**Sent:** Friday, June 20, 2014 6:09 PM  
**To:** Malengo, Katherine -FS; Davidson, Bruce L -FS; Carsey, Kathy S -FS; Moser, Janet S -FS; Kozlowski, Steve -FS  
**Cc:** Mermejo, Lauren ([lmermejo@blm.gov](mailto:lmermejo@blm.gov)); Munson, Johanna ([jmunson@blm.gov](mailto:jmunson@blm.gov)); Stein, Glen -FS; Dillon, Madelyn -FS; Bridget Clayton ([bclayton@blm.gov](mailto:bclayton@blm.gov)); Brent Ralston ([bralston@blm.gov](mailto:bralston@blm.gov)); Kralick, Kolleen M -FS; [sharpay@att.net](mailto:sharpay@att.net); Heavyses, Pam -FS  
**Subject:** GRSG: BA strike team meeting notes 6/16/2014

I have attached the meeting notes from our BA strike team meeting Monday.  
Our next meeting will be this Monday 6/23/14 @ 2:00 pm MDT/1:00 PDT (888-844-9904; 7251216#)

Chris

**Chris Colt**  
Wildlife Biologist  
USFS Sage-Grouse NEPA Support ID Team (NeST)  
[ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)  
208-236-7506



Link: [FS Greater Sage-Grouse Website](#)

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GRSG LUP Amendment EIS Biological Assessment  
Planning Meeting Minutes 6/16/2014

1. Billing stuff: Contact Katherine Malengo for the correct project cost codes. Additionally, please send the number of hours charged against the project to Katherine bi-weekly when you submit your time.
2. NV/CA BA Project Assignments:
  - a. Steve – Wolf
  - b. Katherine M. – Cuckoo
  - c. Janet – Skipper, Fairy shrimp
  - d. Bruce/Kat – Plants
3. Idaho/MT BA Project Assignments:
  - a. Steve – Slickspot Peppergrass – Contact ID FWS Barbara Schmidt
  - b. Katherine – complete table 1 and modify NWCO BA for ID/MT
4. Issue: Mitigation measures – If your analysis suggests that there is the potential for an impact, but that impact can be minimized or eliminated through the requirement of a mitigation measure, we will do the following. Be as specific as possible so we can track the necessary mitigation measure to see if it is already in the existing RMP or in the EIS. If not and we believe that we need this in the ROD, we will need to work closely with the sub-regional EIS project lead to include the necessary mitigation in the EIS/ROD. In the EIS it will be any number of items: FS Standard, BLM Management Action, Required Design Feature, etc. In the BA we will call them mitigation measures.
5. Issue: Lynx – Because sagebrush is listed as a secondary habitat for lynx it must be considered in the analysis. Need to work with Missy Dressen (Routt NF) and FWS closely on this issue.
6. Issue: ID FWS Response – Idaho Field Office of the FWS did not respond to the initiation letter species list. Therefore, we will work on the assumption that the list we sent to them is acceptable. We will use this list.
7. Issue: Species we are consulting on. We are only consulting on listed species and conferencing on proposed species. We are not conferencing on any candidate species.
8. Tasks:
  - Verify WO buy off on BLM proposed plan for NWCO EIS – **Chris** (waiting to hear back from Bridget Clayton – NWCO project lead).
  - ✓ Send out Proposed Plan & BA Template – **Chris**
  - ✓ Organize O: drive directory (insure there is a finalized species list for each EIS) – **Katherine**
  - ✓ Clean up FWS comments on BA Template – **Katherine**
  - ✓ Contact FWS (Terry Ireland) on hanging issues - **Chris**
  - ✓ **Bruce & Kat** – review NWCO plant list and available time and divide workload
  - ✓ Gather critical habitat spatial data – **Chris** Obtained from FWS – data available online.
  - ✓ GIS overlay of critical habitat and GRSG habitat – BLM NOC
  - ✓ Meet with with Routt NF (Missy) and FWS on Lynx issue
  - Complete analysis for necessary species on NWCO BA

9. Team Members

- Bruce Davidson – Botany:  
(559-920-6349)
- Kat Carsey – Botany:  
(559-793-8145)
- Janet Moser – Wildlife:  
(559-341-6812)
- Steve Kozlowski – Wildlife:  
(307-745-2343)
- Katherine Malengo - Wildlife:  
(831-674-0685)
- Chris Colt – ID Team Wildlife  
Lead: (208-881-1975c.)

10. Next Call: Monday 23 June 2014 @ 2:00 pm MDT/1:00 PDT

- (888-844-9904; 7251216#)

**Brent Ralston**

---

**From:** Colt, Chris J -FS  
**Sent:** Wednesday, June 25, 2014 3:41 PM  
**To:** Brent Ralston (bralston@blm.gov)  
**Cc:** Scott Hoefer (shoefer@blm.gov); Mickelsen, Robert -FS  
**Subject:** FW: BA development for ID sage grouse EIS

Brent,

I wanted to get a better idea of what your expectations are for the actual informal consultation with the FWS.

Below is an email request from ID FWS to hold a weekly consultation meeting for the ID effort. I think this would be an important step in coordination. However, I am concerned about myself and my team being the ones conducting this meeting. My main concern is that, as the "contractor" writing the BA we really need the local folks, primarily the BLM, to conduct the consultation and we can participate and then write the analysis as directed. Additionally, I am concerned about time, as our team (4 of us) have 5 different EIS BA's to write by July 15<sup>th</sup> as per the FEIS/ROD timeline, so we are a bit crunched for time.

Chris

**Chris Colt**

Wildlife Biologist  
USFS Sage-Grouse NEPA Support ID Team (NeST)  
[ccolt@fs.fed.us](mailto:ccolt@fs.fed.us)  
208-236-7506



Link: [FS Greater Sage-Grouse Website](#)

**From:** Robertson, Mark [[mailto:mark\\_robertson@fws.gov](mailto:mark_robertson@fws.gov)]  
**Sent:** Wednesday, June 25, 2014 2:32 PM  
**To:** Davidson, Bruce L -FS; Colt, Chris J -FS  
**Cc:** Barbara Schmidt; Russ Holder  
**Subject:** BA development for sage grouse EIS

Chris/Bruce,

I oversee a lot of the S7 work out of the Idaho Fish and Wildlife Office of the FWS, and while I know there have been some initial discussions between you guys and Barb Schmidt, I am concerned that as time keeps ticking by, we might not be on the same page at the same time relative to BA content, determinations, and expectations. I'm sure we're all aware that surprises down the line are not going to be looked at favorably on this monumental and high level effort, thus I suggest we establish regular check-ins (weekly conference calls?) to trade the latest and greatest information on what you guys know, where we are in the process, and if things still look like they are on track to meet everybody's expectations. I'd like to keep my managers informed to avoid surprises, and it seems a regular conference call might be the easiest way to engage. I know things are in perpetual motion on this broader effort, but any information exchange between us will put the IFWO in a better

place to react to changes that need to be captured through the consultation, starting with the development of the BA.

Please let me know your thoughts, and pass this idea along to others that might also need to be engaged.

Thanks

--

=+=+=+=+=+=+=+=+=+=+=+=+=

*Mark Robertson*  
*Idaho Fish and Wildlife Office*  
*U.S. Fish and Wildlife Service*  
*1387 S. Vinnell Way, Suite 368*  
*Boise, ID 83709*  
*phone: 208-378-5287*  
*email: [mark\\_robertson@fws.gov](mailto:mark_robertson@fws.gov)*

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## Brent Ralston

---

**From:** Brent Ralston  
**Sent:** Wednesday, June 25, 2014 9:17 AM  
**To:** Scott Hoefer (shoefer@blm.gov); 'Makela, Paul D'  
**Subject:** FW: GRSG Biological Assessment Team meeting notes 6/23/2014  
**Attachments:** BA\_TeamMeetingMinutes06232014.docx

FYI

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

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**From:** Colt, Chris J -FS [<mailto:ccolt@fs.fed.us>]  
**Sent:** Tuesday, June 24, 2014 4:27 PM  
**To:** Davidson, Bruce L -FS; Carsey, Kathy S -FS; Moser, Janet S -FS; Kozlowski, Steve -FS; Malengo, Katherine -FS  
**Cc:** Kralick, Kolleen M -FS; [sharpay@att.net](mailto:sharpay@att.net); Brent Ralston ([bralston@blm.gov](mailto:bralston@blm.gov)); Belmonte, Lisa R ([lbelmont@blm.gov](mailto:lbelmont@blm.gov)); Bridget Clayton ([bclayton@blm.gov](mailto:bclayton@blm.gov)); Ireland, Terry ([terry\\_ireland@fws.gov](mailto:terry_ireland@fws.gov)); Creed Clayton/R6/FWS/DOI; Stein, Glen -FS; Dillon, Madelyn -FS; Mickelsen, Robert -FS  
**Subject:** GRSG Biological Assessment Team meeting notes 6/23/2014

I have attached the GRSG Amendment EIS Biological Assessment team meeting notes from Monday (6/23/14). Some of the key issues covered were the NWCO process, logic for the lynx analysis as well as plants. We also laid out some of the assignment for the NV/CA and ID/MT projects, which we are moving to next.

Chris

**Chris Colt**  
Wildlife Biologist  
USFS Sage-Grouse NEPA Support ID Team (NeST)  
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Link: [FS Greater Sage-Grouse Website](#)

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GRSG LUP Amendment EIS  
Biological Assessment Team  
Planning Meeting Minutes  
6/23/2014

1. NWCO BA Project Discussion:

- a. BA Document steps/status – Table 1 updated; first step was to determine “no effect” vs. “further analysis” based on set of listed criteria; second step, determine next set of species that are “no effect” based on additional, yet brief analysis (one or two paragraphs) and is provided in appendix 1. Final step is to do an in depth analysis for those species that require in depth look based on potential for impact. Currently working on finalizing this for vertebrates and plants.
- b. Lynx – Steve K:
  - i. Based on information from Routt National Forest and FWS Biologists, sagebrush habitat is a secondary habitat type for Canada lynx. For section 7 consultation analysis purposes on the Lynx, secondary habitat is analyzed the same as primary habitat. Therefore, a full analysis is being conducted.
  - ii. The first step in the analysis is to overlay Lynx Analysis Units (LAU) and linkage areas on sage-grouse habitat (ADH = PPH + PGH (ADH = All Designated Habitat)) and examine the locations and number of acres of overlap. From this overlay analysis, ADH did not overlap any linkage areas and there was only one area (California Park, 1,700 acres) that overlapped an LAU. (An important issue with this mapping exercise is that the LAUs have been designated for the Routt NF, but not on the BLM.)
  - iii. Next, we reviewed the proposed actions and how that would impact the habitat for the lynx on 1,700 acres on Routt National Forest. Based on this review/analysis we are considering a no effect determination. Some of the considerations in this analysis include the following:
    - The programmatic nature of this analysis and the future site-specific NEPA and Section 7 consultation at the project level.
    - The decisions in this proposed action generally limit anthropogenic disturbances and will not impact the lynx.
    - The small amount of habitat in the analysis (1,700 acres) is secondary habitat for the lynx. These areas are not critical for lynx and are incidental use and are generally limited to occasional movements of lynx traveling to more desirable habitat.
  - iv. Steve is following up on this logic with FS (Missy Dressen, et al), FWS (Terry Ireland) and BLM (Lisa Belmonte) and developing a thorough write-up for both BLM and FS lands.

- c. Plants – Bruce: Most listed plant species are no effect as they are not in sagebrush habitat types. Two listed plant species that are within sagebrush habitat types are the CO Hookless Catus and Osterhout’s Milkvetch, therefore we are fully analyzing them. The initial examination is that these species will be a “no effect” determination based on the fact that these are fairly site-specific species and as long as there is a plan requirement to do do site-specific surveys and avoid at the project level, or a required design feature which requires or insures site-specific protection.
2. NV/CA BA Project Assignments:
  - a. Steve – Wolf
  - b. Katherine M. – Cuckoo
  - c. Janet – Skipper, Fairy shrimp
  - d. Bruce/Kat – Plants
3. Idaho/MT BA Project Assignments:
  - a. Bruce – Slickspot Peppergrass – To contact ID FWS Barbara Schmidt
  - b. Katherine – modify NWCO BA for ID/MT
  - c. Katherine – update table 1
  - d. Katherine – verify species for analysis; assign out as appropriate
4. Issue: Mitigation measures discussion - If the analysis suggests that there is the potential for an impact, but that impact can be minimized or eliminated through the requirement of a mitigation measure, we will do the following. Be as specific as possible so we can track the necessary mitigation measure to see if it is already in the existing RMP or in the EIS. If not and we believe that we need this in the ROD, we will need to work closely with the sub-regional EIS project lead to include the necessary mitigation in the EIS/ROD. In the EIS it will be any number of items: FS Standard, BLM Management Action, Required Design Feature, etc. For now, in the BA we will call them mitigation measures.
5. Tasks:
  - NV/CA – coordinate BLM RMP names with the list we currently have – **Katherine** to work with Arlene Kasic (CA BLM), Could also contact Sandra Brewer, Joe Tague or Randy Sharp (NV BLM).
  - Each specialist to continue/complete analysis on their species for the NWCO BA and get text into document on O: drive.
  - Start work on assigned species on NV/CA BA.
6. Next Call: Monday 30 June at 2:00 pm MDT (Note that we decided to shift the time later in the day.)



## Team Members

- Bruce Davidson – Botany:  
(559-920-6349)
- Kat Carsey – Botany:  
(559-793-8145)
- Janet Moser – Wildlife:  
(559-341-6812)
- Steve Kozlowski – Wildlife:  
(307-745-2343)
- Katherine Malengo - Wildlife:  
(831-674-0685)
- Chris Colt – ID Team Wildlife  
Lead: (208-881-1975c.)

**Brent Ralston**

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**From:** Foss, Jeffery  
**Sent:** Wednesday, June 11, 2014 10:27 AM  
**To:** Edwin Roberson  
**Cc:** Timothy Murphy; Stephen Small; Brent Ralston; Kurt R Wiedenmann; Joe Stout; Kathryn Stangl  
**Subject:** Re: SG Data to NOC

Ed,  
Tim is on leave today but back in tomorrow. i trust he will want to be on the call.

Can we arrange for a time to call you tomorrow? What times are available for you?

Thanks  
Jeff

On Wed, Jun 11, 2014 at 10:18 AM, Edwin Roberson <[eroberso@blm.gov](mailto:eroberso@blm.gov)> wrote:  
Thanks for the note Jeff. I am driving to NC today but need to talk to Tim or you. It is still unclear to us how Important Areas within PACs will have the necessary protective requirements for GRSG habitat. I'm also unclear whether "no net unmitigated loss" will be applied to Core, Important and General habitat as recommended by the NPT. As I mentioned on our call we recommend that Important Areas within PACs be managed consistent with Core Zones and the "no net unmitigated loss" be for both Core and Important Areas. This accepts your distinction of these Areas from General Habitat. Let me know when would be a good time to talk. Ed

Sent from my iPhone

On Jun 11, 2014, at 11:45 AM, "Foss, Jeffery" <[jfoss@blm.gov](mailto:jfoss@blm.gov)> wrote:

Tim  
Regarding the draft memo back to Ed on the sage grouse administrative draft proposed decision, I called Steve Small this AM and learned that the WO has some questions regarding level of protection within important habitat (will areas identified as important habitat within PACs receive the highest level of protection? I explained how the adaptive mgmt strategy will move protections to from important to core when triggers are tripped ).

Steve said that Ed is going to set up a call with you this week to discuss these questions. I mentioned to Steve that Jim Lyons will be here on Friday for a visit and it would be most helpful to have this issue resolved by this Thursday.

Jeff

On Wed, Jun 11, 2014 at 8:49 AM, Timothy Murphy <[tmurphy@blm.gov](mailto:tmurphy@blm.gov)> wrote:  
Heard anything from Ed/200 ?

Sent from my iPhone

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**Jeff Foss**  
Deputy State Director- Resources, Idaho BLM  
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## Brent Ralston

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**From:** Brent Ralston  
**Sent:** Thursday, June 19, 2014 4:11 PM  
**To:** Edwin Roberson  
**Cc:** Kathryn Stangl; Joseph Stout (j2stout@blm.gov); Matthew Magaletti (mmagalet@blm.gov); Foss, Jeffery L; Timothy Murphy; Peter Ditton (pditton@blm.gov)  
**Subject:** Idaho and Southwestern Montana GRS G Follow-Up

Ed,

We appreciate your time to talk through the remaining questions this afternoon. As a follow-up we wanted to provide you the exact language out of the administrative draft proposed plan regarding avoidance/development criteria and mitigation requirements.

As a preamble the Idaho and southwestern Montana plan that has been worked on collaboratively with FWS, Forest Service and the State of Idaho incorporates conservation principles around project consideration, design and placement to avoid the areas of highest value for sage-grouse with a significant emphasis on avoiding and minimizing any impacts to habitat and sage-grouse populations first. The plan direction is to exclude many activities in Core Management Zones and avoid any anthropogenic development in Important Management Zones. If proposals for development are received, those proposals must be vetted through the disturbance criteria and placed in locations that would minimize or not impact birds or their habitats. Any residual impacts would require mitigation.

Important Management Zones are designated as ROW Avoidance areas as described in the allocation table previously provided. What wasn't captured is the stringent project consideration criteria that must be met for development to occur in these areas. It is the application of these criteria that forward the conservation principle of avoiding and minimizing impacts to sage-grouse habitat and reflect protective management more similar to Core Management Zones than General Management Zones.

*Important Management Zone: Anthropogenic Disturbance Development Criteria – the following criteria must be met in the screening and assessment process:*

- a. The project cannot reasonably be achieved, technically or economically, outside of this management zone; and*
- b. The project is co-located within the footprint for existing infrastructure, to the extent practicable. In the event co-location is not practicable, the siting should best reduce cumulative impacts and/or impacts on other high value natural, cultural, or societal resources; and*
- c. The project does not result in a net loss of GRS G habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area; and*
- d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and*
- e. The project complies with the applicable RDFs.*
- f. The project would not exceed the 3% disturbance threshold.*

The plan also calls for mitigation in all management zones:

*Mitigate impacts from anthropogenic developments to GRS G habitats (this includes Core, Important and General Management Zones) by first avoidance of impacts, minimizing impacts and then compensating for impacts.*

Mitigation would still occur for any impacts in General Management Zones as well; however, requiring a no net loss standard for General Management Zones specifically raised some concerns over placement – in that we would not want the plan to construe a no net loss of habitat within General Management Zones where location

of mitigation efforts may be driven to areas of low value for sage-grouse. Instead by still requiring mitigation of habitat in General Management Zones, without invoking a no net loss for those areas, then the mitigation efforts could be more appropriately placed in areas of high value to sage-grouse.

*Mitigate anthropogenic development impacts to Core Management Zones to a no net loss standard through application of appropriate mitigation in accordance with the Mitigation Framework, referred to as no unmitigated loss.*

This no net loss standard is included in Important Management Zones as part of the criteria described (c & d) with the emphasis on first no loss of habitat then mitigating any residual effects. This is different in concept from an approach that looks at incorporating a higher degree of mitigation in order to provide for more loss initially.

If you have need of any further description or clarification just let me know.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

## Brent Ralston

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**From:** Meredith Zaccherio  
**Sent:** Monday, June 09, 2014 1:58 PM  
**To:** 'bralston@blm.gov' (bralston@blm.gov)  
**Subject:** Internal and public DEIS comments & responses  
**Attachments:** `IDMT-BLMResponsetoCmts\_20140609.docx; `ID\_swMT\_DEIS\_BLMCmts\_MASTER.docx

Hi Brent,

Attached are two tables – one tracks the internal BLM comments on the DEIS. The other tracks changes to the FEIS needed based on public comments. I tried to identify where the change needs to be made and by whom. I did not see public comment responses (and changes to the FEIS) on the following topics:

- NEPA, etc
- ACECs
- Climate change
- Soils
- Water
- Fire/fuels
- Recreation
- Travel management
- Tribal interest
- Vegetation
- Wild horse and burro
- Lands with wilderness characteristics
- Livestock grazing

Meredith

**Meredith Zaccherio**

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**IDMT GREATER SAGE-GROUSE  
RESOURCE MANAGEMENT PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT  
Changes to Public Draft RMPA/EIS**

<b>Cmt #</b>	<b>Page #</b>	<b>Cmt #</b>	<b>Reviewer Name/ Program</b>	<b>Change to document</b>	<b>Remarks / How Resolved</b>
1.			Jackovac – 14.1	Response: LR-19 and LR-21 do not specifically state whether or not lands identified for disposal in the LUPs would still be available for disposal. BLM needs to clarify this in the document.	BLM: Chapter 2
2.		IDMTSG-14-0131-8	Porter-minerals-range of alts	A more complete analysis of the effects of imposing restrictions on phosphate activities will be included in the FEIS. Clarify in FEIS the BMPs/RDFs that would apply to existing phosphate leases in sg habitat. Also clarify compensatory mitigation requirements. See notes for IDMTSG-14-0131-20 (row 22, below)	EMPSi/BLM Chapter 4  Chapter 2/Appendix
3.		IDMTSG-14-0049-10	Porter-minerals-range of alts	While Alt. D of the DEIS did propose closing all PPMA and PMMA habitat in areas with no to low potential for the occurrence of a fluid mineral to future leasing, that management action has been changed in the FEIS to leave all lands open to future leasing, subject to a No Surface Occupancy stipulation in PPMA and PMMA.	BLM: May need to change this response based on proposed plan.
4.		IDMTSG-14-0049-10	Porter-minerals-range of alts	add definition of VER to glossary. Note- this is not an easily definable term! I couldn't find a definition in Black's Law Dictionary, but did find a Solicitor's Opinion that provides context: M-36910 (Supp.) 88 I.D. 909, 912 (1981). Here are some excerpts: VER are those rights short of vested rights that are immune from denial or extinguishment by the exercise of Secretarial discretion. They may arise from two situations: a statute may prescribe a series of requirements which, if satisfied, create rights in the claimant by the claimant's actions under the statute without an intervening discretionary act; or, a VER may be created as a result of the exercise of Secretarial discretion. VERs are not absolute- the nature and extent of the rights are defined either by the statute creating the rights or by the manner in which the Secretary chose to exercise his discretion. VERs that include the right to develop may not be regulated to the point where the regulation unreasonably interferes with enjoyment of the benefit of the right.	EMPSi to do

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5.		IDMTSG-14-0049-27	Porter-minerals-range of alts	While Alt. D of the DEIS would have applied seasonal restrictions to lands with moderate to high potential for the occurrence of a fluid mineral, BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA.	BLM: May need to change this response based on proposed plan.
6.		IDMTSG-14-0049-9	Porter-minerals-range of alts	BLM's preferred management action for future oil and gas leasing has been changed in the FEIS to applying a year-round NSO stipulation in PMMA and PPMA. This will exclude all development on leases in these areas.	BLM: May need to change this response based on proposed plan.
7.		IDMTSG-14-0153-28	Porter-minerals-range of alts	BLM's preferred alternative for future leases has been changed in the FEIS to impose an NSO in all PPMA and PMMA habitat, and to impose a lek buffer in PGMA. What is the lek buffer for PGMA in FEIS?	BLM: May need to change this response based on proposed plan.
8.		IDMTSG-14-0212-11	Porter-minerals-range of alts	There may be mineral leases in the ACECs proposed in Alts. C and F- that information will be included in the FEIS, as well as a discussion of mineral potential in the proposed ACECs Determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.	BLM: GIS analysis
9.		IDMTSG-14-0182-6	Porter-minerals-baseline data	BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of sage grouse habitat would not be subject to stipulations developed in this EIS.	BLM: May need to change this response based on proposed plan.
10.		IDMTSG-14-0180-43	Porter-minerals-impact analysis	The section describing the impacts from leasable minerals management for Alt E is not correct and needs major revision. See my comments on pg 4-61-63.	BLM/EMPSi



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11.		IDMTSG-14-0212-30	Porter-minerals-impact analysis	The impacts of Alts F and B will be analyzed in more detail in the FEIS, specifically with respect to disturbance caps. Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question.	BLM/EMPSi
12.		IDMTSG-14-0212-29	Porter-minerals-impact analysis	Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Also, references to section 4.11.2 should be corrected and should refer to section 4.12.2.	ICF EMPSi
13.		IDMTSG-14-0131-13	Porter-minerals-cumulative analysis	Cumulative effects across state lines will be considered in the FEIS.	EMPSi response: It will be for GRSG, but I don't think so for minerals?
14.		IDMTSG-14-0131-20	Porter-minerals-cumulative analysis	Analysis of impacts in the DEIS doesn't make sense. Table 4-64 (and subsequent tables in the section) is full of errors. None of Idaho's Phosphate leases are subject to NSO, CSU, or TL stips. Also I question the figures identified as unleased KPLAs closed to leasing (3720 acres) and subject to NSO (620 acres). I recommend doing away with the following columns in Table 4-64: Closed, NSO, CSU and TL. Here are actual numbers from LR2000: There are a total of 80,168 acres designated as KPLA. Currently, there are 31,670 acres of KPLA leased (48,498 acres of unleased KPLA). There are 12,904 acres of leased land outside of KPLAs. None of the leases are covered by NSO, CSU, or TL stips.	BLM/EMPSi work with GIS
15.		IDMTSG-14-0131-30	Porter-minerals-cumulative analysis	Socio-economic impacts resulting from the loss of availability of phosphate resources in each of the alternatives will be discussed in greater depth in the FEIS. Add impacts from loss of phosphate resources to socio-economic section	ICF

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16.		IDMTSG-14-0212-31	Porter-minerals-cumulative analysis	Additional analysis is required. Reasonably foreseeable actions, and the impacts of proposed conservation measures, will be discussed in the FEIS. Additional analysis required. Discuss reasonably foreseeable actions and impacts of proposed conservation measures in FEIS.	EMPSi – look at comment Additional cumulative for minerals?
17.		IDMTSG-14-0212-5	Porter-minerals-cumulative analysis	Add discussion of economic and social impacts of restricting phosphate mining and imposing conservation measures.	ICF
18.		IDMTSG-14-0166-7	Porter-minerals-mitigation measures	The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Add wording to the FEIS from the NTT report in discussion of RDFs.	Ask Brent if he concurs
19.		IDMTSG-14-0149-15	Makela- 7.3	Clarify in FEIS the validity of NTT, COT, BER relative to "establish standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders."	Ask Brent
20.		IDMTSG-14-0151-29	Makela- 7.3	Ensure FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS).	BLM: Chapter 2
21.		IDMTSG-14-0151-39	Makela- 7.3	Clarify in FEIS: Sage-grouse MZs were an attempt by WAFWA to delineate GRSG habitat range wide into more discrete areas for broad scale planning. Population monitoring is still done at finer scales such as State, local working group, Conservation Area or similar.	Chapter 2 or 3?
22.		IDMTSG-14-0049-32	Makela- 7.5	Ensure Proposed Plan has appropriate provisions/ clarity for actions in General management areas. Needs additional discussion.	BLM: Chapter 2

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23.		IDMTSG-14-0056-17	Makela- 7.5	<b>Commenter states:</b> There is no published research that supports restricting or closing grazing, in areas adjacent to burns, in order to compensate for loss of habitat attributable to wildfire. (DESR- 5, page 2-134). <b>Response:</b> Clarify this measure further in FEIS. The MA says to consider such action. The need for it, therefore, would depend on the site specific situation such as if a burn were adjacent to remaining limited/fragmented habitat or other circumstances	BLM: Chapter 2
24.		IDMTSG-14-0056-9	Makela- 7.5	<b>Commenter (0056-9 and similar comment for 0105-13) states:</b> Alternative E includes the requirement for any assessment to determine whether or not a given area has the ability to provide sage grouse habitat (See Appendix D, page D-36). This is critical because as the maps are difficult to decipher on the large scale and personal knowledge of the area reflects that some areas identified as within PPGH or Core habitat do not have the ability to provide for sage grouse needs. <b>Response:</b> Build a mechanism into the Proposed Plan that allows for evaluation of circumstances on case by case basis at the site specific scale. Maybe add wording that such would be addressed via subsequent project level NEPA analysis?	BLM: Chapter 2
25.		IDMTSG-14-0105-13	Makela- 7.5	<b>Comment:</b> how would population triggers be applied if there is no definition for “population areas”? <b>Response:</b> Clarify discussion of habitat and population triggers for any relevant alternatives (D, E, Proposed Plan...).	BLM: Chapter 2
26.		IDMTSG-14-0153-26	Makela- 7.5	Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.	BLM: Chapter 2 BLM/EMPSi: Chapter 4

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27.		IDMTSG-14-0166-8	Makela- 7.5	Confirm that Alt F incorporates recommendations as noted (Sage-Grouse Recovery Alternative did not faithfully follow the original proposed alt)...BLM/FS believe that the Proposed Plan accommodates GRSG conservation without the need for additional broad land designations.	BLM: Chapter 2
28.		IDMTSG-14-0178-6	Makela- 7.5	Firm up discussion of existing policy/mechanisms in Alt A.	EMPSi – Check comment; Chapter 2?
29.		IDMTSG-14-0180-48	Makela- 7.5	Need to confirm where, in Alt D, we refer to 80% relative to brood habitat	BLM: Chapter 2
30.		IDMTSG-14-0206-1	Makela- 7.5	Commenter states: We worry that this language could be read to suggest that the State’s objective is to protect just the CHZ with 65% of the leks in Idaho and that a population decline in the IHZ would be consistent with this objective. This could lead state and federal agencies to “manage down” to a lower population level... Response: Clarify the 65 % rationale for Alt E.	BLM: Chapter 2
31.		IDMTSG-14-0212-1	Makela- 7.1 (moved to leasable minerals?)	Suggest looking more closely at this issue to ensure it has been adequately analyzed and address (economic issues vs. GRSG population impacts, etc). According to the commenter the core of this issue is that nearly 11 million acres of public land will be closed to phosphate development with this decision and that this is more restrictive than would be done under ESA if the species were listed. Under ESA, each individual project could be evaluated on a site-specific basis and mitigation strategies could be included.	ICF
32.		IDMTSG-14-0212-27	Makela- 7.1 (moved to leasable minerals)	Is there an adequate baseline description for leasable minerals?	Chapter 3

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33.		IDMTSG-14-0242-12	Makela- 7.1	Comment: Habitat monitoring discussed in Alternative D (Chapter 2) is significantly different than the Monitoring Framework Plan discussed in Appendix E. While we support the habitat characteristics identified in Alternative E, a more robust description of the habitat monitoring program should be provided. Response: Ensure we clarify habitat monitoring and mapping processes.	BLM: Chapter 2
34.		IDMTSG-14-0242-19	Makela- 7.1	Verify that the habitat categories, Core, Important and General have been adequately defined and that they are tied to percentages of the population that they represent.	BLM: Chapter 2
35.		IDMTSG-14-0046-6	Makela- 7.6	Describe or confirm in section how GRSG populations have changed over time.	Chapter 3? EMPSi check comment
36.		IDMTSG-14-0053-10	Makela- 7.6	Commenter states No population number has been suggested as the lowest recoverable figure by the USFWS or anyone else.  Response: A population target has not been established. Clarify in FEIS what proportion of GRSG leks/numbers are captured by the management areas.	Chapter 3
37.		IDMTSG-14-0056-9	Makela- 7.6	Add component in FEIS/Plan that describes fine/site scale review process.	BLM: Chapter 2
38.		IDMTSG-14-0105-7	Makela- 7.6	Ensure protocols and data needs for population and habitat monitoring, and relevant triggers are described. Reference 2014 HAF, IDFG lek route protocol etc.	BLM: Chapter 2
39.		IDMTSG-14-0108-6	Makela- 7.6	Confirm need to clarify discussion of current status of populations; effects of alts on GRSG.	BLM/EMPSi: Chapter 3
40.		IDMTSG-14-0151-106	Makela- 7.6	Clarify how population and habitat triggers will be used and how vegetation treatments factor in to the triggers.	BLM: Chapter 2
41.		IDMTSG-14-0151-16	Makela- 7.6	Commenter states The DEIS has virtually no information whatsoever regarding current conditions of sage- grouse habitat at the allotment level.  Response: Clarify that function of LUPs is to address broader issues, not site/allotment scale. May need to clarify this in FEIS.	BLM: Chapter 2

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42.		IDMTSG-14-0151-31	Makela- 7.6	Clarify how EIS boundaries relate to GRSG populations. [Overall, ensure we clarify relation between final map, populations, Management Areas, COT PACs etc.]	BLM/EMPSi/GIS: Chapters 3 and 4?
43.		IDMTSG-14-0151-44	Makela- 7.6	Commenter states The indirect and cumulative effects analysis must extend beyond state lines.  Response: Clarify that cumulative effects analysis per NOC will be done by GRSG Management Zone	BLM/EMPSi: Chapter 4
44.		IDMTSG-14-0151-45	Makela- 7.6	Ensure that FEIS clarifies focus of amendment on BLM and FS lands. Also that BER and disturbance calcs, triggers etc. will incorporate all lands to extent data are available.	BLM: Chapter 2
45.		IDMTSG-14-0151-70	Makela- 7.6	Ensure definition of “occupied” habitat is provided.	Glossary; EMPSi work with BLM for definition
46.		IDMTSG-14-0151-71	Makela- 7.6	Clarify in FEIS process for delineating MT habitat.	BLM: Chapter 2
47.		IDMTSG-14-0151-78	Makela- 7.6	Consider incorporating/ how best to address, clarify these elements. (Please conduct a risk assessment and analysis of the degree to which the battery of sage and tree manipulation treatments and fuels projects that are envisioned will: - Fragment GRSG habitats, increase harmful edge. - Reduce cover in linkage areas. - Reduce or sever patch connectivity. - Sever linkage areas. - Increase Edge Effect and patchiness in the Landscape Matrix - Increase anthropogenic disturbances (removal of shrubs that prevent OHV use, intensified grazing in areas cleared or thinned of sage and trees, etc.)	BLM/EMPSi: Chapter 4
48.		IDMTSG-14-0153-16	Makela- 7.6	Discuss incorp of WY Basins and N. Great Basin REAs	BLM/EMPSi: Chapter 3 (and 4?)

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49.		IDMTSG-14-0153-59	Makela- 7.6	Commenter states: Please provide documentation, preferably in the form of scientific studies, that demonstrate that adding new transmission lines to existing powerline corridors has no significant impact on grouse populations and habitat use, in order to fulfill NEPA's hard look requirements. Response: Not aware of such literature. Will review additional lit suggested. Clustering of infrastructure is assumed to be more desirable than creating new infrastructure in undisturbed areas.	EMPSi – Check comment; Chapter 4
50.		IDMTSG-14-0153-7	Makela- 7.6	Comment: Please document any and all scientific studies that conclude that compensatory mitigation efforts have yielded an increase in sage grouse populations for the area to which mitigation efforts apply. We are unaware of any cases in which a compensatory mitigation program has resulted in a significant increase in sage grouse compared to an untreated landscape. Response: Mitigation section will be revised for FEIS.	BLM: Chapter 2/Appendix
51.		IDMTSG-14-0157-9	Makela- 7.6	Include additional information for West Nile virus in Idaho.	BLM: Chapter 3
52.		IDMTSG-14-0168-27	Makela- 7.6	Commenter states: Quoting Connelly's quotes of other authors violates the Information Quality Act of 2001 (Section 515 of Public Law 106-554). Response: Confirm/clarify use of citations.	EMPSi – global (check comment)
53.		IDMTSG-14-0169-41	Makela- 7.6	Consider incorp of available modeled nesting and winter habitat in FEIS.	BLM: Chapter 3
54.		IDMTSG-14-0183-3	Makela- 7.6	Add wording in infrastructure discussion (and new lit) regarding uncertainty of some of the science, but also re-affirm/strengthen discussion of how FWS Warranted finding partly based on infrastructure as a threat.	BLM/EMPSi: Chapter 4
55.		IDMTSG-14-0204-1	Makela- 7.6	Clarify in FEIS the broad nature of the LUP amendment/FEIS and that seasonal habitat maps are more appropriately developed at the local scale. Also consider showing modeled nest and winter habitat map for Idaho (Montana if avail.).	BLM: Chapter 2

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56.		IDMTSG-14-0206-25	Makela- 7.6	Comment: A Literature Review of Transmission Line Effect Distances Response: Consider incorporation of this information into FEIS.	BLM/EMPSi: Chapter 4
57.		IDMTSG-14-0209-1	Makela- 7.6	Comment: We wish to add our completed Local Working Group Conservation Plan to the reference record for the EIS. It can be found at the Idaho Fish and Game's website at: <a href="http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174">http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174</a> under North Magic Valley Conservation Plan. Response: Reference completed LWG plans.	BLM/EMPSi: Chapter 3
58.		IDMTSG-14-0212-3	Makela- 7.6	Discuss process for consideration of site scale discrepancies (e.g., if a portion of Core, Imp or Gen'l is not 'habitat' at site scale, such as conifer, etc. Consider coordinated review/approval between local BLM, FS, IDFG.	BLM: Chapter 2
59.		IDMTSG-14-0031-5	Makela- 7.7	Discuss recomm. For managing lek viewing. Consult 2006 ID GRSG plan for wording.	Chapter 2 or 3?
60.		IDMTSG-14-0046-4	Makela- 7.7	Clarify Alt A and mosaic discussion.	EMPSi – check comment
61.		IDMTSG-14-0151-5	Makela- 7.7	Clarify fence collision risk per Stevens.	BLM: Chapter 2
62.		IDMTSG-14-0153-14	Makela- 7.7	Comment: In particular, we are concerned that under Alternatives D, the prescribed conservation measures may not apply in areas not identified as sage grouse habitat. BLM states, "by including a rule set to release areas from PPMA, PMMA, PGMA protection, some vegetation communities that do not provide habitat for GRSG could receive less protection under this alternative and could be subject to removal, damage, or reduced condition caused by human disturbances." DEIS at 4-102.) Response: Note to BLM/FS. Clarify site specific issues/process. Address via project-level NEPA ,etc.	BLM: Chapter 2
63.		IDMTSG-14-0153-26	Makela- 7.7	Discuss military overflight / noise issue with Planning leads. Is there a regional approach?	BLM: Chapter 2



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64.		IDMTSG-14-0153-39	Makela- 7.7	Comment: BLM acknowledges that there is little potential for coal mining in the planning area; the agencies should therefore find Priority Habitats unsuitable for surface mining for coal in order to provide regulatory certainty. Response: Discuss coal mining. Clarify.	BLM: Chapter 2
65.		IDMTSG-14-0153-58	Makela- 7.7	Discuss approach to predicting population trajectories under alternatives.	Chapter 2 or 3?
66.		IDMTSG-14-0242-16	Makela- 7.7	Comment: We recommend that the impact analysis be improved through the following ways:  a. We need more clarity as to the extent to which proposed actions within each alternative would ameliorate the threats to GRSG within the identified analysis areas. ...The impacts to individuals and associated populations should then be compared across alternatives. b. The analysis should consider the beneficial impacts of best management practices and required specific design features where appropriate. c. The analysis should address the extent to which conservation measures within the alternatives meet the objectives of the COT. Response: Planning leads discuss.	BLM/EMPSi: Chapter 4
67.		IDMTSG-14-0050-22	Makela- 7.8	Refine cumulative effects section as appropriate. (The proposed EIS must include an analysis of the cumulative effects of the existing fences, prescribed burning and other proposed treatments and the effects of domestic livestock grazing on greater sage-grouse.)	EMPSi/BLM: Chapter 4
68.		IDMTSG-14-0153-58	Makela- 7.8	Ensure/refine cumulative effects section adequately address population projections and efficacy, as appropriate.	EMPSi/BLM: Chapter 4. EMPSi check comment

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69.		IDMTSG-14-0179-10	Makela- 7.9	<p>Comment: Even with the best-intentioned avoidance and mitigation plan, some projects are simply “unmitigatable” due to the type or location of the project. As such, we recommend expanding the list of excluded projects in CHZ to include the following:</p> <ul style="list-style-type: none"> <li>• Landfills in sage-grouse habitats or within 5 km of sage-grouse habitats (especially because landfills subsidize synanthropic predators such as ravens)</li> <li>• Airports</li> <li>• Mineral development (leasable, locatable and salable) and associated infrastructure (processing, milling and stockpiling facilities)</li> <li>• Quarries and gravel pits over a certain size, based on best management practices</li> <li>• Oil and gas development</li> <li>• Commercial wind, solar, geothermal, hydroelectric and nuclear projects</li> </ul> <p>Response: Consider above bullets in review of RDFs, siting, buffers.</p>	BLM: Chapter 2
70.		IDMTSG-14-0179-8	Makela- 7.9	Clarify details for soft and hard triggers.	BLM: Chapter 2
71.		IDMTSG-14-0180-26	Makela- 7.9	Clarify in FEIS. While Alt D would preclude large scale infrastructure development in Priority habitat, some development could occur in Important or General habitat, triggering mitigation opportunities	BLM: Chapter 2
72.		IDMTSG-14-0206-16	Makela- 7.9	TNC provides numerous constructive recommendations for the mitigation strategy.	BLM: Chapter 2
73.		IDMTSG-14-0210-9	Makela- 7.9	Consider incentives etc. in mitigation plan.	BLM: Chapter 2
74.		IDMTSG-14-0212-16	Makela- 7.9	Revising RDFs/buffers for FEIS. Clarify limits to such for mining.	BLM: Chapter 2

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75.		IDMTSG-14-0212-17	Makela- 7.9	Comment: To incentivize immediate conservation efforts while ensuring realistic opportunities for development, the Agencies' Final LUP Amendment provisions should provide a clearer, more robust, mitigation credit program. The elements of the mitigation program should include, at a minimum, the ability of federal project proponents to pursue, and receive mitigation credits for, mitigation projects on private or state lands to offset future federal project impacts. Mitigation credit opportunities also should not be limited to traditional habitat improvement and protection activities. The Agencies should work with project proponents to develop alternative mitigation actions that could be used to offset project impacts.... Response: Discuss/consider this w/respect to mining which has little option for "NSO" type of buffers, especially for locatables under 3809.	BLM: Chapter 2
76.			ICF- socio	See document from ICF titled "IDMT_Report_Section 22_ICF Expected revisions_042514.docx". This document contains revisions that ICF expects to make to the FEIS in response to public comments on the DEIS.	EMPSi see document
77.			Ralston- edits	You indicated in Appendix H-4 that if an area met the relevance criteria and were in PPH, they were determined to have importance because of being a national priority for BLM. Table 3-45 has 67 Existing ACECs. Why the difference in numbers? Response: Change made	Change made
78.			Ralston- edits	Volume II A, Table I-5, page I-39: County Land Use and Sage-Grouse Management Plans lists Growth Policy dated June 20, 2005 as the reference for Beaverhead County, Montana. Our perspective would have indicated information on county land use policy for Beaverhead County, Montana would be found in the "Beaverhead County Public Lands Resource Use Policy and Plan" Response: Change made	Change made

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79.			Ralston- edits	LG/RM-9 Alternative E: Instead of: "Manage allotments only for the primary seasonal habitat that it has the potential to support." We would prefer, "Manage allotments for seasonal habitat that it has the potential to support." Because in many areas seasonal habitats overlap and we are managing for spring breeding/brood rearing, summer, and winter habitats in these areas. Response: To be addressed by team.	BLM: Chapter 2
80.			Ralston- edits	Language has been added to the planning criteria regarding the Wild Free Roaming Horse and Burro Act.	Change made
81.			Ralston- edits	Table 2-18 is being reformatted by Brent and EMPSi.	Change made
82.			Ralston- edits	GIS staff is working on maps to use a common and consistent color scheme.	Change made
83.			Ralston- edits	Page 3-73 First full paragraph: Discussion on rangeland health standards and guides: references allotments that are not meeting standards. Needs further discussion. Not clear if grazing is the problem or influenced by other sources. Response: Minor clarification of text. Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.	Minor clarification of text. Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.
84.			Ralston- edits	It needs to be kept in mind that this EIS will amend local agency land use plans and as such will be interpreted and implemented at a local level. Accordingly, any ambiguity will be multiplied by the number of affected local agency offices. There are a number of places in the EIS where definitions are necessary in order to understand the application of an Alternative e.g. "Population Area". The clarifications are also needed to assure that the final decision can be consistently applied among local administrative units and by constantly changing agency personnel over time. Response: The BLM and Forest Service are clarifying direction proposed in the Final EIS.	The BLM and Forest Service are clarifying direction proposed in the Final EIS.

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85.			Ralston- edits	Map Errors: Fig. 2-46 and others font heading erroneous- in hard copies, check CD versions too Response: GIS staff and EMPSi are developing maps that will show the appropriate title.	GIS staff and EMPSi are developing maps that will show the appropriate title.
86.			Ralston- edits	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.

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87.			Ralston- edits	<p>As noted in the introductory comments, Y -3 II straddles the Idaho and Nevada border and operates a single ranching entity to coordinate grazing on BLM allotments in both states. BLM, however, states in the Nevada DEIS that planning for the land use plans covering this part of both Idaho and Nevada will occur through the Nevada FEIS and Record of Decision but will be implemented and administered through the Jarbidge and Burley FEIS and Record of Decision. See Nevada DEIS Section ES.2. Additionally, the decisions and analyses for that portion of Y-3 II's allotments in Nevada will occur through the Nevada DEIS and will end at the Nevada state line apparently leaving decisions and analysis for Y-3 II's ranch operations north of the Nevada border to the Idaho DEIS. Id. This is confusing because just a few sentences earlier it is stated that planning for both Idaho and Nevada land use plans will occur through the Nevada DEIS. Id. Thus, within a few short sentences it is unclear how the lands utilized by Y-3 II in Nevada and Idaho are being analyzed, decided, implemented, and administered. If read correctly, it appears that actual management decisions are being made in each state's DEIS, but that Idaho will administer both Idaho's management decisions and Nevada's management decisions as they relate to Y -3 II. Consequently, Y -3 II must analyze and comment on both the Nevada and Idaho DEISs. Y -3 II also notes that this bifurcation of planning and management processes, while at least addressed by the Nevada DEIS, is not addressed in the Idaho DEIS as it should be.</p> <p>Response: Brent to convene a bi-state group to discuss this specific issue with Jarbidge, Burley, Bruneau and Elko Field Offices</p>	BLM work with NV

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88.			Ralston- edits	<p>The DEIS is also internally inconsistent, as to what BLM is proposing. In one place it states that it relates only to Forest Service decision making (implying BLM is not proposing any specific plan amendments) (DEIS at 5), and in another stating that “the BLM is proposing to amend the Battle Mountain/Tonopah Resource Management Plan (RMP) and the Carson City Field Office Consolidated RMP by adding to or changing some of the regulatory mechanisms to reduce, eliminate, or minimize threats to the Bi-state sage-grouse habitat on Federal lands administered under those plans” (DEIS at 1). This fundamental inconsistency also renders the DEIS inadequate as an informational document.</p> <p>Response: In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.</p>	In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.

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89.			Ralston- edits Appendix A	<p>A-IS "The County Plan encourages the federal agencies (BLM and Forest Service) to coordinate and maintain communication with the county and the counties' Natural Resource Advisory Committee. As part of this coordination the county requests documentation and research be available to support management decisions."</p> <p>This statement should be corrected. The County Plan "requires" the federal agencies to coordinate its plans and policies as directed under the appropriate federal statutes. The Plan requires coordination with the Board of Commissioners. The Natural Resource Advisory Committee's purpose is to advise the Commissioners. All official communication should be with the Commissioners. The County Plan does more than request documentation and research, but requires that all policies of the federal and state agencies be coordinated with the County for the purpose of ensuring a comprehensive approach to greater sage-grouse management Response: This has been changed in Appendix A.</p>	This has been changed in Appendix A.
90.			Ralston- edits	<p>2-18 "These plans were based largely on the existing LWG GRSG Plans (Custer county 2006, Owyhee County 2013), which were considered during the initial development of the range of alternatives considered in detail." This statement is false as it relates to the Custer County Sage Grouse Comprehensive Plan, which is the Counties primary planning device for Sage-Grouse in Custer County, and should be clarified. The Custer County plan was developed and approved in 2013, and while the Local Working Group plan was consulted during the development of the County's Sage Grouse Plan, it was only one of several grouse plans consulted. Response: Change made in FEIS.</p>	Change made



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91.			Ralston- NEPA range of alts	<p>Alternative A is excluded from the discussion of "Elements Common to Alternatives B, C, D, E, and F," which implies that these elements are not present in the no action alternative. This misleads the public. For instance, one of the elements common to all but Alternative A is "adaptive management." This element is clearly part of the current management framework as is noted in Appendix A, page 21. In answering whether the Challis RMP Complies with the Custer County Sage-Grouse Management principle that includes the use of adaptive management, the document affirms that the Challis RMP is compliant with a clear "Yes." However, in this same discussion, under "inclusion in Amendment EIS" the document only refers to Alternatives B-F as having an adaptive management component. Either Alternative A does use the adaptive management principle and it should state this, or it does not and compliance with Custer County Plan should be noted as a "NO."</p> <p>Response: Further description of adaptive management principles and strategies as described in each alternative has been included.</p>	Further description of adaptive management principles and strategies as described in each alternative has been included.
92.			Ralston- FLPMA consistency with other plans	<p>NEPA requires a discussion of "Possible conflicts between the proposed action and the objectives of Federal, regional, State and local land use plans, polices and controls for the area concerned." (40 CFR I 502.1 6(c)) It is the clear policy as stated in numerous County plans that the lands within the political boundaries of the county be maintained to ensure a vibrant local economy that is built on the historic use of and right to the productive use of these lands.</p> <p>Restricting and in some alternatives, eliminating these uses conflicts with the Counties policies. These conflicts have not been identified, analyzed or resolved in the DEIS.</p> <p>Response: As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.</p>	As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.

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93.			Ralston-ACECs range of alts	The Areas of Critical Environmental Concern (ACEC) details need to be corrected. Two of the maps did not say which Alternative they represented. On page 2-65 under Alternative C the BLM will designate 39 new ACECs, but elsewhere the number 4 is used, including on Figure 2-44. Response: This has been changed in the Final to reflect accurate numbers for Alternative C.	This has been changed in the Final to reflect accurate numbers for Alternative C.



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**Idaho and Southwestern Montana  
Sub Regional Greater Sage-Grouse Draft EIS  
Comment Form – All Internal BLM Comments**

Page #	Section Title or #	Commenter	Comment	Response
ES-13	Table ES-4	k.bocking	None of the acres in the table are accurate or add up for any of the alternatives. No PGMA acres for DFO under alt D.	
Ch 2	D-FM-6 E-FM-6	Upper Snake Field Office	<p>Comment 2) Consider melding D and E for FM-6, or just using E.</p> <p>Regarding the second bullet in D-FM-6, for the entire allotment the bullet may work but what about fuel breaks? The desired condition of the actual fuel break area might not meet standards but might be appropriate.</p> <p>The third bullet does not seem useful. People always have to follow terms and conditions anyway so if you are doing something within the terms and conditions you do not need to put it in the land use plan. If you are doing something for fuels management outside of the permitted use it should be considered a fuels project and it would have nothing to do with the permitted use.</p>	
Ch 2	D-LG/RM-4	Upper Snake Field Office	Comment 3) The phrase “the highest priority” in D-LG/RM-4 is a little troubling. I understand the need to focus on sage grouse, but let’s say in the future there is a listed species in a field office and its habitat has shrunk down to one little area, in theory we could have 100 allotments with sage grouse ahead of this species and the allotment would not get assessed. In some offices PPMA is almost the whole field office and this would reduce flexibility to protect other listed species. Is this language bumping sage grouse ahead of threatened and even endangered species? I realize at the end of the action it says with consideration for threatened and endangered species but I am not sure what that means.	
Ch 2	D-LG/RM-5	Upper Snake Field	Comment 4) Regarding D-LG/RM 5: While overall HAF is good, there are some things such as randomness of site selection that do not	



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Page #	Section Title or #	Commenter	Comment	Response
		Office	match up well with standards and guides. Also some of the HAF objectives are not obtainable in dry habitats. Can we provide more on-site flexibility in this action to account for the S&G process' direction to "performed on representative sites" and address dry sites that don't meet HAF standards even without livestock grazing?	
Ch 2	D-LG/RM-11 E-LG/RM-10 D-LG/RM-44	Upper Snake Field Office	Comment 5) Consider using E-LG/RM-10 over D-LG/RM-11 in the Proposed RMP/Final EIS. E-LG/RM-10 would still give the authorized officer the ability to adjust livestock use at a trough if there is a conflict with livestock and sage grouse. The term "when possible" might not be the best phrase to use here. This phrase could be used to force the turning off of troughs even when there is no known conflict. It is difficult to counter an argument that it is "possible" to turn off a trough. Also D-LG/RM 44 could also be used to properly manage livestock use around a trough. Proposal would be to keep E-LG/RM-10 and D-LG/RM-44 and remove D-LG/RM-11.	
2-16	3 <sup>rd</sup> paragraph	P. Makela	The brief descriptions of PPMA and PMMA could be improved on. See suggested wording based on descriptions of PPMA and PMMA provided to EMPSi via email on 8/1/2013.	PPMAs contain the areas of highest conservation value to GRSG. Key characteristics include areas of higher lek attendance and lek connectivity, lower habitat fragmentation, important movement corridors and winter habitat.  PMMA's contain areas of moderate to high conservation



Page #	Section Title or #	Commenter	Comment	Response
				value to GRSG that are generally adjacent to PPMAs but reflect reduced GRSG population and/or habitat characteristics.
2-16	3 <sup>rd</sup> paragraph	P. Makela	Second to last sentence says “Under Alternative D, the BLM and Forest Service would require no net unmitigated loss of PPMAs instead of a disturbance cap.” This is also referenced on page 2-65 describing alt D further. This statement is inconsistent with wording for Alt D for Unleased Federal Fluid Minerals Estate on page 2-177, Management Action D-MLS-12 that says we will not exceed a disturbance density of 1/640 acres or max 3% disturbance per section.	Discuss with ID Team. It appears that the reference to 1/640 and 3% should be deleted and reference no net unmitigated loss.
2-25	Table 2-2	Porter	Fluid mineral leasing acreages wrong (Alt D=270 acres of BLM open to leasing?). Also should split into geothermal vs. O&G, as acreages will be different. Alt. D- where did TL’s, CSU’s, NSO’s come from?	
2-35	Table 2-3	P. Makela	For leased fluid minerals, Alt D, it says to use RDFs as Conditions of Approval. However, I do not see any RDFs for Alt D in Appendix C. It only shows BMPs for Alt D and RDFs for Alt B and F.	Verify if Alt D RDFs need to be added to appendix C or if table 2-3 should reference BMPs instead.
2-36	Table 2-3	P. Makela	Alt D references the disturbance density metrics of 1/640 acres and 3%. As noted above, if we are using “no net unmitigated loss” as per pages 2-16 and 2-65, these should be removed.	Discuss/confirm with ID team.
2-45	Volume 1	k.bockting	What alternative is this map? The DFO did not identify core/PPMA as ACEC’s for Alt D.	
2-50	VOL IIA Pp 3 and 4	k.bockting	Last sentence of these two pp say “Figures at the end of this chapter illustrate...” What figures? Need to identify.	



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2-70	Table 2-6	P. Makela	Footnote cites Connelly et al. 2000. Delete and change citation to Stiver et al. 2010 as this is verbatim from Page II-12 of that document.	Cite Stiver et al. 2010 instead.
2-71	Table 2-7	P. Makela	To footnote of Connelly et al. 2000 <u>add</u> Stiver et al. 2010.	Add Stiver et al. 2010 to the Connelly citation.
2-71	Table 2-9	P. Makela	To footnote of Connelly et al. 2000 <u>add</u> Stiver et al. 2010.	Add Stiver et al. 2010 to the Connelly citation.
2-72	Table 2-10	P. Makela	To footnote of Connelly et al. 2000 <u>add</u> Stiver et al. 2010.	Add Stiver et al. 2010 to the Connelly citation.
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2-78	Para 1	P. Makela	Says the IHZ is defined by the 75 percent BBD areas etc. Actually, the 75 % BBD includes the BBD zones below it (i.e., 1 to 75%). But definition of CHZ says it includes the 25-50 BBD. I think what they want to say is that IHZ includes the 75% BBD areas that are not already accounted for by the CHZ’s 25-50%	Discuss with ID Team and state to ensure definition/process is captured



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2-81	Bullet 5	P. Makela	For exemptions, what does it mean for a project that “benefits the State of Idaho?”	Clarify with the State, the criteria that would be applied or process that would be used to make this determination, as it is ambiguous as written.
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2-91	Lands and Realty	P. Makela	Alt F. Says “Similar to Alternative B, a five percent disturbance cap...”. However on page 2-62 it says Alt. B has a 3% cap and Table 2-18, on page 2-162 says F has a 3% cap.	Confirm if B/F should have a 3 or 5% cap and do consistency check in document.
2-122	Vol IIA Table 2-18	k.bockting	Need to Identify a % threshold of habitat that can be treated or to be maintained within the PPMA.	
2-177	Vol IIA Table 2-18	k.bockting	What are the TL strips referred to in the table under alt D for unleased fluid minerals? Also how do we measure the 3% disturbance/section?	
2-192	Table 2-19	Porter	Non-energy leasable writeup should include exception for lease	



Page #	Section Title or #	Commenter	Comment	Response
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	Figure 2-37	Porter	Alt A map should have NSO’s, TL’s, etc. from existing plans. ALSO- ALL minerals maps should show the entire SNRA as WD or closed, even the private lands.	
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3-135	Vol IIA Table 3-49	k.bocking	Oregon trail does not occur in MT - Replace Oregon NHT with <b>Nez Perce Trail</b> in Dillon Field Office.	
4-32	Tables 4-9	Porter	Numbers are doubtful. For instance, where is 22% of East-Central pop. Area closed? How is it that that large a closure doesn't affect any leks? Also compare the numbers to the locatable WD table on the next page. Only 5% of the same habitat is WD, however that area affects 8.3 leks?? <b>None of the analysis in this section makes sense.</b>	
4-174	Table 4-56	Porter	Table shows that 3.188 million acres are currently closed to leasing. Wrong/inconsistent with other acreage figures. Also the table shows leasing in areas that are closed to leasing. Acres do not match table 2-2 (pg 2-25). Totals are not correct. Need to verify all other tables in this section.	
4-174	Last sentence	Porter	Insert "continue to be" between "would" and "available"	
4-175	Second paragraph	Porter	Sentence should read, "Under this alternative, <u>it is reasonably foreseeable to anticipate that</u> 25 new wells would ... Make this change to all alternatives	
4-178	Sentence bfr table	Porter	Should be occurrence potential vs. development potential.	
4-179		Porter	Alt D second paragraph, first sentence- occurrence vs. development. Fourth line should say would remain open subject to ...	
4-179	Last sentence	Porter	It is an erroneous assumption that low potential areas would be less likely to be explored or developed. What is missing is a statement supporting the alternative by saying that closing areas with low potential in PPH and PMH prevents undue and unnecessary degradation of the lands, which is a mandate of FLPMA. We have over 90k acres nominated for leasing in the Jarbidge FO, a PPH area with low potential. Keeping medium potential areas open, with stipulations to mitigate, is consistent with FLPMA and BLM's multi-use mandate.	
4-180	Table 4-59	Porter	Acreage figures for medium potential/closed to leasing should be the same as Alt. A, as no additional medium potential areas are being proposed for closure under Alt D. Text should also change to reflect this.	



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Page #	Section Title or #	Commenter	Comment	Response
	E-VG-26	Upper Snake Field Office	Comment 1) Consider using E-VG-26 over D-VG-26 (which is blank). This would give the authorized officer more flexibility to manage mountain sagebrush range sites that can quickly exceed canopy cover requirements.	
6-20	Vol IIB References	k.bockting	Not sure what the reference from MFWP 2009 is from? I am not aware of a "GRSG Habitat Conservation Strategy" from January 31, 2009, nor is Catherine Wightman or the local FWP biologists.	
B-2	Table B-1	k.bockting	No RFDS for the B-D National Forest in MT	
C-4	Table C-1 GOA # 292	k.bockting	"Limit noise levels at sunrise at the perimeter of leks"? From sunrise until when? for 10 minutes? 30 minutes? 3hours? This needs to be clarified. What constitutes the lek perimeter? Recommend limiting noise levels w/in 1 mile of leks between 6PM - 9AM. (Patricelli, et al., Revised noise recommendations, 2012)	
C-6	Table C-1	k.bockting	Fuels/Fire BMP/RDF's are very similar from the NTT and IM 2013-128. Should combine them and list them once to remove confusion.	
O -1	Appendix O	k.bockting	List is incomplete, Why is there a list for MT but not ID? Recommend removing this list for MT, it has no bearing on the overall DEIS.	

**Brent Ralston**

---

**From:** Meredith Zaccherio  
**Sent:** Thursday, June 12, 2014 9:37 AM  
**To:** Cooper, Natalie; Brent Ralston  
**Subject:** RE: Question: BLM Internal Comments on the DEIS

Thanks, Natalie. I'll make sure these get into the comment changes matrix.  
Meredith

**Meredith Zaccherio**  
EMPSi Environmental Management and Planning Solutions, Inc.  
26 O'Farrell Street, 7th Floor  
San Francisco, CA 94108  
tel: 415-544-0440 fax: 866-698-4836  
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**From:** Cooper, Natalie [<mailto:ncooper@blm.gov>]  
**Sent:** Wednesday, June 11, 2014 12:42 PM  
**To:** Brent Ralston  
**Cc:** Meredith Zaccherio  
**Subject:** Re: Question: BLM Internal Comments on the DEIS

Here is the document that contains items that need to be fixed.

Thank you,  
Natalie

\*\*\*\*\*  
Natalie Cooper  
BLM Idaho State Office  
Realty Specialist (Rights-of-Way)  
1387 S. Vinnell Way  
Boise, ID. 83709  
(208) 373-3905 office  
(208) 373-3974 fax

On Wed, Jun 11, 2014 at 1:07 PM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Natalie,

Yes. I'm sure you sent those to me and I evidently didn't forward them on. Could you send them to me again and CC Meredith?

Thanks!

Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

**From:** Cooper, Natalie [mailto:[ncooper@blm.gov](mailto:ncooper@blm.gov)]  
**Sent:** Wednesday, June 11, 2014 9:31 AM  
**To:** Brent Ralston  
**Subject:** Question: BLM Internal Comments on the DEIS

Brent,

I while back I sent you a list of items that will need to be fixed in the FEIS. Should I be concerned that these are not in the document with BLM internal comments that you just sent out?

Since they are not there, should I keep these in mind and look for them in the FEIS?

Natalie

\*\*\*\*\*

Natalie Cooper  
BLM Idaho State Office  
Realty Specialist (Rights-of-Way)  
1387 S. Vinnell Way  
Boise, ID. 83709  
(208) 373-3905 office  
(208) 373-3974 fax



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**Idaho and Southwestern Montana  
Sub Regional Greater Sage-Grouse Draft EIS  
Comment Form – All Internal BLM Comments**

Page #	Section Title or #	Commenter	Comment	Response
ES-13	Table ES-4	k.bocking	None of the acres in the table are accurate or add up for any of the alternatives. No PGMA acres for DFO under alt D.	
Ch 2	D-FM-6 E-FM-6	Upper Snake Field Office	<p>Comment 2) Consider melding D and E for FM-6, or just using E.</p> <p>Regarding the second bullet in D-FM-6, for the entire allotment the bullet may work but what about fuel breaks? The desired condition of the actual fuel break area might not meet standards but might be appropriate.</p> <p>The third bullet does not seem useful. People always have to follow terms and conditions anyway so if you are doing something within the terms and conditions you do not need to put it in the land use plan. If you are doing something for fuels management outside of the permitted use it should be considered a fuels project and it would have nothing to do with the permitted use.</p>	
Ch 2	D-LG/RM-4	Upper Snake Field Office	Comment 3) The phrase “the highest priority” in D-LG/RM-4 is a little troubling. I understand the need to focus on sage grouse, but let’s say in the future there is a listed species in a field office and its habitat has shrunk down to one little area, in theory we could have 100 allotments with sage grouse ahead of this species and the allotment would not get assessed. In some offices PPMA is almost the whole field office and this would reduce flexibility to protect other listed species. Is this language bumping sage grouse ahead of threatened and even endangered species? I realize at the end of the action it says with consideration for threatened and endangered species but I am not sure what that means.	
Ch 2	D-LG/RM-5	Upper Snake Field	Comment 4) Regarding D-LG/RM 5: While overall HAF is good, there are some things such as randomness of site selection that do not	



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		Office	match up well with standards and guides. Also some of the HAF objectives are not obtainable in dry habitats. Can we provide more on-site flexibility in this action to account for the S&G process' direction to "performed on representative sites" and address dry sites that don't meet HAF standards even without livestock grazing?	
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4-180	Table 4-59	Porter	Acreage figures for medium potential/closed to leasing should be the same as Alt. A, as no additional medium potential areas are being proposed for closure under Alt D. Text should also change to reflect this.	



January 2014

Page #	Section Title or #	Commenter	Comment	Response
	E-VG-26	Upper Snake Field Office	Comment 1) Consider using E-VG-26 over D-VG-26 (which is blank). This would give the authorized officer more flexibility to manage mountain sagebrush range sites that can quickly exceed canopy cover requirements.	
6-20	Vol IIB References	k.bockting	Not sure what the reference from MFWP 2009 is from? I am not aware of a "GRSG Habitat Conservation Strategy" from January 31, 2009, nor is Catherine Wightman or the local FWP biologists.	
B-2	Table B-1	k.bockting	No RFDS for the B-D National Forest in MT	
C-4	Table C-1 GOA # 292	k.bockting	"Limit noise levels at sunrise at the perimeter of leks"? From sunrise until when? for 10 minutes? 30 minutes? 3hours? This needs to be clarified. What constitutes the lek perimeter? Recommend limiting noise levels w/in 1 mile of leks between 6PM - 9AM. (Patricelli, et al., Revised noise recommendations, 2012)	
C-6	Table C-1	k.bockting	Fuels/Fire BMP/RDF's are very similar from the NTT and IM 2013-128. Should combine them and list them once to remove confusion.	
O -1	Appendix O	k.bockting	List is incomplete, Why is there a list for MT but not ID? Recommend removing this list for MT, it has no bearing on the overall DEIS.	

## **Lands and Realty Follow-Up for FEIS**

Per Comment Number 26-9, we will need to make sure it is clear that lands currently identified for “disposal”, will be changed to “retain.”

Per Comment Number 49-24, the question about buried powerlines vs. overhead lines causing impact to sage grouse needs to be answered (by biology), so that Lands and Realty management actions can lay out the recommendations.

Per Comment Number 49-7, we may need to explain that complete exclusion is unrealistic.

Per Comment Number 183-16 and 183-17, co-location is not always practicable or feasible; we may need to add flexibility into our Alt G lands and realty actions.

Per Comment Number 206-9, the suggestion that excluded activities in Alt D should go through the State’s proposed exemption process, may be one to add in Alt G.

Per Comment Number 210-7, we may want to reference APLIC standards.

Per Comment Number 212-6, need to ask Karen Porter about lease development and what is authorized. Do they contain a valid existing right to roads...?

Per Comment Number 242-20, may need to reference the COT in developing Alt G.

Per Comment Number 49-25, maybe some of the buffer’s bio’s are drafting will fit this comment?

Per Comment Number 183-37 and 49-31, biologists need to answer to the conflicting requests for perch divereters and then we need to make a recommendation for powerline in Alt. G.

Per Comment Number 210-4, with conflicting opinions, biologists may need to decide/recommend overhead vs. buried for Alt G and explain why.

Per Comment Number 180-42, we need to provide a conclusion on impacts of wind energy in Alt E.

Per Comment Number 183-29, we need to clarify what the acreages mean according to the BER report.

Per Comment Number 183-38, need to look at WECC and NERC standards to see if co-locating can have some flexibility; otherwise co-locations could cause reliability issues and outages.

Change D-LR-19. "Acquire habitat when possible and retain ownership of habitat, except if a ~~land exchange~~ would allow..." "land exchange" needs to be changed to "disposal" (a more correct terminology)

**In 2.6.4 Alternative D**, "Required" needs to be changed to "allowed" in the following sentence:  
The following are examples of ROWs that could be required in PPMA"

This statement does not seem accurate... I think it should be "decreasing" instead of "increasing:"  
"Alternatives A, B, C, and F would force wind energy ROWs outside GRS habitat, thereby increasing the potential for indirect effects in the planning areas, such as requests for new transmission line ROWs and access roads.

The following needs to be clarified in the FEIS: "Impacts from lands and realty to wind energy were discussed in Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRS section, as well as best management practices that would also apply to Alternative A.

**Brent Ralston**

---

**From:** Lepak, Dominika  
**Sent:** Thursday, July 31, 2014 2:38 PM  
**To:** Veronica Larvie  
**Cc:** Ken Visser; Brent Ralston  
**Subject:** Comment Response Review for Idaho/Montana Sage-Grouse EIS

Hi Vonnie,

Ken Visser recommended that I request your review of one of our comment responses for the Idaho/MT Sage-Grouse EIS. We received several comments to the effect that BLM does not have authority to close grazing allotments, or that a new "chiefly valuable" determination would need to be made. The following is our response. Could you please review it by August 7th and let me know if any changes are needed?

Thank You,  
Nika

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Further, the BLM may designate lands as "available" or "unavailable" for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to cease livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions.

The Taylor Grazing Act requires that the Secretary "make such rules and regulations ... [and] do any and all things necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range." (43 USC § 315a).

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Actions taken under land use plans may include making some, or all of the land within grazing districts, unavailable for grazing during the life of the plan as well as imposing grazing use restrictions, limitations or other grazing management related actions intended to achieve such goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A "chiefly-valuable-for-grazing" determination is required only when the Secretary is

considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district. (See USDI Solicitor Memorandum Clarification of M-37008 (May 13, 2003)). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as "chiefly-valuable-for-grazing" per the Taylor Grazing Act for purposes of establishing grazing districts within the public domain (see, 43 U.S.C. § 315) this does not negate the BLM's authority or responsibility to manage those lands to achieve resource condition goals and objectives under the principals of multiple use and sustained yield as required by FLPMA and its implementing regulations.

--

Nika Lepak  
Rangeland Monitoring and Ecology  
BLM, Idaho State Office  
(208)373-3810  
[dlepak@blm.gov](mailto:dlepak@blm.gov)



**Brent Ralston**

---

**From:** Brent Ralston  
**Sent:** Tuesday, July 29, 2014 12:24 PM  
**To:** 'Adamski, Joseph J'; Anne Halford; 'Bockting, Kelly D'; 'Bohn, Bryce A'; 'Braun, Christa M'; 'Brooks, Sandra S'; 'Burkhardt, Glen H'; 'Carlson, John C'; Charles Tuss (ctuss@blm.gov); 'Chi, Danielle K'; 'Collins, Rodney J'; Colt, Chris J -FS; 'Cooper, Natalie M'; 'Danly, Lynn A'; 'Elizabeth Maclean'; 'Fehlau, Robin S'; 'Foss, Jeffery L'; 'Gardetto, Jessica D'; 'German, Jesse S'; 'Halford, Fredrick K'; 'Jirik, Steven J'; 'Lepak, Dominika'; 'Makela, Paul D'; 'McConnaughey, Diane L'; 'Meredith Zaccherio (meredith.zaccherio@empfi.com)'; 'Mickelsen, Robert'; 'Porter, Karen F'; 'Wiedenmann, Kurt R'; Tanya Thrift (tthrift@blm.gov)  
**Subject:** RE: Comment report, version 2.1  
**Attachments:** IDMTSG\_Cmt\_Sum\_Rpt\_V2.1\_20140725.docx

Well I shared the report but I didn't really communicate the assignment that goes along with it. So here goes...

Everyone needs to take a look at this again, particularly noting any highlighted areas, and make sure these responses are good to go. If there are some edits or adjustments to the response please make that in track changes and send back to me by August 8<sup>th</sup>. If there is additional insight you can provide in resolving any of the highlighted areas also include that in track changes.

I've reattached the report again in case you misplaced it!!

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Brent Ralston [<mailto:bralston@blm.gov>]  
**Sent:** Monday, July 28, 2014 10:04 AM  
**To:** 'Adamski, Joseph J'; Anne Halford; 'Bockting, Kelly D'; 'Bohn, Bryce A'; 'Braun, Christa M'; 'Brooks, Sandra S'; 'Burkhardt, Glen H'; 'Carlson, John C'; Charles Tuss ([ctuss@blm.gov](mailto:ctuss@blm.gov)); 'Chi, Danielle K'; 'Collins, Rodney J'; Colt, Chris J -FS; 'Cooper, Natalie M'; 'Danly, Lynn A'; 'Elizabeth Maclean'; 'Fehlau, Robin S'; 'Foss, Jeffery L'; 'Gardetto, Jessica D'; 'German, Jesse S'; 'Halford, Fredrick K'; 'Jirik, Steven J'; 'Lepak, Dominika'; 'Makela, Paul D'; 'McConnaughey, Diane L'; 'Meredith Zaccherio ([meredith.zaccherio@empfi.com](mailto:meredith.zaccherio@empfi.com))'; 'Mickelsen, Robert'; 'Porter, Karen F'; 'Ralston, Brent E'; 'Wiedenmann, Kurt R'; Tanya Thrift ([tthrift@blm.gov](mailto:tthrift@blm.gov))  
**Subject:** FW: Comment report, version 2.1

Here is the update comment response summary report.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Meredith Zaccherio [<mailto:meredith.zaccherio@empfi.com>]  
**Sent:** Friday, July 25, 2014 2:35 PM

**To:** Brent Ralston  
**Subject:** Comment report, version 2.1

Hi Brent,

Attached is the latest comment report. It is pretty similar to the report I gave you earlier in the month, but the planning related (NEPA, FLPMA, other laws) and minerals issues and responses have been updated. Let me know if you'd like anything else.

Meredith

**Meredith Zaccherio**

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## Section 3 - Edits Total

Number of Submissions: 27

Total Number of Comments: 62

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## Section 4 – NEPA

Total Number of Submissions: 2

Total Number of Comments: 2

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### Summary

The FEIS needs to identify an Environmentally Preferred Alternative, evaluate the plan according to the USFWS's Evaluation Criteria for Conservation Plans, and provide a summary comparison of the population effects under each alternative.

---

### Response

1. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, ". . . specifying the alternative or alternatives which were considered to be environmentally preferable." This alternative(s) will be identified in the ROD.
2. The Policy for the Evaluation of Conservation Efforts (PECE) is the USFWS responsibility and will be used by USFWS during their evaluation of BLM/FS land use plans as appropriate.
3. The FEIS includes discussion of population effects. For instance, [refer to chapter 4 section] incorporates consideration of Greater Sage-grouse populations in the cumulative effects analysis, which is organized by WAFWA MZ.

## Section 4.1 - Public Notification

Total Number of Submissions: 1

Total Number of Comments: 1

---

### Summary

BLM needs to publish the statistics for people that provided comment letters on the Draft EIS, as well as the comments, their responses, and changes made to the document in the FEIS.

---

### Response

All substantive comments received on the Draft EIS were considered and reviewed for information that would result in changes to the document. Comments simply stating a preference for or against a specific alternative or opinions without reasonable basis were considered non-substantive since they do not meet the substantive comment requirement of BLM Handbook H-1790-1, Section 6.9.2.1. The substantive comments, along with the commenter and associated issue statements and responses, are presented in the Proposed LUPA/Final EIS in Chapter XX [or Appendix XX], along with a complete explanation of the procedures followed for analyzing comments. See Section XXX for

additional details on the comment analysis process.

[NOTE TO BLM: Section/Appendix numbers will be updated by EMPSi once this section has been added to the FEIS.]

Form letters, or identical letters submitted by different commenters, were identified as part of the DLUPA/DEIS comment response effort. Since these submissions are identical in nature, it is adequate for only one “master” form letter to be included as part of the comment response effort and reviewed for substantive comments. All form letters will be entered into the project decision file and all commenters will be entered into the project decision file as having submitted a comment during the DLUPA/DEIS comment period.

Index of parties, comments, and responses are provided in the FEIS. Changes made to the EIS are noted as... [NOTE TO BLM: Waiting on direction from national team on how will changes be noted between the DEIS and FEIS. EMPSi will include language on this topic in this response.]

## Section 4.2 - Cooperating Agency Relationships

Total Number of Submissions: 5

Total Number of Comments: 5

---

### Summary

The BLM did not coordinate with state and local agencies that would be affected by the actions considered in the EIS, as required by NEPA and FLPMA. Several agencies requested cooperator status for review and revisions to the Final EIS.

[NOTE to BLM: inserted UT issue statement and response for use in ID report. Meredith to talk to ID PM to make sure this accurately reflects the comments. If not, rewrite to make it accurate.]

---

### Response

Both the CEQ and BLM Planning regulations define cooperating agency status, including what it is, who is eligible to become a cooperating agency, and how the lead agency should invite participation as a cooperating agency (40 CFR 1501 and 1508; 43 CFR 1601.0-5). Cooperating relationships are limited to government entities, state agencies, local governments, tribal governments, and other Federal agencies that have jurisdiction by law or special expertise. Additionally, per the regulations and BLM policy, there is no coordinating agency status (BLM Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental Partners, pages 21 and 31, respectively). To be a cooperating agency, the local agency must meet the eligibility criteria set out in the regulations and policies. The specific role of each cooperating agency is based on jurisdiction by law or special expertise, which is determined on an agency-by-agency basis and identified in the Memorandum of Understanding.

Cooperating agency relationships are described in the Final EIS in Section 5.XX, Cooperating Agencies. In December 2011, the BLM sent letters to XX tribal governments inviting them to be cooperating agencies. The BLM also sent letters to XX local state, and federal agencies inviting them to participate as cooperating agencies for the LUPA/EIS. [NOTE TO BLM: use this if applies to ID subregion or delete: Subsequently, the State of Wyoming and 4 local government agencies in Wyoming requested and were granted cooperating agency status for the Idaho Sub-regional LUPA/EIS effort, given the portions of two National Forests that overlap into Wyoming and their proximity to the Idaho planning area.] To date, XX agencies agreed to participate on the EIS as designated cooperating agencies, XX of which have signed Memoranda of Understanding with the BLM’s Idaho State Office (Table 5.XX, Cooperating Agencies).

In addition to the BLM’s invitations to a wide variety of agencies to participate as Cooperating Agencies, DOI regulations (43 CFR 46.225(c)) require the BLM, as lead agency, to consider any request by a government entity to participate as a Cooperating Agency (BLM Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental

Partners, pages 8-9). From the time that the Notice of Intent was published and throughout the development of the EIS, an agency could notify the BLM requesting Cooperating Agency status. Section 202 of FLPMA requires the BLM and Forest Service, to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located.

All agencies participating as cooperating agencies have been given opportunities to participate during various steps of the planning process, including regular briefings, requests for input on draft alternatives and the administrative draft EIS, and identification of issues and data during scoping and the DEIS comment periods, as required by 40 CFR 1503.2 and 40 CFR 1506.10. Further, coordination will continue with cooperating agencies in order to identify consistency issues and to be compliant with the relevant laws and regulations. While the laws and regulations associated with cooperating agencies and coordination with other federal agencies and state, local, and tribal governments state that coordination must occur, they do not prescribe the methods necessary to meet the legal or regulatory requirements. Based on the coordination efforts describe above, the BLM and Forest Service have met the legal and regulatory requirements for coordination to date, as described in **Section 5.XX**.

### Section 4.3 - Range of Alternatives

Total Number of Submissions: 29

Total Number of Comments: 80

---

#### Summary

1. The alternatives fail to meet NEPA adequacy because:

- a. they (individually or collectively) do not meet the purpose and need for the action
- b. alternatives were all largely the same, and that the BLM needed to provide more distinction (range) between them
- c. BLM needs to consider the alternatives presented by Cooperating Agencies and Environmental Organizations, including the County alternatives, the Conservation Groups' alternative, and alternatives for the listing of the species or not listing the species.
- d. specifically that Alternative D needed to include the Ecological Site Descriptions to provide adequate understanding of the current management
- e. and the BLM and Forest Service failed to adequately define the No Action Alternative.

2. Commenters also suggested that BLM and Forest Service did not provide adequate rationale for the need of the project.

---

#### Response

I. a. In accordance with NEPA, the BLM and FS have discretion to establish the purpose and need for action (40 CFR 1502.13). CEQ regulations direct that an EIS "...shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR 1502.13). Also, under the CEQ regulations, the BLM and the Forest Service are required to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act [NEPA]." (40 CFR 1501.2(c)). The breadth or narrowness of the purpose and need statement has a substantial influence on the scope of the subsequent analysis. The purpose and need statement provides a framework for issue identification and will inform the rationale for alternative selection. The range of alternatives developed are intended to meet the purpose and need and address the issue; thereby, providing a basis for eventual selection of an alternative in a decision (BLM NEPA handbook and Forest Service Handbook 1909.15 – National Environmental Policy Act Handbook Chapter 10 – Environmental Analysis).

As stated in the DLUPA/EIS, the BLM and the Forest Service prepared the Idaho LUP amendment with an associated EIS to be applied to lands with greater sage-grouse habitat. This effort responds to the FWS's March 2010

b. The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, four alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A).

Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping, and to maintain or increase GRSG abundance and distribution in the planning area. While the goal is the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMPA with the potential for different long-range outcomes and conditions.

The relative emphasis given to particular resources and resource uses differs as well, including allowable uses, restoration measures, and specific direction pertaining to individual resource programs. When resources or resource uses are mandated by law or are not tied to planning issues, there are typically few or no distinctions between alternatives. Meaningful differences among the four alternatives are described in Table 2-2, Comparative Summary of Alternatives, in Section 2.8, Summary Comparison of Alternatives, of the Draft EIS.

c. Based on this alternative development process, the BLM considered input from cooperating agencies, environmental organizations, and the public. As described in 2.4.2. Alternative B, the BLM used the GRSG conservation measures in A Report on National Greater Sage-Grouse Conservation Measures (NTT 2011) were used to form BLM management direction under Alternative B, which is consistent with the direction provided in BLM Washington Office Instruction Memorandum 2012-044 (the BLM must consider all applicable conservation measures developed by the NTT in at least one alternative in the land use planning process).

During scoping for the Idaho GRSG RMPA/EIS, individuals and conservation groups submitted management direction recommendations for protection and conservation of GRSG and their habitat, including the Sage-grouse Recovery Alternative and proposed disturbance cap. The recommendations, in conjunction with resource allocation opportunities and internal sub-regional BLM input, were reviewed in order to develop BLM management direction for GRSG under Alternative C.

Alternative D incorporates adjustments to the NTT report (NTT 2011) to provide a balanced level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses, and was developed in full cooperation with the Cooperating Agencies taking note of the agencies' concerns with socioeconomic issues.

The BLM and Forest Service considered the State of Idaho's Sage-Grouse Conservation Plan in its cumulative effects analysis (Draft EIS Chapter 5, Cumulative Effects, [Section 5.4](#), Special Status Species).

Whether the Greater Sage-grouse is determined for listing by the USFWS is outside the jurisdiction of the BLM and beyond the scope of this EIS. As noted in the Purpose and Need, the BLM was to consider regulatory mechanisms that would protect the species and its habitat. As such, the BLM did not develop alternatives should the USFWS choose to list or not list the Greater Sage-grouse.

e. Ecological Site Descriptions are provided for in Chapter 3, Affected Environment as part of the baseline studies; additionally, current management is described in Alternative A.

f. As clarified by the CEQ, the “no action alternative” for a land use plan amendment or revision means “no change” from current management or level of management intensity (CEQ 40 Questions, Question 3). The no action alternative may be thought of in terms of continuing with the present course of action. The No Action Alternative is described in Alternative A, and includes the current management for the programs within the scope of the analysis. However, the FWS determined that the current regulatory mechanisms were not "adequate" in their 2010 warranted but precluded for listing decision. Therefore, the No Action Alternative provides a baseline for comparison of the four action alternatives to the existing planning decisions.

2. The purpose and need is provided in chapter 1. Under FLPMA, the Secretary of the Interior, acting through the BLM has the discretion to engage in land use planning whenever appropriate for management of the public lands.

## Section 4.4 - Best Available Info Baseline Data

Total Number of Submissions: 4

Total Number of Comments: 5

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### Summary

The EIS fails to meet NEPA adequacy for baseline data because the scale of baseline data used is too broad, the EIS failed to include the State and Transition models as part of the baseline information, and the No Action management actions, as presented, do not explain the regulatory mechanisms that are currently available to preserve sage grouse habitat.

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### Response

The CEQ regulations require an environmental impact statement to "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The description shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues" (40 CFR 1502.15). Additionally, the [name of particular amendment] is a programmatic NEPA effort to conserve greater sage-grouse and its habitat across a broad geographic area. As such, the BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions.

The BLM and the Forest Service complied with these regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in [Chapter XX] and various appendices including [cite appendix(es)] in the [name of particular amendment] is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS. For example, [use relevant example for the particular issue...here's one provided: listing every water quality-impaired stream within the planning area by name would not provide useful information at this broad-scale analysis, particularly where the proposed plan alternatives did not vary the level of riparian protections to provide reduced levels for non-impaired streams. The riparian protections within each alternative were applied to all streams, whether or not they were water quality-impaired. However, understanding the miles of impaired BLM streams, as presented in the DLUPA/EIS at Section 3.5.7, is useful in establishing a baseline by which the BLM may analyze the relative effects of each alternative's broad-based approach.]

As specific actions come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. Site-specific concerns and more detailed environmental descriptions will be addressed when project-level reviews are tiered to the analysis in this EIS (40 CFR 1502.20, 40 CFR 1508.28). In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for any site-specific actions.

## Section 4.5 - GIS Data and Analysis

Total Number of Submissions: 8

Total Number of Comments: 13

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### Summary

Commenters noted several issues with the GIS data and analysis conducted in the Draft EIS:

- The maps and data layers do not provide enough detail to address "local ecological site variability". The data are too coarse and do not provide assurances to more localized decision making; some habitat type areas are inaccurately identified in the maps.
- BLM used old data layers to develop maps; BLM should use the newer data layers.
- the BLM needs to be consistent in their edge-mapping across state boundaries when there are different data sets used.

**NOTE TO BLM:** some comments relate to specific changes for the maps presented in the DEIS, and for the data layers to be made available for download from the BLM website.

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### Response

Before beginning the Idaho Sage grouse EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The data needed to support broad-scale analysis of the planning area are substantially different than the data needed to support site-specific analysis of projects. The LUPA/EIS data and information is presented in map and table form and is sufficient to support the broad scale analyses required for land use planning.

Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service and state agencies, including the state wildlife agency. Considerations included but were not limited to [list the types of data or GIS layers that were gathered/used. A few examples: threatened and endangered species and their habitats, water quality- limited (303d) streams, deer and elk herd management areas, invasive plants, and uses on State lands]. The Draft EIS notes that the BLM and FS would incorporate any refinements or updates if or when the data were made available.

As a result of these actions, the data gathered by the BLM and the Forest Service is of the appropriate scale and provided an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives.

A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data. The baseline data provides the necessary basis to make informed land use plan-level decisions. Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The BLM and the Forest Service will conduct subsequent project-specific NEPA analyses for projects proposed for implementation under the land use plan, which may include but

are not limited to fuels treatment, habitat restoration, [etc.; list others as applicable]. The subsequent NEPA analyses for project-specific actions will tier to the land-use planning analysis and evaluate project impacts at the appropriate site-specific level (40 CFR 1502.20, 40 CFR 1508.28). As required by NEPA, the public will have the opportunity to participate in the NEPA process for site-specific actions.

**NOTE TO BLM:** Need to respond to the last comment related to consistency across state boundaries for our mapping efforts. There is no national response for this issue.

## Section 4.6 - Indirect Impacts

Total Number of Submissions: 4

Total Number of Comments: 5

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### Summary

BLM's overall impact analysis is deficient in the following areas:

1. lack of discussion for where, when, and how BLM will have sufficient funding to implement the actions;
2. the analysis does not distinguish between the effects of each alternative;
3. did not fully analyze the No Action alternative by not acknowledging the existing laws and actions already in place that would manage the habitat;

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### Response

1. As a landscape level planning effort, none of the alternatives authorize site specific activities on public lands. The agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies' budgets as appropriated annually through the Federal budget process. As a consequence, agencies' costs and differences in program costs across alternatives have not been quantified. Information has been presented in several resource impact sections on the types of costs that might be associated with various sage-grouse conservation measures.

2. Direct the reader to the Effects Summary table in ch 2. Determine whether revisions to the table would be necessary to distinguish more between the effects.

3. All alternatives are subject to existing laws, even the no action (cite chapter 1 where those laws are listed). The no action was fully analyzed; however, the Purpose and Need for this effort responds to the FWS's 2010 finding that existing regulatory mechanisms in existing land use plans are inadequate to protect the species, therefore, the no action is not sufficient to meet this Purpose and Need.

## Section 4.7 - Cumulative Impacts

Total Number of Submissions: 6

Total Number of Comments: 7

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### Summary

The EIS cumulative impacts analysis is inadequate because it does not adequately identify the reasonably foreseeable future actions, present a comprehensive listing of the effects across ALL subregions, nor analyze how the alternatives' actions would affect actions and decisions in neighboring states/jurisdictions.

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## Response

The BLM and the Forest Service thoroughly explained its consideration and analysis of cumulative effects in the Draft and Final LUPA/EIS in Section 4.24. The Draft and Final LUPA/EISs considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and the Forest Service have complied fully with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level.

The DLUPA/EISs contains a qualitative discussion of cumulative effects at the WAFWA Management Zone scale to set the stage for a more quantitative analysis to be contained in the Proposed Land Use Plan Amendment/FEIS. Additional quantitative cumulative analysis was added to the Final EIS in **Section 4.XX**, Cumulative Impacts.

## Section 4.8 – Disturbance Cap

*No comments are associated with this issue.*

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## Summary

Commenters felt there was no methodology or scientific backing for establishing the disturbance cap in the alternatives, and that the BLM/FS needed to demonstrate more range in the disturbance cap amounts presented in the alternatives.

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## Response

In determining the disturbance cap level for each alternative, the BLM utilized the recommendations and input specific to each alternative. For example, for Alternative B, the BLM utilized the cap levels recommended in the NTT Report. Conservation measures included in Alternative B focus primarily on GRSG PPH and include a 3-percent disturbance cap in PPH. PPH areas have the highest conservation value to maintaining or increasing GRSG populations.

For Alternative C, conservation measures were mostly focused on ADH (PPH, PGH, and linkage/connectivity habitat). These areas have been identified by CPW in coordination with respective BLM offices, and include a 3-percent cap on disturbance in ADH. This disturbance cap number for Alternatives B and C were incorporated as-is from the NTT Report and conservation group alternatives; the BLM did not modify the caps in the alternatives.

For Alternative D, the BLM intended to protect those areas that were most important for sage-grouse within PPH; in other words, the alternative would protect the best of the best habitat. The BLM utilized information from the Wyoming Core Strategy to support consideration of the five-percent disturbance cap, with the goal to represent the reasonable edge of the range of alternatives with a higher percentage.

While the caps would set a particular level of disturbance, the implementation of the disturbance caps would occur after the RMPA is approved in the Record of Decision. The BLM inventoried the habitat with the best available info at the



time of the DEIS, but would also do additional in-depth analysis & inventory within management zones at the implementation stage.

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## Section 4.9 - Mitigation Measures

Total Number of Submissions: 13

Total Number of Comments: 18

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### Summary

1. The BLM needs to include a monitoring, mitigation, and adaptive management plan/framework in the FEIS that will include specific criteria for determining sage grouse conservation success and how the disturbance percentages will be calculated.

2. BLM needs to clarify the relationship between the disturbance thresholds and the monitoring framework.

3. The BLM needs to release the mitigation strategy for public review.

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### Response

Mitigation and monitoring frameworks were introduced in the DE IS in Chapter 2 and in **Appendices X and X**. An Adaptive Management strategy was also introduced in Chapter 2 of the DEIS. A more detailed mitigation framework, monitoring framework, and adaptive management strategy has been incorporated into chapter 2 of the FEIS, **section X** and **Appendices X, X, and X**.

Mitigation will be applied to all implementation actions/decisions that take place on Federal lands within greater sage-grouse habitat during the life of this plan. Mitigation has been further defined as Regional Mitigation and the Framework is in **Appendix X**. The Regional Mitigation Framework was developed to follow the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ 40 CFR 1508.20.

The Mitigation Framework, through the mitigation hierarchy, guides the BLM and Forest Service. The hierarchy direction is to first, avoid impacts entirely by not taking a certain action or parts of an action, second, if unable to avoid, minimize impacts by limiting the degree or magnitude of an action or parts of an action, and lastly, if avoidance or minimizing is not possible, compensate impacts associated with future implementation actions. If residual impacts to greater sage-grouse from implementation-level actions remain after applying avoidance or minimization measures, then compensatory mitigation projects will be used to offset the residual impacts in an effort to achieve the land use plan goals and objectives. As articulated in **Appendix X**, compensatory mitigation will occur on sites that have the potential to yield the greatest conservation benefit to the greater sage-grouse, regardless of land ownership. These sites should be sufficiently "durable." According to BLM Manual Section 1794, durability is defined as "the administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

Specific mitigation strategies, based on the Framework, will be developed by regional teams (at the WAFWA Management Zone level) within one year of the issuance of the Record of Decision. These strategies will guide the application of the mitigation hierarchy to address greater sage-grouse impacts within that WAFWA Management Zone. The WAFWA Management Zone Regional Mitigation Strategy will be applicable to BLM and Forest Service lands within the zone's boundaries. Subsequently, the BLM/FS's NEPA analyses for implementation-level decisions that might impact greater sage-grouse will include analysis of mitigation recommendations from the relevant WAFWA Management Zone Regional Mitigation Strategy(ies).

The Monitoring Framework in **Appendix X** outlines the methods that the BLM and Forest Service will use to monitor

and evaluate the implementation and effectiveness of the planning strategy and the land use plans to conserve the species and its habitat. The regulations for the BLM (43 CFR 1610.4-9) and the Forest Service (36 CFR 219.12) require that land use plans establish intervals and standards, as appropriate, for monitoring and evaluations, based on the sensitivity of the resource to the decisions involved.

Implementation monitoring results will provide information to allow the BLM and FS to evaluate the extent that the decisions from the BLM resource management plans (RMPs) and Forest Service land and resource management plans (LRMPs) to conserve greater sage-grouse and their habitat have been implemented. Effectiveness monitoring will provide the information to evaluate whether BLM and Forest Service actions achieve the objective of the planning strategy (BLM IM 2012-044) and the conservation measures contained in the land use plans to conserve greater sage-grouse populations and their habitats.

Monitoring efforts will include data for measurable quantitative indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions. This information will assist the BLM and the Forest Service with identifying whether or not they are achieving their land use plan goals and objectives, reaching an adaptive management soft or hard trigger, as well as providing information relative to the disturbance cap. Specifically, habitat degradation (percent of human activity in a biologically significant unit), habitat availability (percent of sagebrush in a biologically significant unit), and habitat degradation intensity (density of energy facilities and mining locations) will be gathered to inform the disturbance cap objective (insert PRMP/FEIS management action for disturbance cap here).

Adaptive management is a systematic approach for improving resource management by learning from management outcomes. An adaptive approach involves exploring alternative ways to meet management objectives, anticipating the likely outcomes of alternatives based on the current state of knowledge, implementing one or more of these alternatives, monitoring to learn about the impacts of management actions, and then using the results to update knowledge and adjust management actions accordingly.

Incorporating adaptive management into the [insert name of plan] will ensure a degree of certainty that the decisions in the plan will effectively contribute to the elimination or adequate reduction of one or more threats to the greater sage-grouse and its habitat. The adaptive management approach incorporates a set of triggers in the plan, a soft and hard trigger. These triggers were developed to inform the BLM/FS as to when the Federal agency needs to respond (take action) to address a declining trend in sage-grouse or sage-grouse habitat figures.

Soft triggers represent an intermediate threshold indicating that management changes are needed at the project/implementation level to address habitat and population losses. Hard triggers represent a threshold indicating that immediate action is necessary to stop a severe deviation from greater sage grouse conservation goals and objectives as set forth in the BLM/FS plans. The adaptive management soft and hard triggers and land use planning responses to these triggers are described and analyzed fully in this EIS [insert management action where the triggers and responses are referenced].

The agencies will use the data collected from monitoring (Appendix X) to identify any changes in habitat conditions related to the goals and objectives of the plan. The BLM/FS will use the information collected through monitoring to determine when adaptive management triggers are met."

## Section 5 – FLPMA

Total Number of Submissions: 7  
Total Number of Comments: 12

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### Summary

The DLUPA/EIS has failed to comply with the multiple-use mandates found in the BLM's FLPMA and the Forest Service's

Multiple Use Sustained Yield Act because it has put protecting greater sage-grouse and sage-grouse habitat above legal requirements for balanced management.

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## Response

FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses to which public lands can be put. The BLM's multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The FLPMA also directs the United States (US) Department of the Interior, Bureau of Land Management (BLM) to develop and periodically revise or amend its Resource Management Plans (RMPs), which guide management of BLM-administered lands, and provides an arena for making decisions regarding how public lands would be managed and used.

Consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (MUSYA), the Forest Service manages National Forest System land to sustain the multiple use of its renewable resources in perpetuity while maintaining the long-term health and productivity of the land. Resources are managed through a combination of approaches and concepts for the benefit of human communities and natural resources. Land management plans guide sustainable, integrated resource management of the resources within the plan area in the context of the broader landscape, giving due consideration to the relative values of the various resources in particular areas. The Forest Service is required by statute to have a national planning rule: the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, requires the Secretary of Agriculture to issue regulations under the principles of the Multiple-Use Sustained-Yield Act of 1960 for the development and revision of land management plans.

The [name of particular amendment] is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve greater sage-grouse and to respond to the potential of its being listed (see Section I.XX, Purpose and Need). Both, the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated conservation measures to conserve, enhance, and restore greater sage-grouse habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. For example, [insert one or more examples of the range of actions considered, include references to sections/table where they can be found].

Additionally, the BLM and the Forest Service developed the [name LUPA/EIS] with involvement from cooperating agencies, including [name various agencies, including the state wildlife agency, state's governor's office, other fed agencies, any local agencies/governments] to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

## Section 5.1 - Inventories

*No comments are associated with this issue.*

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## Section 5.2 - Consistency with other state, county, or local plans

Total Number of Submissions: 8

Total Number of Comments: 14

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## Summary

The BLM's actions considered in the alternatives conflict with local and state agency plans and policies; furthermore, the BLM did not review all of the county and state plans to ensure that conservation measures are as consistent as possible with other planning jurisdictions.

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## Response

To the extent possible under existing law, the BLM's land use plans must be consistent with officially approved or adopted resource-related plans of Indian tribes, other Federal agencies, and State and local governments (see 43 CFR 1610). The BLM has worked closely with State and local governments during preparation of the Draft LUPA/EIS. The Draft LUPA/EIS lists the cooperating agencies actively involved in the planning process in Section 5.3. As described in Section 5.4, Coordination and Consistency, the BLM requested the state, county, and tribal government cooperating agencies assist in the consistency reviews by reviewing the range of alternatives associated with the draft LUPA/EIS and identify potential inconsistencies between the alternatives and each agency's applicable plans. This allows the state, local, and tribal cooperating agencies to use their special expertise regarding the familiarity with their own state, local, or tribal plans. On the local level, it is a county's responsibility to accurately identify and communicate any inconsistencies between that county's plan and the proposed alternative.

The BLM works to find a balance among uses and needs as reflected in these local government plans and has done so in the preparation of the LUPA/EIS; a list of these plans can be found in Section 1.8, Relationship to Other Policies, Plans, and Programs. The BLM is aware that there are specific State or local laws relevant to aspects of public land management that are discrete from, and independent of, Federal law. However, BLM is bound by Federal law. As a consequence, there may be inconsistencies that cannot be reconciled. The FLPMA requires that BLM's land use plans be consistent with State and local plans "to the extent practical". In a situation where State and local plans conflict with Federal law, there will be an inconsistency that cannot be resolved. Thus, while State County and Federal planning processes, under FLPMA, are required to be as integrated and consistent as practical, the Federal agency planning process is not bound by or subject to County plans, planning processes, or planning stipulations. While the BLM is not obligated to seek consistency, the agency is required to describe the inconsistencies between the proposed action and the other plans, policies, and/or controls within the EIS, so that the State and local governments have a complete understanding of the impacts of the PRMP on State and local management options. This information has been updated in the FEIS in Section 1.8.

The BLM coordinates with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the States of Idaho and Montana has clear jurisdiction, such as wildlife populations, the BLM has worked closely with that State agency. In cases where a county or agency has expertise, such as local county socioeconomic information, the BLM has worked closely with the group to incorporate the information into the EIS.

[NOTE TO BLM from WO: plans, policies that commenters felt needed to be reviewed for consistency:

Gooding conservation district sage grouse conservation plan

National Academy of Sciences 2013 recommendations for the WHB program

State of MT sage-grouse management strategy

Custer County plans

Owyhee County plans]

## Section 5.4 - Planning Regs 43 CFR 1600

Total Number of Submissions: 2

Total Number of Comments: 2

## Summary

The BLM did not provide an explanation for how and why they defined the planning area as they did.

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## Response

[NOTE TO BLM: This is from a national response.]

The framework for the scope of analysis for the project is based upon the BLM and the Forest Service Planning and NEPA manual and handbooks definitions of the planning, decision, and analysis areas. Specifically, Forest Service Manual 1900-Planning Chapter, Zero Code defines the Area of Analysis as “The geographic area within which ecosystems, their components, or their processes are evaluated during analysis and development of one or more plans, plan amendments, or plan revisions. This area may vary in size depending on the relevant planning issue. For a plan, an area of analysis may be larger than a plan area. For development of a plan amendment, an area of analysis may be smaller than the plan area and include multiple ownerships.”

For this environmental impact statement, decision areas are those public lands and mineral estates within the planning area that are encompassed by all designated habitat (ADH) (which includes preliminary priority habitat [PPH], preliminary general habitat [PGH], and linkage/connectivity habitat).

The definition of a Planning Area is the geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM’s jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for a RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices and/or states, as necessary.

[SOL comments: Seems that this response needs to include more about the relationship between the Great Basin planning area boundaries (esp. the ID/SW MT boundary) and GRSG habitat. In other words, was there a biological + practical reason that the plans have been separated in this way? Relationship to WAFWA zone? Needs more explanation. Also, I see that this refers to PPH and PGH, and linkage/connectivity habitat...but what about Idaho's other types of habitat-core, medial/important? Should they be explained here in the context of the planning area question? NOTE: Plan areas. National Forest System lands covered by land use plans. (36 CFR 219.16). If not included in DEIS already, make a notation that the FEIS will be updated to note definitions of planning, decision, and analysis areas to clarify these terms.]

## Section 6 - Other Laws

Total Number of Submissions: 11

Total Number of Comments: 15

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## Summary

The BLM has failed to document how the EIS and/or actions considered in the EIS comply with other laws, including all Onshore Orders regulating oil and gas development, the Energy Policy Act of 2005 and Energy Policy and Conservation Act of 2000, the Taylor Grazing Act, the Mining and Minerals Policy Act, the Information Quality Act, the Wild Horse and Burro Act, other multiple use mandates (e.g., Multiple-Use Sustained Yield Act of 1960, Forest and Rangeland Renewable Resources Planning Act of 1974, National Forest Management Act of 1976), and compliance with other federal agency regulations (e.g., XXX).

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## Response

The Draft and Final EIS Section 2.5, Management Common to All Alternatives, state that all alternatives would comply with state and federal laws, regulations, policies, and standards, and implement actions originating from laws, regulations, and policies. Additionally, in **Section XX.XX**, Planning Criteria, the BLM has a criterion stating that all BLM alternatives would comply with existing laws, regulations, and policies. The BLM and FS have reviewed all actions in the Proposed LUPA and found them to be consistent and within the bounds of all required laws, regulations, and policies.

## Section 7 - Sage Grouse

*No comments are associated with this issue.*

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### Section 7.1 - NTT report/findings

Total Number of Submissions: 11

Total Number of Comments: 32

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#### Summary

Commenters contended that the NTT report is not based on the best available science, contains technical and methodological errors, is not based on local conditions, and has not undergone adequate peer review. Commenters questioned why the NTT report was used when the IM requiring its use has expired.

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#### Response

A National Technical Team (NTT) was formed as an independent, science-based team to ensure that the best information about how to manage the greater sage-grouse is reviewed, evaluated, and provided to the BLM and the Forest Service in the planning process. The group produced a report in December 2011 that identified science-based management considerations to promote sustainable greater sage-grouse populations. The NTT report (NTT 2011) used the best current scientific knowledge to guide the BLM planning efforts through management considerations to ameliorate threats, focused primarily on priority greater sage-grouse habitats on public lands. The NTT report cited 122 references including published papers from the formal scientific literature such as Journal of Wildlife Management, Conservation Biology, Biological Conservation, Wildlife Biology, BioScience and others, as well as graduate theses and dissertations, conservation strategies, FWS 2010 finding, and others representing the best available science. The NTT report was intended to be used at a programmatic scale and may not reflect local conditions.

The BLM used the NTT report per BLM IM 2012-044 to construct an alternative that would meet the purpose and need. This report was not the only source of information for developing a range of alternatives (see Section 7.5, Range of Alternatives).

**[NOTE TO BLM- Clarify in FEIS the policy requirements for Administrative Procedure Act (APA), NEPA relative to IM, and NTT and clarify the NTT process and FACA in the FEIS.]**

BLM is implementing IM 2012-044 through the Greater Sage-grouse planning effort. When an IM expires without being superseded, it can still be applicable and provide guidance to the BLM. The fact that IM 2012-044 expired does not mean the BLM has no authority to continue to analyze the conservation measures identified in the NTT Report. The BLM is appropriately considering and evaluating the measures in the NTT Report, in addition to any other relevant science, through the Greater Sage-grouse planning process.

{Note: Suggest asking for National justification of why the NTT was an appropriate source}

## Section 7.2 – BER

Total Number of Submissions: 1

Total Number of Comments: 2

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### Summary

The BER contains outdated baseline literature and should be updated with suggested literature.

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### Response

[NOTE TO BLM: The BLM is reviewing suggested literature and will include where necessary.]

A baseline environmental report, titled Summary of Science, Activities, Programs, and Policies That Influence the Rangeland Conservation of Greater Sage-grouse (*Centrocercus urophasianus*) (referred to as the BER), was released on June 3, 2013, by the U.S. Geological Survey. The peer-reviewed report summarizes the current scientific understanding about the various impacts to greater sage-grouse populations and habitats and addresses the location, magnitude, and extent of each threat. The data for this report were gathered from BLM, Forest Service, and other sources and were the best available at the range-wide scale at the time collected. The report provides a framework for considering potential implications and management options, and demonstrates a regional context and perspective needed for local planning and decision-making.

The BLM reviewed the literature sources provided by commenters to determine if there were new or updated sources that should be considered in the EIS. BLM's findings of this review were... [insert the results from the literature review. While it doesn't directly address the BER report being updated, it's addressing the point that BLM did make the effort to consider new or updated info in the EIS in addition to the BER report.]

While there was consistent direction provided in alternative develop, such as BLM WO IM 2012-044, variation across sub-regionals was needed to accommodate the local issues and specific state and Forest Service requirements. Alternative D was developed by the BLM in coordination with the Forest Service and local FWS. This alternative includes modifications to the conservation measures identified in the NTT report and is designed to address local ecological site variability. This alternative also emphasizes balancing resources and resource use among competing human interests, land uses, and the conservation of greater sage-grouse habitat. Alternative E was developed from recommendations by the State of Idaho's greater sage-grouse task force and would apply to all BLM-administered and National Forest System lands located in the state. See Section 2.1.2 regarding alternative development and explanation of components of each alternative. {Note: Suggest including more justification of the BER in response}

## Section 7.3 – COT

Total Number of Submissions: 9

Total Number of Comments: 17

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## Summary

Commenters had two distinct views regarding the COT report. One group considered the report overly biased and not representative of the best available information. The other group suggested the DEIS was not fully consistent with the COT report habitat mapping and therefore requires revision to address those deficiencies.

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## Response

In March 2012, the FWS initiated a collaborative approach to develop range-wide conservation objectives for the greater sage-grouse to inform the 2015 decision about the need to list the species and to inform the collective conservation efforts of the many partners working to conserve the species. In March 2013, this team released the Conservation Objectives Team (COT) report based upon the best scientific and commercial data available at the time that identifies key areas for greater sage-grouse conservation, key threats in those areas, and the extent to which they need to be reduced for the species to be conserved. The report serves as guidance to Federal land management agencies, State greater sage-grouse teams, and others in focusing efforts to achieve effective conservation for this species.

Table 2-20 demonstrates how the BLM and Forest Service management actions under each alternative address the threats to the populations in the Idaho and southwestern Montana sub-region. In Idaho, Core and Important Habitat Zones under Alternative E were used to derive the PACs in the COT. The BLM and Forest Service have continued to work with the USFWS and State agencies to develop a proposed plan.

[NOTE TO BLM: Clarify in the FEIS the validity of NTT, COT, and BER as relative to the established standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders. Ensure the FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS). Clarify MZs and population monitoring efforts in the FEIS.]

## Section 7.4 - Policy Guidance

Total Number of Submissions: 1

Total Number of Comments: 1

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## Summary

The BLM and Forest Service should include additional information to improve consistency with USFWS's Policy for Evaluation of Conservation Efforts.

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## Response

The BLM and Forest Service are working closely with the USFWS to ensure certainty of implementation and effectiveness to the extent possible. However, certain management actions, such as restoration activities, are contingent on funding availability and thus some uncertainty remains.

## Section 7.5 - Range of Alternatives

Total Number of Submissions: 28

Total Number of Comments: 90



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## Summary

Commenters proposed revisions or requested additional details and clarifications to the alternatives related to GRSG.

Topics of concern included:

- The size of lek buffers
- Level of predator control
- Need for and size of disturbance cap
- Restrictions on wind energy development
- Noise restrictions
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring
- Need for an improved definition of no net unmitigated loss
- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality
- Lack of active habitat restoration
- Habitat monitoring

Commenters were concerned about greater sage-grouse habitat mapping, including suggesting clarifications or revisions to the habitat map and concerns about using the map for site-scale projects.

Commenters were also concerned that Manual 6840 was not used as the baseline policy governing present GRSG conservation in the No Action alternative.

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## Response

As noted above in the response in Section 4.3, Range of Alternatives, Section 2.1 of the Draft EIS describes how the Idaho and southwestern Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA and worked closely with the State with assistance from the USFWS.

Meaningful differences among the six alternatives are described in Table 2-2, Comparative Summary of Alternatives by Acres Allotted, and in Section 2.6, Detailed Description of Alternatives, of the Draft EIS. [Specify where changes have been made to the FEIS regarding each of the bullets below]. Refer to tab 32 regarding predator control. All of these issues have been addressed in new management actions prepared for the proposed plan and analyzed in Chapter 4 (and reference relevant appendices regarding AM and monitoring, etc.).

Regarding the following issues:

The size of lek buffers -lek buffers will be revised in final plan/FEIS reflecting additional review of best science.

- Level of predator control
- Need for and size of disturbance cap- Additional specificity regarding the disturbance cap has been further explained in the FEIS.
- Restrictions on wind energy development
- Noise restrictions. Noise and seasonal stipulations for both construction and long-term implementation of land use activities has been included in the final EIS. [NOTE TO BLM (from Makela)- Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.]
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring. The BLM and FS believe the management actions described in the Proposed Plan will adequately address sage-grouse conservation needs without the need for additional large scale designations.
- Need for an improved definition of no net unmitigated loss- Additional specificity regarding the no net habitat loss objectives has been further explained in the FEIS.

- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality. The BLM and FS used the latest science in developing management actions relative to fences that adequately address collision risk. No change has been made to the document regarding this issue in the FEIS.
- Lack of active habitat restoration- Site specific projects are not identified in the broad scale plan, but there are a number of restoration actions described in Table 2-18 Vegetation/Restoration section in the DEIS and in the Proposed Plan.
- Habitat monitoring- The BLM and FS, in coordination with the state, have clarified monitoring and mapping expectations in the FEIS.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives. The Proposed Plan will contain a mechanism that allows for evaluation of circumstances on case by case basis at the site specific scale that would be addressed via subsequent project level NEPA analysis.

Manual 6840 is referenced in Chapter 1, Section 1.x, Planning Criteria, and provides general guidance for special status species, but it does not provide language relative to specific conservation actions for specific species. [BLM- ensure Manual 6840 is discussed in Alternative A and also relevant FS policy].

[NOTE TO BLM: Ensure Proposed Plan has appropriate provisions/clarity for actions in General management areas. Needs additional discussion.]

## Section 7.6 - Best Available Info Baseline Data

Total Number of Submissions: 38

Total Number of Comments: 97

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### Summary

Commenters suggested new or additional literature for the BLM and Forest Service to consider in the DLUPA/EIS related to:

- Determination of GRSG population size and trends – inaccuracy of past counts; insufficient data to determine trend.
- Effects of livestock grazing, predation, drought, noise, and anthropogenic development
- Appropriate lek buffers and disturbance cap to incorporate
- Mitigation
- Hunting– outside scope but managed via the Idaho and Montana state plans
- GRSG habitat requirements
- Accuracy of the habitat mapping
- Infrastructure
- West Nile virus

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### Response

As described in Section 4.4 of this comment report, The BLM and the Forest Service used the most recent and best information available that was relevant to a land-use planning-level analysis including the Baseline Environmental Report (BER; Manier et al. 2013), NTT report (NTT 2011), and COT report (USFWS 2013). Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, scientific literature, field and district office data. Considerations included but were not limited to [list the types of data or GIS layers that were gathered/used].

Of the suggested studies and references put forth by the commenters, the BLM and Forest Service reviewed them to determine if they presented new information that would need to be incorporated into the FEIS, were references already included in the draft EIS, or if the references provided the same information as already used or described in the Draft EIS. The BLM determined that several of these references contained new or relevant information regarding xxx

resources and the analysis was clarified and references cited in Sections XXX of the FEIS. In some cases, the additional literature was essentially the same as existing sources and was not incorporated.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives.

## Section 7.7 - Impact Analysis

Total Number of Submissions: 22

Total Number of Comments: 70

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### Summary

The BLM and Forest Service should conduct additional, more comprehensive analysis of the impacts on greater sage-grouse to provide more substantiated conclusions.

Commenters provided suggestions on how to improve or modify the impact analysis for greater sage-grouse in several topic areas including:

- Hunting
- Predation
- Anthropogenic disturbance, disturbance caps, and lek buffers
- Expanding on beneficial effects on GRSG from range improvements
- Greater sage-grouse population size and trend
- Livestock grazing, fences, and trailing
- Noise as related to low-level military overflights
- Success of habitat improvement projects
- Prescribed fire
- Herbicides
- West Nile virus
- More detailed analysis of Alternative A
- Climate change
- Need to identify areas for restoration
- Coal suitability

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas.

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### Response

The LUPA/FEIS provides an updated and expanded discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As described in Chapter 2.3.2, coal was not an issue for analysis. As required by 40 CFR 1502.16, the LUPA/FEIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources should the proposal be implemented. The LUPA/FEIS provided sufficiently detailed information to aid in determining whether to proceed with the proposed plan in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service

Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. Therefore, effects on GRSG population levels are not required to be quantified as part of the impact analysis. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM: Eventually need to fill this in:] Impacts from XX on greater sage-grouse were considered in Section 4.x of the Draft EIS. Include discussion of what changes were made and where. If no change made, describe why the impact analysis is adequate for that topic. Some template text:

While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS's impact analysis relevant to [speak to the specific topic or theme of the issue statement, e.g., anticipated fluid mineral development of the planning area] was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions. Specifically, [insert a summary of the information that was updated and include a citation for where the reader could find it in the FEIS.]

The facts that sagebrush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts are not sufficient methods of protecting GRSG and sage brush habitat. Additionally, this concept was considered within the range of alternatives- Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment. [NOTE TO BLM: Consider whether inserting text to this effect into the EIS is appropriate.]

## Section 7.8 - Cumulative Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 3

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### Summary

The BLM and Forest Service need to provide additional analysis regarding the cumulative effects of livestock grazing and land treatments. In addition, the agencies should predict greater sage-grouse population changes based on expected cumulative actions.

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### Response

As described in Section 4.7 of this comment report, the BLM and Forest Service analyzed cumulative effects to GRSG in the DLUPA/EIS in Section 4.16 of the EIS. The BLM and Forest Service expanded and quantified cumulative impacts for the proposed LUPA/FEIS. Section 7.7 of this comment report describes how land treatments and domestic livestock were addressed in the Environmental Consequences section of the DEIS. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th

Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and Forest Service have complied with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level. Therefore, effects on GRSG population levels are not required to be quantified as part of the cumulative impact analysis.

The BLM and Forest Service added quantitative analysis to Section 4.16 related to **XXX topics**. [Note to BLM/FS: insert description of any revisions made]

## Section 7.9 - Mitigation Measures

Total Number of Submissions: 12

Total Number of Comments: 34

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### Summary

The BLM and Forest Service mitigation strategy is inadequate or needs clarifications. Topics of concern include:

- Certainty that mitigation will be implemented
- Lack of scientific evidence that mitigation and habitat restoration results in greater sage-grouse population increases
- Adequacy of the monitoring program
- Effectiveness of compensatory mitigation
- How mitigation proposals will be evaluated
- Siting of mitigation actions
- Durability of mitigation investments
- Consideration of using mitigation banks
- Creation of a mitigation program
- Framework behind exceptions and associated mitigation, e.g., science behind allowing exceptions; offsetting losses and prove mitigation is successful
- Need for mitigation given the restrictive management in the alternatives
- Link between compensatory mitigation and adaptive management

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### Response

The Mitigation, Monitoring, and Adaptive Management strategies are described more fully in **Section XX** of this comment report and included in Chapter 2 and **Appendices X, X, and X** of the DEIS. Refer to BLM Mitigation Manual.

## Section 8 – ACECs

*No comments are associated with this issue.*

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### Section 8.1 - Range of Alternatives

Total Number of Submissions: 9

Total Number of Comments: 10

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## Summary

Issue 1: In the Draft EIS/LUPA, the BLM/FS did not accurately or consistently represent the number of ACECs being proposed under each alternative, particularly Alternative C.

Issue 2: Alternatives in the Draft EIS/LUPA do not provide an adequate range of management actions for ACECs by only considering new ACECs under two of the action alternatives (C and F).

Issue 3: Whether ACECs or another administrative designation, the BLM/FS should ensure any administrative designation established for the protection of sage-grouse habitat will provide adequate non-discretionary protections.

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## Response

Response 1: The FEIS has been revised to ensure consistent representation of proposed ACECs under Alternatives C and F.

[NOTE TO BLM: Review EIS/LUPA for consistent representation of proposed ACECs under Alternatives C and F.]

Responses 2 and 3: As noted in section 4.3, NEPA Range of Alternatives, of this report, the alternatives, including the management actions for the fire ACEC program, meet the purpose and need for the EIS. Alternatives within the EIS have established that not all protective management for the Greater Sage Grouse is limited to ACEC designation. Only Alternatives C and F proposed to establish ACECs for the protection and management of the Greater Sage Grouse. While the other alternatives do not propose such designations, they still contain similarly specific management prescriptions to manage and protect the Greater Sage Grouse and its habitat that would be equivalent to protections afforded via an ACEC or other designations.

## Section 10 - Climate Change

### Section 10.4 - Cumulative Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 5

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## Summary

The EIS does not adequately address the cumulative effects of climate change on sage-grouse or sage-grouse habitat, including the cumulative effects of livestock grazing on vegetation communities and the likelihood of a changing climate to result in an increase in invasive weeds.

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## Response

Assessing the impacts of grazing on climate change is outside the scope of this document, except as it pertains to reducing impacts on GRSG and GRSG habitat within the planning area and in consideration of valid existing rights and the BLM's multiple use mandate under the Federal Land Policy and Management Act. The PRMP/FEIS does disclose the potential effects associated with global climate change on the Greater Sage-grouse in Section XX. However, pursuant to 40 CFR 1500.1(b), information must be "of high quality" in order to be considered in the analysis. As explained in Section xx of the EIS, it is speculative to attempt to predict the specific nature or magnitude of such changes.

NOTE TO BLM: Based on the NEPA and CEQ guidance for cumulative impacts analysis, determine if the DEIS analysis is adequate or not. If not, make necessary corrections and note what was modified here. Include direction to reader where to find revised analysis (e.g., "See Section 5.XXX for additional information."). The BLM will review. Follow up needed with Bryce.

## Section 12 - Fire and Fuels

### Section 12.1 - Range of Alternatives

Total Number of Submissions: 11

Total Number of Comments: 15

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#### Summary

The BLM and the Forest Service should examine the location and size of proposed fuel breaks in further detail as fuel breaks in large areas of intact sagebrush limit fire and related habitat destruction. Specifically, one commenter requests use of green-strips, including non-native species, for fuel breaks. Use of prescriptive fire as a management tool should be further examined.

Timelines for long-term fire management measures should be established in the FEIS. One commenter recommends that measures be implemented one year after the ROD. Implementation details of fire control measures should be specified. The BLM/Forest Service should acknowledge the importance of flexibility in fire management plans in the FEIS and allow for on-the ground decision making for effective fire-management. Alternative language should be revised for clarity.

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#### Response

Fuel breaks are site-specific - see Oregon response. Use of prescribed fire varies by alternative. [needs more subregional input].

### Section 12.2 - Best available information baseline data

Total Number of Submissions: 4

Total Number of Comments: 5

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#### Summary

The FEIS should include citations indicating that implementation of fuel breaks in sagebrush systems reduces the rate of spread of fire. In addition, citations should be provided to support the use of prescribed fire to improve GRSG habitat. The BLM and Forest Service should recognize livestock grazing as an effective fire management tool due to its role in controlling invasive plants and decreasing fuel loads.

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#### Response

The EIS affected environment section provides the appropriate information for the scope and scale of the project (see section 4.4, NEPA Baseline Information of this report). However, upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 3 have been updated and revised to include clarifications or new information. Section 3.XX, [insert section name], in the FEIS has been revised to update information regarding fuel

breaks and **Section 3.XX, [insert section name]**, has been updated to clarify the relationship between livestock grazing and fire.

## Section 12.3 - Impact Analysis

Total Number of Submissions: 6

Total Number of Comments: 7

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### Summary

The DEIS does not contain sufficient analysis of indirect impacts of reduced grazing on fuel loads and related wildfire risk. Additionally, the analysis of impacts of fire suppression activities should be reexamined. It is particularly important that this analysis is clarified as lack of sufficient regulatory mechanisms for wildland fire was cited as a primary threat to GRSG in the FWS listing decision.

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### Response

The impact analysis provides the appropriate information for the scope and scale of the project (see section 4.6, NEPA Impact Analysis, of this report). Upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 4 have been updated and revised to include clarifications to the text. **Section 4.XX, [insert section name]**, in the FEIS has been revised to clarify the impacts of reduced grazing on fuel loads. **[BLM/Forest Service- need to add review impacts in Ch 4 for consistency with this language added to chapter 3 for relation between grazing and fire. Review impacts analysis to make sure that impacts analysis has sufficient info on impacts of reduced grazing on fuel loads]**

In addition, impacts analysis discussion has been modified to clarify the impacts of different suppression measures proposed by Alternative. **[BLM/Forest Service- need to review and modify discussion of impacts of fire suppression measures (i.e. specific conservation measures under B vs. approach under E)]**

## Section 13 - Fish and Wildlife

### Section 13.1 - ESA Consultation

Total Number of Submissions: 3

Total Number of Comments: 3

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### Summary

The BLM fails to address avoiding the potential to list the GRSG under the Endangered Species Act (ESA) and that the bird does not meet the criteria to be listed under the ESA.

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### Response

As stated in Chapter 1, Section 1.1, Background in the DRMP, this plan amendment effort is the result of the July 2011, BLM National Greater Sage-Grouse Planning Strategy (BLM 2011). The Strategy responds to the March 2010, US Fish and Wildlife Service (USFWS) 12-Month Finding for Petitions to List the Greater Sage-Grouse (*Centrocercus*



urophasianus) as Threatened or Endangered (75 Federal Register [FR] 13910, March 23, 2010) (2010 Finding). In the 2010 Finding, the USFWS concluded that GRSG was “warranted, but precluded” for listing as a threatened or endangered species.

## Section 14 - Lands and Realty

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The BLM should prohibit the construction of new permanent infrastructure within lands specially designated for sage-grouse protection, because studies show GRSG avoid areas with development.

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### Response

The alternatives consider a range of alternatives regarding ROW avoidance and exclusion. Table 2-3 identifies existing ROW avoidance and exclusion areas in the lands and realty section.

## Section 14.1 - Range of Alternatives

Total Number of Submissions: 11

Total Number of Comments: 20

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### Summary

Commenters requested clarification regarding: types of exclusions, valid existing rights, aboveground fiber optic lines, and disposal under current land use plans.

Commenters also suggested additions to the range of alternatives considered and provided information on the feasibility of the alternatives (e.g., co-location, perch diverters, and burying lines).

Commenters noted that the document has contradicting management actions regarding geothermal development between lands and minerals sections.

Commenters noted that Alternative E did not adequately address the purpose and need.

Need to include:

Comment #14-0049-8: reclaim areas that have been developed for powerlines that are no longer in use.

Comment #14-0153-41: Comment stated that BLM did not evaluate the NTT recommendation that all electrical distribution lines be buried within Core Areas.

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### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest

Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (Alternative A).

Proposed avoidance and exclusion area designations vary by alternative, as explained on page 2-33 in Table 2-3. Under Alternative D, all new ROWs, unless specifically excluded, would be avoided, whenever possible, see LR-3 (ex. wind facilities, etc). Required design features that would apply to specific types of facilities in greater sage-grouse habitat are located in Appendix C.

The EIS/LUP includes an alternative that allows for placement of fiber optic lines on existing infrastructure (Alternative D Action LR-6 and LR-7 in Table 2-18).

Under Alternative D Table 2-18, LR-9, new power lines outside of existing ROWs, would be buried, where feasible. Reclamation of lands, once facilities are removed, are part of standard BMPs, Appendix C. Amendments to existing facilities that are otherwise excluded may be allowed under Alternative D, LR-6. Under Alternative D, lands currently identified for retention within priority greater sage-grouse habitat would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority habitat (LR -19 and LR-21), Alternatives A through F propose retention of all utility corridors (Table 2-18).

Lands and Minerals management actions did contradict on the topic of geothermal development (D-LR-3, page 2-162 and D-MLM-1, page 2-180) and the FEIS will correct this contradiction.

The first of the assumptions under Lands and Realty Assumptions, Page 4-158, is that BLM and the Forest Service will protect valid existing rights, as long as those ROWs comply with the terms and conditions of their ROW grant. The agencies will consider all safety concerns into all decisions to authorize a pipeline, including burying a transmission line.

## Section 14.2 - Best available information baseline data

Total Number of Submissions: 5

Total Number of Comments: 9

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### Summary

Commenters raised concerns with the baseline assumption (as noted in Ellis 1984 and Connelly et al. 2000) that power lines and other vertical structures increase perching opportunities for raptors and increase the potential for GRSG to abandon leks).

Commenters suggested that the BLM and the FS should have considered several additional references in their analysis, related to the relationship between GRSG and transmission lines. For example, commenters noted the DEIS did not include studies that found underground powerlines have more environmental impacts than overhead powerline placement.

Commenters questioned the data in Table 3-36, which includes the acreage of transmission lines within greater sage-grouse habitat.

Need to include:

Comment #14-0049-25 requested the LUPA include a minimum four-mile buffer from active leks for new powerlines or

similar ROW developments.

Comment #14-0049-31 request to include that infrastructure would be co-located when possible.

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## Response

Many reports have been prepared for the development of management recommendations, strategies, and regulatory guidelines. The National Technical Team report (NTT 2011), Conservations Objectives Team (COT; FWS 2013), and the Summary of Science, Activities, Programs and Policies that Influence the Rangewide Conservation of Greater Sage-Grouse (also referred to as the Baseline Environmental Report [BER]; Manier et al. 2013) are the most widely used reports that have been incorporated in BLM and Forest Service EISs that address the effects of implementing greater sage-grouse conservation measures on lands they manage. Additionally, the BLM and the Forest Service developed the Idaho Draft Environment Impact Statement/Land Use Plan Amendment with involvement from cooperating agencies, including Idaho Department of Fish and Game to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

Management actions included in the Draft EIS/LUPA for the underground placement of powerlines are intended to reduce the potential for long-term impacts on GRSG habitat and species viability. Literature referenced in the FEIS demonstrates that overhead powerlines provide perching opportunities for ravens and other avian predators.

BLM and the Forest Service has reviewed scientific literature provided by commenters regarding the effects of powerlines on greater sage-grouse, buffers, perch diverters, and overhead versus burying lines, and the DEIS has been revised, as appropriate.

Transmission acreages came from the peer-reviewed Baseline Environmental Report (Manier et al. 2013).

## Section 14.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 5

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## Summary

Commenters stated that the BLM/FS should have concluded that because of Alternative E's adaptive trigger strategy the impacts from wind energy would be reduced compared to Alternative A.

Commenters stated that the agencies should carefully evaluate the impacts of stipulating co-location of electrical powerlines.

Commenters requested information on the impact of transmission lines on a landscape level would be more appropriate to reference in relation to sage-grouse persistence in the landscape and that information from Walker et al. 2007 has been used selectively in regards to transmission infrastructure.

Include:

Comment #14-183-38: Request that BLM re-consider and evaluate the stipulation that electrical powerlines must be co-located

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## Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts,

of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

Impacts from lands and realty to wind energy were discussed in DEIS/LUPA Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as required design features. This is clarified in the FEIS (see section).

Management actions included in the Draft EIS/LUPA for the co-location of new infrastructure in existing ROWs are intended to reduce the amount of surface disturbance in GRSG habitat and concentrate new development in habitat areas already affected by anthropogenic activities. The BLM and FS recognize that co-location is not feasible in all circumstances, particularly for new powerlines. Under all alternatives, the BLM and FS would continue to review proposed infrastructure projects on a case-by-case basis. Such a review would include preparation of the appropriate NEPA documentation and coordination with the responsible federal, state, and local permitting agencies.

## Section 15 - Leasable Minerals

### Section 15.1 - Range of alternatives

Total Number of Submissions: 6

Total Number of Comments: 14

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#### Summary

The DEIS needs a better explanation on how valid existing rights are defined and how they will be protected, including fringe or preference right leases. The alternatives need to follow the NTT report recommendations more closely, as well as reflect current USFWS policy recommendations.

The BLM needs to clarify the location of non-leased Known Phosphate Areas in relation to GRSG habitat. The plan is potentially more restrictive to phosphate leasing than a listing under the ESA and did not properly define the environmental baseline for leasable minerals. Without prohibiting new phosphate mining in GRSG habitat, the LUPA does not protect GRSG from the potential impacts of selenium being released to the environment and poisoning wildlife, including GRSG, through transport in air and water and subsequent bioaccumulation. The EIS fails to explain or discuss the authority that the BLM has to close public lands to leasable mineral prospecting and leasing under the LUPA process under Alternatives B, C and D.

The reliance upon vague RDFs under Alternative D is a failure of the BLM to adopt best science that calls for specific restrictions based on observed GRSG response to surface disturbances.

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## Response

[NOTE TO BLM: The BLM should examine the existing discussion of valid existing rights that will survive the proposed LUPA and should expand that discussion if it seems insufficient.]

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/DEIS that best addressed the issues and concerns identified by the affected public. The DLUPA/DEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. BLM agrees that it cannot impose an NSO on an existing lease. A definition of valid and existing rights has been added to the Glossary in the FEIS.

[NOTE TO BLM: Multiple changes were recommended to the FEIS by Porter- see separate tracking sheet.]

[NOTE TO BLM: Have minerals program elaborate on where the phosphate leases are relative to the management designations for the various Alternatives. Makela- is there an adequate baseline description for leasable minerals? Also, BLM look into the issue of restrictions in proposed plan relative to restriction under an ESA listing for minerals development.]

[NOTE TO BLM: determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.]

[NOTE TO BLM: Add to GLOSSARY- Valid Existing Rights]

Selenium bioaccumulation is not identified by the US Fish and Wildlife Service or the NTT Report as a major threat to GRSG and is not part of the conservation strategy being applied by the BLM. No change to the EIS has resulted from this comment.

According to 43 CFR 3501.17 and H-1601-I, Land Use Planning, the BLM has the authority to close areas to non-energy leasable mineral prospecting and leasing. The regulations providing this authority do not need to be described in the EIS because they are outlined in the CFR and describing all governing regulations in the EIS would be impracticable.

[NOTE TO BLM: BLM to examine its jurisdiction to prioritize GRSG conservation over laws relating to KPLAs and to describe that result in the comment response, along with any appropriate changes to the EIS.]

[NOTE TO BLM: BLM's preferred alternative may be changed in the FEIS, to keep all lands in KPLAs open to future non-energy solid mineral leasing, but to close areas in PPMA and PMMA outside of KPLAs. An exception would be made when additional lands are needed to recover ore on the lease (fringe acreage leasing, lease modifications).]

The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Wording from NNT report has been added to the discussion of RDFs in the FEIS.

## Section 15.2 - Best available information baseline data

Total Number of Submissions: 1

Total Number of Comments: 1

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## Summary

The oil and gas conditions in the Payette area are different than those studied in the NTT report and should not be used as baseline data. The impacts described by Johnson et al 2011 are overstated and should be replaced by information from Coates et al 2013.

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## Response

The reasonably foreseeable development scenario for oil and gas assumes a conventional oil and gas field. The current development occurring in the Payette area of Idaho is not within sage grouse habitat. BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of GRSG habitat would not be subject to stipulations developed in this EIS.

*[NOTE TO BLM: Review section on 4-8 for best available science for basis of decisions. Have a biologist help determine.]*

## Section 15.3 - Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 5

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## Summary

The impact analysis in the DEIS of management actions on leasable mineral development is insufficient.

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## Response

The acres of unleased KPLA land unavailable for development by alternative has been corrected in the Ch. 4 tables in the FEIS. The section describing the impacts from leasable minerals management for Alt E has been revised. The impacts of non-energy leasable minerals management actions to socio-economics have been included in the FEIS and the impacts with respect to disturbance caps have been analyzed in more detail.

*[NOTE TO BLM: Tables of acres of unleased KPLA land unavailable for development by alternative in Ch. 4 need to be corrected.]*

*[NOTE TO BLM: Impacts from leasable minerals management in alt E needs to be revised.]*

*[NOTE TO BLM: Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Also, references to section 4.11.2 should be corrected and should refer to section 4.12.2.]*

*[NOTE TO BLM: Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question.]*

## Section 15.4 - Cumulative impact analysis

Total Number of Submissions: 2

Total Number of Comments: 6

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## Summary

The DEIS did not adequately analyze cumulative impacts of management actions on leasable mineral development, including impacts to the Western Phosphate Field, the American agriculture industry, and national food security.

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## Response

The BLM and the Forest Service thoroughly explained their consideration and analysis of cumulative effects in the DLUPA/EIS in Section 4.24.20. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

Additional information on the cumulative impacts on the Western Phosphate Field, unleased KPLAs, socio-economic impacts from loss of phosphate resources, reasonably foreseeable actions, and proposed conservation measures have been added to Sections XXX and XXX (minerals and socio-economics cumulative impacts). [NOTE TO BLM: Review cumulative section and add necessary information.]

## Section 16 - Livestock Grazing

Total Number of Submissions: 2

Total Number of Comments: 3

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## Summary

[NEED SUMMARY]

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## Response

[NOTE TO BLM: May need to go up to solicitor's office for review.]

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Further, the BLM may designate lands as "available" or "unavailable" for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to cease livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions.

The Taylor Grazing Act requires that the Secretary "make such rules and regulations ... [and] do any and all things

necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range.” (43 USC § 315a).

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Actions taken under land use plans may include making some, or all of the land within grazing districts, unavailable for grazing during the life of the plan as well as imposing grazing use restrictions, limitations or other grazing management related actions intended to achieve such goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A “chiefly-valuable-for-grazing” determination is required only when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district. (See USDI Solicitor Memorandum Clarification of M-37008 (May 13, 2003)). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as “chiefly-valuable-for-grazing” per the Taylor Grazing Act for purposes of establishing grazing districts within the public domain (see, 43 U.S.C. § 315) this does not negate the BLM’s authority or responsibility to manage those lands to achieve resource condition goals and objectives under the principals of multiple use and sustained yield as required by FLPMA and its implementing regulations.

## Section 16.1 - Range of alternatives

Total Number of Submissions: 24

Total Number of Comments: 64

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### Summary

Multiple commenters requested that the alternatives require closure of voluntarily relinquished allotments. Commenters questioned why changes to grazing management are needed when livestock grazing is not listed as a primary threat to GRSG. More than one commenter noted that grazing should only be restricted where it can be shown that grazing is directly related to the failure to meet GRSG habitat objectives. Additionally, commenters stated that the DEIS failed to consider increased grazing and question the rationale behind this decision. Some commenters also requested additional consideration of reduced grazing levels and utilization levels, as well as temporary or permanent closure of all or some GRSG habitat to grazing.

Several commenters requested that the LUPA/EIS provide specifics regarding habitat assessments schedules and application of standards, and use of ecological site descriptions, require immediate application of certain terms and condition to permits, and impose grazing restrictions for priority or general habitat.

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### Response

The ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. See response in section 4.3 NEPA Range of Alternatives of this report. The DEIS analyzed a range of alternatives including no grazing and a 25 percent reduction in grazing. Reduction in AUMs under Alternative F would be specified in site specific decisions at the permit renewal level. Language in the FEIS for Alternative F reduction has been clarified.

[BLM and Forest Service- need to review the language in Alt F mgmt. actions related to the 25% reduction and review related analysis. Determine if revision needed to table 4-5].



Livestock grazing is identified by USFWS as a threat to GRSG in the March 23, 2010 Federal Register Notice, and therefore it is addressed in this LUPA. Existing regulatory mechanisms, including the fundamentals for rangeland health, would continue to provide the basis for managing grazing in GRSG habitat. However, the preferred alternative would provide additional consistency in application of BLM rangeland health standards and guidelines relative to GRSG habitat, and would provide additional guidance for prioritizing land health assessments and review of grazing permits to ensure that grazing management is compatible with attainment of sage-grouse habitat objectives within the planning area. In addition, RDFs and best management practices would be adopted to reduce effects of range improvements and livestock trailing across public lands. Grazing use would be modified when it is identified as the cause for not meeting Sage Grouse objectives. The intent of the land use plan amendment is to change management under all resource programs, where necessary, to benefit Sage Grouse habitat. Standards and Guidelines assessments result in a determination of causal factors for non-achievement of any applicable standard, including standards for wildlife habitat. Where livestock management is determined to be a causal factor for non-achievement of a standard, management must be modified to conform with applicable guidelines.

The BLM is required to follow the grazing regulations, including the decision process at 43 CFR 4160, when modifying permit or leases. Therefore, modifications to terms and conditions of permits and leases would be applied as needed during the permit renewal process.

As stated in the preferred alternative [mgmt. action #] habitat objectives would be adjusted based on site potential. Site specific requirements would be specified in NEPA for permit renewal. Language in the preferred alt. has been modified to clarify (see section X.X.X).

## Section 16.2 - Best available information baseline data

Total Number of Submissions: 13

Total Number of Comments: 42

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### Summary

Multiple commenters asserted and presented citations supporting their position that grazing has the potential to benefits GRSG by controlling cheatgrass and reducing wildfire risk. Other commenters presented citations supporting the position that grazing damages GRSG habitat and increases cheatgrass risk.

Several commenters requested more detailed information about current grazing management and habitat conditions in the planning area.

Other commenters noted the importance of ranching in the local economy, and also that ongoing collaboration between private ranchers and federal agencies has helped preserve GRSG habitat and should be acknowledged in the EIS.

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### Response

Before beginning the LUPA/EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The BLM and the Forest Service also used the most recent and best information available that was relevant to a land-use planning-level analysis (refer to response in section 4.4, NEPA Baseline data- Best Available Science for additional information). [NOTE TO BLM- review text in section 4.4 response once complete to ensure consistency]

Section 3.X, livestock grazing discusses the current level of grazing in the planning area and management systems in place. Impacts of current and historic grazing on other resource and resource uses are discussed under the appropriate

resource and resource use headings (i.e. **Section 3.X**, Sage grouse Habitat). Section 4.2.2 in the DEIS provides an overview of the ecological impacts of livestock grazing. The DEIS analyzed the effects of no grazing and reduced grazing on components of sage-grouse habitat, including changes in wildfire risk and cheatgrass incursion. See changes to **Section 3.X**, fire management, for additional discussion of cheat grass-wildfire dynamics. **[NOTE TO BLM/EMPSi-Review the text in Ch 3 veg related to fire/livestock.]**

Discussion of socioeconomic impacts of current grazing operations in the planning area is discussed in **Section 3.X**, Socioeconomics.

Additional language has been added to the FEIS (**section X.X.X**) recognizing the role of Rural Fire Protection Districts and other collaboration efforts **[Note- need to add language to FEIS]**

## Section 16.3 - Impact Analysis

Total Number of Submissions: 6  
Total Number of Comments: 11

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### Summary

Some comments detailed beneficial impacts of grazing, and the adverse impacts of grazing restrictions on to livestock operations, Rangeland Fire Protection Associations, and the local economy.

One commenter notes that limitations on water developments can have impacts on grazing management and need to be clarified and analyzed in greater detail.

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### Response

Impacts to livestock grazing from current livestock grazing management are addressed in section 4.9.4 of the DEIS. Impacts to the socioeconomic aspect of livestock grazing are discussed in Section 4.19 of the DEIS.

While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS's impact analysis relevant to grazing and indirect socioeconomic impacts and was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions (see changes in section 4.19). Impacts to Rangeland Fire Protection Associations are discussed in **section 4.X**, fire management. BMPs for livestock developments including water have been revised in the FEIS and related impacts on livestock grazing management have been clarified.

## Section 17 - Locatable Minerals

### Section 17.3 - Impact Analysis

*No comments are associated with this issue.*

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## Summary

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas. The current approach in the EIS does not meet FLPMA requirements for finding ways to remain flexible in balancing conservation and resource uses.

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## Response

This concept was considered within the range of alternatives, as explained under Section 4.3, NEPA Range of Alternatives in this section. No change to the EIS has resulted from this comment.

## Section 17.4 - Cumulative impact analysis

Total Number of Submissions: 1

Total Number of Comments: 1

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## Summary

The DLUPA/DEIS fails to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range.

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## Response

Additional information on the cumulative effect of withdrawals across GRSG range has been added to **Section XXX** (locatables cumulative effects section) of the EIS. **[NOTE TO BLM: Could include roll-up of withdrawals from plans for incorporation into EIS]**

## Section 20 - Recreation

### Section 20.1 - Range of alternatives

Total Number of Submissions: 2

Total Number of Comments: 3

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## Summary

In the EIS/LUPA, the BLM/FS should incorporate additional management actions (e.g. SRP/SUP stipulations, OHV noise regulations, seasonal restrictions on OHV events near leks, and rerouting of OHV events away from leks, and hunting) to limit the potential for impacts on Sage-Grouse from recreation activities. Any management actions limiting recreation activities in sage-grouse habitat should be based on the best available science with proven habitat conservation results.

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## Response

The EIS considers an adequate range of alternatives to protect GRSG, including varying levels of restriction on recreational activities and special recreation permits/special use permits (insert correct management actions and table number). During subsequent implementation-level travel management planning, new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including speed. New travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions during subsequent implementation level travel management planning. 43 CFR 8340 requires all OHVs to comply with state laws including noise and spark arrester requirements.

Contemporary hunting seasons in the Idaho and Southwest Montana Sub-region are very conservative with respect to their length and bag limits. GRSG hunting and its effects are described in more detail in Sections XX and XX of the FEIS.

## Section 22 - Socioeconomics and Environmental Justice

### Section 22.3 - Impact Analysis

Total Number of Submissions: 22  
Total Number of Comments: 39

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### Summary

The socioeconomic analysis in the DEIS is overly broad and does not provide sufficient analysis of impacts to individuals, local communities or counties. The DEIS should also expand analysis of the restrictive management actions on planning area operators, communities and services including but not limited to grazing operators and mining.

Finally, the analysis methodology is inadequate to provide a comprehensive analysis of direct, indirect, and cumulative analysis of the socioeconomic impacts on the planning area communities.

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## Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-I, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and

implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM provide input on why county level analysis was not completed]

Impacts were considered on numerous resources, resource uses, and socioeconomic conditions, which included [list noted issues]. See Section 4.22 of the Draft EIS.

The DLUPA/EIS describes the methodology and assumptions used for conducting the impact analysis (see Section 4.22.2 of the Draft EIS). The methodology and assumptions provide an adequate starting point for discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.24, the DLUPA/EIS identified methodologies used and made reference to the scientific and other sources relied upon for conclusions in the analysis. Based on these methodologies and assumptions, the DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

[Add language on budget issues as appropriate: As a landscape level planning effort, none of the alternatives prescribe project specific analysis on BLM or USFWS managed lands. Furthermore, the agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies budgets as appropriated annually through the federal budget process. As a consequence, agencies' costs and differences in differences in program costs across alternatives have not been quantified. Information has been presented in several resource impacts sections on the types of costs that might be associated with various sage-grouse conservation measures]

## Section 23 - Soil

### Section 23.2 - Best available information baseline data

Total Number of Submissions: 1

Total Number of Comments: 1

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#### Summary

One commentor notes that the DEIS lacks references to support discussion of macrobiotic crusts.

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#### Response

[BLM/Forest Service- review soils section to determine if references needed to support discussion]

## Section 24 - Travel Management

### Section 24.1 - Range of alternatives

Total Number of Submissions: 8

Total Number of Comments: 11

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## Summary

The Draft EIS/LUPA failed to consider a full suite of travel management-related management actions that would protect sage grouse habitat while allowing for continued administrative access, particularly for existing livestock grazing permittees. Commenters proposed that management actions should be included in the proposed plan to prohibit and reclaim/restore roads in GRSG habitat, limit motorized events, close PPHP to OHV use, apply additional seasonal travel restrictions, and apply a maximum route density within proximity of leks in PPH and PGH. Commenters also requested that proposed management actions preserve motorized access on existing routes per the 3-State OHV and National Route Designation decisions and maintain administrative access in grazing allotments.

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## Response

Section 1.4 of the Draft EIS describes how the Idaho Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this draft LUPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

During subsequent implementation-level travel management planning new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including noise levels and speed. The route designation process will be completed as subsequent implementation level planning using current Travel Management policies and will include public and local agency involvement. Addressing these issues at the implementation level allows the BLM and Forest Service to take new information into account as it becomes available.

Needs for administrative access to valid existing rights, grandfathered uses, or permitted activities would taken into consideration during site-specific NEPA analysis. Restrictions applied to recreational OHV use may not apply to permitted administrative uses.

The BLM and Forest Service have not added a restriction that would limit road densities to less than 0.09 km per km squared (Wisdom et al. 2011) in GRSG habitat because the threshold established by Wisdom used coarse road data. When taking into consideration actual road density information, use of this threshold is not appropriate. The BLM and Forest Service have included surface disturbance thresholds, which would restrict the density of disturbance tied to new and existing roads in GRSG habitat.

## Section 24.2 - Best available information baseline data

Total Number of Submissions: 2  
Total Number of Comments: 2

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## Summary

Chapter 3 of the Draft EIS/LUPA does not depict the number of acres designated as open to cross-country motorized travel.

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## Response

[NOTE TO BLM: Add current CTTM area designation acres to Chapter 3.]

### Section 24.3 - Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 6

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## Summary

For various reasons, commenters assert that the Draft EIS/LUPA does not adequately analyze the impacts of proposed management actions on travel management. For example, commenters contend that the analysis is not based on sound science or is narrowly focused and biasedly uses studies that only demonstrate the negative effects from OHV use; does not adequately describe the magnitude of OHV vs. “naturally occurring” impacts across alternatives; and does not distinguish between motorized and non-motorized impacts. Commenters further request the BLM/FS consider conducting site-specific studies to support proposed management and assert that there would be indirect effects (e.g. ban on new road construction) incurred by existing ROW authorization holders by deferring travel management planning.

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## Response

As described in Section 4.6 of this comment report, the LUPA/FEIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. Further, as described in Section 4.4. of this comment report, the BLM used the most recent and best available information that was relevant to a land-use planning-level analysis.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-I, Chapter II, A-B at 11-13 and Chapter IV, B at 29). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

The mechanism being used to determine landscape level travel area designations (open/limited/closed) is 43 CFR 8340 which regulates OHV travel on public lands. BLM does not have a similar regulation for non-motorized travel. Non-motorized travel can be regulated through supplementary rules. Supplemental rules and site specific route designations will be addressed at the implementation level in the future.

New construction related to power line access would be exempted under 43 CFR 8340.05 (3).

While multiple studies on OHV use have been cited, BLM is using the BLM Travel Management Manual and Handbook (M-1626 & H-83421) to address travel planning in the EIS and will continue to use the same policy for future implementation and planning.

## Section 24.5 - Mitigation measures

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The LUPA/EIS should adopt additional travel-related mitigation measures to educate the public and prevent the spread of invasive species from travel-related sources through mitigation measures such as those described at playcleango.org.

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### Response

Appendix C of the DEIS/LUPA includes required design features and best management practices, including those that are based on the best available science to prevent the spread and effects of non-native plant species. See RDF # 290.

NCT note: ID and NV should use the same response as it is the same issue statement.

1. BLM reviewed the measures provided by commenters on playcleango.org
2. they were found to be the same as (similar as?) those already provided in Appendix XX.
3. Review of the impact analysis confirmed that the outcomes from the suggested mitigation measures would be the same as those described in the EIS (see section XX).
4. Conclusion (e.g., no changes needed).

## Section 25 - Tribal Interest

### Section 25.1 - Consultation requirements

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The BLM should consider additional areas for ACEC designation and should consult with the Shoshone-Bannock Tribes about these designations.

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### Response

The BLM and Forest Service recognize their responsibility to ensure that meaningful consultation and coordination concerning GRSG planning is conducted with federally recognized tribes, including the Shoshone-Bannock Tribes, to consider tribal treaty rights and trust resources. [BLM-FS-include relevant legal citations. Note consultation efforts to date]

### Section 25.4 - Impact Analysis

Total Number of Submissions: 1

Total Number of Comments: 2



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## Summary

The BLM must ensure tribes, in particular the Shoshone-Bannock Tribe, maintain opportunities to access the public domain, exercise off-reservation treaty rights, and continue their traditional customs and practices.

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## Response

The BLM, Forest Service recognize their responsibility to consider potential impacts to Tribal resources.

Article 4 of the Fort Bridger Treaty, signed in 1868, retains the Eastern Band Shoshone and Bannock Tribes' rights to hunt, fish, gather natural resources, and provide other associative right necessary to effectuate these rights. Other treaties ensure similar rights for other tribes.

## Section 26 - Vegetation Sagebrush

### Section 26.1 - Range of alternatives

Total Number of Submissions: 6

Total Number of Comments: 12

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## Summary

Commenters recommended that the preferred alternative include:

- Specific vegetation treatment acreage objectives
- Passive sagebrush restoration
- Limitations on vegetation treatments in sagebrush areas. To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions.
- Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment.
- Restore non-native seedings to increase GRSG habitat
- Apply additional restrictions for herbicide application in GRSG habitat
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe.
- Include specific objectives to measure success in invasive species eradication

---

## Response

As described in Section 4.3, the ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

Some of the recommended components were addressed in the DEIS and additional info will be included in the FEIS as detailed below.

- Specific vegetation treatment acreage objectives [need National Policy team input- to decide how treatment objectives will be incorporated]
- Passive sagebrush restoration: In the DEIS Alternative C and management changes that allow progress towards standards and guidelines allow for passive sagebrush restoration. In some areas passive restoration may not be sufficient to improve GRSG habitat and active restoration may be necessary (Davies et al. 2011) (see pp 4-54 DEIS [check page]).

- Limiting vegetation treatments in sagebrush areas is covered under Alternative D ([provide pg reference]). To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions. [include info from FEIS specific to meeting COT report objectives if appropriate]
- Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment: Priorities for PJ removal are addressed in the DEIS ([check that preferred alt includes removal within 1000m of leks per COT report objectives, if not explain rationale])
- Restore non-native seedings when beneficial to GRS habitat: Alternative C in the DEIS supports restoration of native vegetation to areas that have been seeded with non-native species when beneficial to GRS ([cite mgmt. action]). The preferred alternative provides direction for restoring non-native seedings. [provide mgmt. action number and check language to refine if needed in mgmt. action]
- Apply additional restrictions for herbicide application in GRS habitat: Herbicide/Pesticide BMPs are covered under the Veg treatment PEIS (BLM 2007x). The IDMT GRS EIS tiers to the analysis in this document.
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe. Include specific objectives to measure success: This EIS is intended to provide treatment methods, priority and objectives and the conditions under which these treatment objectives would occur. Specifics regarding treatment effectiveness, funding and implementation would be covered in site specific management actions. BLM and Forest Service would follow agency specific monitoring requirements.

## Section 26.2 - Best available information baseline data

Total Number of Submissions: 13

Total Number of Comments: 24

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### Summary

The DEIS fails to provide adequate baseline information related to sagebrush vegetation. Commenters questioned the source of BLM data and requested the FEIS utilize additional baseline data on cheatgrass extent and evaluate effectiveness of continuing programs against weeds and juniper encroachment. Commenters provided additional literature to consider. Commenters also advocated an adaptive approach to vegetation management based on site-specific habitats.

---

### Response

As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level. Adaptive management would be incorporated into vegetation treatment and restoration programs under Alternatives D and E. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

[BLM: provide direction if any change to analysis is necessary. Notes during cmt response mtg: Clarify use of 70% cover from NTT; update EIS with new rare plant list.]

Change to make: Footnote in Table 3-4 change source to – ID team input and EIS vegetation model. Cite the VDDT appendix.]

The BLM and Forest Service has clarified the vegetation modeling and data sources in Chapter 3. [Insert details regarding location and changes made]

## Section 26.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 3

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### Summary

Commenters express concern about unintended or undesirable impacts of vegetation management programs to control weeds or restore sagebrush habitat. The DEIS inadequately analyzes impacts from vegetation restoration

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### Response

As described in Section 4.6, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives.

Contiguous blocks: Site-specific calculations will be conducted at the implementation level.

PJ: Clarification will be provided in [Section XX](#).

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## Section 26.4 - Cumulative impact analysis

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

BLM's cumulative impacts analysis for vegetation failed to consider the impacts of limited resources on sage-grouse protection.

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### Response

Funding and availability of resources is outside the scope of this EIS.

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## Section 26.5 - Mitigation measures

Total Number of Submissions: 3

Total Number of Comments: 7

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### Summary

Commenters requested detailed plans of action and clarification on mitigation and monitoring, including timing of re-seeding and restoration after fire.

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## Response

Mitigation has been further defined as a Regional Mitigation Framework and is detailed in Appendix X. The Framework is incorporated in the [insert Proposed Plan/Proposed Plan Amendment] and was developed to achieve a net conservation gain to the species by implementing conservation actions. Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can help achieve the greatest conservation benefit for greater sage-grouse and its habitats.

If impacts to greater sage-grouse or its habitat from authorized land uses remain after applying avoidance and minimization measures, then compensatory mitigation projects will be used to fully offset impacts to achieve conservation benefits. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

Specific mitigation strategies, based on the Framework, will be developed by regional teams within one year of the issuance of the Record of Decision and be consistent with the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ regulations at 40 CFR 1508.20.

Mitigation measures for specific projects are implementation level decisions and will be included in site-specific analysis which is outside the scope of this EIS.

## Section 27 - Vegetation Riparian

### Section 27.1 - Range of Alternatives

Total Number of Submissions: 2

Total Number of Comments: 3

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#### Summary

Commenters suggested management approaches for riparian vegetation, including removal of invasive tamarisk, limitations on or removal of livestock grazing, and maintenance of sage-grouse habitat objectives.

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#### Response

As described in Section 4.3, the Idaho and Southwestern Montana LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

[BLM: provide direction if any change to analysis is necessary.]

### Section 27.2 - Best Available Info Baseline Data

Total Number of Submissions: 2

Total Number of Comments: 2

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#### Summary

Commenter requests baseline data related to Proper Functioning Condition of riparian areas in sage-grouse habitat. Commenter questions whether PFC protects stability of riparian habitat for sage-grouse.

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

---

## Response

Comprehensive PFC data is not available on a sub-regional level but is displayed when available. Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse. Modifications to PFC methods are outside the scope of this planning effort.

## Section 27.5 - Mitigation Measures

Total Number of Submissions: 2  
Total Number of Comments: 2

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## Summary

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

---

## Response

Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse.

Under the proposed plan, adaptive management would be incorporated into vegetation treatment and restoration programs, including riparian management. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

*[BLM: provide direction if any change to analysis is necessary.]*

## Section 29 - Water

### Section 29.3 - Impact Analysis

Total Number of Submissions: 2  
Total Number of Comments: 2

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## Summary

The EIS fails to address impacts on the soil and watershed conditions resulting from grazing-sourced manure, soil erosion and pathogen contamination under each alternative and to provide appropriate mitigation measures. Such an

analysis should include a list of impaired waters and the sources of contamination for those waters. The EIS also fails to address the negative impact on GRSG of restricting or removing water developments under Alternative D.

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## Response

**NOTE TO BLM: BLM should review impact discussions under soil and water resources under each alternative and consider mentioning any appropriate beneficial impacts on soils and watersheds that would result from grazing restrictions.**

**NOTE TO BLM: BLM should review impacts on GRSG from grazing under Alternative D and consider whether it is appropriate to identify adverse impacts on GRSG through the restriction or removal of grazing-related water developments.**

**[NOTE TO BLM: Discuss with biologists the impacts of the removal of water development on Sage Grouse.]**  
**303d listed streams are discussed in Section 3.16.2.**

## Section 30 - Wild Horse and Burros

Total Number of Submissions: 4

Total Number of Comments: 6

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## Summary

Commenters stated that livestock and wild horses were inappropriately grouped together in management actions. Some commenters were also concerned with the 25% proposed reduction of AML under Alternative F and the basis for reduction; they requested reevaluation of reduction based on the fact that wild horse habitat overlaps a minimal percentage of GRSG habitat.

Some commenters also stated that the proposed management should provide flexibility to increase AML/AUM and/or open HAs if data becomes available demonstrating that genetic viability of wild horses and burros is threatened. Commenters also stated that the preferred alternative would give the BLM too much discretion to reduce AMLs or zero out HMAs which would violate the BLM's legal mandate to protect WHB.

---

## Response

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. See Section 4.3, NEPA Range of Alternatives, in this report for an expanded explanation on what constitutes a reasonable range of alternatives. **[NOTE TO BLM-check final response in section 4.3 for consistency]**

The BLM protects, manages, and controls wild horses in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended), the purpose of which is to "manage wild horses and burros within herd management areas (HMAs) designated for their long-term maintenance, in a manner designed to achieve and maintain a thriving natural ecological balance (TNEB) and multiple use relationships." The FLPMA directs the BLM to manage wild horses and burros as one of numerous multiple uses including mining, recreation, domestic grazing, and fish and wildlife. It also required a current inventory of wild horses and burros. Additional guidance is found in 43 CFR 4700, Protection, Management, and Control of Wild Free-roaming Horses and Burros.

Adjusting AML does fall within the legal mandate of the BLM to protect WHB and other resources. Through the BLMs program of monitoring and analysis of data, AMLs have been established and will continue to be adjusted based on the analysis of data. AMLs can be adjusted based on the limitations and capability of the range, including the four habitat components (forage, water, cover, and space), while managing for healthy populations of WHBs in balance with other uses and resources (including sage grouse). An explanation of the relationship between AMLs and AUMs has been

included in the FEIS in **section X.X.X**.

Should the 25% reduction be carried forward in the preferred alternative, genetic viability would be considered in the adjustment of AMLs. Increasing AMLs and/or opening HAs is outside the purpose and need for this project.

## Section 30.1 - Best available information baseline data

Total Number of Submissions: 2

Total Number of Comments: 3

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### Summary

Commenters requested documentation of critical genetic data on each of the wild horse and burro herds in the planning area. This will provide BLM basis for identifying which HMAs would not be feasible to place AML reductions on while maintaining genetically viable herds. Commentors also requested exact population data for all wild horse populations in HMAs and HAs and clearly defined maps of HMAs and HAs. Finally, commenters stated that any land policy changes resulting from the sage grouse plan must be in conformance with the National Academy of Sciences 2013 recommendations for reform of the federal wild horse management program.

---

### Response

The prerequisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The baseline data provided in Chapter 3 and various appendixes in the Draft LUPA/DEIS is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the Draft LUPA/DEIS. A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data (see response to section 4.4 in this report for more details). **[NOTE TO BLM- check final language in section 4.4 response for consistency]** Much of the data in the DLUPA/DEIS is presented in qualitative and map form, and is sufficient to support the gross scale analyses required for land use planning. The DEIS includes maps of HMAs and HAs. Population data is included in **Table 3.X** of the DEIS. These maps and tables have been reviewed for accuracy prior to inclusion in the FEIS. Genetic documentation of WHB is an ongoing implementation level process used to monitor the genetic health of BLM's wild horse and burro populations (see IM 2009-061).

The NAS report has been considered in the development of the FEIS and actions appropriate the land management planning level included as appropriate. Findings of the NAS would also be considered under separate site-specific NEPA actions.

## Section 30.2 - Impact Analysis

Total Number of Submissions: 6

Total Number of Comments: 9

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### Summary

Commenters stated that the analysis on GRSG from wild horses and burros are not distinguished from livestock which inaccurately increases the threat.

Commenters identified contradictions in the document such as where the document states that "Under all alternatives, no direct change would occur to areas allocated as HMAs/WHBTs for wild horses and burros", then the report proceeds to summarize how every single alternative would restrict wild horse and burro usage in their own federally designated habitats.

---

## Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives for a land use planning effort (see detailed response in section 4.6, NEPA Impacts Analysis).  
*[NOTE TO BLM- check final response in section 4.6 to ensure consistency]*

The USFWS identified grazing as a threat in the NTT and COT report but did not specifically delineate between livestock and WHB grazing. However, within the DEIS, the BLM and Forest Service did analyze impacts on WHB and domestic livestock grazing separately and also analyzed the impacts on GRSG from WHB and domestic livestock grazing separately. Impacts on GRSG from WHB and domestic livestock grazing are identified in Section 4.X of the DLUPA/DEIS. Impacts on WHB from GRSG management strategies are identified in Section 4.X of the DLUPA/DEIS. BLM appropriately analyzed the impacts to WHB from actions not related to changes in AML.

Text in the WHB impact section has been reviewed and relationship between allocation and management actions clarified in the FEIS.

*[NOTE TO BLM- insert the recommended text below in the FEIS: Under all alternatives, with the exception of Alternative XX, management actions for wild horses and burros would not result in direct changes to HMA status, to AMLs within designated HMAs, or acreage designated as HMAs. Impacts under all alternatives, with the exception of Alternative XX, would be limited to any future changes that may result in AML and/or acreage adjustment as well as reconsideration of HMA status that are based on achievement of GRSG habitat objectives for improving habitat conditions, as described in further detail below.]*

*Under Alternative XX, in contrast, AMLs would be directly reduced by 25 percent for all HMAs within PPMAs. This would result in a reduction of the established AMLs for all HMAs that are located entirely or partially within mapped occupied GRSG habitat. As a result of AML reduction under Alternative XX, costs of wild horse and burro management would increase, due to a need for additional horse gathers for removal and/or population growth suppression (PGS) treatments.]*

## Section 31 – Lands with Wilderness Characteristics

### Section 31.1 - Range of Alternatives

Total Number of Submissions: 3

Total Number of Comments: 4

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## Summary

All lands with wilderness characteristics that overlap with Greater Sage-Grouse habitat represent good opportunities for Greater Sage-Grouse conservation and should be analyzed to see how managing those lands to protect wilderness characteristics would coincide with Greater Sage-Grouse conservation. The BLM should consider lands with wilderness protection as an alternative to ACEC protection for some areas.

The BLM should complete Lands with Wilderness Characteristics inventories and the DEIS should consider potential



Lands with Wilderness Characteristics in the scope of this process.

---

## Response

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, “In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document regarding lands with wilderness characteristics will not be completed.

As described in Section 8 of this comment report, Alternative C considers ACEC designation for Greater Sage Grouse habitat and species protection.

## Section 31.2 - Best Available Info Baseline Data

Total Number of Submissions: 4

Total Number of Comments: 4

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## Summary

The BLM should work with Upper Snake staff to ensure lands with wilderness characteristics inventories and management are consistent between this EIS/LUPA and the Upper Snake RMP.

The BLM must provide a map of the lands with wilderness characteristics and where it overlaps with priority habitat. The FEIS should explain how the BLM will comply with the 2014 appropriations bill for the Department of the Interior, Environment and Related Agencies and with Secretary Salazar’s Secretarial Order No. 3310.

---

## Response

BLM Upper Snake Field Office continues to evaluate lands with wilderness characteristics within the planning area. Decisions related to lands with wilderness characteristics will be addressed in the Upper Snake EIS/LUP. Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, “In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document related to lands with wilderness characteristics will not be completed.

The BLM is not making decisions on lands with wilderness characteristics in this planning effort. Doing so is outside the purpose and need and scope of this EIS.

**[NOTE TO BLM: Consider including a map displaying the overlap of lands with wilderness characteristics and priority habitat should be included in the EIS.]**

NCT note: Consider using similar language to section 8 of this document. Language relevant to ACEC issues may be applicable to LWC and may help clarify why LWC is out of scope. It does not seem that the response fully addresses the issue statement. Answer to Secretary Salazar's Secretarial Order No. 3310? Possibly use some of the language developed by NVCA in section 31.0 of this document.

### Section 31.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

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#### Summary

If the BLM does not complete lands with wilderness characteristics inventories, the BLM should use GIS to inventory roadless areas and consider those as potential lands with wilderness characteristics for planning purposes.

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#### Response

No decisions related to the management of lands with wilderness characteristics will be made at this part of the planning effort. Decision related to the management of lands with wilderness characteristics are out of the scope of this plan amendment process.

NCT note: It seems like this response could be combined with section 31.2 of this document. Responses are nearly identical and basically already included in the summary.

### Section 32.1 - Predation

Total Number of Submissions: 5

Total Number of Comments: 6

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#### Summary

Some commenters state that the BLM does not adequately address the threat of predation or fully analyze the direct, indirect, and cumulative impacts of predation on GRSG populations; Predation was identified as a threat by the state of Idaho. Others question the inclusion of analysis of impacts of anthropogenic structures on predators of GRSG, given that the USFWS did not identify predation as a primary threat to GRSG.

---

#### Response

As stated in Section 2.3.1 in the DRMPA/DEIS, predator removal is outside the scope of LUPA. The BLM and the Forest Service have updated the description of the threat of predation in Section 3.2.1 and addressed the potential effects of predation on GRSG populations in the **Section 4.x**.

The BLM and the Forest Service have authority to manage the habitat and have provided an updated analysis in **Section 4.x** of the FEIS to describe how the numerous management actions across the range of alternatives could affect the habitat and indirectly the effects of predation. Altering the sagebrush habitat of the greater sage-grouse can create an influx of predators into an area and lead to a population decline. Roads, fences, power lines, and other infrastructure as well as the development of trails and other disturbances may improve access for potential predators near GRSG habitat

and increase risks to the species.

## Section 32.2 – Noise

Total Number of Comments: 1

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### Summary

Commentor states that noise studies cited in the DEIS are not public and therefore the results are not reproducible; alternative data should be utilized.

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### Response

Bilckley et al.'s research on noise and GRSG has since been published:

Blickley J.L, D. Blackwood, and G.L. Patricelli. 2012. Experimental evidence for the effects of chronic anthropogenic noise on abundance of greater sage-grouse at leks. Conservation Biology Vol 26. No 3. 461-471

This literature has been added to the noise section in the FEIS.

[Change to FEIS- add citation and data from this study in noise section. Consider addition of other data to support claims]

## Section 32.3 - Weeds

Total Number of Submissions: 2

Total Number of Comments: 4

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### Summary

Issue 1: Commenters request analysis of past vegetation treatment programs and recommend scientific literature on effects of vegetation treatments.

Issue 2: One commenter requests baseline data on cheatgrass in planning area.

Issue 3: Partnerships with private landowners to control cheatgrass should be considered in the FEIS.

---

### Response

Response 1: As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

As a result of these actions, the BLM and Forest Service gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in detail in the DLUPA/DEIS. The BLM and Forest Service utilized the available data to provide an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives. [Insert any changes that were made to the EIS as a result of comment received. If no changes necessary, reference the section in the EIS that contain the relevant information].

Analysis of proposed weed treatment methods tiers off of analysis in the Final Vegetation Treatments Using Herbicides

on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) [BLM 2007x]

Response 2: Potential occurrence of cheatgrass has been modeled (section 3.3.5). Acre of cheatgrass potential in GRSG habitat are shown in the DEIS based on Manier et al. 2013 (see Ttable 3-15, Acres of Cheatgrass Potential within GRSG) [Can incorporate concept of limited info regarding cheatgrass mapping] Information presented is appropriate for the planning level actions and analysis. Further analysis will occur on a site-specific basis at the implementation level.

Response 3: Cooperation with all landowners would be undertaken as feasible and is included in the range of alternatives.

# CommentWorks® Issue Report

IDMT\_PUB\_12471  
6.4a

**Initiative:** ID-GRSG-AM  
**Client Name:** Agency  
**Author:** Meredith T Zaccherio  
**Created Date:** Thursday, July 03, 2014  
**Sort Order:** Group Number  
**Selected Options:**  
 Include Commenter  
 Include Organization  
 Include Comments  
 Include Summary  
 Include Response  
 Preview as HTML  
 Single File

**Number of Issues:** 207

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## Section 1 - Extension Request

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0125-4

**Organization1:**

**Commenter1:** Thom Seal

### Comment Excerpt Text:

I would like to protest the short time to comment on such a huge document of hundreds, and hundreds of pages. I would also like to protest the lack of printed documents to base our comments on. It is hard to underline or highlight a computer disc. The comment period to the review the hundreds of pages of documents was way too short! We request and additional 180+ days to examine, review and comment on the Management Plan for the Greater Sage Grouse for the various regional DEIS, plus the related scientific papers.

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## Section 2 - Out of Scope

*Total Number of Submissions: 31*

*Total Number of Comments: 72*

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**Comment Number:** IDMTSG-14-0011-1

**Organization1:** Beaverhead Outdoors Association

**Commenter1:** Steve Jennings

### Comment Excerpt Text:

Due to differences in state-level mapping efforts in Idaho and Montana, there is currently no consistent designation of specific GRSG seasonal habitat or vegetation across the sub-region.” How can you produce maps and designate habitat when there are “differences” in mapping efforts?

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**Comment Number:** IDMTSG-14-0026-12  
**Organization1:**Challis Local Working Group  
**Commenter1:**

**Comment Excerpt Text:**

We want to make sure that more precise habitat information can be used at the local level. For instance, there will be areas within mapped core habitat that are non-habitat but due to scale are included in the EIS maps

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**Comment Number:** IDMTSG-14-0026-13  
**Organization1:**Challis Local Working Group  
**Commenter1:**

**Comment Excerpt Text:**

Challis LWG Hat Creek Priority Area that we have mapped in our local plan. We would like to have that added to Core Habitat.

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**Comment Number:** IDMTSG-14-0031-10  
**Organization1:**Capital Trail Vehicle Association (CTVA)  
**Commenter1:**

**Comment Excerpt Text:**

Permits will include requirements for mitigation that promote genetic diversity, critical connectivity, and population viability. This is new language for industry. What agency would come up with these requirements and when would we see them?

---

**Comment Number:** IDMTSG-14-0031-8  
**Organization1:**Capital Trail Vehicle Association (CTVA)  
**Commenter1:**

**Comment Excerpt Text:**

We would like some more definition of ratios of mitigation to be in this document. Who would take responsibility for the mitigation and/or set a directive on how the mitigation should be done.

---

**Comment Number:** IDMTSG-14-0031-9  
**Organization1:**Capital Trail Vehicle Association (CTVA)  
**Commenter1:**

**Comment Excerpt Text:**

These seasonal use and timing restrictions are problematic for public access to public lands. Doe the agencies anticipate creating special stipulations for OHV and public access?

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**Comment Number:** IDMTSG-14-0039-5  
**Organization1:**DreamCatcher Wild Horse and Burro Sanctuary  
**Commenter1:**Barbara Clarke

**Comment Excerpt Text:**

To meet its legal and ethical obligations, the final EIS must include the following:

1. Language that clearly distinguishes between federally protected wild horses and burros from livestock.

2. Language that acknowledges and numbers that reflect the BLM's legal mandate (requirement under the law which is not optional) to protect wild horses under federal law as well as sage grouse, vs. its discretion to authorize livestock grazing
3. A clear directive to all BLM districts to preserve wild horses and burros above a level that allows for adequate genetic diversity. Genetic diversity must be specifically defined in the final EIS.
4. Directives that prohibit the reductions of current Animal Unit Months (AUMS) of forage allocated for wild horses and burros. The EIS must outline a reduction, and if necessary elimination of livestock grazing, before any reduction of AUMs for wild horses and/or burros could occur. Discretionary livestock grazing occurs on a drastically larger scale in critical sage grouse habitats than wild horse and/or burro usage.
5. Provisions to allow for increases in wild horse and burro Appropriate Management Levels and for restoration of zeroed out (Herd Area) habitat where appropriate.
6. Requirement that any land use policy changes resulting from the sage grouse plan be in conformance with the National Academy of Sciences' 2013 recommendations for reform of federal wild horse management program. BLM commissioned this report and has thus far chosen to studiously ignore it since it confirms many of the advocates points regarding mismanagement and the inadvisability of continuing BLM's failed, outlandishly expensive "just round them up" strategy.
7. Recognition of the current scientific consensus that the wild horse is a native, reintroduced North American wildlife species that co-exists with sage grouse in the high desert sagebrush ecosystems in the North American West.
8. A truly competent EIS which meets its legal intent and requirement must include detailed and comprehensive information on the following:
  - a. Vitally important Maps which set forth distinctly all HMAs and which distinguish the HMAs from the Herd Areas (HAs), with accompanying data on:
    - i) number of horses estimated within each area along with the number of livestock within each area;
    - ii) AUM allocations for wild horses and/or burros COMPARED with livestock AUMs usage, i.e., set forth AUMs for each.
  - b. All information describing and documenting the differences between wild horse and burro and livestock range impacts;
  - c. All genetic reports and documentation of genetic viability status of all wild horse and burro herds within the planning area.

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**Comment Number:** IDMTSG-14-0049-11

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

The DEIS confirms that lands generally withdrawn from mineral entry for locatable minerals include ACECs and other specially designated areas. Because the staking of a mining claim may lead to operations that have the potential to significantly disrupt sage-grouse, including the use of excavators, dump trucks, front end

loaders, and blasting, we suggest that BLM and USFS withdraw from mineral entry all areas specially designated for sage-grouse. The National Technical Team Report supports this proposal. Because of the potential for disturbance, Alternatives B and C recommend withdrawing PPMAs from mineral entry. Alternative F does not recommend closing any sage-grouse habitat to mineral entry. In this instance, we feel that Alternative F does not go far enough and therefore we urge the agencies to adopt the more conservative approach encompassed in Alternatives B and C

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**Comment Number:** IDMTSG-14-0049-12

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

As the DEIS recognizes, the Pocatello Field Office has a large nonenergy solid leasable minerals program for phosphate. DEIS at 3-114. There are currently ten phosphate leases administered by BLM that are located in sage-grouse habitat. DEIS at 3-114. Unfortunately, one major shortcoming of the 2012 Pocatello RMP is the lack any stipulations or minerals guidance for nonenergy leasable minerals which specifically address sage-grouse.<sup>11</sup> DEIS at 3-114. Fortunately, none of the ten leases in sage-grouse habitat are active and no mining is planned on these leases in the next 5 to 10 years. DEIS at 3-114. However, there are a few leases that are active in sage-grouse habitat. For example, the Trial Creek and Caldwell Canyon leases are located in sage-grouse habitat east of Conda Mountain and are currently undergoing drilling. DEIS at 3-114. There is also a lease located in priority sage-grouse habitat northwest of Bear Lake near Paris, Idaho, which would likely be developed as an underground mine if developed. DEIS at 3-114.

<sup>11</sup> Failure to manage phosphate mining to minimize impacts to sage-grouse was a concern that GYC repeatedly raised in comments during the Pocatello RMP revision process. This concern, however, was never addressed. Phosphate companies should not now get a free card to mine without regard to impacts on sage-grouse and sagebrush habitat simply because BLM failed to address this important issue in its last plan revision - which notably was completed after the Fish and Wildlife Service found that listing for sage-grouse was warranted. This deficiency must be fully addressed and repaired in this DEIS.

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**Comment Number:** IDMTSG-14-0049-13

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

We propose that areas specially designated for sage-grouse protection are closed to phosphate leasing, and existing leases should be subject to a NSO stipulation. As recommended by the National Technical Team Report, this should include not allowing any new leases to expand existing mines.

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**Comment Number:** IDMTSG-14-0049-26

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

We would propose that in the first instance, a four mile NSO stipulation should be applied around active or existing known leks. This four-mile buffer is in line with the National Technical Team's recommendations for existing leases in priority habitat.<sup>26</sup> Similarly, Alternative B would limit surface disturbances to no more than one per section for future fluid mineral leases. DEIS at 2-188. This restriction should be



implemented for all existing and future leases in order to stay within the 3% disturbance cap described above.

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**Comment Number:** IDMTSG-14-0049-28

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Although it may not be necessary to withdraw all general sage-grouse habitat from locatable mineral entry, the LUPA should suggest stipulations that may be imposed to minimize impacts to sage-grouse. This may include a buffer area around leks and seasonal closures or restrictions. The agencies should review the best available science to determine what other stipulations may be effective in reducing impacts to sage-grouse and sage-grouse habitat.

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**Comment Number:** IDMTSG-14-0050-14

**Organization1:**

**Commenter1:** Kathleen Gregg

**Comment Excerpt Text:**

The final EIS must include the following:

1. Language to direct all BLM and USFS districts to preserve wild horses and burros above a level that allows for adequate genetic diversity. Genetic diversity must be specifically defined in the final EIS.
  2. Directives that prohibit the reductions of current Animal Unit Months (AUMS) of forage allocated for wild horses and burros. The EIS must outline a reduction, and if necessary elimination of domestic livestock grazing, before a reduction of AUMs for wild horses and/or burros as is outlined in the legislation that was passed that clearly states “devoted principally, but not necessarily exclusively to their [wild horse and wild burro] welfare” (WFRHBA, 1971)
  3. Discretionary domestic livestock grazing occurs on a drastically larger scale in critical sage grouse habitats than wild horse and/or burro usage.
  4. Provisions to allow for increases in wild horse and burro Appropriate Management Levels and for restoration of zeroed out (Herd Area) wild horse and burro legal habitat.
  5. Requirement that any land use policy changes resulting from the sage grouse plan are in conformance with the National Academy of Sciences’ 2013 recommendations for reform of federal wild horse management program.
  6. Detailed and comprehensive information on the following:
    - a) Clearly defined maps that delineate all HMAs and Herd Areas, accurate and substantiated data on number of horses estimated within each area, AUM allocations for wild horses and/or burros and other wildlife COMPARED with domestic livestock usage.
    - b. All information describing and documenting the differences between wild horse and burro and other wildlife compared to domestic livestock range impacts;
    - c. All genetic reports and documentation of genetic viability status of all wild horse and burro herds within the planning area.
    - d. All information, including aerial and ground survey reports and photos regarding accurate and substantiated current population census for all wild horses and burros within each Herd Management Area and Herd Area.
-

**Comment Number:** IDMTSG-14-0050-17

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

Maps must be provided that clearly discern the different locations of Herd Management Areas (HMAs) and Herd Areas (HAs) in order to include the possible re-introduction of wild horses and wild burros onto their legal Herd Area range. Any alternative provided must allow provisions for increasing habitat and resources, including re-populating legal wild horse and burro Herd Area range, and increasing AUMs and/or AML where a genetic risk is revealed to be increasing. Data such as the number of wild horses and/or wild burros estimated within each area and the AUM usage for wild horses and burros on the HMAs must be included and clear designation such as the chart provided below must be given to clearly show the range usage of domestic livestock compared to wildlife and compared to wild horses and burros.

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**Comment Number:** IDMTSG-14-0052-2

**Organization1:**Guerry, Inc

**Commenter1:**Michael A. Guerry

**Comment Excerpt Text:**

The involved agencies should also give weight in their decision to, the efforts that have been made by the ranching community to benefit the Greater Sage Grouse and their habitat. Such projects as, fencing springs and water developments, installing pipelines and water troughs to help better distribute livestock and provide additional water sources for the sage grouse, many of these projects having been accomplished in conjunction with the local sage grouse working groups. Also, larger landscape size projects like the formation of the Rangeland Fire Protection Associations, and Sage Grouse Initiative projects, like the brush manipulation project we are working on in our operation in partnership with NRCS, the local sage grouse working group and the Idaho Fish & Game appear to be benefitting the sage grouse and their habitat as well.

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**Comment Number:** IDMTSG-14-0056-14

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Comment Excerpt Text:**

Continued BLM recognition and support of Rangeland Fire Protection Associations should be included in the final document.

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**Comment Number:** IDMTSG-14-0056-3

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Comment Excerpt Text:**

Continued livestock grazing is crucial to sage grouse conservation and any selected alternative should be written to promote the longevity of ranching operations and reward good stewardship. Ranchers are the stewards for the habitat of many species, including sage grouse on both private and public lands. As stewards, we manage forage for optimum production, which is also beneficial to sage grouse. We are often times the first responders to wildland fire, and are involved in Rangeland Fire Protection Associations. We treat noxious weeds on our private lands to prevent the spread to federal lands, and spend more time on our public lands than any federal land management agency. These things that we do relate directly to several of the identified threats to sage grouse habitat.

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**Comment Number:** IDMTSG-14-0057-12

**Organization1:****Commenter1:**Eileen Hennessy**Comment Excerpt Text:**

Moreover, misguided strategies to protect sage grouse by eliminating natural predators, such as mountain lions, coyotes and even ravens, throws the ecosystem out of whack, even contributing to population growth of mustangs which provides BLM with incentive to call for the removal of so-called “excess” wild horses -- a problem that this agency itself creates by allowing the elimination of mountain lions through indiscriminate hunting, as contrary to BLM claims, wild horses DO, in fact, have natural predators (mountain lions) that help keep their populations in check. A policy must be established to promote the protection of predator species in an effort to restore natural population control mechanisms and restore the “thriving natural ecological balance” of these public lands areas. Predator eradication does not promote a healthy ecosystem.

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**Comment Number:** IDMTSG-14-0057-4**Organization1:****Commenter1:**Eileen Hennessy**Comment Excerpt Text:**

Wild equines enhance riparian areas and the ecosystem - cattle simply destroy the land and pollute the water. A horse’s post-gastric digestive system reseeds the range and assists greatly in building nutrient-rich humus which leads to healthy soils. They also break frozen water, which in turn allows other wildlife to drink. While cattle ruminate near riparian areas where they defecate, mobile wild horses continue to move 5-10 miles a day aiding digestion. If the cattle are being allowed to stay, so should the wild horses for, unlike livestock, they are an asset. If the agency analyzed the obvious difference of impacts between wild horses and livestock on the range, it would become apparent that the Proposed Action would not support wild horse reductions or removals but would implicate destructive cattle for the damage of forage and riparian areas and would clearly demand their removal or, at the very least, that they be reduced so that their numbers are evenly balanced with those of the wild horses in their own federally designated areas to rectify the wildly unfair allocation of resources the BLM has seen fit to bestow upon them which violates the Federal Land Policy and Management Act (FLPMA) and the Wild Free-Roaming Horses and Burros Act. The final EIS must provide all rangeland health assessments and procedure for conducting such assessments of the impacts for wild horses as well as livestock and BLM must have extensive knowledge of the differences in impacts on the range of wild horses vs. cattle.

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**Comment Number:** IDMTSG-14-0057-6**Organization1:****Commenter1:**Eileen Hennessy**Comment Excerpt Text:**

\* Proposed modifications in public land management policies on such a large scale require revisions in both Land Use Plans (LUP’s) and Resource Management Plans (RMP’s) which are the structure for public land management for years to come and must include all information necessary before enacting policy changes that could have negative repercussions for federally protected wild horses and burros, other wildlife and our public lands. Any land use policies that would result from the plan to protect sage grouse habitat must comply with NAS recommendations calling for a complete transformation of the ineffectual and unsustainable Wild Horse and Burro Program. If the BLM truly “welcomes” the findings in the June 2013 National Academy of Sciences (NAS) report calling for a humane and progressive change in the BLM’s failed policies for the Wild Horse and Burro Program, the agency must back up its claim be heeding the recommendations of the National Research Council and steer the agency in a new direction for the benefit of our wild equine herds and the American public/taxpayers. This would include ceasing roundups and removals of federally protected wild equines at the expense of the American taxpayer in favor of managing our wild horses and burros ON THE

RANGE in accordance with the Wild Free-Roaming Horse and Burro Act which states that “they are to be considered in the area where presently found, as an integral part of the natural system of the public lands“.

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**Comment Number:** IDMTSG-14-0057-7

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

The EIS fails to seriously analyze the extreme difference of range impacts of overpopulated destructive livestock as compared to beneficial wild equines. Instead of constantly implicating wild horses/burros for rangeland degradation without scientific evidence to back up such a claim, BLM must provide a detailed breakdown of range data, including GENUINE data that TRUTHFULLY examines the obvious difference of impacts between destructive livestock vs. beneficial wild equines is needed, including data on usage of stream riparian areas.

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**Comment Number:** IDMTSG-14-0057-9

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

Considering that an estimated population of 200,000 sage grouse warrants efforts to protect their habitat and call for their listing under the ESA, scant in comparison populations of wild horses and burros (BLM wildly exaggerated guesstimates: 33,780 mustangs/ 6,825 burros) which according to accurate independent surveys number 20,000-25,000 (perhaps only 15,000) wild horses remaining, it appears these federally protected animals are in more danger of extinction than sage grouse thereby necessitating vital protections for wild equines in their own federally designated areas as well as all overlapping areas, not actions that would put them at risk such as those suggested in the alternatives provided in the EIS.

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**Comment Number:** IDMTSG-14-0066-1

**Organization1:**International Mountain Bicycling Association

**Commenter1:**Aimee Ross

**Comment Excerpt Text:**

Under any Alternative selected the subsequent travel management plan should include a full assessment of roads and trail and how they can sustain the recreation experience without impacting sensitive habitat.

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**Comment Number:** IDMTSG-14-0098-5

**Organization1:**Montana Fish, Wildlife and Parks

**Commenter1:**M Jeff. Hager

**Comment Excerpt Text:**

As such, FWP recommends that the BLM reevaluate the current travel system which relies on an arrow system to designate open routes and consider also signing nonsystem roads as closed. Where closure signs have been employed within the existing travel system, they generally work when combined with periodic enforcement.

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**Comment Number:** IDMTSG-14-0105-20

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Vol 2, Page 2-203 Summary

Alternatives B, C, D, & F would consider acquisition as a tool for conserving important habitat... Owyhee County cannot afford to lose more of our tax base. Those private lands already have restrictions by our county comprehensive plan.

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**Comment Number:** IDMTSG-14-0105-6

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

A management objective and associated management actions addressing a specific planning issue may seem perfectly reasonable within the context of the planning issue. However, achievement of the objective through application of specific management actions will often create a conflict with objectives and actions assigned to other planning issues. For example, grazing restrictions following wildfire may preclude opportunity to utilize livestock grazing to direct the burn recovery toward a more desirable outcome. Resting cheatgrass for two growing seasons following a wildfire may not be a proper response. Management actions related to travel management plans will inadvertently prohibit OHV use for administrative and other essential management activities until travel management planning is completed (which could take years).

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**Comment Number:** IDMTSG-14-0108-12

**Organization1:**Western Range Service

**Commenter1:**Quinton J. Barr

**Comment Excerpt Text:**

The FWS Findings regarding greater sage-grouse population trends prior to the 1960s are riddled with deficiencies. Because the Draft LUPA EISs elect to focus on habitat factors and avoid analysis of either historical or current greater sage-grouse population levels, they are almost completely void of any information to remedy these deficiencies.

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**Comment Number:** IDMTSG-14-0108-4

**Organization1:**Western Range Service

**Commenter1:**Quinton J. Barr

**Comment Excerpt Text:**

Like the NOI, the NV Draft LUPA/EIS Purpose and Need states that this “effort is needed to respond to the USFWS’s March 2010 “warranted, but precluded” ESA listing petition decision” (see NV Draft LUPA/EIS, page 1~7). The NV Draft LUPA/EIS further states “one of the purposes of this planning effort is to provide sufficient evidence for USFWS to consider preclusion of a potential listing for GRSG (greater sage-grouse) as a threatened or endangered species under the ESA” (see NV Draft LUPA/EIS, page 1~3). Thus, the overriding purpose of both the NOI and NV Draft LUPA/EIS specifically ties to the desire to avoid listing the greater sage-grouse under the ESA.

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**Comment Number:** IDMTSG-14-0108-7

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

In order to fulfill the overriding purpose and need, the Final LUPA EISs must evaluate whether the greater sage-grouse meets the criteria of the ESA as an endangered species or as a threatened species under current land use plan management direction.

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**Comment Number:** IDMTSG-14-0108-8

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Neither of the Draft LUPA EISs analyzes whether the greater sage-grouse meets the ESA definitions for listing as endangered or threatened. Thus, both the Draft LUPA EISs fail to meet the overall purpose for the EISs identified by the NOI. To evaluate whether the greater sage-grouse presently meets the criteria to be listed as endangered or threatened under the ESA, one must answer the following questions:

1] How many greater sage-grouse are needed to safeguard the species against extinction?

2a] Do current population numbers and trends put the greater sage-grouse at risk for imminent extinction, thus qualifying it as an “endangered” species?

2b] Do current population numbers and trends put the greater sage-grouse at risk for eventual extinction in the foreseeable future, thus qualifying it as a “threatened” species?

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**Comment Number:** IDMTSG-14-0131-16

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Several of the Alternatives are based on the NTT report, which as described earlier, has a number of significant technical shortcomings that render decisions based on it arbitrary and capricious.

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**Comment Number:** IDMTSG-14-0131-18

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The Alternatives do not account for the uncertainty and totality of research in regards to mineral mining and GSG; these Alternatives provide a one-size fits all approach (no disturbance) in regards to management of these federal lands containing phosphate.

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**Comment Number:** IDMTSG-14-0131-25

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

For GSG conservation in Utah, where there is the use of substantial federal and private lands for a number of natural resources important to our country (such as phosphate), the selected alternative needs to provide for the following:

? The ability of project proponents to develop and utilize leasable minerals (such as phosphate), including those in PPMA, through the implementation of habitat restoration or mitigation measures.

? The creation of a system (which could be incorporated in a banking system/program) that provides credits for the activities identified earlier in these comments and described in detail in Appendix C

**Comment Number:** IDMTSG-14-0131-7

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

The Draft LUPA/BLM consequences discussion (pages 4-12 through 4-13) is deficient in that: (1) the uncertainty regarding the effect of mineral mining development activities on GSG habitat and population is not adequately described; and (2) potential risks associated with mine development and the mitigation of those risks are not adequately discussed in sufficient detail.

**Comment Number:** IDMTSG-14-0149-10

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

The agencies wrongly assume that areas currently identified as having no or low potential for oil and natural gas may not eventually prove to contain moderate or high potential. Due to major advances in geophysical exploration, drilling and completions technology in recent years, operators have produced significant amounts of oil and natural gas in areas across the country that were once thought to contain little or no economically accessible quantities. By closing these areas to future leasing the agencies will be unnecessarily preventing the exploration and possible production of oil and natural gas resources and associated economic benefits to local communities, states, and the nation. We strongly recommend that the agencies refrain from closing these areas to future leasing and instead apply more appropriate controlled surface use (CSU) and Timing Limitation (TL) stipulations.

**Comment Number:** IDMTSG-14-0150-2

**Organization1:**Western Range Service

**Commenter1:**QuintonJ. Barr

**Comment Excerpt Text:**

The NOI states that the purpose behind the Draft LUPA EISs is “to incorporate consistent objectives and conservation measures for the protection of greater sage-grouse (into land use plans)... in order to avoid a potential listing under the Endangered Species Act.” See NOI3, page 77009, underlined emphasis added. Similarly, the NV Draft LUPA/EIS states that this “effort is needed to respond to the USFWS’s March 2010

“warranted, but precluded” ESA listing petition decision” (see NV Draft LUPA/EIS1, page 1~7 [chapter #~page #]) and further states “one of the purposes of this planning effort is to provide sufficient evidence for... preclusion of a potential listing... as a threatened or endangered species under the ESA” (see NV Draft LUPA/EIS1, page 1~3). Thus, the overriding purpose of both the NOI and NV Draft LUPA/EIS specifically ties to the desire to avoid listing the greater sage-grouse under the ESA.

In order to fulfill such purpose, the Draft LUPA EISs are fundamentally obligated to evaluate whether the greater sage-grouse meets the criteria of the ESA as an endangered species or as a threatened species under current land use plan management direction. Under the ESA, a species is defined as “endangered” if it is in danger of extinction throughout all or a significant portion of its range, and is defined as “threatened” if it is likely to become endangered in the foreseeable future. See ESA4, definitions (6) and (20). Thus, the criteria to qualify as either endangered or threatened under the ESA hinges upon how soon a species facing extinction is likely to disappear, with “endangered” status facing imminent extinction (in the immediate future), and “threatened” status facing eventual extinction in the foreseeable future.

Neither of the Draft LUPA EISs analyzes whether the greater sage-grouse meets the ESA definitions for listing as endangered or threatened. Thus, both fail to meet the overriding purpose for the EISs. To evaluate whether the greater sage-grouse presently meets the criteria to be listed as endangered or threatened under the ESA, one must answer two questions:

- 1] How many greater sage-grouse are needed to safeguard the species against extinction; and,
- 2] Do current greater sage-grouse population numbers and trends put the greater sage-grouse at risk for imminent extinction or for eventual extinction in the foreseeable future?

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**Comment Number:** IDMTSG-14-0150-3

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Comment Excerpt Text:**

The U.S. Fish and Wildlife Service (FWS) provided the information required to answer these questions in its 2010 FWS Findings. The FWS Findings identified greater sage-grouse populations below 50 breeding adults “as being at short-term risk of extinction” and identified populations below 500 breeding adults “as being at long-term risk for extinction.” See FWS Findings6, page 13959. The FWS Findings further qualified that the minimum effective population size needed to protect the species long-term may be as high as 5,000 individuals in order to “maintain an effective population size of 500 birds” (see, FWS Findings6, page 13985) and to maintain “minimal viable population(s)” (see, FWS Findings6, pages 13959 and 13985). Thus, a population that exceeds 50 breeding adult sage-grouse is needed to safeguard the species against the short-term risk of imminent extinction, and as many as 5,000 individual sage-grouse may be needed as a minimum effective population to safeguard the species against the long-term risk of extinction in the foreseeable future.

The FWS Findings estimated that the recent range-wide greater sage-grouse population totals over 535,000 birds, which is 107 times larger than the minimum effective population of 5,000 birds. See FWS Findings6, Table 4, page 13921. All eleven of the locations reported in Table 4 greatly exceed a population of 50 breeding adults. Likewise, given the estimated number of males by Management Zone reported in Table 6 of the FWS Findings (see FWS Findings6, page 13923) and the female skewed sex ratio for greater sage-grouse (reported to average about two females to one male, FWS Findings6, pages 13916 and 13992), it is evident that all seven Management Zones greatly exceed a population of 50 breeding adults. Thus, all seven Zones exceed the population size below which greater sage-grouse are considered to be at risk for short-term extinction, so there are at least seven areas that support sufficient populations to prevent the greater sage-grouse from being listed as endangered under the ESA.



6 FWS Findings: Fish and Wildlife Service, 50 CFR Part 17. Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered. Federal Register / Vol. 75, No. 55 / Tuesday, March 23, 2010 / Proposed Rules. See [www.gpo.gov/fdsys/pkg/FR-2010-03-23/pdf/2010-5132.pdf](http://www.gpo.gov/fdsys/pkg/FR-2010-03-23/pdf/2010-5132.pdf).

In fact, all seven of the Management Zones exceed a population of 500 breeding adults, and five of the Zones greatly exceed the minimum effective population of 5,000 individual birds below which greater sage-grouse are considered to be at risk for long-term extinction. Additionally, estimates for the rate of decline in greater sage-grouse populations from 1985 through 2007 have averaged about 1.4% per year. See FWS Findings6, page 13922. Assuming that current management practices endure and this rate of decline continues indefinitely, it would take more than 330 years for the existing greater sage-grouse population to dwindle below the minimum effective population. Speculating what might occur over three centuries from now reaches well beyond the foreseeable future. Thus, there are now numerous areas that will support populations that exceed the minimum effective population of 5,000 birds into the foreseeable future to preclude listing the greater sage-grouse as threatened under the ESA.

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**Comment Number:** IDMTSG-14-0150-9

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Given the number of males identified for four greater sage-grouse populations within the Idaho sub-region (with 9,114; 5,457; 304; and, 448 breeding males respectively, see ID Draft LUPA/EIS2, page 3-8) and the female skewed sex ratio for greater sage-grouse (reported to average about two females to one male, FWS Findings6, pages 13916 and 13992), it is evident that all four identified Idaho greater sage-grouse populations exceed a population of 500 breeding adults (with 27,342; 16,371; 912; and, 1,344 breeding adult birds respectively), and two of the Idaho populations greatly exceed the minimum effective population of 5,000 individual birds which precludes a population from the long-term risk of extinction. Thus, at least two Idaho populations support sufficient numbers to preclude the greater sage-grouse from being listed as threatened under the ESA.

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**Comment Number:** IDMTSG-14-0151-104

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

**Energy/Military Footprint Concerns**

Why is there no analysis of the INEL site, existing footprint and any potential expansion and/or changes in type and /or magnitude of roading, building, powerline and other disturbance? The same applies to the Saylor Creek and Juniper Butte USAF Bombing ranges, and airspace activity – especially those areas subject to loud plane noise, low level military overflights, use of flares (which could potentially start fires), and significant ground-based disturbance including accessing remote emitter and No Drop sites? This is made even more critical due to politicians pushing use of the even louder F-35 plane. To what degree is the existing military footprint and noise footprint stressing sage- grouse in the highly fragmented Jarbidge? What about the Bruneau Owyhee Canyonlands and adjacent Oregon and portions of NV? This region is the heart of the remaining bulk of inter-connected less fragmented sage-grouse habitat in the northern Great Basin population. Many areas of the Nevada landscape to the south is considerably more fragmented by fires.

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**Comment Number:** IDMTSG-14-0151-25  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The BLM states that it will be implementing adaptive management and using monitoring data to inform management. Meaningful “adaptive management” requires clearly defined if/then statements with mandatory monitoring with defined statistical rigor. The EIS and proposed amendments failed to provide any of this. The BLM is planning to plan, developing the adaptive management plan at an unspecified later date. The BLM claims it will use hard and soft triggers for change, but the BLM does not conduct sufficiently robust/quantitative monitoring of livestock impacts to use in this fashion. Rangeland health evaluations are conducted an irregular intervals and are highly subjective, making them inappropriate for use as measurements for conservation objectives.

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**Comment Number:** IDMTSG-14-0151-27  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

It is important to review former Interior Secretary Bruce Babbitt’s observations on the BLM EIS process:

<http://www.defendersblog.org/2013/10/babbitt-grouse-national-strategy-needed-protect-iconicspecies/> This provides a link to a site with the Secretary’s speech. It is attached in full on the Lit CD with these comments.

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**Comment Number:** IDMTSG-14-0151-48  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

**Updated Population Analysis Is Not Outside The DEIS Scope**

DEIS at 1-18 shows BLM has ignored WWP scoping comments asking for a new and updated population analysis with the Range-wide GRSG effort, by claiming it is outside the scope. An updated analysis using 2003-2013 lek data is critical. The Garton (Knick and Connelly 2011 Studies in Avian Biology Chapter) estimates are now outdated. Significant and widespread new habitat loss and degradation have occurred since 2007 – which was the break-off for lek counts used in the Garton population analysis.

This process must re-do and revise the population estimates and trajectories in ID, NV, MT, WY, UT. This is necessary to understand the current status of populations that since 2007 have been subjected to fire loss of sagebrush (and often intensified and shifted grazing in unburned habitats surrounding burned lands, coupled with poor fire rehab recovery of sage-grouse habitat components and microbiotic crusts, as there has been minimal rest from grazing so recovery is limited. The flawed agency post-fire actions retard recovery and promote areas becoming weedlands through minimal rest, and this DEIS takes no concrete steps to change that – only vague promises.

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**Comment Number:** IDMTSG-14-0151-61

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

page G-1 shows Action WL-4 is to Where is a map of these areas? This must be provided to allow understanding of where they are located in relation to the various habitat

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**Comment Number:** IDMTSG-14-0151-77

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

**GRSG Mapping**

All data should be posted in one site, and publicly available for download. This will aid the agencies in sound public input to identify management changes.

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**Comment Number:** IDMTSG-14-0151-82

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Alt E is long on paper but short on effective actions. We are dismayed at the lack of substantial analysis applied to the ACECs under Alts F and C. What would be the benefits of designation for Relevant and Important Values for each ACEC are proposed? What irreparable harm, impairment, or degradation of habitat quality and quantity s currently occurring in each proposed ACEC area? What are ecological conditions? What are trends in Ecological Conditions?

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**Comment Number:** IDMTSG-14-0151-99

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

**Appendix B RFFDS**

**Oil and Gas**

The RFFD for Four Rivers is greatly deficient. BLM claims a mere 6 to 10 exploration wells on BLM land north of the Payette River. There are also very foreseeable wells on state land. See [http://www.idl.idaho.gov/bureau/Minerals/min\\_leasing/2013-Revised-Auction-Notice.pdf](http://www.idl.idaho.gov/bureau/Minerals/min_leasing/2013-Revised-Auction-Notice.pdf)

Several local news articles have described the mini-oil boom. This number seems far too low given the news reports of large-scale leasing. How has BLM also factored in the 130,000 reported acres of private land leases, and where are they located in relation to the Weiser sage-grouse population?

<http://idahobusinessreview.com/2013/01/16/snake-river-oil-and-gas-could-start-drilling-in-payette-county-this-spring/>

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**Comment Number:** IDMTSG-14-0153-15

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

The BLM itself has been forced to admit that “New information from monitoring and studies indicate that

current RMP decisions/actions may move the species toward listing. . . conflicts with current BLM decision to implement BLM’s sensitive species policy” and “New information and science indicate 1985 RMP Decisions, as amended, may not be adequate for sage grouse.”<sup>1</sup> Continued application of stipulations known to be ineffective in the face of strong evidence that they do not work, and continuing to drive the sage grouse toward ESA listing in violation of BLM Sensitive Species policy, is arbitrary and capricious and an abuse of discretion under the Administrative Procedures Act. The agency, through the Idaho – Southwest Montana RMP Amendment, needs to provide management that will prevent this decline of sage grouse across the planning area

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**Comment Number:** IDMTSG-14-0153-29

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The Idaho – Southwest Montana RMP Amendment should cure these problems for BLM- and Forest Service-managed lands and projects on federally managed minerals by establishing Priority and General Habitat (and Medial Habitat, as applicable) boundaries as inviolate and permanent designations (at least throughout the life of the Plan) and by precluding exceptions or waivers of sage grouse measures within these respective habitats

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**Comment Number:** IDMTSG-14-0153-40

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The priority habitats designated should all be withdrawn from locatable minerals entry, and the federal agencies should propose this through the RMP amendment. We lack confidence in federal agencies’ abilities to restrict the level of activity and surface disturbance on mining claims filed under the 1872 mining law to accommodate sage grouse habitat needs. Therefore, the appropriate course of action is to avoid allowing claims to issue in these priority habitats. We are particularly concerned about the potential for uranium extraction, be it underground, strip mining, or through in situ drilling and extraction methods. The lack of uranium mining activity thus far in the planning area is not a reliable measure of future development potential

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**Comment Number:** IDMTSG-14-0153-51

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are concerned that off-road vehicle use is a threat to the viability of greater sage-grouse populations, and that it should be carefully managed to prevent impacts to grouse populations. Off-road vehicles are noisy, and typically exceed the background noise levels by more than 10 dBA (Northwest Colorado RMP Amendment DEIS at 399), thereby creating disturbance for sage grouse. In addition dust can inhibit the growth of forbs, sagebrush, and other plants important to the sage grouse diet. For BLM should impose seasonal closures of these areas during the breeding and nesting season, and during winter for winter concentration areas. For Priority Habitat, BLM should also close these areas through the early- and late-brood-rearing seasons

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**Comment Number:** IDMTSG-14-0153-54

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are also concerned that BLM has not fully lived up to its obligations under Manual 6320, undertaking the

process required for the planning and management of Lands with Wilderness Characteristics. This must be done under the RMP amendment at hand, and the plan amendment should further designate all LWCs falling within sage grouse habitats to preserve their naturalness, solitude, and outstanding opportunities for primitive and unconfined types of recreation.

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**Comment Number:** IDMTSG-14-0153-68

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

For priority habitats: Limit OHV use to designated roads and trails; limit to existing roads and trails pending designation in the context of a 5-year travel planning effort (North Dakota RMP Amendment, Bighorn Basin RMP Revision).

For priority habitats: Conduct restoration of roads not designated under travel planning (NW Colorado RMP Amendment).

For priority habitats: Use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary. Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on sage-grouse habitat, is necessary for motorist safety, or eliminates the need to construct a new road. (North Dakota RMP Amendment).

For priority habitats: Conduct restoration of roads not designated during travel planning. (Northwest Colorado RMP Amendment)

For priority habitats: New road construction would be limited to realignments of existing roads, if that realignment has a minimal impact on greater sage-grouse habitat, eliminates the need to construct a new road, or is necessary for public safety. Incorporate BMPs. Existing roads used to access valid existing rights; if unavailable, construct to minimum standard necessary. (HiLine RMP revision, North Dakota RMP Amendment).

For priority habitats: Prohibit or bury powerlines within 0.6 miles of leks unless no SG declines can be demonstrated. Prohibit overhead transmission except within 0.5 mile of existing lines, corridor a maximum of 1 mile wide. Bury lines where possible. (Buffalo RMP revision).

For priority habitats: High-profile structures exceeding 10 feet in height, would be eliminated, designed or sited in a manner which does not impact sage grouse. Permanent (longer than 2 months) structures which create movement must be designed or sited to minimize impacts to sage grouse. (North Dakota RMP Amendment).

Priority Habitat would be a priority in consideration of land acquisitions. Retain public ownership of PH. Consider exceptions where: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area; Under priority sage-grouse habitat areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure consideration would be given to pursuing a permanent conservation easement. (North Dakota Plan Amendments).

For priority habitats: No Surface Occupancy stipulations required for any new fluid minerals leasing, with no option for exceptions or modifications. (California-Nevada RMP Amendment).

For priority habitats: Allow only heliportable geophysical exploration, with timing limitations applied. (North Dakota RMP Amendment, Bighorn Basin RMP Revision).

Apply Timing Limitation Stipulations to all Priority Habitat. (South Dakota RMP Amendment).

For priority habitats: Timing Limitations should apply to surface disturbing and disruptive activities. (Lander RMP revision).

Find Priority Habitats unsuitable for coal leasing. (North Dakota RMP Amendment, HiLine RMP Revision, Northwest Colorado RMP Amendment).

Close Priority Habitats to energy and non-energy leasable minerals leasing. (HiLine RMP revision, California-Nevada RMP Amendment).

Close Priority Habitats to salable minerals development. (North Dakota RMP Amendment, Nevada – Northeast California RMP Amendment)

Priority Habitats are exclusion areas for new renewable energy ROW permitting. (North Dakota, California-Nevada, and Idaho-Southwest Montana RMP Amendments; HiLine, Buffalo, and South Dakota RMP revisions).

For priority habitats: Maximum 25% forage utilization for livestock grazing in each grazing allotment. (North Dakota RMP Amendment).

For priority habitats: Employ herd management to minimize livestock impacts on sage grouse nesting habitat during spring. Hot season grazing does not occur on an annual basis. Adjust AUMs where sage grouse habitat objectives are not being met. Incorporate terms and conditions into grazing permits to meet sage grouse habitat objectives. (California-Nevada RMP Amendment).

For priority habitats: Incorporate sage grouse habitat objectives into permit renewals. Manage toward ecological site potential and toward reference state to achieve sage grouse objectives. (NW Colorado RMP Amendment).

For priority habitats: Avoid all new structural range developments and location of supplements (salt or protein blocks) unless independent peer-reviewed studies show that the range improvement structure or nutrient supplement placement benefits GRSG. Design any new structural range improvements and location of supplements to conserve, enhance, or restore SG habitat through an improved grazing management system relative to SG objectives. Evaluate existing range improvements and location of supplements during AMP renewal process to make sure they conserve, enhance or restore SG habitat. (North Dakota RMP Amendment).

For priority habitats: Authorize water developments only when no adverse effect to SG. Analyze springs, seeps, and pipelines to see if modifications are needed. (NW Colorado RMP Amendment).

For priority habitats: Grazing allotments not meeting rangeland health standards and not making progress toward this goal will be closed. (Miles City RMP revision).

For priority habitats: Employ herd management to minimize livestock impacts on SG nesting habitat during spring. Hot season grazing does not occur on an annual basis. Adjust AUMs where SG habitat objectives are not being met. Incorporate terms and conditions into grazing permits to meet SG habitat objectives. (Nevada –

NE California RMP Amendment).

For priority habitats: Develop specific objectives to conserve, enhance or restore PH based on ESDs and assessments. Implement management actions (grazing decisions, AMP/Conservation Plan development, or other plans or agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. (North Dakota RMP Amendment).

For priority habitats: Where riparian and wetland areas are already meeting standards they would be maintained in that condition or better. Where a site's capability is less than PFC, BLM would manage to achieve or move toward capability. Manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Where riparian areas and wet meadows meet PFC, strive to move towards GRSG habitat objectives within capabilities of the reference state vegetation relative to the ESD. (North Dakota RMP Amendment).

For priority habitats: Do not allow vegetation treatments with a potential to adversely affect sage grouse. Retain a minimum of 70% of ecological sites capable of supporting 12% cover in Wyoming big sage or 15% cover in mountain big sage. Manage a total disturbance cap of less than 30% lands not meeting these criteria. (NW Colorado RMP Amendment).

For priority habitats: Evaluate role of existing seedings composed of introduced perennial grasses in and adjacent to Priority Habitat to determine if they should be restored to sagebrush or habitat of higher quality for sage grouse. If these seedings are part of an AMP/ Conservation Plan or if they provide value in conserving or enhancing the rest of the Priority Habitat, then no restoration would be necessary. (North Dakota RMP Amendment).

For priority habitats: Do not use fire in precipitation zones < 12", except as last resort and where conditions allow and cheatgrass is a very minor component. (NW Colorado RMP Amendment).

For priority habitats: Rest grazing allotments 3 full years following fire; utilize grazing exclosures for monitoring; grazing excluded until woody and herbaceous plants achieve SG objectives. (Bighorn Basin RMP Revision).

For priority habitats: Remove, modify, or mark fences to reduce sage grouse strikes. (Nevada – NE California RMP Amendment, NW Colorado RMP Amendment, Bighorn Basin RMP Revision, Utah RMP Amendment, North Dakota RMP Amendment).

For priority habitats: Permanent retirement of grazing allotments will be considered on a willing-permittee basis. (Bighorn Basin RMP revision, Miles City RMP revision).

### **General Sage Grouse Habitats**

For general habitats: Limit motorized use to existing roads and trails pending travel management planning. Complete planning within 5 years of ROD. (California-Nevada RMP Amendment, North Dakota RMP Amendment).

For general habitats: Conduct restoration of roads, primitive roads and trails not designated in travel management plans. (North Dakota RMP Amendment).

For general habitats: Site and/or minimize linear ROW to reduce disturbance to sagebrush habitats. Maximize placement of power lines and transportation routes in existing ROWs. Power lines would be buried, eliminated, designed or sited in a manner which does not impact SG. ROWs would be allowed with

appropriate mitigation and conservation measures identified within the terms of the authorization to minimize surface disturbing and disruptive activities. Co-locate new ROWs within existing ROWs where possible. (North Dakota RMP Amendment).

For general habitats: Exclusion area for renewable energy rights of way; allowable if co-located on industrial facilities for on-site generation. (California-Nevada RMP Amendment).

For general habitats: Allow new routes/realignments during site-specific travel planning if it improves GRSG habitat and resource conditions. Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on sage-grouse habitat, is necessary for motorist safety, or eliminates the need to construct a new road. (North Dakota RMP Amendment).

For general habitats: Only allow geophysical operations by heliportable drilling methods and in accordance with seasonal timing restrictions. (North Dakota RMP Amendment).

For general habitats: Find unsuitable for coal surface mining. (NW Colorado RMP Amendment).

For general habitats: High-profile structures exceeding 10 feet in height, would be eliminated, designed or sited in a manner which does not impact sage grouse. Permanent (longer than 2 months) structures which create movement must be designed or sited to minimize impacts to greater sage grouse (North Dakota RMP Amendment).

For general habitats: Noise limited to no more than 10 dBA above ambient, where technologically feasible (Buffalo RMP revision).

For general habitats: Employ herd management to minimize livestock impacts on sage grouse nesting habitat during spring. Hot season grazing does not occur on an annual basis. Adjust AUMs where sage grouse habitat objectives are not being met. Incorporate terms and conditions into grazing permits to meet SG habitat objectives. (California-Nevada RMP Amendment).

For general habitats: Bury new distribution lines within 1 mile of leks. (HiLine RMP revision).

For general habitats: Where riparian and wetland areas are already meeting standards they would be maintained in that condition or better. Where a site's capability is less than PFC, BLM would manage to achieve or move toward capability. Manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. (North Dakota RMP Amendment, Utah RMP Amendment).

For general habitats: Avoid all new structural range developments and location of supplements (salt or protein blocks) unless independent peer-reviewed studies show that the range improvement structure or nutrient supplement placement benefits sage grouse. (North Dakota RMP Amendment).

For general habitats: Do not use fire in precipitation zones < 12", except as last resort and where conditions allow and cheatgrass is a very minor component. (Northwest Colorado RMP Amendment).

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**Comment Number:** IDMTSG-14-0156-1

**Organization1:** Wood River Soil and Water Conservation District

**Commenter1:** Barbara Messick



**Comment Excerpt Text:**

Please find attached the Lincoln County Land Use/Sage Grouse Plan which outlines the guidelines to protect the concerns of the county and protect the Sage Grouse at the same time.

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**Comment Number:** IDMTSG-14-0159-10

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

The USGS Report also states:

[t]he magnitude of the impacts of mining activities on sage-grouse and sagebrush habitats is largely unknown, but mining of various Federal mineral resources (locatable and saleable) currently affects approximately 3.6 percent of potential sage-grouse habitat directly (across all MZs) with indirect effects potentially affecting large portions (5–32 percent) of some MZs”

USGS Report at 71 (internal citation omitted). While the impacts to GRSG from mining are uncertain, the habitat loss due to mining range-wide are minor and temporary because lands are reclaimed after mining, and therefore can be mitigated with appropriate conservation measures including off-site mitigation for such impacts. It should be noted that BLM reports that GRSG populations can adapt to some habitat fragmentation and that GRSG are able to bypass unsuitable habitats during migration from one seasonal habitat to another (USGS Report at 26); and that GRSG can adapt to some level of habitat fragmentation. Id. at 25

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**Comment Number:** IDMTSG-14-0159-17

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

For mining companies, a lease is a contract authorizing it to conduct mining operations on that tract, and granting the right to utilize adjacent lands by executing a lease modification, and these rights cannot be undermined by the LUPA process proposed here by the Federal land management agencies.

24. See, e.g., Conda Partnership v. Archer Investment Co., 12 F.3d 1105 (9th Cir.1993) (Unpublished Opinion).

The Ninth Circuit addressed whether an assignee had to pay royalties to the assignor on a tract that was added to the original lease by a lease modification after the assignment. The Circuit panel held that the rights to the tract added by the lease modification were created as a part of the original lease.

25. For example, when an entity enters into a mineral lease that company obtains a right to a noncompetitive lease of the lease modification area, see 43 C.F.R. § 3510.11 (2002). This right is only subject to the lessee’s compliance with the restrictions contained within 43 C.F.R. § 3510.15. If a lessee has complied fully with those restrictions, there is the right to modify the lease pursuant to its application.

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**Comment Number:** IDMTSG-14-0159-3

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Rather, what the Service actually found was, among others that “the information provided to us by BLM did

not specify what requirements, direction, measures or guidance has been included in the newly revised RMPs to address threats to sage-grouse and sagebrush habitat. Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of sage-grouse.” 75 Fed. Reg. at 13976. Further, “[a]lthough [Resource Management Plans], [Allotment Management Plans], and the permit renewal process provide an adequate regulatory framework, whether or not these regulatory mechanisms are being implemented in a manner that conserves sage-grouse is unclear.” Id. at 13977. Accordingly, instead of simply supplementing the requested information, BLM chose to respond with a wholesale reordering of Federal land priorities across 40 million acres of the Western United States.

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**Comment Number:** IDMTSG-14-0166-8

**Organization 1:** Center for Biological Diversity

**Commenter 1:** Randi Spivak

**Other Sections:** 7.5

**Comment Excerpt Text:**

A coalition of environmental organizations<sup>73</sup> developed and previously submitted a new alternative for consideration entitled, the Sage-Grouse Recovery Alternative.<sup>74</sup> Our recommendations build upon some of the proposed actions contained in the Sage-Grouse Recovery Alternative (Alternative “F” in the DEIS, although the DEIS did not faithfully follow all of the recommendations), and so they are not identical. For instance, our recommendations also incorporate very recent research results on the impacts of noise and ravens on sage grouse. In addition, our proposed system of sage grouse conservation areas system includes winter

distribution habitat and does not solely focus on mapping breeding and brood-rearing areas; within sage grouse conservation areas we generally buffer active leks with a 10 km buffer for surface occupancy and new roads, and 7.6 km for new trails, while Alternative F uses more conservative buffers.

#### A. The BLM Should Designate a System of Sage Grouse Conservation Areas (“SGCA”)

The Center requests that the agencies map and implement a conservation reserve system for the recovery of the sage grouse. Tools to implement and sustain such as system are limited however the agencies should take advantage of all existing land designations to do so, and pursue more durable and lasting designations through rule-making and Congressional actions.<sup>75</sup> Primary among existing designations are the Area of Critical Environmental Concern authorized in the BLM’s regulations, and the USFS may “adopt special designations through plan amendment or revision” to conserve natural resources (36 CFR § 219.27). The USFWS should administratively designate sage grouse conservation areas in the current planning process with similar purpose and management as BLM ACECs to conserve sage-grouse and other sagebrush dependent species on National Wildlife Refuges in the planning area.

A primary concern is that none of the administrative designations now in existence provide for long term assurances that the lands will be managed for the recovery and conservation of the grouse. As a parallel effort, the Center urges the agencies to pursue new authorities to enter into long term conservation for the grouse another species that provide for durable protections.

<sup>73</sup> Including the American Bird Conservancy, Defenders of Wildlife, the Sierra Club, and Wild Earth Guardians.

<sup>74</sup> Attached

<sup>75</sup> For fuller discussion, refer to the Sage-Grouse Recovery Alternative, pages 28-31.

At the heart of the effort to avoid the extirpation and extinction of the sage grouse, there must be a profound

and fundamental recognition that further habitat declines are very serious in nature. Early conservationist Aldo Leopold once said, “To keep every cog and wheel is the first precaution of intelligent tinkering.”<sup>76</sup> Due to the heavy impacts of man, fire and climate change on the landscape, we are facing a crisis of losing the “cogs” that form an intact and functional sage grouse ecosystem. Immediate steps are needed to stabilize the losses and lay the foundation for future recovery.<sup>77</sup>

Towards this end, the Center and others are proposing a system of habitat reserves to provide for the conservation and recovery of the grouse. Rationale and details for this proposed reserve system are now provided.

Greater sage grouse are a landscape species.<sup>78</sup> Migratory populations have large annual ranges that can encompass >2,700 km<sup>2</sup> / 667,184 ac.<sup>79</sup> Large-bodied birds like sage grouse are generally more strongly affected by habitat loss and fragmentation.<sup>80</sup> Although conclusive data on minimum patch size is unavailable, conserving large expanses of sagebrush steppe is the highest priority to conserve sage-grouse.<sup>81</sup> <sup>82</sup> One study identified ten lek complexes that were >5,000 km<sup>2</sup> / 1,235,526 ac) (range 5,395–100,288 km<sup>2</sup>) and 8 of them contained >100 leks (range 143–1,139).<sup>83</sup> Some sagebrush-dependent species use different habitat composition, structure or succession than sage grouse prefer. Protecting large blocks of habitat will also help preserve a mosaic of different habitats of varying successional stages used by sage-grouse and other sagebrush-dependent species.

Preserving large habitat islands in itself is not enough – these centers must be inner-connected for several reasons.

<sup>76</sup> Leopold, Aldo. In: Round River: From the Journals of Aldo Leopold (published 1953) by Oxford University Press, page 147.

<sup>77</sup> Knick, Steven T., Hanser, Steven E., and Kristine L. Preston. 2013. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: implications for population connectivity across their western range, U.S.A. *Ecology and Evolution*. John Wiley & Sons Ltd., page 2,

<sup>78</sup> Connelly et al. 2011a.

<sup>79</sup> Knick, S. T. and J. W. Connelly. 2011b. Greater Sage-grouse and sagebrush: an introduction to the landscape. Pages 1-9 in S. T. Knick and J. W. Connelly (eds). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

<sup>80</sup> Winter, M., D. H. Johnson, J. A Shaffer. 2006. Does body size affect a bird’s sensitivity to patch size and landscape structure? *Condor* 108(4): 808-816.

<sup>81</sup> Aldridge, C. L., S. E. Nielsen, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, M. A. Schroeder. 2008. Range-wide patterns of Greater Sage-grouse persistence. *Diversity and Distrib.* 14(6): 983–994.

<sup>82</sup> Connelly et al. 2011b.

<sup>83</sup> Knick, S. T. and S. E. Hanser. 2011. Connecting pattern and process in Greater Sage-grouse populations and sagebrush landscapes. Pages 383-405 in S. T. Knick and J. W. Connelly (eds). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

Knick et al. stated that, “Species that have multiple interconnected populations are more likely to persist because risk of extirpation caused by regional events...connectivity among populations ensures that recolonization can occur following local extirpation assuming that sufficient habitat remains.”<sup>84</sup>

In addition, some sage grouse populations (known as “migratory”) move long distances between seasonal

habitats, sometimes in two distinct movements.<sup>85</sup> Annual movements of 40-160 km by sage grouse along established routes have been reported.<sup>86</sup> Thus Beck et al. recommended conserving habitat corridors to facilitate easier movement for migratory sage grouse.<sup>87</sup>

Protecting smaller habitat patches can help connect larger areas. Successful conservation strategies for sage grouse would preserve networks of populations and/or habitat patches, including connecting smaller lek complexes within 18 km that could serve as intermediary islands of habitat for dispersing sage grouse.<sup>88</sup>

#### a. Reserve Components

Several habitat characteristics capable of being mapped are included as components in the reserve system—courtship, breeding and nesting areas, brood rearing areas, winter habitats and linkages.

##### i. Courtship, breeding and nesting areas

In the spring, during the breeding season, sage-grouse males seek out courtship areas, known as “leks” that are open areas of bare soil, short grass steppe, windswept ridges, or exposed knolls in which to gather and perform their ritualized mating displays and breed with females.<sup>89</sup> An important factor affecting lek location appears to be proximity to as well as configuration and abundance of nesting habitat.<sup>90</sup>

Leks are normally “traditional”, and occur in the same location each year. Some leks studied by early investigators have persisted for 28–67 years since first counted. The presence of broken bird-point arrowheads on some leks suggests that sage-grouse had used those sites for at least 85 years. Leks and the number of attending males are regularly used to monitor the long-term status of populations because of their traditional locations.<sup>91</sup>

84 Knick et al. 2013.

85 Connelly et al. 2011a.

86 Ibid.

87 Beck, J. L., K. P. Reese, J. W. Connelly, M. B. Lucia. 2006. Movements and survival of juvenile greater sage--grouse in southeastern Idaho. *Wildl. Soc. Bull.* 34(4): 1070--1078.

88 Knick and Hanser. 2011.

89 Manier et al. 2013.

90 Connelly, J.W., C.A. Hagen, and M.A. Schroeder. 2011c. Characteristics and dynamics of greater sage-grouse populations. Pages 53-67 in S. T. Knick and J. W. Connelly (eds). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

91 Ibid.

Although the actual lek sites are typically open areas, they are usually located in the midst of denser shrub stands, which together provide the necessary combination of visibility, protection, food, and thermal regulation.<sup>92</sup>

In a recent study looking at greater sage grouse across six western states, it was reported that 90% of the active leks were surrounded by areas having greater than 40% sagebrush cover. Further, 99% of the active leks were in landscapes with less than 3 % of the area in human development.<sup>93</sup> Successful leks occurred in areas with low road densities – less than 1 km/km<sup>2</sup> of secondary roads, less than .05km/km<sup>2</sup> of highways, and less than .01 km/km<sup>2</sup> of interstate highways. Another pertinent finding was that habitat suitability was highest when power line densities were less than .06 km/km<sup>2</sup>; leks were absent where power line densities exceeded .2 km/km<sup>2</sup>. With respect to communication/cellular towers, leks were absent when

tower densities exceeded .08 km/km<sup>2</sup>.<sup>94</sup>

Wisdom et al. reported that areas extirpated of sage grouse had 27 times the human density, 3 times more area in agriculture, were 60% closer to highways, and had 25% higher density of roads than what was found in occupied habitat. Also, it was found that power lines and cellular towers had significant impacts on whether or not a habitat was occupied.<sup>95</sup>

Studies published by Braun in 1977 and Connelly in 2000 initially set the standard that leks should be buffered by a 3.2 km or 3.1 mile radius, both to provide security for the grouse and to acknowledge the fact that many, but by no means all, female grouse will nest in the immediate area of the lek.<sup>96</sup>

However, more recent studies have suggested that the 3.2 km is questionable as to whether or not it adequately provides for the conditions needed for successful breeding and nesting.

It was found in one study that a 3 km buffer encompassed only 45% of the nesting females associated with that lek, while a 5 km buffer accommodated 64% of the nests. It was also reported that nests located within 1 km of another nest tended to have lower nesting success likely due to enhanced prey detection by predators.<sup>97</sup> The same study further suggests that to protect and maintain sage grouse populations residing in relatively contiguous sagebrush habitats, managers should minimize or halt actions that reduce the suitability of nesting habitats within 5 km of a lek until detailed site specific monitoring suggested otherwise. It also noted that a substantial number of females nested distances greater than 5 km from a lek and that this additional increment of individual recruitment could be important for population viability.<sup>98</sup>

<sup>92</sup> Manier et al. 2013.

<sup>93</sup> Knick et al. 2013.

<sup>94</sup> Ibid.

<sup>95</sup> Wisdom et al. 2011.

<sup>96</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, C. E. Braun. 2000. Guidelines to manage sagegrouse populations and their habitats. *Wildl. Soc'y Bull.* 28(4): 967-985.

<sup>97</sup> Holloram, Matthew J. and Stanley H. Anderson. 2005. Spatial distribution of greater sage-grouse nests in relatively contiguous sagebrush habitats. *The Condor* 107:742-752.

<sup>98</sup> Ibid.

For a related grouse, the U.S. Fish and Wildlife Service recommended "... avoiding placing wind turbines within 5 miles [8 km] of known leks (communal pair formation grounds) in known prairie grouse habitat".<sup>99</sup>

Johnsgard indicated that there was no obvious relationship between lek location and nest site. In 5 different studies involving more than 300 nests the average distance between lek and Sage-grouse nest where the females was first seen or captured was 3.5 mi (5.6 km).<sup>100</sup>

A majority (~90%) of nesting and brood-rearing habitat was within 10 km (6.2 miles) of active leks in Alberta (Aldridge and Boyce 2007); 97 percent of nests were found within 6.2 miles of leks where females were marked in the Powder River Basin in Montana and Wyoming.<sup>101</sup>

Walker et al. in another study found that the impacts from energy development on lek persistence and nesting were still apparent at a distance of 6.4 km from the disturbance.<sup>102</sup>

Connelly et al. reported in their assessment for the Western Governors' Association that road traffic within 7.6 km had adverse impacts on male grouse attendance at leks.<sup>103</sup>

## ii. Brood-raising areas

Brood rearing habitats are a very important component of sage-grouse habitats. A mosaic of upland sagebrush vegetation intermixed with mountain meadows and spring systems compose brood rearing habitat.

Placing a heavy focus on habitat protection around leks is not suitable for ensuring the viability of sage grouse populations. Studies have shown that both nest and brood rearing habitats are on average 6 km from leks, and it is not until 10 km from leks that one reaches the threshold where 90% of the habitat occurs.<sup>104</sup>

Brood occurrence is greater in more heterogeneous sagebrush stands, where patchy cover reduces predator efficiency but still affords necessary forb resources. Sage grouse are more abundant in patchy habitats containing a mix of mesic, forb-rich foraging areas interspersed within suitable sagebrush escape cover.<sup>105</sup>

99 Manville, A.M., II. 2004. Prairie grouse leks and wind turbines: U.S. Fish and Wildlife Service justification for a 5-mile buffer from leks; additional grassland songbird recommendations. Division of Migratory Bird Management USFWS, Arlington, VA, peer-reviewed briefing paper. 17 pp.

100 Johnsgard, P.A. 2002. Grassland grouse and their conservation. Smithsonian Institution Press, Washington and London, cited in Manville, A.M., II. 2004, page 11.

101 Doherty, K. E., D. E. Naugle, B. L. Walker. 2010. Greater Sage-grouse nesting habitat: the importance of managing at multiple scales. *J. Wildl. Manage.* 74(7): 1544-1553.

102 Walker et al. cited in Naugle et al. 2011.

103 Connelly et al. 2004.

104 Aldridge, Cameron L. and Mark S. Boyce. 2007. Linking Occurrence and Fitness to Persistence: Habitat-Based

Approach for Endangered Greater Sage-Grouse. *Ecological Applications* 17(2):508-526.

105 Manier et al. 2013. Page 21.

Broods are typically found in areas near nest sites for the first 2–3 weeks after hatching. Such habitat needs to provide adequate cover and areas with sufficient forbs and insects to ensure chick survival in this life stage.  
106

As the chicks get older, sage-grouse tend to move into more moist areas (streambeds or wet meadows) because as herbaceous vegetation dries out, wetter areas provide more forbs and insects for hens and their chicks.<sup>107</sup> Droughts resulting in reduced cover can make these habitats risky for sage grouse chicks, particularly if livestock grazing intensities have exacerbated the vegetative declines.<sup>108</sup>

iii. Wintering habitat

As previously mentioned, although leks are important focal points for breeding and subsequent nesting in the surrounding region, other seasonal use areas and habitat requirements may be equally limiting to sage-grouse populations.<sup>109</sup>

Suitable and diverse winter habitats are critical to the long-term persistence of grouse populations.<sup>110</sup> As summer ends, the diet of sage grouse shifts from a diet of insects, forbs and sagebrush to one comprised almost entirely of sagebrush.<sup>111</sup> In winter, the grouse depends heavily on sagebrush for cover, habitat selection being driven by snow depth, the availability of sagebrush above the snow, and topographic patterns that favorably mitigate the weather.<sup>112</sup>

Abundance of sagebrush at the landscape scale greatly influences the choice of wintering habitat. One study found that the grouse selected for landscapes where sagebrush dominates over 75% of the landscape with little tolerance for other cover types.<sup>113</sup> Because appropriate wintering habitat occurs on a limited basis and because yearly weather conditions influence its availability, impacts to wintering habitat can have large disproportional effects on regional populations. One study in Colorado found that 80% of the wintering use

occurred on only 7% of the area of sagebrush available.<sup>114</sup> Additionally, some degree of site fidelity to winter areas is suspected to exist, and wintering areas not utilized in typical years may become critical in severe winters.<sup>115</sup>

106 Ibid.

107 Ibid.

108 Aldridge and Boyce, 2007.

109 Knick et al. 2013.

110 NDOW 2012.

111 Doherty, Kevin E., David E. Naugle, Brett L. Walker, and Jon M. Graham. 2008. Greater Sage-Grouse Winter habitat Selection and Energy Development. *J. of Wildlife Management* 72(1):187/195.

112 Manier et al. 2013. Page 21.

113 Doherty et al. 2008.

114 Ibid.

115 Caudill, Danny, Terry A. Messmer, Brent Bibles, and Michael R. Guttery. 2013. Winter habitat use by juvenile greater sage-grouse on Parker Mountain, Utah: implications for sagebrush management. *Human-Wildlife Interactions* 7(2):250-259, Fall 2013.

Lower elevation sagebrush winter habitat used by sage grouse may also constitute important winter areas for big game and early spring forage areas for domestic livestock. Due to differing vegetative condition requirements, land treatments on lower elevation sagebrush areas to increase big game or livestock forage at the expense of sagebrush cover and density could have long-term negative consequences for the grouse.<sup>116</sup>

Sage grouse in the Powder River Basin were 1.3 times less likely to use otherwise suitable winter habitats that have been developed for energy (12 wells/4 km<sup>2</sup>), and avoidance was most pronounced in high-quality winter habitat with abundant sagebrush.<sup>117</sup>

#### iv. Linkages

Because use and availability of these seasonal habitats are spread across a given landscape, sage- grouse require vast areas of contiguous sagebrush to meet their needs on an annual basis.<sup>118</sup> Although leks are important focal points for breeding and subsequent nesting in the surrounding region, other seasonal use areas and habitat requirements may be equally limiting to sage-grouse populations. Population size and isolation can have serious negative impacts on genetic variability and population persistence.<sup>119</sup>

Science informs us that populations of rare species in small, disjunct areas of occupied range have a high risk of extirpation, and that the probability for extinction increases for populations that become increasingly small and isolated.<sup>120</sup>

Naugle et al. recently observed, that the severity of impacts to sage grouse from human disturbances, in particular energy development dictate the need to shift from a local to a landscape view for basing conservation actions.<sup>121</sup>

Any conservation reserve system for sage grouse must ensure the connectivity between metapopulations are preserved. GIS modeling can identify sage-grouse habitat, at a larger scales. There are limitations to a GIS-designed reserve system –for instance, within areas identified by GIS modeling as nesting habitat, there is some local variability in which sites are actually suitable for nesting, nests may be clumped in one area and not another, or local topography makes a linear distance from a lek meaningless. Still, for purposes of identifying crucial habitat for the grouse it is a crucial first step. As inventory and telemetry work advance, the system can be fine-tuned. The important thing is that key habitats and linkages not be lost and the precautionary principle applied to sage grouse management. <sup>122</sup>

116 Caudill et al. 2013.

117 Doherty et al. 2008.

118 Manier et al. 2013.

119 Knick et al. 2013

120 Wisdom et al. 2011.

121 Naugle, D.F., K.E. Doherty, B.L. Walker, M.J. Holloran, and H.E. Copeland. 2011. Energy development and Greater Sage-Grouse. Pp. 489-503 in S.T. Knick and J.W. Connelly (editors). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology (vol. 38). University of California Press. Berkeley, CA.

122 The precautionary principle states: “Precautionary Principle states that when an activity causes some threat or harm to the public or the environment, general precautionary measures should be taken. When a scientific investigation proves that there is a possible risk in doing some activity, then this principle should be applied. Internationally, one of the most important expression of the Precautionary principle is the Rio Declaration from the United Nations Conference on Environment and Development. Principle 15 of the Rio Declaration reads:

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

This principle is applied in the context of human activities on the environment and human health.

In U.S the precautionary principle is not expressly mentioned in any laws or policies. Despite U.S. acceptance of the precautionary principle in international treaties and other statements, little work has been done to implement this principle.” From: <http://definitions.uslegal.com/p/precautionary-principle/>

## A. Threats and Management Direction

The DEIS identified about a dozen issues and threats to be considered in the land use plan amendment process. What follows is the Centers brief reaction to theses and recommendations for addressing them. We separate our recommendations into two general categories – inside our proposed sage grouse conservation areas (“SGCAs”) and sage grouse habitat outside of them.

### a. Energy Development and Transmission

The Center strongly supports and advocates for energy policies that rapidly phase out fossil- based sources in favor of renewable sources, including ending fossil fuel extraction on public lands, and supports renewable sources of energy such as wind, solar and geothermal, with the goal in mind of halting the rapid rise of greenhouse gas concentrations in the atmosphere and slowing the tide of climate disruptions.

At the same time, the Center is highly concerned about the impacts from poorly sited renewable energy projects on rare species and their habitats. We advocate for locating renewable energy projects on private or previously disturbed lands near transmission lines, or through roof-top solar distributive-community systems.

The threats from energy developments are many pronged. In addition to the direct impacts of destruction of actual habitat by the footprint of the project, secondary and indirect impacts due to energy development include avoidance of previously used areas due to species psychology, increased predation, traffic-associated mortality, increased chance and spread of diseases such as the West Nile virus.

Transmission lines—a key component of renewable energy development—also negatively impact sage grouse populations. One study found that the mean distance to electric transmission lines was greater than 2 times further in occupied range than in extirpated range.<sup>123</sup>



123 Wisdom et al. 2011.

The Center brings to your attention recent research on the impacts of ravens on sage grouse and other species in sagebrush habitats, with emphasis on how it relates to raven use of transmission lines.

Common raven populations in the western United States have more than quadrupled over the last 40 years.<sup>124</sup> This increase is believed to be a result of human alterations of natural habitats that provide subsidies and benefits to the ravens. For instance, road-kills, trash dumps and landfills, and livestock operations provide readily available sources of food. Water developments for livestock, irrigation and sewage lagoons provide new water sources. But with respect specifically to energy development, tall structures (e.g., power poles and transmission towers) constructed by humans provide ravens with elevated perches and nesting substrate in areas where natural tall structures (e.g., trees) are rare or nonexistent. <sup>125</sup>

Howe et al. found that ravens selected nest locations that were (1) in close proximity to transmission lines; (2) in close proximity to land cover edges; and (3) within areas that contained abundant edge formed by adjoining land cover types. Selection for edge-dominated areas, specifically edges between sagebrush and grasslands and nonnative cover types, suggests that ravens are taking advantage of new habitat conditions caused by a combination of habitat fragmentation and conversion. <sup>126</sup>

In their research Howe and her co-authors, found that ravens preferred nest sites that were closer to transmission lines than expected based on availability. Transmission poles provided nesting substrates and perches taller than any other substrate present in their study area.<sup>127</sup>

Increased presence of ravens can be deleterious to other species within the geographical range of ravens, and raven abundance has been positively correlated with predation of eggs or nestlings of other birds breeding within raven range, including eggs and nestlings of sage grouse.<sup>128</sup> In another study nests in fragmented habitats were approximately 9 times more likely to be depredated than those in contiguous habitat.<sup>129</sup>

It is quite clear from observation and reported science that ravens are increasing and benefiting from fragmentation and human changes on the landscape. As this occurs, there will be continued negative consequences to sage grouse nesting success and recruitment into the breeding population.

<sup>124</sup> Sauer, J. R., J. E. Hines, J. E. Fallon, K. L. Pardieck, D. J. Ziolkowski Jr., and W. A. Link (2011). The North

American Breeding Bird Survey, Results and Analysis 1966–2009, Version 3.23.2011.

<sup>125</sup> Howe, Kristy B., Peter S. Coates and David J. Delehanty. 2014. Selection of anthropogenic features and vegetation characteristics by nesting Common Ravens in the sagebrush ecosystem. *The Condor, Ornithological Applications*, Vol. 116, 2014, pp. 35-49.

<sup>126</sup> Howe et al. 2014.

<sup>127</sup> Ibid.

<sup>128</sup> Coates, P.S. and D. J. Delehanty. 2010. Nest predation of Greater Sage-Grouse in relation to microhabitat factors and predators. *J. of Wildlife Management*, 74:240-248.

<sup>129</sup> Vander Haegen, W. M., M. A. Schroeder, and R. M. DeGraaf. 2002. Predation on real and artificial nests in shrubsteppe landscapes fragmented by agriculture. *The Condor* 104:496–506.

The infrastructure associated with energy development within sagebrush ecosystems threatens the contiguous habitats remaining in the western United States. The linear right-of-ways associated with wind and other energy developments likely provide anthropogenic nesting subsidies and fragmented landscapes, both of which increase nesting opportunities for ravens. Preventing fragmentation by transmission lines, roads, and

other human interventions is integral to stemming the increase and range expansion of raven populations.<sup>130</sup>

We recommend the following strengthened management approaches to minimize further degradation of sage grouse habitats from energy-related development.

#### Management Prescriptions:

##### i. Management Inside SGCAs in sage grouse habitat

- Exclude these areas from new energy leasing and rights-of-way.
- Whenever possible, bury existing transmission lines within 10 km from active leks.
- Institute seasonal restrictions on surface occupancy within 10 km from leks during courtship and early brood-rearing periods.
- No new road construction within 7.6 km of active leks.
- If existing disturbed area in the SGRA exceeds 3% of the surface area, institute measures to provide additional mitigation to offset the impacts on the grouse.

##### ii. Management outside SGCAs in sage grouse habitat

- Institute seasonal restrictions on surface occupancy within 5 km from leks during courtship and early brood-rearing periods.

##### b. Livestock Grazing and Wild Horses

Grazing by settlers during the latter part of the 19th and early 20th centuries was largely unregulated and seriously depleted native forbs and grasses needed by sage-grouse. Historic grazing practices also facilitated invasions by non-native plants, including cheatgrass. A conservation assessment of sage grouse and its habitats found that impacts attributable to historic overgrazing have not been remedied, because, “plant communities still are not given rest from grazing” and “distribution of livestock has changed because water developments have increased the area that could be grazed.” Consequently, the assessment stated, “We cannot conclude that the effect of grazing has been reduced because even reduced numbers of livestock may still exert a larger influence on those habitats.”<sup>131</sup>

<sup>130</sup> Howe. Et al. 2014.

<sup>131</sup> Connelly et al. 2004.

Livestock grazing remains the most widespread use of land in the sagebrush biome. Domestic livestock continue to alter the sagebrush steppe by consuming native grasses and forbs, trampling sagebrush, and spreading nonnative weeds like cheatgrass. The introduction of invasive plant species increases the risk and severity of wildfires, which can irreversibly alter the composition of the ecosystem. Livestock grazing also compacts the soil, destroying the microbiotic soil crusts that retain moisture and limit wildfire. In addition, grazing livestock degrade riparian areas when, during hot periods, they congregate around water sources and shady areas, damaging streams, springs, seeps, and wet meadows, which are also crucial for the grouse.<sup>132</sup>  
133

Standards and guidelines for management of public grazing lands are established by local resource advisory councils and must address habitats and conservation measures for endangered, threatened, proposed, candidate, or other at-risk or special status species. Under this set of criteria for rangeland health, 58% of lands that have been assessed (25% of all lands under management by the U.S. Bureau of Land Management) (including non-sagebrush habitats) met the standards or were making progress towards meeting those standards. Livestock were a factor in 36% of the assessed lands not meeting standards (15% of the all lands). Another 6% of the assessed lands were not meeting standards for causes other than livestock grazing.

Fifty-seven percent (>37 million ha) of the public lands managed by the U.S. Bureau of Land Management have not been assessed.<sup>134</sup>

For further documentation of the impacts of livestock and grazing on sage grouse and its habitats we refer you to the Sage-Grouse Recovery Alternative, and incorporate these comments as our own.<sup>135</sup>

The Center emphasizes our agreement with the Sage-Grouse Recovery Alternative regarding the treatment of livestock grazing as a diffuse disturbance on sage grouse habitat.<sup>136</sup> The readily and all too often observed sacrifice zone of utter destruction that occurs around watering, salting and gathering corrals is anything but diffuse. As Holechek and others observed, depending on topography, areas of severe degradation, or “sacrifice areas” around water sources, including water developments, can extend from one to several miles from water sources.<sup>137</sup>

132 Ibid.

133 Holloram and Anderson. 2005.

134 Connelly et al. 2004, page 7-34.

135 Pages 16-21.

136 Sage-Grouse Recovery Alternative, pages 20-21.

137 Holechek, J. L., R. D. Pieper, C. H. Herbel. 2001. RANGE MANAGEMENT: PRINCIPLES AND PRACTICES. 4th ed. Prentice-Hall. Upper Saddle River, NJ.

Given the state of degradation and the pervasive nature of livestock grazing, we recommend establishing a utilization rate of 25-30% while meeting sage grouse habitat objectives. While definitions of light grazing use vary, numerous references have settled on a general 25 percent harvest coefficient for allocating forage for livestock.<sup>138</sup> Although this rate is more conservative than others prescribed for light grazing, it allows both forage species and livestock to maximize their productivity, allows for error in forage production estimates, accounts for the potential effects of drought, and supports multiple use values.<sup>139</sup> Holecheck et al. also noted that, because most ranchers have difficulty monitoring and measuring annual grazing utilization (and the BLM doesn't regularly monitor and collect utilization information), use of grazing coefficients higher than 25 percent “invariably leads to land degradation...when drought occurs because of rancher reluctance [to reduce livestock numbers].”<sup>140</sup> Limiting livestock grazing to 25 percent utilization would also support other sage-grouse habitat objectives, such as maintaining a minimum stubble height.<sup>141</sup> A case study of the Antelope Springs Allotment in southern Idaho demonstrates that ranching operations can be successful and improve sage-grouse habitat using a 20 percent utilization standard.<sup>142</sup>

We recommend the following strengthened management approaches to minimize further degradation of sage grouse habitats from livestock grazing and the impacts from feral wild horses.

#### Management Prescriptions:

##### i. Management inside SGCAs in sage grouse habitat

- Issue no new grazing permits.
- Identify existing grazing allotments where permanent retirement of the grazing privileges are feasible, and proceed with such retirements.
- Avoid all new structural range improvements, and prohibit water developments and salting within 10 km of active leks.
- Authorize no new water developments for diversion from spring or seep sources.
- Ensure new or rehabilitated water developments are designed to use best management practices to limit and mitigate potential impacts from the West Nile virus.

- Remove, modify or mark fences in areas of moderate or high risk to sage grouse collisions.143
- Institute 25-30% grazing utilization standard on existing allotments while meeting objectives for sage grouse habitat conditions.
- Prioritize completion of land health assessments and ensure grazing systems and practices under permit are designed and required to meet sage grouse habitat objectives. Institute timely monitoring to ensure objectives are being met.
- Manage riparian and wetland areas to meet properly functioning condition standards. Manage wet meadows to maintain perennial forbs and a rich species mix needed for sage grouse brood-rearing.
- Review free-roaming horse and burro herd management plans with sage grouse habitat objectives in mind. Aggressively manage herds to maintain them at or below herd management objectives.

138 Holechek, J. L., R. D. Pieper, C. H. Herbel. 2010. RANGE MANAGEMENT: PRINCIPLES AND PRACTICES. 6th ed. Prentice-Hall. Upper Saddle River, NJ (citing Troxel and White 1989; Galt et al. 2000; Lacey et al. 1994; Johnson et al.1996; White and McGinty 1997; NRCS 1997)).

139 See generally Holechek et al. 2010, id.

140 Holecheck et al. 2010, at 157.

141 See Holechek et al. 2010, at 164; see also Manier, D. J., D. J. A. Wood, Z. H. Bowen, R. M. Donovan, M. J. Holloran, L. M. Juliusson, K. S. Mayne, S. J. Oyler-McCance, F. R. Quamen, D. J. Saher, A. J. Titolo. 2013. Summary of science, activities, programs, and policies that influence the rangewide conservation of greater sage-grouse (*Centrocercus urophasianus*). U.S. Geological Survey, Open-File Report 2013–1098; available at <http://pubs.usgs.gov/of/2013/1098/>.

142 Stuebner, S. "Jared Brackett -- Ranching in a Fishbowl," Times-News (Twin Falls, ID) (Dec. 29, 2013).

143 Stevens, B. S. 2011. Impacts of fences on Greater Sage-grouse in Idaho: collision, mitigation, and spatial ecology. Masters thesis. University of Idaho. Moscow, ID.

## ii. Management outside SGCAs in sage grouse habitat

- Identify existing grazing allotments where permanent retirement of the grazing privileges are feasible, and proceed with such retirements.
- Avoid all new structural range improvements, and prohibit water developments and salting within 10 km of active lets.
- Authorize no new water developments for diversion from spring or seep sources.
- Ensure new or rehabilitated water developments are designed to use best management practices to limit and mitigate potential impacts from the West Nile virus.
- Remove, modify or mark fences in areas of moderate or high risk to sage grouse collisions.144
- Institute 25-30% grazing utilization standard on existing allotments while meeting objectives for sage grouse habitat conditions.
- Manage rangelands to meet properly functioning condition standards. Manage wet meadows to maintain perennial forbs and a rich species mix needed for sage grouse brood-rearing.
- Manage free-roaming horse and burro populations at levels demonstrated to achieve and maintain sage grouse habitat objectives.

## c. Landscape-scale changes and vegetation management

The Center addresses this issue by defining vegetation management as treatments to achieve and protect sage grouse life-cycle habitat needs and the control and prevention of noxious and invasive species.

The need for vegetation management to manage for specific resource objectives arises from changes to the natural ecosystems, either through natural changes in succession or state, or from large scale disturbances such as wildfires, spread of invasive and non-native species, climate disruption, or other human alterations to

ecosystems.

The DEIS does a credible job of documenting the ecosystem changes that have occurred over the past 100+ years.

144  
Ibid.

The Center believes it is important to state that human-induced landscape-scale changes to sage grouse ecosystems pose a dire threat to the long term continued existence of the species. We are not alone. Miller et al. noted that sagebrush habitats are severely stressed across much of the range, and their total area likely will decline in the relatively near future as a result of invasive species, fire, and climate change.<sup>145</sup>

At lower elevations and in the more arid portions of the sage grouse range, the catastrophic spread of cheatgrass, aided and abetted by the impacts from over-grazing and changes in fire frequency and intensity has led to a lasting, if not permanent changes in ecosystem states. Repeat fires that eliminate or reduce shrubs, native grasses, and forbs; disturb soils and biological crusts; and release nutrients have allowed cheatgrass and other introduced annuals to replace the native shrub and herb layers. The resultant landscape is largely composed of introduced annuals, and is more susceptible to annual weather patterns and varies greatly from year to year, depending on moisture availability. Long term changes in climate that facilitate or enhance invasion and establishment by invasive annual grasses further exacerbate the fire regime and accelerate loss of sagebrush habitats.<sup>146</sup>

At higher and cooler elevations, changes in fire frequency and intensity have come at the expense of sagebrush ecosystems in a different manner. Under pre-European settlement conditions, wildfires and indigenous planned fires kept pinyon pine and western junipers (“PJ”) confined to areas where fires would not typically reach – mainly rocky terrain where the fuels needed to carry the fire were patchy and disjunct. Once modern settlers arrived in the mid-1880s this pattern changed. Heavy livestock grazing initially greatly reduced the fine fuels needed to carry fires, and later active human intervention suppressed fires to prevent their spread. As a result, PJ species were able to establish seedlings in grass and shrubland areas where formerly fires would have eliminated them. This then was the beginning of the woodland expansion into sage grouse habitat that continues today.<sup>147</sup> <sup>148</sup> Prior to 1860 two-thirds of the landscape was treeless and occupied by sagebrush-steppe communities. Today, less than one-third of the landscape remains treeless and more than 90 percent of the trees have established since the 1860s. These data support the need for active management in tree removal. In the absence of disturbance, woodlands will continue to expand, mature, and close.<sup>149</sup>

<sup>145</sup> Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. Pp. 145–184 in S. T. Knick and J. W. Connelly (editors). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biology (vol. 38), University of California Press, Berkeley, CA.

<sup>146</sup> Ibid.

<sup>147</sup> Miller, R.F., and R.J. Tausch. 2001. The role of fire in pinyon and juniper woodlands: a descriptive analysis. Pages 15–30 in K.E.M. Galley and T.P. Wilson (eds.). *Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species*. Fire Conference 2000: the First National Congress on Fire Ecology, Prevention, and Management. Miscellaneous Publication No. 11, Tall Timbers Research Station, Tallahassee, FL.

<sup>148</sup> Miller, Richard F.; Tausch, Robin J.; McArthur, E. Durant; Johnson, Dustin D.; Sanderson, Stewart C. 2008. Age structure and expansion of piñon-juniper woodlands: a regional perspective in the Intermountain West. Res. Pap. RMRS-RP-69. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research

Station. 15 p.

149 Ibid.

Ibid.

#### Management Prescriptions:

##### i. Management inside of SGCAs in sage grouse habitat

Restoring sage grouse habitat that is degraded or fragmented might be useful tool for the benefitting the species. However, these programs are likely to be both difficult and expensive, and may take centuries to achieve a complete restoration of a functioning system of sagebrush habitats within a landscape mosaic.<sup>150</sup> The obvious and best way to provide for the species at least in the short to intermediate term is to protect the remaining existing habitat, which is the intent of the Center's proposed conservation reserve system.

- Where it will achieve sage grouse habitat objectives, passive restoration approaches should be favored over active methods.
- Any vegetation treatment plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring of treated areas.
- Ensure that vegetation treatments create landscape patterns which most benefit sage--grouse. Only allow treatments that are demonstrated to benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat objectives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage--grouse habitat).
- Identify and prioritize sage-grouse habitat for restoration projects based on environmental variables that improve chances for project success.<sup>151</sup> Prioritize restoration in seasonal habitats that are thought to be limiting sage--grouse distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).
- Restrict activities in SGCAs that facilitate the spread of invasive species, including recreational and commercial use by off-road vehicles.
- Do not use prescribed fire as a tool in low elevation areas where the potential for cheatgrass invasion is above low.
- Retain sagebrush canopy cover at or above what is expected for that ecological site, consistent with sage-grouse habitat objectives unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage--grouse habitat and conserve habitat quality for the species.
- Aggressively monitor and control invasive vegetation in sagebrush steppe ecosystems. Rapidly restore burned or disturbed habitat to minimize or prevent the incursion of invasive plants.
- In areas of PJ, avoid treating the areas of persistent woodlands. Persistent woodlands are an ecological condition, irrespective current observed "fire condition class", where site conditions and disturbance regimes are inherently favorable for PJ, and where trees are a major component of the vegetation unless recently disturbed. These woodlands do not represent twentieth century conversion of formerly non-wooded vegetation types, but are places where trees have been an important stand component for several hundred years.<sup>152</sup>
- In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical methods rather than prescribed fire.
- Apply appropriate seasonal restrictions for implementing management treatments consistent with the types of seasonal habitats present.

##### ii. Management outside SGCAs in sage grouse habitat

- Where it will achieve sage grouse habitat objectives, passive restoration approaches should be favored over active methods.
- Identify and prioritize sage-grouse habitat for restoration projects based on environmental variables that

improve chances for project success.153 Prioritize restoration in seasonal habitats that are thought to be limiting sage--grouse distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).

- Restrict activities in SGCAs that facilitate the spread of invasive species.
- Do not use prescribed fire as a tool in low elevation areas where the potential for cheatgrass invasion is above low.
- Retain sagebrush canopy cover at or above what is expected for that ecological site, consistent with sage-grouse habitat objectives unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage--grouse habitat and conserve habitat quality for the species.
- Aggressively monitor and control invasive vegetation in sagebrush steppe ecosystems. Rapidly restore burned or disturbed habitat to minimize or prevent the incursion of invasive plants.
- In areas of PJ, avoid treating the areas of persistent woodlands. Persistent woodlands are an ecological condition, irrespective current observed “fire condition class”, where site conditions and disturbance regimes are inherently favorable for PJ, and where trees are a major component of the vegetation unless recently disturbed. These woodlands do not represent twentieth century conversion of formerly non-wooded vegetation types, but are places where trees have been an important stand component for several hundred years.154
- In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical methods rather than prescribed fire.
- Apply appropriate seasonal restrictions for implementing management treatments consistent with the types of seasonal habitats present.

150 Miller et al. 2011.

151 Meinke, C. W., S. T. Knick, D. A. Pyke. 2009. A spatial model to prioritize sagebrush landscapes in the intermountain west (U.S.A.) for restoration. *Restoration Ecol.* 17(5): 652-659.

152 Romme, William H., Craig D. Allen, John D. Baily, William L. Baker, Brandon T. Bestelmeyer, Peter M. Brown, Karen S. Eisenhart, Lisa Floyd-Hanna, David W. Huffman, Brian F. Jacobs, Richard F. Miller, Esteban H. Muldavin, Thomas W. Swetnam, Robin J. Tausch, and Peter J. Weisberg. 2008. *Historical and Modern Disturbance Regimes, stand structures, and Landscape Dynamics in Pinon-Juniper Vegetation of the Western U.S.* Colorado Forest Restoration Institute, Colorado State University, Fort Collins, CO. ( [www.cfri.colostate.edu](http://www.cfri.colostate.edu) ).

153 Meinke et al.2009.

154 Romme et al. 2008.

#### d. Wildfire Operations

Wildfires present a huge threat to sage grouse ecosystems - between 2000 and 2012, over 2 million acres of GRSG habitat in the planning area were affected by wildland fire, and the threat of future wildfires are discussed in the DEIS.155

As discussed in Section 3 c of these comments, the best and most prudent approach is to protect and preserve existing sage grouse habitats as opposed to being in the position of restoring or replacing damaged or lost habitats.

Fire suppression activities should be aggressive and aimed at minimizing acres burned. Protecting sage grouse habitats should generally rank above protection of human property and always behind protection of human lives.

#### e. Recreation and Travel Management

Although specific work addressing effects of roads, trails, and OHV use on sagebrush habitats and sage-grouse has not been conducted, research suggests common effects including habitat loss and fragmentation, invasive plant spread, induced displacement or avoidance behavior, creation of movement barriers, noise, and direct encounters.<sup>156</sup> Reducing the extent and influence of roads and trails can be incorporated into near-term and long-term plans for consolidating, conserving, and improving priority habitat areas. The impacts of roads and other surface occupancy on grouse and their habitat needs are covered in Section 2 of these comments, and form the basis for our management recommendations.

Some non-inclusive examples of the motorized recreation threat to sage grouse could be useful and informative and are now provided.

In the late-2000s the U.S. Forest Service conducted travel management planning on its administrative units in Nevada. The Center and other concerned groups and individuals raised the issue of conflicts and adverse impacts on sage grouse from such a public land use. The result demonstrated a general lack of concern by the Forest Service. In its final decisions, the Forest Service<sup>157</sup> allowed the following:<sup>158</sup>

<sup>155</sup> DEIS, Chapter 3.7.

<sup>156</sup> Knick, S.T., Hanser, S.E., Miller, R.F., Pyke, D.A., Wisdom, M.J., Finn, S.P., Rinkes, E.T., and Henny, C.J.,

2011, Ecological influence and pathways of land use in sagebrush, in Knick, S.T., and Connelly, J.W., eds., Greater Sage-Grouse: ecology of a landscape species and its habitats: Berkeley, Calif., University of California Press, Cooper Ornithological Union, p. 203–252.

<sup>157</sup> In this case the Humboldt-Toiyabe National Forest

<sup>158</sup> See decision documents at:

<http://www.fs.usda.gov/wps/portal/fsinternet/projects/htnf/landmanagement/projects?sortby=1&archive=1>

- On the Ely Ranger District, 79 miles of open motorized routes were allowed within 2- miles of an active lek. There were minimal seasonal closures.
- On the Austin and Tonopah Ranger Districts, 240 miles of open routes were approved in nesting and brood-raising areas, including 24 miles within .5 km of active leks. There were minimal seasonal closures.
- The Bridgeport Ranger Districts (partly in California and all within Bi-state sage grouse areas) left open 719 miles of routes in nesting and brood-raising areas, including 388 miles that “pass through leks”. There were minimal seasonal closures.
- The Mountain City, Jarbridge and Ruby Mountain Ranger Districts left open 146 miles in nesting areas, including 24-miles that came within .5 miles of an active lek. These districts did identify 86 miles of open routes to be seasonally closed to benefit sage grouse.

Management Prescriptions:

#### i. Management inside SGCAs in sage grouse habitat

- All travel must be on designated open roads and trails, subject to seasonal restrictions.
- Seasonal restriction should include the periods of courtship, nesting and early brood raising, as well as times when the grouse are on wintering habitats.
- No new trail construction within 7.6 km of active leks.
- Close existing trails and roads to achieve an open road and trail density not greater than 1 km/km<sup>2</sup>.<sup>159</sup>
- During travel management planning evaluate the closure of secondary and primary roads in the SGRA.
- Seasonally prohibit camping within 7.6 km of active leks.
- Allow no commercial or special use permitted activities in SGRAs unless there is a demonstrated beneficial affect for the grouse.



## ii. Management outside SGCAs in sage grouse habitat

- All travel must be on designated open roads and trails, subject to seasonal restrictions.
- Seasonal restriction should include the periods of courtship and nesting, as well as times when the grouse are on wintering habitats.
- No new trail construction within 6.4 km of active leks.
- Seasonally prohibit camping within 6.4 km of active leks.

## f. Mineral Development

The impacts from the various minerals development activities – fluid, coal, locatable, leasable and sand and gravel have been amply documented in by Connelly, Naugle and others and have been cited elsewhere in our comments.<sup>160 161</sup> While the impacts are much akin to those of energy development, on-the-whole they involve much greater human presence and activity and noise, and hence have a much greater impact on the grouse.

159 Knick et al. 2013.

160 Connelly et al. 2011a

161 Naugle et al. 2011.

In addition, we wish to highlight a few of the examples.

Energy development can cause radical changes to sagebrush ecosystems. Analysis of oil and gas developments found cases where such lands contained twice as many roads and power lines and the density of development far exceeded the grouse's threshold of tolerance. <sup>162</sup>

Energy development and its related infrastructure impacts grouse in many ways, both direct and indirect, cumulatively and synergistically.

Males and females may abandon leks if repeatedly disturbed by raptors perching on power lines near leks, by vehicle traffic on nearby roads, or by noise and human activity associated with energy development. Collisions with power lines and vehicles and increased predation by raptors may increase mortality of birds at leks. Roads and power lines may also indirectly affect lek persistence by altering productivity of local populations or survival at other times of the year. Sage-grouse mortality associated with power lines and roads occurs year-round, and artificial ponds created by development that support breeding mosquitoes known to vector West Nile virus elevate risk of mortality from disease in late summer. Sage-grouse may also avoid otherwise suitable habitat as development. Impacts from well sites to leks were still evident out to 6.4 km from the well.<sup>163</sup>

Sage-grouse in the Powder River Basin were 1.3 times less likely to use otherwise suitable winter habitats that have been developed for energy (12 wells/4 km<sup>2</sup>), and avoidance was most pronounced in high-quality winter habitat with abundant sagebrush.<sup>164</sup>

Blickley found in a treatment-control paired study that there was an immediate and sustained decline in male grouse attendance on leks subjected to human noise associated with well sites (29% decline on drilling noise leks and 73% decline on traffic noise leks relative to paired non- noise leks) and evidence of similar declines in female attendance.<sup>165</sup>

As reported in the Sage-Grouse Recovery Alternative,

162 Ibid.

163 Ibid.

164 Doherty et al. 2008.

165 Blickley et al. 2012.

“A new study commissioned by the Bureau of Land Management has exposed major difficulties with the agency's current approach to sage-grouse conservation in the Powder River Basin, a region that is heavily developed for gas and oil. The study indicates that an increasing density of coalbed methane wells and conventional oil and gas wells coupled with an outbreak of West Nile virus could cause "functional extinction" of sage-grouse in the Powder River Basin. Under such a scenario, modeling predicts that 370 active leks known today in the Basin would be reduced to only six (Taylor et al. 2012). The authors estimate that 27 percent of the pre-development sage grouse population has already been lost as a result of heavy coalbed methane and conventional drilling in the Powder River Basin, and predicts that only 39 percent of the original population will remain when coalbed methane is fully developed (with up to eight wells per section) in the Basin, even in the absence of a West Nile virus outbreak (Taylor et al. 2012). The study also found that sage-grouse censused at large leks would be expected to decline by 70 percent from pre-development numbers as well spacing reaches 4 wells per square mile. Finally, effects of drilling on sage-grouse were noticeable out to 12.4 miles from leks, indicating that current core areas may not be large enough to conserve and recover the species (Taylor et al. 2012).”<sup>166</sup>

#### Management Prescriptions:

##### i. Management inside SGCAs in sage grouse habitat

- Close/find unsuitable/withdraw all unleased or available areas to fluid, solid, locatable or salable mineral leasing.<sup>167</sup>
- Upon expiration or termination of existing leases, do not re-lease the area.
- Only allow geophysical exploration activities by helicopter portable drilling methods in accordance with appropriate seasonal and timing restrictions.
- Ensure that with any new leasing do not contribute to a total human disturbance exceeding 3% per section of that area.
- In existing leased and permitted areas, apply a 10 km non-surface occupancy around active leks and limit permitted disturbance to 1 per section and no more than 3% surface disturbance per section.
- Apply best management practices to minimize surface disturbing activities.
- Implement courtship, nesting, early-brood rearing and winter seasonal and timing restrictions for all human activities.
- Avoid the surface disposal of produced water<sup>168</sup> unless it can be proven to be beneficial to sage grouse and includes measures to preclude the spread of West Nile virus.

##### ii. Management outside SGCAs in sage grouse habitat

- Apply a 10 km non-surface occupancy around active leks and limit permitted disturbance to 1 per section and no more than 3% surface disturbance per section.
- Apply best management practices to minimize surface disturbing activities.
- Implement courtship, nesting, early-brood rearing and winter seasonal and timing restrictions for all human activities, including exploration.
- Avoid the surface disposal of produced water unless it can be proven to be beneficial to sage grouse and includes measures to preclude the spread of West Nile virus.

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**Comment Number:** IDMTSG-14-0167-4

**Organization 1:** Pioneer PR and Development LLC. Trifold Media Company

**Commenter 1:** Mitch Staley

**Comment Excerpt Text:**

The use of anecdotal information included in the “Sage-Grouse ESA Species Listing Form” is also non-compliant with U.S. DOI Information Quality Guidelines Section II:4 (a) and (b). The following statements under the “Population Estimates/Status” heading exemplify a reliance on anecdotal evidence, which is not “sound and objective scientific practices” or “standard and accepted methods” as required by U.S. DOI Information Quality Guidelines Section II: 4 (a) and (b).

“Estimates of greater sage-grouse abundance were mostly anecdotal prior to the implementation of systematic surveys in the 1950’s (Braun 1998, p. 139). Early reports suggested the birds were abundant throughout their range, with estimates of historical populations ranging from 1,600,000 to 16,000,000 birds (65 FR 51580). However, concerns about extinction were raised in early literature due to market hunting and habitat alteration (Hornaday 1916, pp. 181-185). Following a review of published literature and anecdotal reports, Connelly et al. (2004, ES-1-3) concluded that the abundance of sage-grouse has declined from pre-settlement (defined as 1800) numbers. Most of the historical population changes were the result of local extirpations, which have been inferred from a 44 percent reduction in sage-grouse distribution described by Schroeder et al. 2004 (Connelly et al. 2004, p. 6-7).

The previous passage is contradicted with the following under “Population Trends”:

“Although population numbers are difficult to estimate, the long-term data collected from counting males on leks provides insight to population trends. Periods of historical decline in sage-grouse abundance occurred from the late 1800s to the early 1900s (Hornaday 1916, pp. 179-221; Crawford 1982, pp. 3-6; Drut 1994, pp.2-5; Washington Department of Fish and Wildlife 1995; Braun 1998, p. 140; Schroeder et al. 1999, p. 1). Other noticeable declines in sage grouse populations occurred in the 1920s and 1930s, and then again in the 1960s and 1970s (Connelly and Braun 1997, p. 3-4; Braun 1998, p. 141). Declines in the 1920s and 1930s were attributed to hunting, and declines in the 1960s and 1970s were primarily a result of loss of habitat quality and quantity (Connelly and Braun 1997, p. 2).

Using estimates from the late 1800s-1950 are anecdotal and are therefore non-compliant with U.S. DOI Information Quality Guidelines Section II: 4 (a) and (b) because “Estimates of greater sage-grouse abundance were mostly anecdotal prior to the implementation of systematic surveys in the 1950’s.”

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**Comment Number:** IDMTSG-14-0167-5

**Organization 1:** Pioneer PR and Development LLC. Trifold Media Company

**Commenter 1:** Mitch Staley

**Comment Excerpt Text:**

“Sage-Grouse ESA Species Listing Form” includes no data on one of the major “population(s) addressed by an estimate of applicable effects” which is the human population that will be affected by the data that would determine an ESA ruling for listing the greater sage- grouse for protection under the ESA. Data and information included in the form excludes an evaluation of the negative and positive condition of the human habitat that will be altered by decisions made using the “Sage-Grouse ESA Species Listing Form.” More comprehensive data is necessary to meet the U.S. DOI Information Quality Guideline’s requirements for

quality as

stated in Section II: 4: "With respect to influential scientific information disseminated by the Department, regarding analysis to human health, safety, and the environment, the Department will ensure to the extent practicable, the objectivity of this information by adapting the quality principles found in the Safe Drinking Water Act Amendments of 1996." These guidelines for quality data and information hold FWS and DOI accountable to regard "human health, safety and the environment" in influential scientific data. The current "Sage-Grouse ESA Species Listing Form" does not meet these criteria by excluding data that calculates the impact of the sage-grouse species on human health and safety. (e.g.: Bad land management decisions using this data could lead to fuel heavy forests which burn and release smoke into the air, which harms human health and safety. Removing grazing access to public lands will lead to a decrease in beef production, beef production profitability and will in turn lead to harms on human health and safety due to the lack of economic opportunity and so on...)

A comprehensive determination of the interconnected relationship that is mutually beneficial, between humans and sage-grouse must be included in the "Sage-Grouse ESA Species Listing Form" prior to listing decisions for sage-grouse under the ESA.

**Comment Number:** IDMTSG-14-0168-19

**Organization 1:** Custer County Commissioners

**Commenter 1:** Wayne F. Butts

**Comment Excerpt Text:**

1-3

"USFWS determined that ...Factor D, "the inadequacy of existing regulatory mechanisms" posed "a significant threat to the Greater Sage-Grouse now and in the foreseeable future" (USFWS 2010) (emphasis added). The USFWS identified the conservation measures in LUPs as the principal regulatory mechanisms for the BLM and Forest Service."

Comment:

USFWS did not state that BLM lacked regulatory mechanism to protect sage-grouse habitat under existing RMPS. The USFWS stated the BLM failed to provide them with data to prove they can protect and monitor sage-grouse habitat. This difference is significant.

Under Alternative A (existing management), the agencies have complete authority to standardize monitoring and implement defensible monitoring. Monitoring is already specifically required BLM and US Forest Service rules and regulations.

**Comment Number:** IDMTSG-14-0168-2

**Organization 1:** Custer County Commissioners

**Commenter 1:** Wayne F. Butts

**Comment Excerpt Text:**

What the Service actually found was that "the information provided to us by BLM did not specify what requirements, direction, measures or guidance has been included in the newly revised RMPs to address threats to sage-grouse and sagebrush habitat. Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of sage grouse." 75 Fed. Reg. at 13976. Further, "Although [Resource Management Plans], [Allotment Management Plans], and the permit renewal process provide an adequate regulatory framework, whether or not these regulatory mechanisms are being implemented in a manner that conserves sage-grouse is unclear." Id. at 13977. Accordingly, instead of simply supplementing the

requested information, BLM chose to respond with a wholesale reordering of Federal land priorities across over 40 million acres of the Western United States.

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**Comment Number:** IDMTSG-14-0168-29

**Organization 1:** Custer County Commissioners

**Commenter 1:** Wayne F. Butts

**Comment Excerpt Text:**

“Within the past two decades, however, increasing urbanization and the growth of service sector industries, including retail trade, local government, and health care, have been powerful agents of change on the landscape and local cultures (Headwaters Economics 2012; US Department of Commerce 2012a).”

Comments: Please delete any and all information provided by Headwaters Economics, an advocacy group with known strong biases to protectionist public policies. Their reports are not science and do not meet the Information Quality Act

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**Comment Number:** IDMTSG-14-0170-2

**Organization 1:**

**Commenter 1:** Marybeth Devlin

**Comment Excerpt Text:**

BLM should concentrate on promoting and then protecting native predators to enable natural control of the wild-horse population on the range. A puma, bear, wolf, and coyote-protection program should be implemented. BLM should work with the Idaho Department of Fish and Game and the Montana Department of Fish, Wildlife and Parks to prohibit hunting of predators in the Sub-Region. Concerned livestock operators should be advised to use guardian-dogs to protect their animals. There are several specialty breeds that have been developed just for this purpose, and they are reportedly effective. It's just the cost of doing business on public lands, where the grazing is cheap.

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**Comment Number:** IDMTSG-14-0178-29

**Organization 1:** Idaho Cattle Association

**Commenter 1:** Karen Williams

**Comment Excerpt Text:**

Across all alternatives, changes in grazing management should never be considered as an effective mitigation measure for the effect of other uses or threats.

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**Comment Number:** IDMTSG-14-0179-4

**Organization 1:** Idaho Conservation League

**Commenter 1:** John Robison

**Comment Excerpt Text:**

the GHZ would seem to be a suitable buffer zone for certain activities described above, we are concerned about the state actually facilitating development within the GHZ:

“Management by Federal agencies should focus, to the extent practicable, on facilitating multiple use-activities (within the GHZ) in order to avoid siting conflicts in other management zones.” (emphasis added).

-State of Idaho Alternative, Idaho and Southwestern Montana Greater Sage- Grouse DEIS, Volume III-A, p. D-51

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**Comment Number:** IDMTSG-14-0180-23

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Alternative E's plan for Infrastructure development again allows BLM to focus its resources on the most important habitat, which allows greater flexibility for economic development and growth in less important areas. While very little development has occurred within CHZ in the last ten years, or that BLM has disclosed in the document, there does not appear to be any new infrastructure projects on the horizon. Based on the actual impacts of this threat, Alternative E provides a more properly tailored approach specific to Idaho than Alternative D. In CHZ, infrastructure is generally prohibited, unless a project proponent can meet several stringent criteria including compensatory mitigation. These criteria are likely to ensure infrastructure projects do not adversely impact the species in CHZ. In contrast, Alternative B does not provide an exemption process and as suggested above by emails discussing the NTT Report, may restrict beyond BLM's authority.

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**Comment Number:** IDMTSG-14-0180-24

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Alternative D's "medial" habitat intends to create a similar buffer zone, but it is too small to have a substantial impact when a trigger is tripped. It is also very restrictive, which means fewer developments and less opportunity for mitigation.

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**Comment Number:** IDMTSG-14-0180-32

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Further, the BLM cannot just make conclusory statements as, "Impacts are similar to those under Alternative B" or "Same as Alternative A" with no statements to support the claim.

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**Comment Number:** IDMTSG-14-0201-1

**Organization1:**Wild Earth Guardians

**Commenter1:**

**Comment Excerpt Text:**

Above-ground power lines, communication towers, and other tall structures should be excluded from priority sage grouse areas to prevent the abandonment of important habitats

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**Comment Number:** IDMTSG-14-0210-1

**Organization1:**NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

NorthWestern Energy requests that the Idaho BLM work with other BLM offices Montana to ensure a consistent approach when addressing projects that involve multiple BLM jurisdictions.

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**Comment Number:** IDMTSG-14-0213-4

**Organization1:** Rocky Mountain Power

**Commenter1:** Jeff Richards

**Comment Excerpt Text:**

Perch discouragers were originally designed to reduce raptor electrocutions by moving birds from an unsafe (electrocution risk) perching location to a safer alternative, either on the same structure or an alternate structure located nearby. Recent data has documented poor effectiveness in perch discouragers and greater effectiveness of covers for preventing electrocutions (see Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006), pages 17 -18). Despite their declining use by electric utilities, perch discouragers have been installed in attempts to dissuade raptors and corvids from perching or nesting on power poles in areas with sage-grouse or other sensitive prey species. Perch discourager research has shown limited effectiveness in preventing perching, potential for increased nesting on discouragers, and increased electrocution risk associated with perch discouragers. In areas where raven predation on sage-grouse nests is a concern, perch discouragers may aid in the accumulation of nest material (APLIC 2006), and could potentially increase raven predation pressure due to nest construction on discouragers in sensitive areas. The negative impacts of perch discouragers must be weighed against the limited benefits they may provide, particularly if they are contributing to mortalities of protected birds and facilitating increases in predator nesting populations. The avian predators of sage-grouse should also be considered, as different species exhibit different hunting strategies, and employ different hunting techniques for different prey species. For example, golden eagle diet is largely mammalian (80-90%, Kochert et al. 2002). Golden eagle hunting behavior of sage-grouse is not accurately represented in the DEIS. Golden eagles prey on sage-grouse opportunistically, and typically hunt sage-grouse by stooping from a high soar or low, coursing ambush flight (Watson 1997, Kochert et al. 2002). Consequently, power poles may not play an important role in eagle predation of sage-grouse. Golden eagles are vulnerable to electrocution mortality (APLIC 2006) and perch discouragers have been correlated with increased eagle electrocution risk (PacifiCorp, in prep.). Common ravens are known predators of sage-grouse nests, yet ravens are able to overcome perch discouragers and may experience higher nesting rates on poles with perch discouragers.

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**Comment Number:** IDMTSG-14-0228-2

**Organization1:** WHE/AWHPC

**Commenter1:** Suzanne Roy

**Comment Excerpt Text:**

the final LUP/EIS should include clear maps that delineate all HAs as well as HMAs in this planning area.

**Section 2.1 - General OoS**

*Total Number of Submissions: 20*

*Total Number of Comments: 37*

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**Comment Number:** IDMTSG-14-0046-2

**Organization1:****Commenter1:**Jim Gerber**Comment Excerpt Text:**

I strongly recommend that natural succession of sagebrush be added as a planning issue.

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**Comment Number:** IDMTSG-14-0049-19**Organization1:**Greater Yellowstone Coalition**Commenter1:**Barb Cestero**Comment Excerpt Text:**

Within priority sage-grouse habitats, the agencies should act immediately to bring all planning areas into compliance with rangeland health standards. The DEIS reveals that 61 allotments in this subregion are currently not meeting rangeland health standards, including over a million acres in priority habitat and several hundred thousand more acres in general habitat. DEIS at 3- 73.

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**Comment Number:** IDMTSG-14-0053-1**Organization1:**Hagenbarth Livestock**Commenter1:**Jim Hagenbarth**Comment Excerpt Text:**

The Draft LUPA/EIS identifies different categories of habitat based on importance and this helps to develop management strategies that consider impacts by different land uses. The BLM and USFS do not have the authority to manage private and state lands, but impact these land management entities because much of the sagebrush landscape is used by public grazers whose economic sustainability is dependent on public grazing leases. Many of the grazing units are made up of intermingled ownerships that are manageable as a unit, but dysfunctional if managed separately. The sole entity that manages all the ownerships holistically is the public land grazer and he is the focus of the attempted listing to start with. The plaintiffs have no resource management plans that are workable, nor does the court, the Idaho Fish & Game or the USFWS. The huge pressures of developing infrastructure to satisfy the economic and social needs of the consumer makes it difficult to design collaborative plans that work. The LUP/EIS generally addresses fragmentation from a land use perspective, and not a land ownership point of view. There are many different kinds of fragmentation, but the most detrimental is the fragmentation of ownership which makes it very difficult for the managing entities to reach agreement on management strategies that enhance the resource. As regulations are developed to address management of landscape fragmentation, it is important that the agencies recognize the impacts of their regulations on the economic sustainability of the public grazer that holistically manages the landscape as a unit. The public generally does not understand this concept. LUP goals of enhancing the landscape will be hard to implement if the public land grazer is lost. The risk to the GRSG and its habitat is huge if landownership fragmentation is not a major consideration in developing the LUP/EIS alternatives

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**Comment Number:** IDMTSG-14-0056-16**Organization1:**Helmick Ranch**Commenter1:**Neil Helmick**Comment Excerpt Text:**

The option to use non-native species in fuels management must be maintained. (D-FM- 14, page 2-128)

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**Comment Number:** IDMTSG-14-0056-8**Organization1:**Helmick Ranch**Commenter1:**Neil Helmick



**Comment Excerpt Text:**

A major theme for future development found throughout Alternative E is reliance on avoidance and mitigation strategies rather than total exclusion to benefit sage grouse. Incorporating this concept within the final decision will greatly benefit future societal needs.

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**Comment Number:** IDMTSG-14-0102-10

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

Alternative E provides a greater number of specific Livestock Grazing management actions beneficial to sage-grouse than any of the other Alternatives. NRCS has technical and financial resources available to livestock producers to help implement many of these management actions.

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**Comment Number:** IDMTSG-14-0102-8

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

Based on local media reports, it is our understanding that BLM and USFS intend to combine Alternatives D and E into a single proposed action in the Final EIS. NRCS encourages BLM and USFS to favor livestock grazing management actions in Alternative E over those in Alternative D when formulating the proposed action. Alternative E does more to ensure the persistence of large, intact range lands necessary for sage-grouse by allowing for the continuation of existing grazing management if habitat characteristics and populations are being maintained. This will help keep livestock producers in business while providing sage-grouse habitat on their operations. Alternative E also allows BLM and USFS to provide more flexibility in grazing management. Such flexibility could benefit sage-grouse as well as producers by allowing adjustments to grazing in response to changing range conditions.

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**Comment Number:** IDMTSG-14-0105-10

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

[Vol2]

Page 1-27 There are numerous references to "improper grazing" by livestock that are referenced by certain professionals. Are those references pointing to site specific areas? Are they areas identified for treatment: by changing management, or implementing some sort of restoration? Or by a cause that may not be totally from livestock grazing?

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**Comment Number:** IDMTSG-14-0105-24

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Page 3-166 Climate Change: All agree there is continual climate change. But the discussion here is based on findings that are assumptions of anthropogenic contributions. Those assumptions are unsupported and

rejected by many scientists and this document should note that rather than simply accepting and applying the questionable cause of man-caused global warming.

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**Comment Number:** IDMTSG-14-0130-5

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

As related to livestock grazing, it is obvious the U.S. Fish and Wildlife Service relied very little, if any, on the federal grazing regulations, especially 43 CFR Subpart 4180, in making their determination that BLM lacked an adequate regulatory mechanism to protect sage grouse. The law is very specific in stating "The authorized officer shall talstart of the next grazing year upon determining that existing grazing management needs to be modified to ensure that the following conditions exist.. .. (d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species." Because of the clarity of the law in providing a regulatory mechanism to insure perpetuation of sage grouse habitat, the need to include matters relating to grazing within any of the action altematives is not warranted.

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**Comment Number:** IDMTSG-14-0130-8

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

The DEIS fails to acknowledge that "improper" grazing was eliminated from BLM rangelands shortly after passage of the Taylor Grazing Act and numerous reports indicate rangeland conditions west wide have improved dramatically since the beginning of the last century.

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**Comment Number:** IDMTSG-14-0131-22

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Changes are needed to Alternatives to reflect:

? Access to valid existing rights (such as mineral leases and related facilities) will be provided because Due Process demands it. Such access and facilities cannot just be "considered" and certainly cannot be prohibited due to either sagegrouse habitat or the presence of leks. The government has an unquestionable legal obligation to allow access and needed facilities.

? That access extends to existing pipelines and similar ROW for the purpose of maintenance, repair, and replacement

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**Comment Number:** IDMTSG-14-0149-2

**Organization1:** Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

If implemented, the planning documents will have enormous social and economic consequences in Idaho and Montana without commensurate benefits to local GSG populations and habitat. The agencies must rectify these issues before preparing the final LUPA/EIS and issuing a ROD

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**Comment Number:** IDMTSG-14-0150-11

**Organization1:**Western Range Service

**Commenter1:**QuintonJ. Barr

**Comment Excerpt Text:**

By the mid 1900s, Federal and State regulations were implemented and all of the grazing management practices discussed above were controlled and moderated. The greater sage-grouse population sizes moderated at about the same time. By the late 1960s, livestock numbers and grazing levels were significantly scaled back across the west, and predator control programs were largely curtailed. Fire fuel levels increased, and the incidence of large-scale wildfires rose exponentially. Greater sage-grouse population trends reversed and started to rapidly decline during the same period. Thus, intensive livestock management which diminished the frequency and size of wildfires, and concerted predator control which greatly reduced greater sage-grouse losses to these killers, are management actions in the Great Basin that seem to be highly relevant to the biology of the greater sage-grouse and help explain the trajectory of their populations over time. Returning to these practices would benefit greater sage-grouse.

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**Comment Number:** IDMTSG-14-0151-100

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

What is the RFFD for private lands?

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**Comment Number:** IDMTSG-14-0151-101

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

How much development on state and private is anticipated, and what will the cumulative footprint of that be on these sage-grouse populations?

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**Comment Number:** IDMTSG-14-0151-102

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

How many acres of sage-grouse habitat are enrolled in CRP? Where and when have these lands been grazed? How has enrollment changed? Are any drylands currently being converted to crops under government-subsidized programs in Idaho?

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**Comment Number:** IDMTSG-14-0151-105

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The RFDs for West Nile: How many thousands of livestock ponds are there across Idaho and eastern Montana, plus affecting the northern Great Basin GSG population, and each of the separate smaller local populations? How can this be reduced by 50%? 75%?

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**Comment Number:** IDMTSG-14-0151-17

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Livestock vegetation utilization standards should also be explicitly prescribed to ensure habitat requirements. No alternative specifies acceptable livestock grazing utilization levels or other mandatory and enforceable terms and conditions for vegetation; accordingly, these would continue to be decided during the implementation stage (permit renewals, AOPs and AOIs) and would continue to implement guidance from existing land use plans.

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**Comment Number:** IDMTSG-14-0151-4

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The primary long-term threat is the widespread conversion of mid-stature cool season bunchgrasses, that did not evolve with significant herbivory, to short stature, grazing tolerant species. This livestock-induced conversion has occurred throughout much of the planning area already and is a primary source of imperilment for sage-grouse.

---

**Comment Number:** IDMTSG-14-0151-54

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM has fencing and water development data bases and livestock grazing databases. Why has it not used them to develop mapping to target strategic and effective actions under the DEIS process? For example: Set goals to reduce fencing by 50% in the Lemhi watershed, Birch Creek, or Oregon borderlands, for example?

---

**Comment Number:** IDMTSG-14-0151-85

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

**AMP**

The ID DEIS fails to include measurable standards of use as part of AMPs. BLM does not refer to these plans as AMPs, but instead AGPS, and they must fully involve the interested public and be subject to NEPA.

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**Comment Number:** IDMTSG-14-0151-88

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Please clarify DEIS 2-190 Alt B. “ ... where cover requirements do not meet forage objectives for livestock grazing, this would result in the need to modify grazing practices with increased cost for the permittees..”. Should this say “habitat objectives for sage-grouse”?

---

**Comment Number:** IDMTSG-14-0151-96

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The DEIS lists 1.5 million acres of juniper “thinning” in Owyhee County. This would remove nearly every native tree, yet this appears to be BLM's plan, based on the incorrect NRCS Ecosite and FRCC models that are designed to enable treatments. BLM’s General Land Office Records show that Juniper Mountain is naturally occupied by western juniper as the climax native vegetation community. See WWP Cole Mapping and Surveyor Records. See Moseley 1989 Montane Western Juniper National Natural Landmark study vs. NRCS Ecosites and mapping that BLM uses in the Owyhee 68.

---

**Comment Number:** IDMTSG-14-0151-97

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

In a SEIS for this DEIS process, BLM must take a hard look the role of crested wheat in repeated large, fast moving Snake River plain, Jarbidge BLM , Oregon Vale BLM, and other fires.

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**Comment Number:** IDMTSG-14-0169-35

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

The Idaho/SW Montana Draft LUP/EIS (plan) identifies 7,266,502 acres and 963,016 acres of preliminary priority habitat (priority habitat) administered by BLM and Forest Service, respectively, in the planning area (total: 8,229,518 acres) (vol 1, ES-3, Table ES-1). However, the preferred alternative would only designate 6,819,100 acres of priority habitat, plus an additional 1,348,100 acres of medial habitat (total: 8,167,200 acres) (vol 1, ES-13, Table ES-4; vol 2, 2-98, Table 2-18, D-SSS-1).3 Annual updates to the Idaho Sage-Grouse Habitat Planning Map may lead to adjustments in priority and medial habitat areas(?) (vol 2, 2-67). Medial habitat would have some level of development or disturbance that may impact sage-grouse, but still provides better quality habitat than general habitat areas (ES-15).

---

**Comment Number:** IDMTSG-14-0169-36

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Prohibit new surface disturbance in priority sage-grouse habitat. Where new disturbance cannot be avoided (e.g., due to valid existing rights), (A) minimize impacts by limiting preexisting and permitted disturbance to one instance per section of sage-grouse habitat regardless of ownership, (B) with no more than three percent surface disturbance per section or priority area (SGNTT 2011: 8; Knick et al. 2013). Disturbances include but

are not limited to highways, roads, transmission lines, substations, wind turbines, oil and gas wells, heavily grazed areas, range developments, severely burned areas, pipelines, landfills, mines, and vegetation treatments that reduce sagebrush cover. (C) Where possible, buffer active sage-grouse leks against surface disturbance or occupancy by 4 miles<sup>4</sup> (SGNTT 2011: 23).

The management agencies would require no net unmitigated loss of priority habitat instead of a cap on surface disturbance (vol 2, 2-65; vol 2, 2-100, Table 2-18, D-SSS-3).

**Comment Number:** IDMTSG-14-0169-49

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Do not site wind energy development in priority sage-grouse habitat (Jones 2012; SGNTT 2011: 12). Site wind energy development at least five miles from active sage-grouse leks (Manville 2004; Jones 2012). Site wind energy development at least four miles from the perimeter of sage-grouse winter habitat. Wind (and solar) energy development would be prohibited in priority habitat and restricted in medial habitat where adverse impacts could not be mitigated. General habitat would be avoidance areas for renewable energy development (vol. 2, 2-161, Table 2-18, D-LR-1).

**Comment Number:** IDMTSG-14-0171-1

**Organization1:**Department of Defense

**Commenter1:**Robert M. Shirley

**Comment Excerpt Text:**

Alternatives C and F

Livestock Grazing Management: Closing or reducing livestock grazing within sage-grouse habitat removes a wildfire fuel management tool. Sustainable grazing where cattle are rotated, etc. is an effective management tool when monitored to ensure cattle are not overgrazing. This is particularly true on Saylor Creek Bombing Range where the BLM manages livestock grazing.

**Comment Number:** IDMTSG-14-0206-29

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The Conservancy supports a basic approach to grazing management that is both simple and sound. It calls for sage grouse objectives to be written into relevant federal land use plans and grazing permits. These objectives are derived primarily from Connelly et al (2000). As the permits are renewed and re-issued, they must include grazing systems designed to meet the habitat objectives. We think this requires the timely application of Standards 2, 4 and 8 of Idaho's Standards and Guidelines for Rangeland Health at the time new permits are issued. Most significantly, permits must employ grazing management that provides "adequate residual nesting cover" – which studies referenced in the Draft Alternative define as seven inches of herbaceous perennial grass height at the end of the breeding season.<sup>1</sup> Decisions should be based on monitoring conducted at a resolution sufficient to document habitat condition and local spatial and inter-annual variability

**Comment Number:** IDMTSG-14-0215-2

**Organization1:**Prairie Falcon Audubon

**Commenter1:**Julie Randell

**Comment Excerpt Text:**

PFA members are seeing heavy impacts from overgrazing in GRSG habitat due to continuing drought conditions on public land because responsible agencies, despite current GRSG management objectives, continue to allow grazing and trailing at normal to high stocking rates for entire seasons; as well as letting livestock graze burned allotments after wildfire with only two growing seasons of rest and recovery, thus greatly increasing invasive annual grasses and weeds.

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**Comment Number:** IDMTSG-14-0215-4

**Organization1:**Prairie Falcon Audubon

**Commenter1:**Julie Randell

**Comment Excerpt Text:**

With the exception of Alternative C, there is very little Right of Way(ROW) exclusions written in to the alternatives. To us this isn't real protection for GRSG habitat. A case in point, BLM's Decision on the Gateway Transmission Line Project in Wyoming and Idaho 2013.

Despite BLM Resource Management Plans(RMP) protections for sensitive natural resource areas, BLM went ahead and granted amendments to 18 local BLM Field Office's RMPs to lessen and/or void same protections and subsequently granted right of way (ROW) for the project; thus, making it easier for further natural resource degradation from future projects

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**Comment Number:** IDMTSG-14-0234-2

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Also, I am looking at DEIS Table 4-75. In this Table I see that Pole Creek and Trout Springs tree killing sage-grouse habitat restoration is listed as the acreage of the entire allotments. This is really scraping the bottom of the barrel - as large areas of that landscape is not now and never will be sage-grouse habitat.

---

**Comment Number:** IDMTSG-14-0235-1

**Organization1:**

**Commenter1:**Douglas J. Balfour

**Comment Excerpt Text:**

Thank you for forwarding to me the Howe study concerning resource selection by nesting ravens. I quickly reviewed that study, and find it not particularly informative or helpful concerning our situation.

That study was conducted on the INL and looked at low voltage transmission lines with very short towers, 15.2 meters to 21.3 meters. These are dwarfed by our high voltage transmission lines for Gateway, which towers are in the range of 50 to 60 meters tall. The Gateway towers will be equipped with nesting prevention devices if the BLM requests. Although it was not addressed, I can only presume that the shorter, older, wooden posts studied on the INL had no nesting prevention features.

The study noted, ravens are primarily scavengers, picking off dead animals and the like near roads and highways. The study did not look at the Sage Grouse as a food source for ravens.

Again, what this study has taught us is that it is not focused on the interaction between raven nesting on large, high voltage transmission lines, and Sage Grouse populations near those lines. The Nonne study is precisely on that point.

**Comment Number:** IDMTSG-14-0238-1

**Organization1:**

**Commenter1:**Stanley Albee

**Comment Excerpt Text:**

The climate dynamics haven't come to equilibrium with our current 400 ppm atmospheric carbon dioxide. What will the climate be like when the carbon dioxide trajectory reaches at least 600 ppm, resulting from a rate of increase that is currently at 2.2 ppm per year?

**Comment Number:** IDMTSG-14-0248-1

**Organization1:**

**Commenter1:**Ernest Breuer

**Comment Excerpt Text:**

Comment 4: Gateway West Transmission Line Project.

Segment 9 and Segment 9E are not acceptable routes for this 500kV line! We have spent 5 years of our lives, time, energy, and treasure to get this line sited paralling an existing 138 kV line in the MNSRBOP NCA. The environmental impact is already there. There are no sage grouse I the SRBOP.

**Comment Number:** IDMTSG-14-0322-4

**Organization1:**Stevenson Intermountain Seed, Inc.

**Commenter1:**Ronald M. Stevenson

**Comment Excerpt Text:**

A discussion identifying the key species of vegetation that will be used to improve or restore valuable sage-grouse habitat and how and where the seed from these species will be obtained. Also, how conditions will be improved for higher productions and lower costs for seed of these species.

**Section 2.2 - RM Region**

*No comments are associated with this issue.*

**Section 2.3 - GB Region**

*No comments are associated with this issue.*

**Section 3 - Edits**

*Total Number of Submissions: 27*

*Total Number of Comments: 62*



**Comment Number:** IDMTSG-14-0005-1

**Organization1:**

**Commenter1:** Bill Baker

**Comment Excerpt Text:**

You indicated in Appendix H-4 that if an area met the relevance criteria and were in PPH, they were determined to have importance because of being a national priority for BLM. Table 3-45 has 67 Existing ACECs. Why the difference in numbers?

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**Comment Number:** IDMTSG-14-0011-2

**Organization1:** Beaverhead Outdoors Association

**Commenter1:** Steve Jennings

**Comment Excerpt Text:**

Volume II A, Table 1-5, page 1-39: County Land Use and Sage-Grouse Management Plans lists Growth Policy dated June 20, 2005 as the reference for Beaverhead County, Montana. Our perspective would have indicated information on county land use policy for Beaverhead County, Montana would be found in the “Beaverhead County Public Lands Resource Use Policy and Plan”

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**Comment Number:** IDMTSG-14-0026-4

**Organization1:** Challis Local Working Group

**Commenter1:**

**Comment Excerpt Text:**

LG/RM-2 and RM-4 state that priorities for land health evaluations and permit renewals should be based on sage-grouse population and habitat information, but the BLM and USFS manage other listed T&E species concurrently. The alternative should use the terminology “consider sage-grouse population and habitat” rather than “based on sagegrouse population and habitat” in setting priorities.

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**Comment Number:** IDMTSG-14-0026-7

**Organization1:** Challis Local Working Group

**Commenter1:**

**Comment Excerpt Text:**

LG/RM-9 Alternative E: Instead of: “Manage allotments only for the primary seasonal habitat that it has the potential to support.” We would prefer, “Manage allotments for seasonal habitat that it has the potential to support.” Because in many areas seasonal habitats overlap and we are managing for spring breeding/brood rearing, summer, and winter habitats in these areas.

---

**Comment Number:** IDMTSG-14-0050-12

**Organization1:**

**Commenter1:** Kathleen Gregg

**Comment Excerpt Text:**

Wild horses and wild burros are protected by federal law under the Wild Free-Roaming Horse and Burro Act, the Federal Land Policy and Management Act and the Public Rangelands Improvement Act. Excerpts below:

1. public land in areas where wild horses and wild burros resided at the time the legislation was passed to be “devoted principally, but not necessarily exclusively to their welfare” (WFRHBA, 1971)

2. “considered in the area where presently found, as an integral part of the natural system of the public lands.” (WFRHBA, 1971)
3. “wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses ” (FLPMA, 1976).

It has been noticed that within the proposed EIS, the description of wild horse and wild burro use, only sections of the Wild Free Roaming Horse and Burro Act (WFRHBA) that could be interpreted as restricting wild horse and burro use are included – omitting the basic premise words such as “protected, integral and principally”. When quoting FLPMA, only the section that could be interpreted as limiting wild horse and wild burro use are quoted yet the fact that FLPMA was not intended to reduce any existing premise of law, such as protection of wild horses and wild burros on public land. One example of the possible misrepresentation of the WFRHBA can be seen in this statement made within the EIS: “BLM and Forest Service policies and regulations also direct that wild horses and burros are to be managed as self-sustaining populations of healthy animals at minimal feasible levels”. The actual language of the Act is: “all management activities shall be at the minimal feasible level”. The statement made in the GSGPS limits wild horses and wild burros although the actual statement in the Act limits management. This error must be rectified in the final proposal.

**Comment Number:** IDMTSG-14-0056-7

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Even though the USFWS has already determined that Alternative A is not acceptable; the detailed description of Alternative A, found within the DEIS, fails to include reference to the numerous applicable laws, regulations, executive orders, departmental guidance, agency manuals, agency handbooks and instruction memos that must be considered in concert with existing land use plan guidance

**Comment Number:** IDMTSG-14-0057-5

**Organization1:**

**Commenter1:** Eileen Hennessy

**Comment Excerpt Text:**

Moreover, when attempting to justify any plans to restrict wild horse/burro use of public lands and resources, the agency conveniently chooses to misquote or “misinterpret” passages from Federal Land Policy and Management Act (FLPMA) and the Wild Free-Roaming Horse and Burro Act to suit this end such as slyly omitting significant words to describe wild horses and burros like “integral” or “protected”, which they most certainly are but which the BLM seems to have forgotten, all in an attempt to shirk their responsibility to fulfill a federal mandate to protect these national treasures on our public lands. For example, on page 62 of Chapter 3, compare the following:

BLM MISQUOTE in EIS: “BLM and Forest Service policies and regulations also direct that wild horses and burros are to be managed as self-sustaining populations of healthy animals at minimal feasible levels.” A misquoted statement in the GSGPS allowing for the limiting of wild horses.

ACTUAL QUOTE of the Act: “All management activities shall be at the minimal feasible level.” An ACTUAL statement limiting management.

**Comment Number:** IDMTSG-14-0102-1

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

Table 2-18 is not very helpful for making comparisons of management actions between Alternatives. Table 2-18 contains many blank "placeholders" where management actions do not perfectly align across Alternatives or apply to all the various habitat types. There are also a number of management actions that are similar across Alternatives, but listed as though they are different because they are worded in a slightly different way. For the Final EIS, a Summary Table, organized by planning issue, with a list of the management actions in each Alternative would be more useful.

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**Comment Number:** IDMTSG-14-0102-2

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

The color used in Figure 2-9, Alternative C: Open and Closed to Grazing could be misleading. Maps for other Alternatives show areas open to grazing mapped in gray, but Figure 2-9 uses the same gray color to show areas closed to grazing under Alternative C. The red color used in other Alternative maps would more clearly depict areas closed to grazing under Alternative C in the Final EIS.

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**Comment Number:** IDMTSG-14-0105-21

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Page 3-62 & 3- 63 3.7.1 Conditions within the Planning Area

Prescribed grazing should be included in BLM Treatment Acres. Although this is a relatively new approach to treatment of Fire Management, it should be listed as a credible method of treatment.

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**Comment Number:** IDMTSG-14-0105-23

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Page 3-73 First full paragraph: Discussion on rangeland health standards and guides: references allotments that are not meeting standards. Needs further discussion. Not clear if grazing is the problem or influenced by other sources.

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**Comment Number:** IDMTSG-14-0105-5

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

It needs to be kept in mind that this EIS will amend local agency land use plans and as such will be interpreted

and implemented at a local level. Accordingly, any ambiguity will be multiplied by the number of affected local agency offices. There are a number of places in the EIS where definitions are necessary in order to understand the application of an Alternative e.g. "Population Area". The clarifications are also needed to assure that the final decision can be consistently applied among local administrative units and by constantly changing agency personnel over time.

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**Comment Number:** IDMTSG-14-0130-1

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Map colors and hatching should be standardized across all alternatives and resources/resource uses. All map depictions of resources/resource uses outside of sage grouse areas should be eliminated. Other than BLM and Forest Service, surface management agencies do not need to be illustrated with individual colors

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**Comment Number:** IDMTSG-14-0134-1

**Organization1:**

**Commenter1:** Karen Steenhof

**Comment Excerpt Text:**

Map Errors: Fig. 2-26 and others show BOP as identified for disposal

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**Comment Number:** IDMTSG-14-0134-2

**Organization1:**

**Commenter1:** Karen Steenhof

**Comment Excerpt Text:**

Map Errors: Fig. 2-8 and others similar- BLM land status same as closed to grazing- color scheme confusing

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**Comment Number:** IDMTSG-14-0134-3

**Organization1:**

**Commenter1:** Karen Steenhof

**Comment Excerpt Text:**

Map Errors: Fig. 2-46 and others font heading erroneous- in hard copies, check CD versions too

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**Comment Number:** IDMTSG-14-0151-58

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

**Critical Scientific Assessments Missing from DEIS List of Foundational Documents and MOUs**

Federal agencies have signed MOUs saying they would employ ICBEMP science. This is sorely missing from

this EIS

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**Comment Number:** IDMTSG-14-0157-7

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

As noted in the introductory comments, Y -3 II straddles the Idaho and Nevada border and operates a single ranching entity to coordinate grazing on BLM allotments in both states. BLM, however, states in the Nevada DEIS that planning for the land use plans covering this part of both Idaho and Nevada will occur through the Nevada FEIS and Record of Decision but will be implemented and administered through the Jarbidge and Burley FEIS and Record of Decision. See Nevada DEIS Section ES.2. Additionally, the decisions and analyses for that portion of Y-3 II's allotments in Nevada will occur through the Nevada DEIS and will end at the Nevada state line apparently leaving decisions and analysis for Y-3 II's ranch operations north of the Nevada border to the Idaho DEIS. Id. This is confusing because just a few sentences earlier it is stated that planning for both Idaho and Nevada land use plans will occur through the Nevada DEIS. Id. Thus, within a few short sentences it is unclear how the lands utilized by Y-3 II in Nevada and Idaho are being analyzed, decided, implemented, and administered. If read correctly, it appears that actual management decisions are being made in each state's DEIS, but that Idaho will administer both Idaho's management decisions and Nevada's management decisions as they relate to Y -3 II. Consequently, Y -3 II must analyze and comment on both the Nevada and Idaho DEISs. Y -3 II also notes that this bifurcation of planning and management processes, while at least addressed by the Nevada DEIS, is not addressed in the Idaho DEIS as it should be.

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**Comment Number:** IDMTSG-14-0166-2

**Organization1:** Center for Biological Diversity

**Commenter1:** Randi Spivak

**Comment Excerpt Text:**

12 The DEIS is also internally inconsistent, as to what BLM is proposing. In one place it states that it relates only to Forest Service decision making (implying BLM is not proposing any specific plan amendments) (DEIS at 5), and in another stating that "the BLM is proposing to amend the Battle Mountain/Tonopah Resource Management Plan (RMP) and the Carson City Field Office Consolidated RMP by adding to or changing some of the regulatory mechanisms to reduce, eliminate, or minimize threats to the Bi-state sage-grouse habitat on Federal lands administered under those plans" (DEIS at 1). This fundamental inconsistency also renders the DEIS inadequate as an informational document.

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**Comment Number:** IDMTSG-14-0168-11

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

A-1S

"The County Plan encourages the federal agencies (BLM and Forest Service) to coordinate and maintain communication with the county and the counties' Natural Resource Advisory Committee. As part of this coordination the county requests documentation and research be available to support management decisions."

This statement should be corrected. The County Plan "requires" the federal agencies to coordinate its plans

and policies as directed under the appropriate federal statutes. The Plan requires coordination with the Board of Commissioners. The Natural Resource Advisory Committee's purpose is to advise the Commissioners. All official communication should be with the Commissioners. The County Plan does more than request documentation and research, but requires that all policies of the federal and state agencies be coordinated with the County for the purpose of ensuring a comprehensive approach to greater sage-grouse management

**Comment Number:** IDMTSG-14-0168-12

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

A-19

In reference to the economic analysis, this statement states that comments provided will be included to the DEIS, however, this document is the DEIS. Please see comments made earlier about the sufficiency of the economic analysis and the need to redraft this section to include a more detailed, relevant and rigorous analysis.

96.

A-20

Another reference to documents that are being reviewed and will be included in the DEIS. Since this is the DEIS, is the agency planning to release a second draft?

**Comment Number:** IDMTSG-14-0168-14

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

A-29

"1. Areas of Critical Concern and Wilderness Study Areas. There shall be no new designations of ..." The DEIS shows that the Challis RMP is compliant with Custer County's ACEC and WSA policy, however, the RMP currently allows for the designation of such areas. This statement should be revised to reflect that the Challis RMP allows for the designation and is therefore inconsistent, but that the Challis RMP is consistent with the remaining part of the policy which requires consideration of such designations to be coordinated with the County.

**Comment Number:** IDMTSG-14-0168-16

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

CC Plan

Page 19

"A. The sage-grouse habitat in Custer County is found in narrow valleys and is naturally fragmented with non-sagebrush shrubs, meadows, mountains and conifers in the Plan Area. It is unlike most of the habitats studied, which contain vast expanses of contiguous sagebrush, and for which most conservation strategies are designed. Additionally, the population is currently static or increasing, and has been on a slight uptrend for the past twenty-five years. Because the Custer County population of sage-grouse is one of the most stable

populations range wide, it is essential that all policies and conservation measures recognize that current management activities are benefiting the species and that changes or additions, if any, to these be developed utilizing the detailed knowledge of local conditions and expertise."

Custer County Principle A is not referenced in the DEIS. It is consistent with Alternative A and inconsistent with Alternatives B-E.

**Comment Number:** IDMTSG-14-0168-18

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

1-1

"The estimated distribution of contiguous sagebrush habitats, prior to Euro-American contact (Schroeder et al. 2004), was nearly twice that which is available today."

Comment:

Delete the sentences from the EIS. To cite extremely general data on habitat estimates and trends does not meet the Information Quality Act of 2001. Historical records do not consist of quantitative vegetative surveys and cannot be compared directly to modern conditions. Historically, no one surveyed specifically for sage-brush habitat.

**Comment Number:** IDMTSG-14-0168-25

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

2-64

"as well as found unsuitable for surface mining of coal and recommended for withdrawal from locatable mineral entry."

Comment:

Add the word "land" between as and found to read "as well as land found" .....

**Comment Number:** IDMTSG-14-0168-26

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

34.

2-81

"Mitigation would be applied to exempt within the CHZ."

Comment:

There is a missing word in the sentence above. It most likely should read "exempt land" within ...

**Comment Number:** IDMTSG-14-0168-27

**Organization1:** Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Other Sections:** 6

**Comment Excerpt Text:**

Chapter 3, General

Too much of the chapter reads like a one-size fits all, cut and paste of Connelly. Connelly is cited at least 100 times in the EIS. Quoting Connelly's summary of sage-grouse studies is NOT the best available science. The original studies and publications that Connelly references are the best available science. Many of the documents referenced in Connelly are not available to the public. Some are available, but only for a fee.

Quoting Connelly's quotes of other authors violates the Information Quality Act of 2001 (Section 515 of Public Law 106-554).

**Comment Number:** IDMTSG-14-0168-7

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

2-18

"These plans were based largely on the existing LWG GRSR Plans (Custer county 2006, Owyhee County 2013), which were considered during the initial development of the range of alternatives considered in detail." This statement is false as it relates to the Custer County Sage Grouse Comprehensive Plan, which is the Counties primary planning device for Sage-Grouse in Custer County, and should be clarified. The Custer County plan was developed and approved in 2013, and while the Local Working Group plan was consulted during the development of the County's Sage Grouse Plan, it was only one of several grouse plans consulted.

**Comment Number:** IDMTSG-14-0168-8

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

3-176

"County governments have land use planning responsibility for the private lands located within their jurisdictions."

This statement needs to be corrected to reflect that the responsibility of County Governments is much broader than simply land use planning, but rather their powers and duties are for the purpose of protecting the health, safety and welfare of the citizens within the political boundaries of their county as delegated by the State of Idaho.

**Comment Number:** IDMTSG-14-0168-9

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

[Reference to Appendix A] We are confused by the column description "Inclusion in Amendment EIS." Since this document is the DEIS and not an amendment, it would appear this column heading was not appropriately described.



**Comment Number:** IDMTSG-14-0169-32

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 16.1

**Comment Excerpt Text:**

The voluntary grazing permit retirement provisions in Alternatives B and F also require that land managers “[a]nalyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals” (vol 2, 2-137, Table 2-18, D-LG/RM-7, F-LG/RM-7). While this provision was included in the NTT report and could rightly be included in Alternative B, it was not included in the Sage-Grouse Recovery Alternative. (It is interesting that the stipulation is also not included in the preferred alternative). We request that this stipulation be removed from Alternative F and not be added to the preferred alternative. Alternatively, if this provision is included in either alternative, we request that planners also be required to analyze the beneficial impacts of eliminating livestock grazing in sage-grouse habitat on sage-grouse ecology; native vegetation, including species composition and structure; biological crusts and soil retention; restoration and resiliency of riparian and upland habitats; plant and animal abundance and diversity; water infiltration, and water quality and quantity; and climate change

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**Comment Number:** IDMTSG-14-0169-38

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

3 It is unclear what the total acreage listed for Alternative D in Table ES-4 (11,101,300 acres) refers to (ES-13).

---

**Comment Number:** IDMTSG-14-0169-41

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 7.6

**Comment Excerpt Text:**

Failure to map sage-grouse winter habitat could be grounds for remanding an RMP/EIS back to BLM to address the omission. WWP v. Salazar, 4:08-CV-516BLW, Slip Op. at 3.

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**Comment Number:** IDMTSG-14-0169-51

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 10.4

**Comment Excerpt Text:**

Measures for ameliorating the effects of climate change on species and landscapes include increasing the size and number of protected areas, maintaining and enhancing connectivity between protected areas, and identifying and protecting areas likely to retain suitable climate/habitat conditions in the future (even if not currently occupied by the species of concern). Management should also repulse invasive species, sustain ecosystem processes and functions, and restore degraded habitat to enhance ecosystem resilience to climate change (Chester et al. 2012; NFWPCAS 2012). The plan identifies climate change, specifically its contributions to the spread of cheatgrass and associated loss of sagebrush habitat, as a planning issue (vol 1, ES-7), but contends there “is no resource program for addressing this threat to [sage-grouse]” (vol 2, 2-5, Table 2-1). The plan claims to address the cumulative effects of climate change in section 4.15 (which is, unexpectedly, titled “Social and Economic Conditions (Including Environmental Justice”), but there is little discussion of the impacts of climate change in this section or anywhere in the plan.

The preferred alternative would generally attempt to increase the quality, extent and connectivity of sage-grouse habitat, “where possible, to accommodate the future effects of climate change” (vol 2, 2-97, Table 2-17, D-OBJ-10).

---

**Comment Number:** IDMTSG-14-0171-3  
**Organization1:**Department of Defense  
**Commenter1:**Robert M. Shirley

**Comment Excerpt Text:**

Page 4-249 (Table 4-175): The status of the "F-35A Operational Wing Bed Down EIS" should be changed from "proposed" to "Alternative sites selected (Mountain Home Air Force Base not selected)" or the entire reference can be removed (see decision at <http://www.acplanning.org>).

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**Comment Number:** IDMTSG-14-0171-4  
**Organization1:**Department of Defense  
**Commenter1:**Robert M. Shirley

**Comment Excerpt Text:**

Page 4-249 (Table 4-175): The status of the "F-35A Training Wing Bed Down EIS" should be changed from "proposed" to "Alternative sites selected (Gowen Field not selected)" or the entire reference can be removed (see decision at <http://www.f-35atrainingeis.com>).

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**Comment Number:** IDMTSG-14-0178-26  
**Organization1:**Idaho Cattle Association  
**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Mapping Discrepancies – There are likely instances within the LUPA/DEIS where the published maps are inaccurate or inaccurately depict available sage grouse habitat or site potential. The final LUP/EIS must acknowledge this and provide a pathway to correct these mapping discrepancies and errors. Also in regards to maps, the similar colors in Figures 2-7 through 2-12 make it very difficult to read the proposed changes. For example, all of the BLM lands appear as though they are recommended to be closed to grazing. This could create some unnecessary and unwanted confusion.

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**Comment Number:** IDMTSG-14-0178-34  
**Organization1:**Idaho Cattle Association  
**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Grammatical Errors - On page 2-82, and likely in other locations throughout the LUPA/DEIS, the word “causal” is incorrectly written as “casual”.

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**Comment Number:** IDMTSG-14-0179-1  
**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

For example, we recommend strengthening Alternative E's goal, "Conserve the GRSG and its habitat to avoid a listing" (E-GOAL-1, p. 2-95), with Alternative D's goal of "Maintain and/or increase GRSG abundance and distribution..." (D-GOAL 1, p. 2-95, emphasis added). We point out that the conservation strategies, restoration methods and required partnerships for accomplishing these goals are essentially the same.

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**Comment Number:** IDMTSG-14-0180-34

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

As discussed in greater detail above, the Implementation Team operates the adaptive management strategy by receiving the data collected by Idaho Fish and Game and the BLM and makes recommendations to the Governor who then advises BLM and the Forest Service on any necessary management changes. This happens annually. This group's existence ensures that when management changes are necessary, they are reasonably certain to occur. However, the impact analysis does not accommodate for this fact and thus, the analysis is incorrect as to the effectiveness of Alternative E.

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**Comment Number:** IDMTSG-14-0180-38

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The DEIS also includes language that the Governor specifically requested be removed from the Administrative EIS as it was vague, conclusory, and inaccurate. On page 4-105 in Volume II B, BLM states that Alternative E "does not provide much guidance regarding other fuel treatments and ESR, which could limit the success of fire suppression and regrowth of desired vegetation after a fire." This causes the reader to wonder what BLM's measure for "much guidance" on fuel treatments is and whether any alternatives meet this rigid, yet mysterious standard.

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**Comment Number:** IDMTSG-14-0180-47

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

In volume 1 on page ES-13: The acres under Alternative E do not add up to sum in Table ES-4.

In volume 1 on page ES-15: Consider adding the definition of "no net unmitigated loss" in the glossary.

In volume IIA on page 1-30 under Management and Monitoring: This section refers to redundancy, representation, and resiliency. Consider defining these terms in the glossary.

In volume IIA on page 1-38 in the List ofLWG plans: Dillon should be listed under Montana, not Idaho.

In volume IIA on page 1-41 in the 4th bullet: Please replace Office of Species Conservation with Governor's Office of Species Conservation. Please replace Idaho Department of Agriculture with Idaho State Department

of Agriculture (ISDA).

In volume IIA on page 2-31, please replace wildlife with wildfire.

In Volume IIA on page 3-130, second paragraph of 3.13 Special Designations; consider updating paragraph to present current status of BLM wilderness plans.

In volume IIA on page 3-123; consider dividing Table 3-45 into to two tables by state.

In volume IIB on page 4-16; the Department recommends you include Reese and Connelly 1997 as a citation regarding translocation of sage-grouse.

In volume IIB, on page 4-67 under 4.3.2, in the last sentence of first paragraph; the original citation is Connelly et. al. (20 11 ).

**Comment Number:** IDMTSG-14-0183-23

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. ES-16, 2nd para.

There would be a 5 percent disturbance cap associated with fluid mineral development under Alternative E.

There are contradictory statements regarding the cap on fluid mineral development in CHZ for Alternative E between the Executive Summary (5%) and the Alternatives section (see pg. 2-17), which states 3%.

**Comment Number:** IDMTSG-14-0183-28

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 2-91.

Lands and Realty—Table 2-18, Alternative F

Similar to Alternative B, a five percent disturbance cap would be applied under Alternative F. Lands and realty management would be similar to Alternative B, though with more stringent restrictions on disposal criteria (see Table 2-18).

According to Table 2-18, a 3% disturbance cap should be applied on surface disturbances, including fire (see pg. 2-100)

**Comment Number:** IDMTSG-14-0183-32

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 4-8, 3rd bullet point

Assumption

Interstate highways at 4.7 miles (7.5 kilometers) and paved roads and primary and secondary routes can cause impacts at 1.9 miles (3 kilometers) based on indirect effects measured through road density studies (Connelly et al. 2004; Holloran 2005; Lyon 2000).

Connelly et al. (2004) stated that lekking and nesting sagegrouse *appear* (italics added) to avoid road infrastructure and related activities (especially traffic). Along Interstate 80 in Wyoming and Utah between 1970 and 2003, observers found no leks within 2 km (1.25 mi) of the interstate and fewer birds on leks within 7.5 km (4.7 mi) than within 7.5–15 km (4.7–9.3 mi) beyond the interstate. However, this is a post-hoc study and only the temporal relationship between leks and distance to the interstate were investigated, not the myriad of other changes that took place in the landscape. Therefore, IPC suggests that the conclusions as stated in the LUPA/DEIS should acknowledge the shortcomings of the study of Connelly et al. (2004) and restate the conclusions of this study accordingly.

**Comment Number:** IDMTSG-14-0183-41

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Table C-2 is confusing as it presents GOAs with no BMPs that may be applied to different habitats. For example, GOA 88 states that the BMP is “Action: No similar action.” and that this would apply to Priority, Medial, and General habitat. In order to be useful, this table needs to have an explanation of how to use it or provide meaningful cross references.

**Comment Number:** IDMTSG-14-0183-9

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Transmission lines and major power lines are widespread throughout the range of GRSG. GRSG generally respond negatively to increased human infrastructure in sagebrush habitats, including roads, power lines, and communication towers (Manier et al. 2013, pp. 71-74). (ID/MT Draft LUPA/EIS)

The page numbers appear wrong. The reference should likely state pages 31–50 in Manier et al. (2013):

**Comment Number:** IDMTSG-14-0186-13

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-66 [136] purports that Alternative D has additional “design features that would improve the success of rehabilitation projects”. However, Appendix C does not report any design features for Alternative D, particularly any features that would improve success of rehabilitation or restoration projects. Appendix C does contain BMPs for Alternative D, but they are generally the same as the RDFs for Alternative B, and there are no additional design features described under Alternative D that would make it superior to

Alternative B (or A).

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**Comment Number:** IDMTSG-14-0186-15

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-66 [136]. The document states that PMMA are areas of greater degree of disturbance, leading to lower lek attendance; however, Appendix I reports that vast areas of PMMA (as well as PPMA) are well outside the “circles” that describe various distances from leks. Appendix I also reports that PMMA and PPMA include vast areas of perennial grasslands and/or annual grasslands, which are not GRSG habitat, by definition.

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**Comment Number:** IDMTSG-14-0186-16

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Other Sections:** 7.6

**Comment Excerpt Text:**

26. Page 2-71 [141]. Table 2-8 does not reflect the best science, at least relative to residual vegetation heights. Connelly et al 2000 (and other researchers) measured residual vegetation after the hens had left the nest, and in some cases after hens had entirely vacated the study area. See Hausleitner et al 2005.

27. Page 2-71 [141]. Table 2-8 provides no literature source for Footnote 2. Such source is NOT Connelly et al 2000.

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**Comment Number:** IDMTSG-14-0186-17

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-73 and 2-74 [143 and 144]. “Finite rate of population change” is not identified or discussed elsewhere in the DEIS, and is not defined within the DEIS.

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**Comment Number:** IDMTSG-14-0186-20

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-125 [195]. D-FM-6. It is entirely unclear what is meant by “directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.” This needs to be clarified.

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**Comment Number:** IDMTSG-14-0186-7

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Other Sections:** 7.6

**Comment Excerpt Text:**

The document appears to contain numerous internal inconsistencies. Appendix I reports 5% sagebrush cover as “suitable” in Montana (Appendix I), whereas 10% is required at page 2-68 [pdf 138]. Likewise, Connelly et al 2000 reports that 80% (or 40%) of sage-grouse-occupied rangeland should be maintained with certain characteristics, whereas the NTT states that 50-70% of the seasonal habitats should contain those same characteristics. I could find no rational basis expressed for the DEIS’s use of 70% for analysis (Appendix I). While this appears to “split the baby”, Connelly et al 2000 and the NTT are two disparate recommendations that are not scientifically rectified/justified by the DEIS.

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**Comment Number:** IDMTSG-14-0198-3

**Organization1:** AWHP

**Commenter1:**

**Comment Excerpt Text:**

Genetic diversity must be specifically defined in the final EIS.

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**Comment Number:** IDMTSG-14-0206-10

**Organization1:** The Nature Conservancy

**Commenter1:** William Whelan

**Comment Excerpt Text:**

Note that the lek buffer proposed in Management Action D-MLS-12 should be expanded to three kilometers, consistent with the lek buffer proposed in D-LR-9.

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**Comment Number:** IDMTSG-14-0211-1

**Organization1:**

**Commenter1:** Sherry Oster

**Comment Excerpt Text:**

The language of the EIS is ambiguous and contradictory and in one place it states:

“Under all alternatives, no direct change would occur to areas allocated as HMAs [Herd Management Areas]/WHBT [Wild Horse and Burro Territories] for wild horses and burros” ...

but then the rest of the paragraph outlines how each alternative will restrict Wild Horse and Burro use.

---

**Comment Number:** IDMTSG-14-0257-11

**Organization1:**EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Fill out the "X" in the following quote from draft EIS/LUP A Table 2-13, "Complete the strategy by 1 year of signing of the ROD. Complete planting of CHZs within X years of the ROD. Complete planting of IHZs within X years of the ROD."

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**Comment Number:** IDMTSG-14-0257-12

**Organization1:**EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Table 4-30 "Alternative D: Percent of GRSG Habitat and Occupied Leks Affected by ROW Exclusion of Avoidance by Population Area", and all tables like it, should include total numbers for all population areas.

---

**Comment Number:** IDMTSG-14-0257-7

**Organization1:**EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Several references within the document are incorrect. On page 4-212 for example, it is stated, "Refer to Section 4.34, Special Status Species." There is no "Section 4.34. This is one of several examples; please correct these references throughout the final EIS/LUP A.

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**Comment Number:** IDMTSG-14-0257-8

**Organization1:**EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Correct or provide a link to BLM Washington Office 1M 2013-128 for the following quote from draft EIS/LUP A Table 2-13, "E-WFM-l: Idaho - CHZ: Reduce the number and size of wildfires in GRSG habitat through incorporation of the BLM Washington Office 1M 2013-128."

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**Comment Number:** IDMTSG-14-0275-1

**Organization1:**Idaho Farm Bureau

**Commenter1:**Dennis Tanikuni

**Comment Excerpt Text:**

"improperly managed grazing" can occur when an allotment does not meet one of 8 Rangeland Health Standards (RHS) which are found in BLM land-use plans across the agency. It is our serious concern the use of this term can elevate even a minor violation of RHS to almost primary threat status, well beyond the intended secondary threat classification, and we strongly recommend the reconsideration, renaming or omission of this term

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**Comment Number:** IDMTSG-14-0325-13

**Organization1:**



**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

ESR and BAER.D-ESR-5 fails to provide evidence that livestock grazing should be adjusted on adjacent unburned areas. Use of the term "consider" and the extent of the term "adjacent" make this action unclear and open to interpretation and litigation. For these reasons D-ESR-5 should be excluded from the LUPAs.

**Section 4 - NEPA**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

**Comment Number:** IDMTSG-14-0180-39

**Organization1:**

**Commenter1:** C.L. Butch Otter

**Comment Excerpt Text:**

BLM failed to state why further restrictions on infrastructure are necessary in the Great Basin region. Under existing RMPs, no large scale infrastructure has been built in CHZ. In fact the only potential project, known as the China Mountain Wind Energy project's EIS was put on hold, despite creating a sage-grouse conservation plan, an off-site mitigation plan with 1:3 and 1:5 ratios of acres lost and acres restored. This project is currently on hold. Another more recent example is the Gateway West Transmission project. The current proposal recommends building on private land to avoid what Alternative E maps as primarily IHZ, but is identified as PPH for BLM. This shows that existing regulations for site specific NEPA analysis works for restricting infrastructure development in the most important sage-grouse habitat in Idaho, and may already be overly restrictive. Yet, BLM does not address what existing infrastructure impacts on sage- grouse are and what, specifically, its regulations in Idaho are lacking.

**Comment Number:** IDMTSG-14-0257-13

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

To address our concerns, we are recommending that the Final LUPA FEIS identify an Environmentally Preferable Alternative, provide additional information to support evaluation of the conservation plan according to the USFWS's Evaluation Criteria for Conservation Plans, and, provide additional information to readily compare the action alternatives' population effects.

***Summary***

The FEIS needs to identify an Environmentally Preferred Alternative, evaluate the plan according to the USFWS's Evaluation Criteria for Conservation Plans, and provide a summary comparison of the population effects under each alternative.

***Response***

1. FEIS will identify an Environmentally Preferred Alternative per CEQ regulations.

2. NOTE TO BLM: Is there a requirement to evaluate the plan (assuming Proposed Plan) to the USFWS's Eval Criteria? Is this something that may be done as part of the agreement with USFWS? If not, should include rationale for why not.
3. May already be included in the Summary of Impacts table at the end of chapter 2. If so, include reference to this for the reader.

#### **Section 4.1 - Public Notification**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

**Comment Number:** IDMTSG-14-0170-3

**Organization1:**

**Commenter1:** Marybeth Devlin

#### **Comment Excerpt Text:**

I urge BLM to publish the number of persons that respond to the Draft EIS. Show that you value every response on its own merits rather than labeling some as "form letters." The Constitution provides for the right of citizens to petition the Government for a redress of grievances. The Constitution does not require each complainant to formulate a unique letter. Indeed, the very word "petition" connotes a document that multiple parties sign in agreement and solidarity regarding a particular issue. At court, there are even class-action suits, wherein many plaintiffs join together to seek justice regarding a matter of mutual concern. One action, many parties.

BLM should just state the facts:

- How many persons responded to the Draft EIS,
- How many and what percentage favored each alternative course of action and why,
- What different alternatives were proposed, and
- What modifications, corrections, improvements could BLM make per the public input.

#### ***Summary***

BLM needs to publish the statistics for people that provided comment letters on the Draft EIS, as well as the comments, their responses, and changes made to the document in the FEIS .

#### ***Response***

Index of parties, comments, and responses will be provided in the FEIS. Changes made to the EIS will be noted [NOTE TO BLM: how did you want to show the changes? Grey highlight, strike out, etc.?]

#### **Section 4.2 - Cooperating Agency Relationships**

*Total Number of Submissions: 5*

*Total Number of Comments: 5*

**Comment Number:** IDMTSG-14-0148-5

**Organization1:** Western Counites Alliance

**Commenter1:** Kenneth Brown

**Comment Excerpt Text:**

Collaboration

Many counties have obtained cooperating agency status with the BLM and USFS in the sage grouse issue, yet their input has largely been overlooked in the development of the LUP and its alternatives. We maintain that the agencies should truly utilize the expertise and local knowledge afforded to them through this status, both in the selection of the final alternative and in its implementation.

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**Comment Number:** IDMTSG-14-0157-28

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Finally, NEPA requires BLM to seek out and consider in the FEIS the special expertise of other federal agencies including the NRCS, APHIS Wildlife Services regarding predators, and other special expertise held by sister agencies of BLM. See 42 U.S.C. § 4332(2)(c); 40 C.F.R. § 1503.1(a)(1). This includes the expertise of the USDA Agricultural Research Service. See, e.g., Western Land Managers will Need all Available Tools for Adapting to Climate Change, Including Grazing: A Critique of Beschta et al., Environmental Management, Jan. 8, 2014 (available at <http://link.springer.com/article/10.1007%2Fs00267-013-0218-2/fulltext.html>) (The lead author is a senior research leader at ARS).

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**Comment Number:** IDMTSG-14-0171-2

**Organization1:** Department of Defense

**Commenter1:** Robert M. Shirley

**Comment Excerpt Text:**

Wildfire: Wildfire suppression, prevention, and restoration on BLM lands affect the Air Force. Implementing the wildfire prevention and suppression measures in Alternative E provide the best benefit to the MHRC. The Air Force needs to be notified when BLM plans controlled burns in the vicinity of MHAFB and MHRC.

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**Comment Number:** IDMTSG-14-0210-3

**Organization1:** NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

NorthWestern Energy is working with other Western utilities through the Avian Power Line Interaction Committee (APLIC) and resource agencies (including the BLM, FWS, and state agencies) in the development of Best Management Practices (BMPs) for electric utilities in sage-grouse areas (see discussion below). While the Best Management Practices document is not yet complete, the Montana Governor's Council on Great Sage Grouse Habitat referenced this document and added a placeholder for this document in the final draft. NorthWestern Energy encourages BLM to recognize the leadership role their own agency is playing in developing these BMPs by referencing them in the Idaho and Southwestern Montana LUP EIS.

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**Comment Number:** IDMTSG-14-0223-1

**Organization1:** Theodore Roosevelt Conservation Partnership

**Commenter1:**Edward B. Arnett

**Comment Excerpt Text:**

• We recommend the BLM coordinate with the Idaho, Montana and Utah state wildlife agencies to ensure that 1) land use planning and habitat management objectives in the final RMP and ROD achieve and sustain the state wildlife agency's population management objectives for sage grouse; and 2) commitments made in the proposed RMP are flexible enough to change if state needs require such management flexibility.

***Summary***

See note to BLM in response.

***Response***

NOTE TO BLM: In reviewing the comments, the theme among all of them is "BLM should work with cooperating agencies, recognize the work done with other groups, and notify the military when doing burns" which I would suggest are not something that would result in changes to the FEIS or actions; therefore, I would recommend not including this summary. I would suggest that if the information is not already in the FEIS, then you could provide further clarification of the role of cooperating agencies, additional discussions or work with other groups, or information of the follow up actions that would occur with cooperating agencies. If all of this information is already in the document, then the entire summary/response could be eliminated.

**Section 4.3 - Range of Alternatives**

*Total Number of Submissions: 29*

*Total Number of Comments: 80*

**Comment Number:** IDMTSG-14-0025-1

**Organization1:**Central Idaho Rangelands Network (CIRN)

**Commenter1:**Aaron Harp

**Comment Excerpt Text:**

The focus on conifer removal emphasized by Alternative E is too narrow. Conifer encroachment, particularly into aspen groves at higher altitudes, needs to be addressed on some of our allotments but only within the context of the larger landscape and overall habitat recovery planning.

**Comment Number:** IDMTSG-14-0025-3

**Organization1:**Central Idaho Rangelands Network (CIRN)

**Commenter1:**Aaron Harp

**Comment Excerpt Text:**

The restrictions needed to maintain 65% of the birds, as proposed by the Idaho Office of Species Conservation may well fall to our region as we have reduced levels of many primary threats to sage grouse populations such as wildfire, habitat fragmentation, cheatgrass, energy and human infrastructures that the other regions have. If this population trigger is maintained will the remainder of the region look to us to maintain dwindling sage grouse populations? Under such an outcome, none of the Alternatives offer a specific remedy for us as ranchers. In such a case, one alternative is a third-party voluntary and permanent buyout of

permits. Another is the compensation of ranchers for supplying and improving habitat on allotments. Each of these is preferable to having the value of the permit fall to nothing due to restrictions or further AUM cuts and the fragmentation of land ownership into smaller parcels with uncertain management goals. We would like to see language supporting future agency and Congressional language legalizing such options for BLM permits included in the final decision.

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**Comment Number:** IDMTSG-14-0026-1  
**Organization1:**Challis Local Working Group  
**Commenter1:**

**Comment Excerpt Text:**

Under Alternative E we want to make sure the language from Appendix D is incorporated into the Alternative in regards to Conservation Areas. Current language in Chapter 2, including Table 2-18, does not have the level of detail that the Appendix has on how the Conservation Areas work. For example, under the alternative description, it should state that there are four Conservation Areas. It should clearly state that if a trigger is reached in one Conservation Area, the adaptive management then only applies to that Conservation Area and not to the other three areas

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**Comment Number:** IDMTSG-14-0026-10  
**Organization1:**Challis Local Working Group  
**Commenter1:**

**Comment Excerpt Text:**

Under Alternative E there is also language about an Implementation Commission. We would like more clarification on what their role is and who they are.

---

**Comment Number:** IDMTSG-14-0026-8  
**Organization1:**Challis Local Working Group  
**Commenter1:**

**Comment Excerpt Text:**

Alternative E talks about an Implementation Team. We would like to see more detail on who the team is and when they become involved. What is their role?

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**Comment Number:** IDMTSG-14-0031-2  
**Organization1:**Capital Trail Vehicle Association (CTVA)  
**Commenter1:**

**Comment Excerpt Text:**

More sage grouse can be protected by banning sage grouse hunting and eliminating predators than all of the proposed actions. This is a reasonable alternative that must be evaluated and selected.

---

**Comment Number:** IDMTSG-14-0039-2  
**Organization1:**DreamCatcher Wild Horse and Burro Sanctuary  
**Commenter1:**Barbara Clarke

**Comment Excerpt Text:**

Alternatives described would allow the BLM too much discretion in forage allocations to private livestock and wild horses. It would allow BLM to decrease AUMS (Animal Unit Months), their forage allocations, and AUMS (Allowable Management Levels) for wild horses and burros even though these federally-protected species are vastly outnumbered by livestock in the planning area, including within their federally designated habitat areas, the HMAs.

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**Comment Number:** IDMTSG-14-0039-4

**Organization1:** DreamCatcher Wild Horse and Burro Sanctuary

**Commenter1:** Barbara Clarke

**Comment Excerpt Text:**

In summary, the EIS is analyzing an inclusive management plan that will significantly impact protected wild horses and burros; thus, it is expected that all of these issues will be addressed in the final EIS.

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**Comment Number:** IDMTSG-14-0046-1

**Organization1:**

**Commenter1:** Jim Gerber

**Comment Excerpt Text:**

To what extent can the BLM and FS set overmature sagebrush back to an early stage to intervene in the succession process to improve the grass/forb condition for hens and chicks? I believe this is the major policy decision you have to make. If succession is not identified as an issue, it will not be addressed in the alternatives, and if succession is not addressed in the alternatives it will not be addressed in the environmental consequences, and therefore will play no role in the decision making process to determine which alternative best meets the long-term survival of sage grouse. This is exactly what happened in your DEIS. Sage grouse was not identified as an issue, was not addressed in the alternatives, and was not addressed in the environmental consequences. This seems like a huge oversight since sagebrush is the primary habitat for sage grouse.

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**Comment Number:** IDMTSG-14-0046-11

**Organization1:**

**Commenter1:** Jim Gerber

**Comment Excerpt Text:**

New Alternative Proposal

I hereby propose a new alternative, one that is focused primarily on creating a mosaic of species and age classes on the landscape. Direction in livestock grazing, wildfire management and predator control play a supporting role in accomplishing this goal.

A landscape is defined as an area of land over 100,000 acres with similar characteristics of climate, vegetation and geologic features. So, for example, a landscape might be the upper end of the Snake River drainage that receives more than 12 inches of rain per year.

1. Vegetation

The objective would be to, within the larger 100,000 acre landscape, focus on creating large openings (200 to 300 acres) in mature/overmature sagebrush, with smaller patches of sagebrush scattered through the open matrix. The small leave patches would be about 4 acres (400' by 400') which occupy about 10% of the total

area (so within a 200 acre treatment area there might be 5 - four acre patches; 10% x 200 acres is 20 acres; 20 acres divided by 4 acre patch = 5 patches). A large patch is needed to protect sage grouse from predators.

In addition, there would be even smaller patches of sage approximately 25' x 25' up to 50' x 50', accounting for say, another 1% of the larger 200 acre area, or some 50 of these smaller patches per treatment area. These would provide temporary protection from predators.

The rest of the sagebrush in the treatment area would be removed by mechanical treatment. If necessary, the area should be seeded with grass and forbs following treatment. Also, thick patches of slash may have to be piled and burned to remove the greater concentrations of fuel. Roughly 89% of the 200 acre treatment area would be cleared of vegetation.

Overall, 30% of the sagebrush community, on a landscape basis, should be seedling age, 40% immature sagebrush, and 30 % mature/overmature vegetation.

Remove DF and pinyon-juniper that are encroaching into sagebrush to increase the total amount of sagebrush available to sage grouse.

## 2. Wildfire

Fight all wildfire in grouse habitat as soon as it is detected in June, July and August, the hottest part of the fire season. This will preserve as much of the sagebrush as possible for sage grouse.

Use prescribed fire outside of the June – August period whenever the window of opportunity for controlled burning allows. This would occur as a general maintenance program to keep sagebrush in a usable condition for grouse. Pre-approve a number of prescribed fire projects to take advantage of short windows of opportunity to burn.

## 3. Predator Control

Use predator control while hens are sitting on eggs and until the chicks can hatch and fly; do this the season following the 200 acre treatment. This generally is a 3 to 4 week period. This gives the chicks a chance to hatch and grow to a point where they can fend for themselves. I envision 2-3 people with shotguns walking through the 200 acre area and blasting away at ravens, hawks, coyotes and anything else that might want to eat a sage grouse. It might be necessary to do this for 2 or 3 seasons following the treatment.

## 4. Grazing

Allow grazing on all occupied GRSG habitat in order to remove fine fuels and keep large concentrations of fuel from accumulating in the habitat.

Also use the Alan Savory method of “stomp and poop” grazing on dry sites (and other sites where appropriate) to concentrate cattle for a brief time (3 to 20 days).” Cattle excretion inoculates the soil with key bacteria and fungi that are awakened in the soil by the influence of dung and urine. This works especially well in cheatgrass-invaded areas. Native seedlings simply wait for the cheatgrass to die in summer. The native plants then act as a water-conserving , sheltering mulch that mature on summer and fall rainfall. The following spring cheatgrass seeds (if present) do not even germinate in the presence of native perennials and their allied native bacteria and fungi” (quote from Stephen H. Rich, president of Rangeland Restoration Academy in Salt Lake City; [steve@rangelandandrestoration.com](mailto:steve@rangelandandrestoration.com)).

## 5. Invasive Species

Implement noxious weed and invasive species control using integrated weed management in cooperation with State and Federal agencies, counties, and private landowners.

## 6. Internet Grouse Site

Create a nationwide grouse.com site where agency employees can post management practices they have tried and the result they had, good or bad. Other employees could visit the site to see what is working, and what is not. A sort of clearing house, so to speak, for what other employees are experiencing with adaptive management in sage grouse management.

**Comment Number:** IDMTSG-14-0046-5

**Organization1:**

**Commenter1:** Jim Gerber

**Comment Excerpt Text:**

There is a very small range between the alternatives, except for Alternative C, which eliminates all grazing. Otherwise, the alternatives all occur in a tight band that reflects little difference between them. For instance, there is only 1.4 million acres difference in GRSG habitat between the highest and lowest alternatives, out of 11.6 million acres total. This is only a 12% difference from best to worst. I doubt if that qualifies as a reasonable range of alternatives that produce feasible, distinct and implementable management scenarios that 1) address the full range of identifiable major planning issues, 2) explore opportunities to enhance management resources, 3) resolve conflicts between resources, and 4) meet the purpose and need for the LUPA.

**Comment Number:** IDMTSG-14-0050-15

**Organization1:**

**Commenter1:** Kathleen Gregg

**Comment Excerpt Text:**

Since the EIS is analyzing a plan that may significantly impact wild horse and burro management, providing for the protection of a viable wild population of wild horses and burros (a population capable of reproducing itself without human interference and the resources available to sustain that population) is not outside the scope of this document. The EIS is analyzing an all-inclusive management plan that will significantly impact protected wild horses and burros; as a result, I require all of these issues to be addressed in the final EIS.

**Comment Number:** IDMTSG-14-0050-16

**Organization1:**

**Commenter1:** Kathleen Gregg

**Comment Excerpt Text:**

All alternatives must include Animal Unit Months (AUMs) available for wild horses and burros to the extent that a genetically viable population of wild horses and/or burros may be sustained. A written format must be included in the proposed EIS that activates increases of AUMs for wild horses and/or burro herds if information becomes available that the population is at risk of genetic loss. A current population of 200,000 sage grouse has generated this massive sage grouse management EIS endangered species listing document and yet the BLM estimates that only about 40,000 wild horses and burros are on their legal land – and to further



underline the necessity of providing protection, independent estimates range near only 20,000 wild horses and burros on their legally designated land, much of which is fragmented below the accepted healthy genetic pool of at least 150 reproducing animals. Since wild horses and burros are managed only within the areas designated for their use, all alternatives must include language that protects wild horses and burros in any and all overlapping areas.

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**Comment Number:** IDMTSG-14-0050-18

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The EIS proposal must include:

1. Any alternative adopted must include language that provides guidance to all districts that wild horses and burros must be preserved above a level that allows appropriate genetic diversity.
2. Genetic diversity must be specifically defined.
3. Provisions that state that at no time should there be a reduction of current AUMs for wild horse and/or wild burro use. Wild horses and wild burros are currently managed at numbers less than 25% of that of the greater sage grouse. To reduce the numbers of wild horses and/or wild burros to accommodate protection of the sage grouse is not acceptable.
4. Provisions must be made to allow increases of AML/AUMs if data becomes available that demonstrates genetic viability of wild horses and burros is threatened.

As currently written and proposed, none of the alternatives within the EIS plan are acceptable. Although stated in the report that no direct change would occur to areas allocated as Herd Management Areas and Wild Horse and Burro Territories for wild horses and burros, all alternatives appear to restrict wild horse and burro use.

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**Comment Number:** IDMTSG-14-0050-19

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The proposed EIS must not combine animal unit months for privately owned domestic livestock with wild horse and burro animal unit months. Privately owned domestic livestock are “permitted” whereas wild horses and burros are designated by the 1971 Congressional law to use this public land. There is a big difference in these two uses and with the alternatives, as written, discretion given to districts actually creates a situation of contradiction that could result in discretionary interpretation district by district that would likely result in inconsistent management practices. Wild horses and burros have a legal land base of approximately 12% of BLM/FS managed land whereas private domestic livestock allotments exist on over 65% of that same base. To utilize the same equation to manage both uses is non-equitable under any of the proposed alternatives.

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**Comment Number:** IDMTSG-14-0050-20

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

Providing for the safeguard of a viable population of wild horses and wild burros that is capable of reproducing without interference and the resources available to sustain that population is the law and is essential, critical and within the scope of this sage grouse EIS document. This proposed EIS is an all-inclusive management plan that will significantly impact legally protected wild horses and wild burros on their legally authorized land and thus is highly significant and must be seriously considered within this or any sage grouse protection plan.

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**Comment Number:** IDMTSG-14-0108-10

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Inexplicably, when responding to scoping comments the Draft LUPA EISs claim that analysis of greater sage-grouse population levels is beyond the scope of the project, stating that comments “questioned population levels and the need to incorporate rangewide conservation measures” and concluding that such concerns “relate to decisions under the purview of the USFWS and are not (will not be) addressed” by the Draft LUPA EISs. See ID Draft LUPA/EIS, page 1-33 and NV Draft LUPA/EIS, page 1~18. Thus, the Draft LUPA EISs irrationally conclude that the overriding purpose and need identified for the project is itself beyond the scope of the project. As a result of this irrational decision, the Draft LUPA EISs devote little or no effort to disclose, discuss, or analyze greater sage-grouse population levels, viability, or persistence

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**Comment Number:** IDMTSG-14-0108-11

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

the Draft LUPA EISs apparently accept the erroneous FWS Findings that the greater sage-grouse is warranted for listing under the ESA without undertaking any critical examination of such findings, and then choose to ignore analysis of population levels and trends in favor of a focus on habitat conditions and trends without any consideration for how such habitat factors ultimately affect the grouse populations. Such approach fails to conform to the overriding purpose and need identified for the Draft LUPA EISs which is specifically tied to the desire to avoid listing the greater sagegrouse under the ESA.

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**Comment Number:** IDMTSG-14-0108-2

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Because the evidence shows that there is no need to list the greater sage-grouse under the ESA, none of the action alternatives evaluated by the Draft LUPA EISs are necessary or reasonable. The only alternative that is reasonable and rational as a final decision in this case is a true no action alternative that continues the land use plan direction that was in place before the BLM imposed interim sage-grouse conservation measures through the 2011 BLM IMs

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**Comment Number:** IDMTSG-14-0108-3

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

The ID Draft LUPA/EIS ignores the NOI purpose and substitutes a different purpose that merely seeks to “conserve, enhance, and restore GRSG (greater sage-grouse) habitat by reducing, eliminating, or minimizing

threats to that habitat.” See ID Draft LUPA/EIS<sup>1</sup>, page 1-12. This substitution disregards the original purpose of the NOI that specifically ties the need for preparing the Draft LUPA EISs to the desire to avoid a potential listing of the greater sage-grouse under the ESA. However, the ID Draft LUPA/EIS implicitly acknowledges the NOI purpose and need by stating that this “effort responds to the USFWS’s 2010 Finding” (see ID Draft LUPA/EIS<sup>1</sup>, page 1-11).

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**Comment Number:** IDMTSG-14-0108-5

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Given that the overriding purpose and need identified by the NOI and Draft LUPA EISs specifically ties to the desire to avoid listing the greater sage-grouse under the ESA, the Draft LUPA EISs have a fundamental obligation to address the extent to which the greater sage-grouse populations meet the criteria of the ESA as an endangered species or as a threatened species under current land use plan management direction before proposing action alternatives to change such management direction. Both Draft LUPA EISs completely fail to meet this fundamental obligation. The Draft LUPA EISs contain virtually no information, discussion, or analysis regarding existing greater sage-grouse population levels anywhere within their range, so are unable to evaluate the extent to which the species meets the qualifications for listing under the ESA

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**Comment Number:** IDMTSG-14-0125-1

**Organization1:**

**Commenter1:** Thom Seal

**Comment Excerpt Text:**

The draft DEIS, Purpose and Need completely omits a major threat to the GESG habitat, and that is disease. According to the U of Montana study “West Nile Virus: Ecology and Impacts on Greater Sage Grouse Populations” West Nile Virus (WNV)” outbreaks more common during drought”

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**Comment Number:** IDMTSG-14-0130-13

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Alternative D is silent on insuring that any conservation measures, allocations or prescriptions (Management Actions), to be imposed for any particular use will be predicated upon existing vegetation and be within the ecological potential of the site.

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**Comment Number:** IDMTSG-14-0130-14

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Arbitrarily mandating specific RDFs or BMPs at a land use planning level is unacceptable. These items should only be considered as a "tool box" to be used at the activity plan level and then only used after an impact assessment has been made.

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**Comment Number:** IDMTSG-14-0130-19

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Management actions relating to domestic sheep grazing within bighorn sheep habitat appear to be outside of the scope of this planning effort. (D-LG Form -17, page 2-143)

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**Comment Number:** IDMTSG-14-0130-9

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

the detailed description of Alternative A, found within the DEIS, fails to include reference to the numerous applicable laws, regulations, executive orders, departmental guidance, agency manuals, agency handbooks and instruction memos that must also be considered in concert with existing land use plan guidance.

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**Comment Number:** IDMTSG-14-0131-17

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Having a rigid disturbance cap that fails to account for habitat conditions and existing valid rights is arbitrary, unnecessarily harsh, and beyond BLM authority

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**Comment Number:** IDMTSG-14-0131-2

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Other examples include the disturbance caps and the establishment of Areas Critical of Ecological Concern (ACECs). The basis for the arbitrary 3% disturbance caps is not provided. Such disturbance thresholds (caps) ignore important distinctions such as habitat quality, disturbance type and timing that are important in GSG conservation. Is there an analysis of different levels (say 10%, 20%, etc.) of percent disturbance? What are the specific outcomes expected to be achieved by the ACECs found in Alternatives C and F? Is there an analysis/study that shows setting aside such areas will result in a measurable increase in GSG populations?

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**Comment Number:** IDMTSG-14-0131-24

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

Although no current banking systems exist in Idaho for sage-grouse, there are programs that could potentially provide benefit and regulatory certainty to landowners. These programs are currently available for sage-grouse, though none are listed in any of these alternatives. These programs need to be included in the final action selected for the LUPA. A short summary of these programs and how they work are discussed below.

**The Working Lands for Wildlife Program**

The Working Lands for Wildlife Program (WLFWP) was announced in September 2012 (USFWS, 2012; NRCS, 2012). This program is a partnership between NRCS and the USFWS. It was designed to create a long-term approach to help landowners take action to improve habitat for seven at-risk wildlife species. The sage-grouse is one of the species covered by this program. Landowners who participate in the program receive regulatory predictability from the USFWS should the at-risk species the landowner is helping become listed at a later date. This regulatory predictability can be for a term of up to 30 years.

WLFWP gains its authority through the conference report that was completed by the USFWS (USFWS, 2010). This report analyzes the impacts of NRCS's main conservation practices on sage-grouse. The report summarizes how NRCS practices can be implemented to not have adverse effects to sage-grouse. The WLFWP then uses these USFWS findings to develop conservation plans which, according to the conference report, will not have adverse impacts to sagegrouse.

The premise behind this voluntary program is for landowners to work with NRCS or Technical Service Providers to develop conservation plans on their agricultural operations to promote at-risk species conservation and habitat improvements. These plans, if followed, give the landowner the regulatory predictability that the USFWS has already analyzed the impacts of the conservation practices used in the conservation plan. This means that should the species become listed, any incidental take of the species through the approved conservation plan should be exempt through Section 7 of the ESA, if the landowner continues to follow the plan (USFWS, 2012). The regulatory predictability this provides could prove to be beneficial for agricultural operations within the sage-grouse range.

**Candidate Conservation Agreements with Assurances**

Candidate Conservation Agreements with Assurances (CCAAs) are a tool that is similar to the WLFW program. CCAAs are agreements between the USFWS and landowners that provide regulatory assurances on private lands. CCAAs are developed for a candidate species, like the sage-grouse, prior to listing. These agreements provide landowners, who voluntarily manage their lands to remove threats to candidate species, assurances that their conservation efforts will not result in future regulatory requirements above and beyond what they already agreed to do. This assures landowners that they can enhance or restore habitat, create new habitat, and take measures to minimize risk for candidate species while protecting themselves from future regulatory actions should the species become listed as threatened or endangered.

These assurances give landowners guarantees that they can continue to manage their lands as agreed to in the CCAA even after the species becomes listed. Other benefits include the opportunity for authorizations of incidental take through the section 10(a)(1)(A) process of the ESA. This section authorizes issuance of permits that would allow participants to incidentally take individual animals or modify habitat conditions as specified in the agreement.

There are two types of CCAAs available. One is an individual CCAA where a landowner enters into the

agreement directly with the USFWS. The second option is an umbrella CCAA where a larger document is developed with a local government or non-profit and then landowners sign onto this larger document.

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**Comment Number:** IDMTSG-14-0131-26

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

The six alternatives presented in the Draft LUPA/EIS are quite complex and most of them extremely prescriptive on uses other than sage-grouse habitat. Chapter 2 needs to provide adequate technical discussion to provide a legitimate basis for the prescriptive elements of the Alternatives; otherwise, the Alternatives should be modified to be less prescriptive. For example, for some of the alternatives there is an absolute cap of three (3) percent on anthropogenic disturbance, but no basis for the derivation of that number. Several Alternatives (B, C, D, and F) tend to treat each potential threat with a “one-size fits all” prescription; that prescription usually is the prohibition of other uses of the federal lands of interest. Finally, it is difficult to determine the consequences on specific locations, as the information in the Draft LUPA/EIS is not detailed enough. Examples include the exact locations of PPMA, PGMA, etc. and the status of anthropogenic disturbances (%) for each area.

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**Comment Number:** IDMTSG-14-0131-9

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

The Draft LUPA/EIS does not disclose the disturbance values for each of the PPMAs or GRSG habit areas. Thus, it is not possible to determine for each PPMA the potential acres that might be available for anthropogenic activities. Without this information, it is impossible for stakeholders, including affected parties, to determine how each of the Alternatives affects specific federal parcels.

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**Comment Number:** IDMTSG-14-0135-2

**Organization1:**

**Commenter1:**Karen Steenhof

**Comment Excerpt Text:**

The proposed population and habitat triggers should be more clearly defined in the FEIS. The FEIS needs to identify minimum standards that will initiate triggers, and it should outline how the information will be gathered.

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**Comment Number:** IDMTSG-14-0149-11

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

PPMA and PMMA areas with moderate and high potential in fluid minerals are open to leasing but are subject to a number or restrictive constraints, including a disturbance density not to exceed 1/640 acres with a maximum of 3% disturbance per section.<sup>5</sup> In most cases, limiting disturbance to 3% or less in a section is

unachievable. More importantly, the agencies have not provided sufficient scientific data to support the disturbance density limitation or its effectiveness in conserving GSG and its habitat.

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**Comment Number:** IDMTSG-14-0150-4

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Comment Excerpt Text:**

the greater sage-grouse is not faced with imminent extinction, or extinction in the foreseeable future, and therefore does not meet the ESA definitions to be listed as either endangered or threatened. Thus, there is no need to change current management direction or to amend land use plans (BLM RMPs or USFS LRMPs) to avoid a potential listing under the ESA. Because the evidence shows that there is no need to list the greater sage-grouse under the ESA, none of the action alternatives evaluated by the Draft LUPA EISs are necessary or reasonable. The only alternative that is reasonable and rational as a final decision in this case is a true no action alternative that continues the land use plan direction that was in place before the BLM imposed interim sage-grouse conservation measures through the 2011 BLM IMs.

So, what should be done? Western Range Service urges that the following actions be taken:

- 1] the BLM should issue Records of Decision in this case enacting a true no action alternative that repeals the 2011 BLM IMs and does not amend any land use plans;
  - 2] the BLM should press for a final FWS listing decision that confirms that the greater sage-grouse does not qualify for listing under the ESA for the reasons discussed herein;
  - 3] agencies should continue to monitor greater sage-grouse population numbers and trends within priority portions of its range, particularly within the southwest Wyoming Basin (a conservation priority, see FWS Findings6, page 1393), within the Owyhee Wilderness complex\* in Idaho, and within the Black Rock Wilderness/Sheldon National Wildlife Refuge complex\* [such wilderness/refuge areas already operate under regulatory mechanisms which minimize human disturbance and limit or prohibit development.] in Nevada, with the aim of implementing additional sage-grouse conservation and protection measures within any of these three areas if its population declines below 5,750 greater sage-grouse† [The population size at which the current rate of decline would result in numbers falling below the minimum effective population of 5,000 individuals within ten years.];
  - 4] efforts to conserve and enhance the Gunnison Sage-Grouse (presently about 5,000 birds) should continue in order to preserve their unique genetic characteristics; and,
  - 5] efforts to conserve and enhance the Bi-State population (presently about 3,000 birds) should continue in order to preserve their unique genetic characteristics.
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**Comment Number:** IDMTSG-14-0150-7

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Comment Excerpt Text:**

Instead, the Draft LUPA EISs apparently accept the erroneous FWS Findings that the greater sage-grouse is warranted for listing under the ESA without undertaking any critical examination of such findings, and then choose to ignore analysis of population levels and trends in favor of a focus on habitat conditions and trends without any consideration for how such habitat factors ultimately affect the grouse populations. Such approach fails to conform to the overriding purpose and need identified for the Draft LUPA EISs which is specifically tied to the desire to avoid listing the greater sage-grouse under the ESA. Because the evidence shows that the greater sage-grouse does not qualify for listing under the ESA, as discussed herein, there is no need for further action.

In order to fulfill the overriding purpose and need, the Final LUPA EISs must evaluate whether the greater sage-grouse meets the criteria of the ESA as an endangered species or as a threatened species under current land use plan management direction.

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**Comment Number:** IDMTSG-14-0151-47  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS states that the Purpose of the LUPA *process is to identify and incorporate appropriate conservation measures into LUPs to conserve, enhance, restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat.*

The Purpose should be expanded to provide for viable well-connected **populations** and to conserve, enhance, and restore occupied habitat. Sagebrush landscapes must be restored, and a strong effort must be made to support the survival of all existing populations.

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**Comment Number:** IDMTSG-14-0151-67  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS states that USFWS has identified threats including “installation or removal of fences, water developments (springs tanks, windmills)”. So why are these not considered earlier in the Key Issues discussion of infrastructure - on page 1-28, where the DEIS is describing : .... Livestock facilities be treated as infrastructure in these DEIS processes.

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**Comment Number:** IDMTSG-14-0151-72  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

There is no alternative that analyzes a no new disturbance cap, and managing for no loss to the maximum extent possible.

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**Comment Number:** IDMTSG-14-0153-12  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

68 Fed. Reg. 15115. Importantly, the BLM appears to rely heavily on discretionary measures such as “avoidance” rather than “exclusion” of activities known to be detrimental to sage grouse inside Priority Habitat areas, and offers exceptions to protections on a conditional basis. As BLM notes, “A ROW avoidance area may be available for ROW location but may require special stipulations.” DEIS at 4-160. There is no regulatory certainty in this approach. And even more importantly, BLM in many cases adopts measures that provide inadequate protections based on the available science, which outlines thresholds at which significant impacts can be expected.



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**Comment Number:** IDMTSG-14-0153-17

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

According to BLM IM 2012-44, “The conservation measures developed by the NTT and contained in Attachment 3 must be considered and analyzed, as appropriate, through the land use planning process by all BLM State and Field Offices that contain occupied Greater Sage-Grouse habitat.” This must be done fully in the Idaho – Southwest Montana DEIS. IM 2012-44 does not provide an option not to analyze these measures in at least one alternative unless a clear finding is provided that the measure is not appropriate, and BLM has provided no such findings in the context of the Idaho – Southwest Montana RMP Amendment.

For example, the NTT Report calls for an unambiguous requirement that closed-loop drilling with no reserve pits be required within Core Areas, not incorporated into any alternative

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**Comment Number:** IDMTSG-14-0153-19

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Thus, in order to avoid the appearance of an arbitrary and capricious approach to sage grouse conservation between states or other jurisdictional boundaries that have no biological or ecological basis, BLM should have some common minimum requirements across RMPs that ensure that conservation measures that cannot be shown to support the maintenance and recovery of sage grouse populations do not crop up in regional or local RMPs due to the whims of local politics.

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**Comment Number:** IDMTSG-14-0153-22

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We agree with 3% as the maximum allowable density of disturbance that should be allowed in Priority Habitats. It is not clear that these recommendations are applied in any alternative, even Alternative B (which is supposed to represent the National Technical Team recommendations), even though BLM’s own sage grouse experts have called for this course of action.

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**Comment Number:** IDMTSG-14-0153-25

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We further point out the need to manage all new rights-of-way to meet the minimum adequate standard, as implemented with a 4-mile lek buffer. This is a reasonable alternative, analyzed in detail across many if not most sage grouse RMP amendment EISs, but is not considered under any alternative in the Idaho – Southwest Montana DEIS. This is a NEPA ‘range of alternatives’ violation. Keeping roads to the minimum necessary

standard is consistent with direction in the Gold Book, and should be standard practice.

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**Comment Number:** IDMTSG-14-0153-64

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The National Technical Team Report prescribes a number of conservation measures for sage grouse General Habitat, the lands outside priority habitat. These include avoidance for the purposes of rights-of-way and enhanced riparian area protections, for example. The Idaho – Southwest Montana DEIS does not appear to consider alternatives to provide enhanced protections for sage grouse General Habitats of the type recommended in the National Technical Team report. Under current BLM policy, the agency must fully consider implementing the recommendations of the National Technical Team in at least one alternative, and this direction applies to General Habitats as well. This shortcoming should be addressed in the Final EIS, and General Habitats should be accorded the protections necessary to maintain viable populations of this BLM Sensitive Species.

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**Comment Number:** IDMTSG-14-0153-65

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are concerned that the BLM has not fully considered the Sage-grouse Recovery Alternative or the National Technical Team recommendations in full, and has not provided sufficient explanation for why this has occurred. In particular, measures to protect sage grouse wintering habitat are almost entirely absent from all alternatives,

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**Comment Number:** IDMTSG-14-0157-22

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The Purpose and Need Statement as set forth in Section ES.2 and 1.2 identifies grazing of domestic and wild animals as a major threat but does not differentiate between the two. Subsequence passages seem to refer to the threat of grazing as involving domestic livestock only. See, e.g., Table 2.1. The fact that wild horses' and burros' utilization of forage is the subject of great debate and concern is most recently attested to by the litigation filed by the Nevada Association of Counties against the Department of the Interior and BLM. See Nevada Ass'n of Counties v. US. Dep't of the Interior, 13-cv-712 (filed Dec. 30, 2013 D. Nevada).

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**Comment Number:** IDMTSG-14-0157-23

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The alternatives presented in the FEIS must be both technically and economically feasible for grazing. See

BLM National Environmental Policy Act Handbook H-1790-1 at Section 6.6.1. The requirement for technically and economically feasible alternatives is not included in the preliminary planning criteria for the land use plan amendments other than by casual reference to the BLM NEPA Handbook. This requirement is particularly relevant to Alternative C, the cumulative effect of which would be to put ranches out of business, put more pressure on privately owned Sage-grouse habitat, and convert private habitat to other agriculture or non-native grasses. See Section 4.16.7. For this reason alone, Alternative C must be dismissed from further analysis.

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**Comment Number:** IDMTSG-14-0157-8

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Y-3 II is concerned that some of the action alternatives and management actions within those alternatives are actually more restrictive than would be found on BLM lands should Sage-grouse be listed as threatened or endangered. Under the ESA, private parties may apply for an incidental take permit and, pending satisfaction of permit criteria, receive immunity for the take of wildlife associated with the permitted activity. 16 U.S.C. § 1539. The ESA also contemplates the submission of a habitat conservation plan that would allow an activity applicant to demonstrate mitigation measures and other means of minimizing wildlife impacts. *Id.* At § 1539(a)(2)(A). Conversely, Alternative C, which will be analyzed in further detail below, completely precludes livestock grazing with no opportunity for incidental take permits, habitat conservation plans, or other mitigation opportunities and thus, in this respect, is more restrictive than the ESA. For this and other reasons, outlined below, adoption of Alternative C or portions of other alternatives that would be more restrictive than the ESA is completely illogical and inappropriate in responding to the Service's request for additional regulatory mechanisms to avoid a listing under the ESA.

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**Comment Number:** IDMTSG-14-0159-11

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The Purpose and Need Statement is Fatally Flawed

The Purpose and Need Statement does not disclose that one of the main purposes of the DEIS is to respond to Instruction Memorandum (IM) 2012-044 (which expired prior to issuance of the DEIS) to analyze the impacts associated with implementing the conservation measures in the NT) Report.

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**Comment Number:** IDMTSG-14-0159-12

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

BLM offices should ensure that implementation of any of the measures is consistent with applicable statute and regulation. Where inconsistencies arise, BLM offices should consider the conservation measure(s) to the fullest extent consistent with such statute and regulation.

IM 2012-044. Although the DEIS complies with the IM directive to include at least one alternative based on the conservation measures in the NTT Report, the DEIS fails to respond to the second directive as stated in the second paragraph above: “BLM offices should ensure that implementation of any of the measures is consistent with applicable statute and regulation.” The “NTT-Only” Alternative contains many land use restrictions and prohibitions inconsistent with the multiple use mandates in FLPMA and NFMA and rights under the General Mining Law.

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**Comment Number:** IDMTSG-14-0159-18

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

The DEIS fails to fully account for Federal regulatory mechanisms that are currently in place and are not only adequate to address the threats to the species, but are extremely robust. An example of the type of stipulations on mining operations that presently protect non-listed species and their habitat (in this case Wyoming), every Federal coal lessee is required to sign a stipulation from the BLM which says that:

“Special Stipulation 2. Threatened and Endangered Species (Wyoming BLM)

“The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened or endangered under the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., or that have other special status. The Authorized Officer may recommend modifications to exploration and development proposals to further conservation and management objectives or to avoid activity that will contribute to a need to list such species or their habitat or to comply with any biological opinion issued by the Fish and Wildlife Service for the proposed action. The Authorized Officer will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act. The Authorized Officer may require modifications to, or disapprove a proposed activity that is likely to result in jeopardy to the continuous existence of a proposed or listed threatened or endangered species, or result in the destruction or adverse modification of designated or proposed critical habitat.

The lessee shall comply with instructions from the Authorized Officer of the surface managing agency (BLM, if the surface is private) for ground disturbing activities associated with coal exploration on federal coal leases prior to approval of a mining and reclamation permit or outside an approved mining and reclamation permit area. The lessee shall comply with instructions from the Authorized Officer of the Office of Surface Mining Reclamation and Enforcement, or his designated representative, for all ground-disturbing activities taking place within an approved mining and reclamation permit area or associated with such a permit.”

Since the GRSG is presently a special status species, this stipulation authorizes BLM to modify the lease to avoid activity that will harm the GRSG, and prohibits the agency from approving any activity that would adversely affect such species if it would violate the ESA. It even authorizes BLM to modify the lease after mining has begun if necessary. These are very powerful protections, and they refute the suggestion that there are inadequate regulatory mechanisms to protect the GRSG and its habitat.

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**Comment Number:** IDMTSG-14-0168-13

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

A-20

H. No policies shall infringe on the private property rights of any landowner within Custer county. All species and land coverage information gathered on private property shall be treated as the property of the landowner and shall not be used by any private or government entity for any purpose unless express, written permission has been obtained from the landowner." (Custer County Principle)

The DEIS states that this principle is outside the scope of the decisions within the DEIS because the policies are not implemented on private lands. However, this statement is false. Several of the alternatives include a disturbance cap for priority habitat, and the land coverage data used to determine whether or not this cap is met includes human disturbances on private property. The DEIS needs to explain how it is going to resolve the conflict between Custer County's private property policy and a proposed action that utilizes the disturbance cap analysis.

**Comment Number:** IDMTSG-14-0168-17

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

BLM and USFS failed to provide detailed analysis that supports why the No Action or Preferred Alternative is in the best interest of the agencies as well as the public.

BLM's Land Use Planning Manual and Land Use Planning Handbook, II.A.7, pg. 22 (Rel. I -1693 03/11/05) provides that BLM must identify how the Preferred Alternative best meets the multiple use and sustained yield requirements of FLPMA. BLM has failed to demonstrate how any of the Alternatives best satisfy statutory requirements; balance BLM goals, objectives, and polices; and which alternative represents the best way to satisfy the Purpose and Need, address key issues, and consider cooperating agencies' recommendations.

The USFS Land Use Planning Manual and Land Use Planning handbook procedures (FSM 1950 and FSH 1909.15) provide that USFS "must provide an evaluation of alternatives and identification of a preferred alternative to the extent required by NEPA, CEQ regulations, and Forest Service environmental policies." As discussed below, the USFS failed to provide adequate evaluation of alternatives and adequately identify the preferred alternative as required by NEPA, CEQ and USFS policies.

Alternatives B, C, D, E and F do not satisfy statutory requirements, do not balance BLM and USFS goals, objectives and policies, and are not the best fit for the Purpose and Need. The lack of meaningful analysis contained in the EIS constitutes a serious shortcoming that must be addressed. Consequently, the EIS is "inadequate as to preclude meaningful analysis" (40 CFR §I 502.9(a)); and therefore the BLM and USFS must prepare and re-issue a revised draft which provides the analysis necessary to support each of the alternatives.

**Comment Number:** IDMTSG-14-0168-6

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

Alternative A is excluded from the discussion of "Elements Common to Alternatives B, C, D, E, and F," which implies that these elements are not present in the no action alternative. This misleads the public. For

instance, one of the elements common to all but Alternative A is "adaptive management." This element is clearly part of the current management framework as is noted in Appendix A, page 21. In answering whether the Challis RMP Complies with the Custer County Sage-Grouse Management principle that includes the use of adaptive management, the document affirms that the Challis RMP is compliant with a clear "Yes." However, in this same discussion, under "inclusion in Amendment EIS" the document only refers to Alternatives B-F as having an adaptive management component. Either Alternative A does use the adaptive management principle and it should state this, or it does not and compliance with Custer County Plan should be noted as a "NO."

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**Comment Number:** IDMTSG-14-0180-1

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The other alternatives are either a laundry list of best management practices (BMPs), sometimes overly draconian, without a cogent strategy, or target a specific use that fails to address the primary threats identified by the Service. Accordingly, Alternatives B, C, and F should be rejected for not meeting the purpose and need.

Alternative A and E are the only proposals that meet the purpose and need statement because they are the only ones that adequately respond to the 2010 Warranted but Precluded determination and meet BLM's multiple-use mandate. Alternative D gets closer to the purpose and need, but still locks up too much land without justification and lacks certainty. Despite adopting a similar adaptive management construct, Alternative D still relies on the overly restrictive BMPs from Alternative B, which are inconsistent with BLM's multiple use mandate.

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**Comment Number:** IDMTSG-14-0180-25

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Alternative D is unnecessarily restrictive for an additional 2.1 million acres in their Priority designated areas, and 700,000 additional acres in total.

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**Comment Number:** IDMTSG-14-0180-3

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

This EIS has six alternatives. However, two of the alternatives are based on the NTT Report. One of these should be removed. Instead of putting together an alternative that addressed the specific needs of Idaho public lands, and based on the primary threats to the species, BLM used their NTT Report as the foundation of their sub-regional planning efforts. In some cases, such as infrastructure development, especially in BLM's priority habitat, the other co-preferred appears to be more restrictive than the NTT Report. This does not meaningfully solve the problems identified in the 2010 decision; rather these alternatives employ an unnecessary top-down, one-size-fits-all approach of the NTT Report. And it likely does not meet the COT as evidenced by Service's letter on DEIS. Instead, it creates redundancy, as analysis of both alternative B and D reaches nearly identical conclusions throughout the entire document, despite significant revisions to

Alternative D to make it look more like Alternative E from the Administrative draft phase to the published draft phase. Alternatives C and F are no different. Environmental interest groups developed both of those incomplete alternatives which do not address the primary threats to sage-grouse, opting instead to use the NTT report to fill in the gaps. Alternative C's exclusive focus is to eliminate grazing on public land. Eliminating grazing is not only inconsistent with BLM's multiple use mandate, it also would likely exacerbate the primary threat of wildfire by increasing fuels across the range. These alternatives are inappropriate for several reasons, including the most important, that it does not address the primary threats. And these alternatives are outside the scope of Secretary Salazar's December 2011 statement that BLM needed to preclude the need to list while maintaining predictable levels of land use. Alternative F falls short too, which means BLM is spending time and resources analyzing two incomplete alternatives from environmental interest groups.

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**Comment Number:** IDMTSG-14-0180-30

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM does not include existing conservation efforts, such as the Rangeland Fire Protection Associations when discussing the current status of sage-grouse conservation. These associations operated for the entire 2013 fire season; putting out fires before BLM could even arrive. Yet, this was not included in the Alternative A's discussion. BLM did not include any discussion of this effort, despite it being a collaborative process between the agency and landowners across Idaho. BLM's analysis should have included the impacts these associations already had on the ground.

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**Comment Number:** IDMTSG-14-0180-4

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM violated NEPA by developing two alternatives (B and D) based on a document severely lacking in scientific integrity and comprised of irrational assumptions and methodologies. Alternatives C and F also incorporate elements of Alternative B, so those components must be set aside as well.

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**Comment Number:** IDMTSG-14-0182-1

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

The description of the "Purpose and Need for the Land Use Plan Amendments" in Volume I of the DEIS omits key portions of Instructional Memorandum 2012-044, in particular this statement in the IM: "While these conservation measures are range-wide in scale, it is expected that at the regional and sub-regional planning scales there may be some adjustments of these conservation measures in order to address local ecological site variability." The DEIS fails to comply with FLPMA's requirement that there be coordination with local plans in order to resolve inconsistencies between plans, and the directive to ensure sustained multiple use. The DEIS does little to acknowledge or discuss how local information will be incorporated into conservation measures. The DEIS follows from on A Report on National Greater Sage-Grouse Conservation Measures (NIT 2011) ("the NTT Report"}, and its alternatives are also derived from that document. The same

is true of the Environmental Impact Statements regarding GRSG prepared or being prepared in other states. The action alternatives are remarkably similar in all of them. This bespeaks a failure to take into account local plans, and local variations in ecology.

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**Comment Number:** IDMTSG-14-0182-7

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

The presumed need for a 3% disturbance cap originated with opinion expressed by Walker et al. (2007) in the discussion of their paper. They stated: "...we believe the conservation strategy most likely to meet the objective of maintaining or increasing sage-grouse distribution and abundance is to exclude energy development and other large scale disturbances from priority habitat and where valid existing rights exist, minimize those impacts by keeping disturbances to 1 per section with direct surface disturbance impacts held to 3% of the area or less." However, Walker et al., like Holloran (2005), who had previously proposed a restriction of one well per section, never actually measured the effectiveness of these disturbance caps. Instead they modeled sage grouse response in lek attendance in terms of distance(s) from potential sources of disturbance. Therefore, the need for a 3% disturbance cap (or 1% or 5% caps, and one-well per section) stated in the NTI Report and the DEIS, is merely the untested opinion of Holloran and Walker.

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**Comment Number:** IDMTSG-14-0183-24

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

The 3% disturbance cap that came out of the NTT report seems to be based entirely on professional judgment. Coincidentally, research by Knick et al. (2013) later came up with a 3% threshold. However, the scale at which Knick suggest a 3% disturbance threshold is at an entirely different scale than what the BLM is proposing. They modeled greater sage-grouse presence based on known greater sage-grouse leks and measured variables for the 1-km<sup>2</sup> cell within which the lek was located, as well as in a 5- and 18-km radii surrounding the lek. Variables measured at an 18-km radius (11.2 miles) did not perform well and were dropped in subsequent analyses. This suggests that measured variables at this latter scale did not influence lek persistence. At the 5 km radius scale Knick et al. (2013) found that 95% of all active leks were in landscapes with <3% developed acreage. However, such results were not reported within a 1 km<sup>2</sup> cell within which the lek was located or for each 1 km<sup>2</sup> comprising the PPMA (Vol II, pg. 2-62). According to Knick et al. (2013) an area of 2.4 km<sup>2</sup> (0.9 mi<sup>2</sup>) could be developed in a 5-mile radius around an active lek (78.5 km<sup>2</sup>, or 30.3 mi<sup>2</sup>). This appears to be the smallest scale to be considered in PPMA. However, the LUPA/DEIS, considers the 1 mi<sup>2</sup> the smallest hierarchical arrangement allowing concentrated anthropogenic disturbance. Thus, Knick et al. (2013) study appears not to support the BLM's smallest scale at which anthropogenic disturbance is measured (30.3 mi<sup>2</sup> versus 1 mi<sup>2</sup> respectively). Furthermore, the LUPA/DEIS does not provide any guidance on how the 3% disturbance cap at either the smallest hierarchal scale or the largest scale (PPMA) should be spatially applied. Of particular concern is how the disturbance cap would be applied to long linear projects that could pass through multiple management areas or analysis zones.

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**Comment Number:** IDMTSG-14-0186-1

**Organization1:**Intermountain Range Consultants

**Commenter1:**Bob Schweigert

**Comment Excerpt Text:**

Adequate regulatory mechanisms currently exist relative to the Greater Sage-grouse. Specifically, 43 CFR 4180 applies requirements relative to livestock grazing, and other similar regulatory mechanisms exists



relative to other resources and resource uses. Further, all of the subject Land Use Plans contain provisions for the protection of TES species.

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**Comment Number:** IDMTSG-14-0186-2

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

The identification of “Preliminary Priority Management Area” (PPMA) and other zones is, in and of itself, a Land Use Plan – level decision that requires its own NEPA and Decision-making process. “Designation” of PPMA and other zones is akin to the agencies identifying de-facto “critical habitat” for the species, without the species having been listed. Such NEPA and appealable Decision-making relative to this “designation” is a necessary precursor to any decision-making process on how to manage the different zones.

The agencies should withdraw the proposed Land Use Plan Amendment until after completed a separate NEPA and decision-making process relative to what constitutes “priority habitat” that is of the “highest conservation value to maintaining or increasing GRSG populations” (and “other” habitat). This is particularly a necessary action because the “priority” habitat includes areas that are not sage-grouse habitat, i.e. perennial grasslands, annual grasslands, and juniper woodlands.

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**Comment Number:** IDMTSG-14-0186-21

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-136 [206]. D-LG/RM-5. As stated elsewhere herein, the failure of BLM Alternative D to recognize and employ Ecological Site Descriptions, which also define steady alternative states and potentials, should be rectified in the FEIS/LUPA. See ELG/RM-5, same page.

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**Comment Number:** IDMTSG-14-0186-22

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-137 [207]. D-LG/RM-6. This action is, at best, nebulous and subject to the whims of the authorized officer. As stated elsewhere herein, the failure of BLM Alternative D to recognize and employ Ecological Site Descriptions, which also define alternative steady-state potentials, should be rectified in the FEIS/LUPA. See E-LG/RM-6, same page.

**Comment Number:** IDMTSG-14-0212-24

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

A. The purpose and need is inconsistent with the Agencies' multiple use obligations.

The purpose and need statement in the Draft LUPA/EIS does not ensure proper implementation of the Agencies' multiple-use obligations. The purpose and need statement directs the Agencies to incorporate new conservation measures into the LUPs and to consider directs the Agencies to incorporate new conservation measures into the LUPs and to consider such measures in the context of multiple-use. See Draft LUPA/EIS p. 1-12. This approach predetermines, however, that the affected public lands will be managed for sage-grouse conservation and all other uses may exist only where compatible with such conservation. In other words, the purpose and need statement improperly tips the scales in favor of one resource use over all other uses, rather than requiring the Agencies to consider each potential resource use on their merits and to provide "a combination of balanced and diverse resource uses" on BLM- managed lands. See 43 C.F.R. § 1702(c).

Although the Agencies mention the multiple-use mandate under FLPMA, the purpose and need statement does not provide for the consideration of the NFMA multiple-use requirements to provide for "harmonious and coordinated management of the various resources" on National Forest System lands. See 16 U.S.C. § 531(a). Because the purpose and need statement does not recognize the Agencies' NFMA multiple use mandate, the Draft LUPA/EIS is fundamentally flawed.

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**Comment Number:** IDMTSG-14-0212-25

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The Agencies cite the Fish and Wildlife Service's 2010 finding regarding the adequacy of the Agencies' sage-grouse regulatory mechanisms as a threat to the species that possibly could warrant listing the bird under the ESA. See Draft LUPA/EIS p. 1-12. If the potential ESA listing was the impetus for the LUP amendment process, the regulatory mechanisms resulting from the process should be no stricter than those potentially provided by an ESA listing. Otherwise, alternatives that are more stringent than the ESA would constitute regulatory mechanisms that are more than "adequate" and beyond the range of alternatives meeting the purpose and need. For example, because an ESA listing would not demand per se the closure of areas to phosphate leasing and rather the Fish and Wildlife Service would consider the merits of each proposed lease in sage-grouse habitat (including potential mitigation), the provisions of Alternatives B, C, D, and F that close areas to phosphate lease are more strict than an ESA listing. Therefore, these alternatives do not meet the purpose and need of the LUP process and do not constitute a reasonable range of alternatives and do not constitute a reasonable range of alternatives.

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**Comment Number:** IDMTSG-14-0212-28

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The Agencies failed to properly define the no action alternative.

By not considering BLM Manual 6840–Special Status Species Management as part of the existing management structure pursuant to Alternative A, the Agencies’ analysis did not include all reasonable alternatives that would address the purpose and need. Additionally, the Draft LUPA/EIS fails to provide an “apples-to-apples” comparison of alternatives because the level of analysis of Alternative A was limited without consideration of the management directions provided in Manual 6840.

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**Comment Number:** IDMTSG-14-0212-9

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

Sub-objective B-SSS-3 provides a three percent disturbance cap on anthropogenic disturbances on lands in PPMAs. See Draft LUPA/EIS p. 2-100 (Sub-Objective B-SSS-3). The disturbance cap is flawed for at least the following reasons. First, it is arbitrary and inflexible. The disturbance cap does not appear to take into consideration site-specific conditions or project- specific circumstances. It does not appear to allow for mitigation, which might provide a conservation benefit to the sage-grouse. In this way, the sub-objective B-SSS-3 does seem to be properly tailored to meet the Agencies’ goal of maintaining or increasing sage-grouse populations. See Draft LUPA/EIS p. 2-95 (Goal B-GOAL-1).

Second, it is unclear how the disturbance cap will be implemented. If it is implemented to close areas to phosphate mining after the three percent threshold is met, the disturbance cap possibly would be inconsistent with the Agencies’ multiple-use mandates, which suggest that the Agencies should seek to balance mining and conservation and not exclude mining completely from the public lands. At the very least, it should be a three percent unmitigated disturbance cap, allowing for continued development in sage-grouse habitat provided proper mitigation is implemented.

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**Comment Number:** IDMTSG-14-0213-5

**Organization1:** Rocky Mountain Power

**Commenter1:** Jeff Richards

**Comment Excerpt Text:**

BLM Should Consider Interstate Planning Processes

Rocky Mountain Power is concerned that this LUP revision does not adequately consider all neighboring states in its planning process. Rocky Mountain Power requests that BLM consider how decisions made for this LUP would affect those decisions in neighboring states, particularly for inter-state projects such as electrical transmission lines.

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**Comment Number:** IDMTSG-14-0213-6

**Organization1:** Rocky Mountain Power

**Commenter1:** Jeff Richards

**Comment Excerpt Text:**

Rocky Mountain Power is concerned that the BLM's socioeconomic analysis in the DEIS is inadequate. Based on the current demand for energy in the Western United States, the benefits of transmission lines

outweigh impacts associated with the construction, operation and maintenance of the proposed lines, particularly since efforts will be made to avoid, minimize, and mitigate impacts as appropriate. Rocky Mountain Power recommends that the BLM revise the socioeconomics section of the DEIS to include a discussion of the benefits of enhancing the reliability and redundancy of high-voltage transmission in the west.

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**Comment Number:** IDMTSG-14-0223-2

**Organization1:** Theodore Roosevelt Conservation Partnership

**Commenter1:** Edward B. Arnett

**Comment Excerpt Text:**

We would note that sage-grouse populations that occupy areas near state-lines covered under this draft EIS are biologically the same and that management should treat these populations similarly. We recommend close coordination with the state wildlife agencies in Idaho, Montana and Utah and federal agencies (BLM and USFS) in these states to ensure that management is coordinated, similar and compatible across political boundaries that are biologically irrelevant. For example, while we generally support Alternative E (in combination with various management actions identified in Alternative D), Alternative E is Idaho-specific and should be altered so as to ensure consistent management for populations near and across state borders.

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**Comment Number:** IDMTSG-14-0242-1

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

We recognize that there are differences among the planning efforts of each of the sub-regions, including those which share Idaho and southwestern Montana planning boundaries. We encourage the BLM and FS to resolve any inconsistencies across planning boundaries where these differences do not have a clear basis. Where differences in management are warranted, the rationale for divergent management approaches should be fully explained as they pertain to meeting the COT objectives.

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**Comment Number:** IDMTSG-14-0242-2

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

2.1 Disturbance Caps

a. Alternative D includes a requirement of "no net unmitigated loss of PPMAs" in lieu of a specific anthropogenic disturbance cap (pg. ES-15). The DEIS does not provide adequate specificity regarding how the "no net habitat loss" standard would be implemented to determine its consistency with the COT report or whether it would be a suitable replacement for a disturbance cap. Please provide further clarification of how this approach would be consistent with the COT report.

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**Comment Number:** IDMTSG-14-0242-3

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

Alternative E prescribes a 3 percent anthropogenic disturbance cap in the Core Habitat Zone (CHZ) and a 5 percent anthropogenic disturbance cap in the Important Habitat Zone (1HZ). Both of these caps would only apply to fluid mineral development (pg. 2-100). We recommend that a 3 percent disturbance cap be applied to the CHZ and the 1HZ and that the cap include other anthropogenic disturbances (for example, Infrastructure as defined by Alternative E, pg D-33).

**Comment Number:** IDMTSG-14-0242-4  
**Organization1:** U.S. Fish and Wildlife Services  
**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

The available scientific literature discusses several different spatial scales and evaluates different land use activities than those assessed in the DEIS. Therefore, we recommend that you provide a clear analysis and rationale in the DEIS of the methods you will use to calculate disturbance to sage-grouse habitat

**Comment Number:** IDMTSG-14-0257-2  
**Organization1:** EPA, region 10  
**Commenter1:** Christine B.

**Comment Excerpt Text:**

We recommend that the lead agencies develop an Environmentally Preferable Alternative and describe it in the Final LUPA FEIS so that citizens, stakeholders, interest groups and agencies can consider and comment on an alternative that is deemed most effective at alleviating threats to GRSG and their habitat

**Comment Number:** IDMTSG-14-0278-1  
**Organization1:** Idaho Wildlife Federation  
**Commenter1:** Stephen V. Goddard

**Comment Excerpt Text:**

Alternative E provides for an exclusion on only 310,000 acres out of 13 million acres (DEIS Table 2.2 and 24) or roughly 2.0 percent. This small area is very unlikely to be effective, especially considering that GRSG are migratory and cover long distances. Connectivity among leking, nesting, brood rearing, and wintering areas is critical to the survival and perpetuation of the species and should be a major consideration. Unfortunately, Alternative E is not effective in protecting this connectivity. Another indication of the minimal conservation efforts in Alternative E is the definition of Sage Grouse Management Areas (SGMAs). Its definition includes all "relevant" (the term is undefined) BLM and FS lands (DEIS Appendix D at 53). This definition omits 20 percent of the GRSG habitat that is on state or private property. Nowhere does Alternative E indicate what has been done or will be done to protect GRSG habitats and populations on state or private property. Thus, it violates the PECE criteria that requires certainty of effectiveness.

There is no scientific study or data provided that Alternative E would be effective, and there is certainly no indication that effective conservation efforts will be implemented. The appointment of an implementation task force is mentioned (DEIS at D-79) but there is no indication of how or when it will be comprised or how it will be funded, with these elements being crucial to any degree of effectiveness. The Alternative lacks any kind of implementation schedule which is also an important criterion under PECE

**Comment Number:** IDMTSG-14-0325-3  
**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

Alternative B proposes a 3% anthropogenic disturbance cap. Not all anthropogenic influences have the same impact. For example, a buried stockwater pipeline would have negligible effect on GRSG whereas an airport would present a much more significant interruption even though both might impact equal areal extents. Accordingly, this alternative could act to prevent insignificant (or even beneficial) disturbances while more detrimental uses could be permitted.

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***Summary***

1. The alternatives fail to meet NEPA adequacy because:
    - a. they (individually or collectively) do not meet the purpose and need for the action
    - b. alternatives were all largely the same, and that the BLM needed to provide more distinction (range) between them
    - c. BLM needs to consider the alternatives presented by Cooperating Agencies and Environmental Organizations, including the County alternatives, the Conservation Groups' alternative, and alternatives for the listing of the species or not listing the species.
    - d. Commenters felt there was no methodology or scientific backing for establishing the disturbance cap in the alternatives, and that the BLM/FS needed to demonstrate more range in the disturbance cap amounts presented in the alternatives.
    - e. specifically that Alternative D needed to include the Ecological Site Descriptions to provide adequate understanding of the current management
    - f. and the BLM and Forest Service failed to adequately define the No Action Alternative.
  
  2. Commenters also suggested that BLM and Forest Service did not provide adequate rationale for the need of the project.
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***Response***

1. a. In accordance with NEPA, the BLM and FS have discretion to establish the purpose and need for action (40 CFR 1502.13). CEQ regulations direct that an EIS "...shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR 1502.13). Also, under the CEQ regulations, the BLM and the Forest Service are required to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act [NEPA]." (40 CFR 1501.2(c)). The breadth or narrowness of the purpose and need statement has a substantial influence on the scope of the subsequent analysis. The purpose and need statement provides a framework for issue identification and will inform the rationale for alternative selection. The range of alternatives developed are intended to meet the purpose and need and address the issue; thereby, providing a basis for eventual selection of an alternative in a decision (BLM NEPA handbook and Forest Service Handbook 1909.15 – National Environmental Policy Act Handbook Chapter 10 – Environmental Analysis).

As stated in the DLUPA/EIS, the BLM and the Forest Service prepared the Idaho LUP amendment with an associated EIS to be applied to lands with greater sage-grouse habitat. This effort responds to the FWS's March 2010 'warranted, but precluded' Endangered Species Act listing petition decision, and that existing regulatory mechanisms in BLM and the Forest Service land use plans was inadequate to protect the species and its habitat. The range of alternatives, including the preferred alternative and its components (such as the disturbance caps), focus on areas affected by threats to greater sage-grouse habitat identified by the FWS in the March 2010 listing decision. Formulated by the planning team, the preferred alternative represents those

goals, objectives, and actions determined to be most effective at resolving planning issues, balancing resource use at this stage of the process, and meet the stated purpose and need for action. While collaboration is critical in developing and evaluating alternatives, the final designation of a preferred alternative remains the exclusive responsibility of the BLM and Forest Service. See Section 1.2 and Section 2.7, Considerations for Selecting a Preferred Alternative for further details.

b. The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, four alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A).

As described in Section 2.3 of the Draft EIS, the Idaho GRSG RMPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the RMPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this draft RMPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

Public input received during the scoping process was considered to ensure that all issues and concerns would be addressed, as appropriate, in developing the alternatives. The planning team developed planning issues to be addressed in the RMPA, based on broad concerns or controversies related to conditions, trends, needs, and existing and potential uses of planning area lands and resources.

Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping, and to maintain or increase GRSG abundance and distribution in the planning area. While the goal is the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMPA with the potential for different long-range outcomes and conditions.

The relative emphasis given to particular resources and resource uses differs as well, including allowable uses, restoration measures, and specific direction pertaining to individual resource programs. When resources or resource uses are mandated by law or are not tied to planning issues, there are typically few or no distinctions between alternatives. Meaningful differences among the four alternatives are described in Table 2-2, Comparative Summary of Alternatives, in Section 2.8, Summary Comparison of Alternatives, of the Draft EIS.

c. Based on this alternative development process, the BLM considered input from cooperating agencies, environmental organizations, and the public. As described in 2.4.2. Alternative B, the BLM used the GRSG conservation measures in A Report on National Greater Sage-Grouse Conservation Measures (NTT 2011) were used to form BLM management direction under Alternative B, which is consistent with the direction provided in BLM Washington Office Instruction Memorandum 2012-044 (the BLM must consider all applicable conservation measures developed by the NTT in at least one alternative in the land use planning

process).

During scoping for the IDaho GRSG RMPA/EIS, individuals and conservation groups submitted management direction recommendations for protection and conservation of GRSG and their habitat, including the Sage-grouse Recovery Alternative and proposed disturbance cap. The recommendations, in conjunction with resource allocation opportunities and internal sub-regional BLM input, were reviewed in order to develop BLM management direction for GRSG under Alternative C.

Alternative D incorporates adjustments to the NTT report (NTT 2011) to provide a balanced level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses, and was developed in full cooperation with the Cooperating Agencies taking note of the agencies' concerns with socioeconomic issues.

Section 2.6, Alternatives Considered but not Analyzed in Detail, of the Draft EIS, the XXX Alternative was analyzed but not considered in detail in the DEIS primarily because it is contained within the existing range of alternatives.

The BLM and Forest Service considered the State of Idaho's Sage-Grouse Conservation Plan in its cumulative effects analysis (Draft EIS Chapter 5, Cumulative Effects, Section 5.4, Special Status Species).

Whether the Greater Sage-grouse is determined for listing by the USFWS is outside the jurisdiction of the BLM and beyond the scope of this EIS. As noted in the Purpose and Need, the BLM was to consider regulatory mechanisms that would protect the species and its habitat. As such, the BLM did not develop alternatives should the USFWS choose to list or not list the Greater Sage-grouse.

d. In determining the disturbance cap level for each alternative, the BLM utilized the recommendations and input specific to each alternative. For example, for Alternative B, the BLM utilized the cap levels recommended in the NTT Report. Conservation measures included in Alternative B focus primarily on GRSG PPH and include a 3-percent disturbance cap in PPH. PPH areas have the highest conservation value to maintaining or increasing GRSG populations.

For Alternative C, conservation measures were mostly focused on ADH (PPH, PGH, and linkage/connectivity habitat). These areas have been identified by CPW in coordination with respective BLM offices, and include a 3-percent cap on disturbance in ADH. This disturbance cap number for Alternatives B and C were incorporated as-is from the NTT Report and conservation group alternatives; the BLM did not modify the caps in the alternatives.

For Alternative D, the BLM intended to protect those areas that were most important for sage-grouse within PPH; in other words, the alternative would protect the best of the best habitat. The BLM utilized information from the Wyoming Core Strategy to support consideration of the five-percent disturbance cap, with the goal to represent the reasonable edge of the range of alternatives with a higher percentage.

While the caps would set a particular level of disturbance, the implementation of the disturbance caps would occur after the RMPA is approved in the Record of Decision. The BLM inventoried the habitat with the best available info at the time of the DEIS, but would also do additional in-depth analysis & inventory within management zones at the implementation stage.

2. While FWS has responsibility for threatened and endangered species, the BLM and the Forest Service manage a significant portion of sage-grouse habitat. Thus, although it is the FWS's responsibility to administer the Endangered Species Act, management of wildlife habitat is within the BLM and the Forest Service's multiple-use mandate and is properly a resource to be managed for in their planning decisions.



**Section 4.4 - Best Available Info Baseline Data***Total Number of Submissions: 4**Total Number of Comments: 5***Comment Number:** IDMTSG-14-0008-3**Organization1:****Commenter1:**Stephen Bauchman**Comment Excerpt Text:**

The habitat Characteristics for Alternative D, set forth in tables 2-7 through 2-10 are not applicable in large areas of S. Lemhi and Custer County.

**Comment Number:** IDMTSG-14-0151-60**Organization1:**Western Watersheds Project**Commenter1:**Katie Fite**Comment Excerpt Text:****Appendix G – “Detailed” No Action Alternative**

The No Action alternative is supposed to lay a firm foundation and provide substantive baseline conditions, with a hard look taken at environmental conditions. The No Action Alternative is presented in a way that makes it impossible to understand the current conditions on the lands, and the effects of the laundry list of actions in DEIS Appendix G. This DEIS refers a reader to an Appendix that is claimed to be the “detailed” No Action alternative. This Appendix is merely a long list of LUP provisions on pages G-1 to G-35. There are around 500 provisions of Land Use Plans. Some are very minimal – like the Magic MFP, others are far more elaborate. Some key provisions are missing altogether.

Appendix G is the “detailed” No Action Alt. It does not satisfy NEPA requirements for baseline information, a hard look, etc. Appendix G is a merely a list of existing LUP provisions by Plan. There is no analysis of how effective these are

**Comment Number:** IDMTSG-14-0159-15**Organization1:**American Exploration and Minind Association**Commenter1:**Laura Skaer**Other Sections:** 5.2**Comment Excerpt Text:**

The Agencies have artificially deflated Alternative A, the “No Action” Alternative because it fails to quantify the impacts associated with ongoing implementation of the many existing local, state and Federal conservation measures and the existing BLM policies designed to protect the GRSG and its habitat. The No Action Alternative must review the existing regulatory framework, including Federal, state, local and private efforts, including voluntary conservation measures, to determine what positive effects those measures will produce.

**Comment Number:** IDMTSG-14-0159-22**Organization1:**American Exploration and Minind Association**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

The USFWS has had a long-standing policy of working to conserve “candidate” species through several means, including a grants program funds conservation projects by private landowners, states and territories; and two voluntary programs - Candidate Conservation Agreements (CCAs) and Candidate Conservation Agreements with Assurances (CCAAs) - engage participants to implement specific actions that remove or reduce the threats to candidate species, which helps stabilize or restore the species and can preclude the need for ESA listing.

2. Additionally, the Service is directed by Congress “make prompt use” of emergency listing authority under Section 7 of the ESA if warranted for candidate species, 16 U.S.C. § (b)(3)(C)(iii). None of these presently existing important ESA tools are accounted for in this NEPA process.

**Comment Number:** IDMTSG-14-0186-8

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

The document fails, except under Alternative E, to recognize State and Transition models (i.e. the best and latest science), but instead perpetuates under Alternative D the incorrect perception that any and all sagebrush areas or potential sagebrush areas can somehow become “ideal” sage-grouse habitat. Many of the subject rangelands in Idaho, particularly Wyoming big sagebrush sites, were altered even before the passage of the Taylor Grazing Act so that they may support sagebrush, but the understory is a virtual monoculture of Sandberg bluegrass; such understories lack any significant seed source of deep-rooted perennial grasses. While discussion of Alternative D touches on this condition, it should be more prominently and forthrightly discussed. This has ramifications relative to RHA’s, which often perpetuate the notion that Clementsian succession will proceed “if we just change the livestock management”. Numerous examples of this mis-perception (and therefore incorrect analysis of Rangeland Health capabilities) are evident in the RHAs for the “Owyhee 68” group of grazing allotments.

***Summary***

The EIS fails to meet NEPA adequacy for baseline data because the scale of baseline data used is too broad, the EIS failed to include the State and Transition models as part of the baseline information, and the No Action management actions, as presented, do not explain the regulatory mechanisms that are currently available to preserve sage grouse habitat.

***Response***

The CEQ regulations require an environmental impact statement to "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The description shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and

attention on important issues" (40 CFR 1502.15). Additionally, the [name of particular amendment] is a programmatic NEPA effort to conserve greater sage-grouse and its habitat across a broad geographic area. As such, the BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions.

The BLM and the Forest Service complied with these regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in [Chapter XX] and various appendices including [cite appendix(es)] in the [name of particular amendment] is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS. For example, [use relevant example for the particular issue...here's one provided: listing every water quality-impaired stream within the planning area by name would not provide useful information at this broad-scale analysis, particularly where the proposed plan alternatives did not vary the level of riparian protections to provide reduced levels for non-impaired streams. The riparian protections within each alternative were applied to all streams, whether or not they were water quality-impaired. However, understanding the miles of impaired BLM streams, as presented in the DLUPA/EIS at Section 3.5.7, is useful in establishing a baseline by which the BLM may analyze the relative effects of each alternative's broad-based approach.]

As specific actions come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. Site-specific concerns and more detailed environmental descriptions will be addressed when project-level reviews are tiered to the analysis in this EIS (40 CFR 1502.20, 40 CFR 1508.28). In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for any site-specific actions.

## **Section 4.5 - GIS Data and Analysis**

*Total Number of Submissions: 8*

*Total Number of Comments: 13*

**Comment Number:** IDMTSG-14-0025-2

**Organization1:** Central Idaho Rangelands Network (CIRN)

**Commenter1:** Aaron Harp

### **Comment Excerpt Text:**

The mapping efforts of the Challis Local Working Group have been solid, and the Alt E map for the Mountain Valleys region is more accurate than the map from Alternative D

**Comment Number:** IDMTSG-14-0026-2

**Organization1:** Challis Local Working Group

**Commenter1:**

### **Comment Excerpt Text:**

We suggest the portion of the Mountain Valley Conservation Area that is adjacent to the Desert Conservation Area between the Wood River and Mountain Home be included with the Desert Conservation Area. We feel that the issues are more similar with that conservation area than with Mountain Valleys.

**Comment Number:** IDMTSG-14-0151-30

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

### **Comment Excerpt Text:**

The DEISs fail to map populations that extend into other states, if the land area is not being considered in the specific EIS. This thwarts an adequate cumulative effects analysis, and tracking of biologically functional populations spanning state lines.

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**Comment Number:** IDMTSG-14-0151-69  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Is the 9,260,000 acre BLM and 2,095,300 acre Forest figure here based on habitats identified in LUPs? On the 2006 ID sage-grouse conservation Plan? Please clarify. How much of the land in these categories has been identified for restoration in the 2006 plan, or has had sagebrush or sage-grouse habitat species planted post-fire? We also note that an earlier Table, ES-4 appears to omit Medial areas and seems to only represent Idaho.

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**Comment Number:** IDMTSG-14-0151-83  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The letter on ACEC maps telling a reader which Alternative the ACEC maps go with is missing in the DEIS Figures 2-46 and 2-47. So a reader cannot tell what Alternatives the mapping goes with.

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**Comment Number:** IDMTSG-14-0151-84  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The description of Alternative D states that "no additional ACECs would be designated under Alternative D". DEIS 2-66. The ACEC maps for Alts A and C are labeled with letters. There are two other maps, Figures 2-45 and 2-46 that lack letter labels, so we cannot tell what Alternatives they go with

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**Comment Number:** IDMTSG-14-0151-91  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

While the date under the table is 2013, it is unclear what the date of the vegetation layer is. In the recent Owyhee 68 permits, BLM relied on old, outdated 2002 data (PNNL) information. What is the data source and year used here?

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**Comment Number:** IDMTSG-14-0157-27  
**Organization1:** Y-3 II Ranch  
**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

BLM's duty to ensure the scientific integrity of the FEIS is found at 40 C.F.R. § 1502.24. The information presented in the DEIS and FEIS must be sufficiently quantified and detailed to support the scientific and other

impact analysis conclusions and discussions in the FEIS. Of particular concern is whether the maps purporting to present PPMAs and PGMAs are sufficiently accurate and "ground-truthed." The maps presented in the DEIS are of such broad scale that it is difficult to determine whether they are accurate. They certainly are inaccurate to the extent that they cover lands known to be inhabitable to Sage-grouse including anthropogenic disturbances and physical barriers such as cliffs and water. The FEIS should provide that additional ground truthing will take place prior to any site-specific implementation of projects and decisions and that amendments to land use plans may be undertaken without further NEPA analysis to avoid unnecessary delays in project approval.

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**Comment Number:** IDMTSG-14-0168-22  
**Organization1:** Custer County Commissioners  
**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

1-36

"The most current approved BLM and Forest Service corporate spatial data will be supported by current metadata and will be used to ascertain GRSG habitat extent and quality. Data will be consistent with the principles of the Information Quality Act of 2000. "

Comment:

To comply with the Information Quality Act of 2000 (IQA), the GIS data including the metadata need to be available to the County and the public. The software must also be available for free download.

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**Comment Number:** IDMTSG-14-0186-4  
**Organization1:** Intermountain Range Consultants  
**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Likewise, PPH that is perennial grassland or annual grassland is not only non-habitat, it must also be considered not "occupied". Priority Habitats, if designated, should not include non-sage-grouse habitats such as crested wheatgrass and other perennial seedings or areas dominated by cheatgrass or areas of juniper encroachment and domination. While these areas may be important "restoration" zones, they should be so designated, but should not be considered "priority habitat" for a species of wildlife that does not occupy them. For example, according to Dr. Clait Braun, "crested wheatgrass is a biological desert and no value to sage grouse." (Braun testimony in Idaho U.S. Federal Court). In addition, whether to include them or not as "highest conservation value" is a LUP-level decision that should undergo its own analysis and decision-making, rather than being a "foregone conclusion" that serves as the basis for this DEIS.

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**Comment Number:** IDMTSG-14-0186-5  
**Organization1:** Intermountain Range Consultants  
**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Maps/habitats need to be updated to 2014, or whenever a LUPA is finalized, whichever is later. This includes actual ground-truthing, which apparently has not occurred, and this also has ramifications for "triggers"

relative to changes in “baseline” conditions (see, for example, Vol. III, Appendix E which describes 2006 Landfire Maps). IRC has previously, relative to the Jarbidge Field Office, made known to BLM errors in its map depictions of sagebrush habitats based upon aerial or space-based imagery.

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**Comment Number:** IDMTSG-14-0206-4

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

**VI. The West Central (Weiser) and East Idaho Uplands Populations Do Not Need To Be Included in the IHZ But Do Deserve a Heightened Level of Protection.**

Alternative D proposes to include portions of the Weiser Basin and Upper Snake populations in PPMA, whereas Alternative E relegates both populations to the General Habitat Zone (GHZ). Both populations were included in the BLM’s mapping of preliminary priority habitat and IDFG’s mapping of key habitat for sage grouse in Idaho. Based on lek counts alone, these areas would likely qualify at least for inclusion in IHZ.

The State of Idaho downgraded these areas to GHZ because they are isolated from the main populations and are unlikely to influence the long-term viability of sage grouse populations in Idaho. We understand the State’s reasoning for this decision. Keeping these areas in the GHZ is acceptable because roughly 95% of the sage grouse population is included in the more protective IHZ and CHZ designations.

However, we are concerned that the level of protection in GHZ is so low that little effort will be made to take reasonable steps to conserve these two populations. Therefore, we recommend that major infrastructure projects proposed in these areas be required to mitigate their impacts within polygons shown as PPMA or PMMA in Alternative D. In addition, reasonable conditions to avoid and minimize impacts proposed for the IHZ should be extended to these two areas

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**Comment Number:** IDMTSG-14-0242-18

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

One important difference between Alternatives D and E is that Alternative E's thematic mapping criteria are based upon a measurable population objective. If the BLM considers mapping changes, we recommend that the final map be closely coordinated with the State and reflect scientifically-based population objectives similar to those described in Alternative E. This should include habitats that provide essential connectivity, and habitat restoration and population expansion

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***Summary***

Commenters noted several issues with the GIS data and analysis conducted in the Draft EIS:

- The maps and data layers do not provide enough detail to address "local ecological site variability". The data are too coarse and do not provide assurances to more localized decision making; some habitat type areas are inaccurately identified in the maps.
- BLM used old data layers to develop maps; BLM should use the newer data layers.

--the BLM needs to be consistent in their edge-mapping across state boundaries when there are different data sets used.

NOTE TO BLM: some comments relate to specific changes for the maps presented in the DEIS, and for the data layers to be made available for download from the BLM website.

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### ***Response***

Before beginning the Idaho Sage grouse EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The data needed to support broad-scale analysis of the planning area are substantially different than the data needed to support site-specific analysis of projects. The LUPA/EIS data and information is presented in map and table form and is sufficient to support the broad scale analyses required for land use planning.

Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service and [*list state agencies, including state wildlife agency*]. Considerations included but were not limited to [*list the types of data or GIS layers that were gathered/used. A few examples: threatened and endangered species and their habitats, water quality- limited (303d) streams, deer and elk herd management areas, invasive plants, and uses on State lands*]. It is not the responsibility of the BLM or FS to modify, change, update, or revise the specific modeling protocol and analysis developed by other agencies or groups. The Draft EIS notes that the BLM and FS would incorporate any refinements or updates if or when the data were made available. [*NOTE TO BLM: If and updates or new layers have become available, can note them here.*]

The BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions. The BLM and the Forest Service complied with the regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in [Chapter XX] and various appendices including [cite appendix(ces)] in the [name of particular amendment] is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS.

As a result of these actions, the data gathered by the BLM and the Forest Service is of the appropriate scale and provided an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives.

A land use planning-level decision is broad in scope. The BLM and the Forest Service realize that more data could always be gathered, the baseline data provides the necessary basis to make informed land use plan-level decisions. Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The BLM and the Forest Service will conduct subsequent project-specific NEPA analyses for projects proposed for implementation under the land use plan, which may include but are not limited to fuels treatment, habitat restoration, [*etc.; list others as applicable*]. The subsequent NEPA analyses for project-specific actions will tier to the land-use planning analysis and evaluate project impacts at the appropriate site-specific level (40 CFR 1502.20, 40 CFR 1508.28). As required by NEPA, the public will have the opportunity to participate in the NEPA process for site-specific actions.

Of the suggested studies and references put forth by the commenters, the BLM reviewed them to determine if they presented new information that would need to be incorporated into the FEIS, or if the references provided the same information as already used or described in the Draft EIS. Adjustments to mapping can be found in Appendix B, "Mapping Adjustments."

#### **Section 4.6 - Indirect Impacts**

*Total Number of Submissions: 4*

*Total Number of Comments: 5*

**Comment Number:** IDMTSG-14-0154-5

**Organization1:**The Wilderness Society

**Commenter1:**Brad Brooks

#### **Comment Excerpt Text:**

While BLM has considered various adaptive management proposals in land use plans, their efficacy is often compromised by a lack of baseline information, combined with undefined and indeterminate funding to conduct adequate monitoring and compliance. One of the foremost concerns with any reliance upon adaptive management as an integral part of any management plan is the inherent needs of additional funding to conduct additional monitoring, compliance and enforcement. The draft EIS does not illustrate when or where additional or new funding streams will be generated.

**Comment Number:** IDMTSG-14-0180-19

**Organization1:**

**Commenter1:**C.L. Butch Otter

#### **Comment Excerpt Text:**

Further, if BLM adopts Alternative D's Population Areas as its method of delineating sage-grouse habitat, it may unwittingly give itself an unfunded mandate. Currently, little to no monitoring occurs in the East Central Idaho, Weiser, and the Sawtooth populations. This is for a variety of reasons, only one of which is funding. The primary reason for the lack of monitoring is that these populations are small and relatively unimportant to the overall sage-grouse population in Idaho. Thus, even if funding was available to monitor these areas, it would be very hard to justify diverting resources to these areas. Yet, Alternative D delineates all three of its zones in each of these populations, thus requiring monitoring to determine if triggers have been tripped. This is unnecessary and an unwise use of BLM resources. In contrast, Idaho Fish and Game currently monitors all of the lek routes in Alternative E's CHZ and IHZ, and has requested additional funding from the State to improve this monitoring. This means that Alternative E's

trigger program can be implemented immediately, with no additional funding from the State or from BLM, because IDFG is already collecting the data required to do so.

**Comment Number:** IDMTSG-14-0180-46

**Organization1:**

**Commenter1:**C.L. Butch Otter

#### **Comment Excerpt Text:**

Overall, BLM's Chapter 4 analysis is inadequate, vague, and often inaccurate. Many conclusions are without support. Even when the conclusion is correct, it is difficult to determine why. Alternatives are lumped together in groups for various stages in the analysis, where BLM determines they all have similar effects. This



is unhelpful because this type of analysis does not allow the reader to distinguish between the effects of each individual alternative. It is also unlikely that 6 unique alternatives could all, at times, produce the exact same effects.

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**Comment Number:** IDMTSG-14-0182-2

**Organization1:** SBS Associates LLC

**Commenter1:** Suzanne Budge

**Comment Excerpt Text:**

The DEIS Fails to fully evaluate the No Action Alternative.

40 CFR 1502.14(b) requires that an EIS "devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits." This includes the no action alternative. However, in this case, the no action alternative is sparsely described. In some cases, the policies detailed in the action alternatives are already authorized under current law, but the document fails to note this in the no action alternative. This may erroneously lead reviewers to believe existing laws do not contain conservation measures sufficient to protect the GRS. The DEIS fails to acknowledge that existing laws, regulations and policies already direct the BLM and USFS manage habitat for candidate, sensitive, threatened, endangered and other special species designations.

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**Comment Number:** IDMTSG-14-0322-3

**Organization1:** Stevenson Intermountain Seed, Inc.

**Commenter1:** Ronald M. Stevenson

**Comment Excerpt Text:**

To correct the deficiency [of missing a plan of action that will provide how BLM will accomplish the goals/objectives], a valid recommendation is that the final EIS and its proposed preferred alternative contain the lacking information identified as well as proposed actions of goals and objectives. Not doing so would be a great neglect or oversight that many would find unacceptable and find the EIS very incomplete.

The addition of the following THREE items is suggested to correct the deficiency.

**Item 1. Sage-Grouse Habitat**

A significant discussion identifying that restoration of lost sage-grouse habitat through seeding of vegetation species that are important to good sage-grouse habitat will be a key component to reducing the current decline of sage-grouse numbers and move the sage-grouse numbers to an increasing trend. This discussion should include specific goals and objectives.

**Item 2. Funding for Sage-Grouse Habitat Restoration**

A discussion identifying how obtaining sufficient funding is a key issue of vital importance in restoring important sage-grouse habitat by seeding as stated in above Item 1. This discussion should include specific sources and amount of funding to be obtained to reach the desired goals and objectives. Currently the funding for this extremely important purpose is woefully inadequate.

A discussion detailing the woefully deficient funding currently available for sage-grouse habitat restoration being lost by yearly wildfires is presented in an article the SRM published in Rangelands Volume 35, Number 3, June 2013 authored by Tim Murphy, David E. Naugle, Randal Eardley, Jeremy D. Maestas, Tim Griffiths, Mike Pellant and Stan I. Stiver.

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## **Summary**

BLM's overall impact analysis is deficient in the following areas:

1. lack of discussion for where, when, and how BLM will have sufficient funding to implement the actions;
  2. the analysis does not distinguish between the effects of each alternative;
  3. did not fully analyze the No Action alternative by not acknowledging the existing laws and actions already in place that would manage the habitat;
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## **Response**

1. As a landscape level planning effort, none of the alternatives prescribe project-level or site-specific activities on BLM or USFS managed lands. Furthermore, the agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies' budgets as appropriated annually through the Federal budget process. As a consequence, agencies' costs and differences in program costs across alternatives have not been quantified. Information has been presented in several resource impact sections on the types of costs that might be associated with various sage-grouse conservation measures. [NOTE TO BLM- above language from Josh Sidon, Lauren may want to use across all subregions.]
2. Direct the reader to the Effects Summary table in ch 2. Determine whether revisions to the table would be necessary to distinguish more between the effects.
3. Check for the No Action alternative to see if there already is a statement for how existing management/actions would impact the habitat. This may be to direct the reader to a specific section in Ch 4 or several sections.

## **Section 4.7 - Cumulative Impacts**

*Total Number of Submissions: 6*

*Total Number of Comments: 7*

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**Comment Number:** IDMTSG-14-0105-1

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

### **Comment Excerpt Text:**

Although these comments are generally to be directed to the above referenced Idaho and South West Montana Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement dated October 2013, we would like to state for the record that we have serious concerns regarding this limitation. Owyhee County borders two other states that are also working on plans and comments. Many of the land uses covered under the land use plans, as well as species that use this land such as the Sage Grouse, do not recognize nor are they limited to one state or area. Therefore, any inconsistencies in use, triggers, and/or restrictions, etc. from one state to another in their plans and /or comments may certainly have effects on Owyhee County. This is cause for concern. Further comment on this matter is difficult as it has not been clearly defined at this time as to how this will be addressed

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**Comment Number:** IDMTSG-14-0131-21

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The cumulative effects of Alternatives need to be considered with other state plans. For example, the Draft LUMA/EIS for Utah has similar alternatives based on the NTT report. If those alternatives are selected for both Utah and Idaho, a considerable portion of the Western Phosphate Field KPLAs will be unavailable for American agriculture. To comply with NEPA obligations, the implications on national food security of such prohibitions on use must be thoroughly analyzed, discussed and given a “hard look” when choosing a final alternative

**Comment Number:** IDMTSG-14-0151-22

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS fails to sufficiently look outside of the planning area for cumulative impacts. The BLM’s National Sage-grouse Habitat Conservation Strategy calls for a regional analysis, and the DEIS should have looked outside of the RMP area in the cumulative impacts discussion. See *WWP v Salazar*, No. 04.08-cv-516-BLW (D. Idaho September 28, 2011). Populations must be the basis for management, not state lines. must be the Amendment goal, not sacrificing populations as the COT does.

**Comment Number:** IDMTSG-14-0157-25

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Section 4.16 fails to adequately identify reasonably foreseeable future actions. For example, predator control is determined to be outside the scope of the DEIS. See Section 2.3.1. Yet, predation is "the most commonly identified cause of direct mortality for GRSG during all life stages." See Section 3.2.1, p. 3-11. Given that predator control is a known, identified and foreseeable future action, it must be analyzed as part of the cumulative impacts analysis even though it is considered to be outside of the scope of the action alternatives themselves. As BLM properly notes, the cumulative impacts analysis takes into account all reasonably foreseeable actions regardless of land ownership and jurisdiction.

**Comment Number:** IDMTSG-14-0157-26

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Similarly, of particular interest and importance to Y-3 II is the China Mountain Wind Project. It is identified in the Nevada DEIS at Table 5.8 as a possible future action but there is no mention of that wind project in the Idaho DEIS Section 4.16.2 or .3. Some 75% of the project would be in Idaho. BLM should fully explain the status of the China Mountain Project and confirm whether it may or may not be a reasonably foreseeable future action. This wind project, as set forth in right-of-way applications to BLM, could impact several of the allotments used by Y-3 II including Player Canyon and Player Butte. BLM should provide more information on the status of China Mountain as a reasonably foreseeable future action. The Jarbidge RMP DEIS is being finalized pursuant to Table 4.75 but the DEIS does not explain how this NEPA process relates to the Idaho

and southwestern Montana greater Sage-grouse draft land use plan amendments and this DEIS.

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**Comment Number:** IDMTSG-14-0159-13

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The DEIS documents are part of several related NEPA documents, including the DEISs for Oregon, Idaho and southwestern Montana, Nevada and northeastern California, and Utah. The total potential acreage withdrawn and the contribution in this DEIS to a broader total number of acres proposed to be withdrawn from future public use is not discussed. This is a fatal NEPA analytical gap.

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**Comment Number:** IDMTSG-14-0210-10

**Organization1:** NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

BLM Should Consider Interstate Planning Processes

NorthWestern Energy is concerned that this LUP revision does not adequately consider all neighboring states and adjoining BLM jurisdictions in its planning process. NorthWestern Energy requests that BLM consider how decisions made for this LUP would affect those decisions in neighboring states or BLM jurisdictions.

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***Summary***

The EIS cumulative impacts analysis is inadequate because it does not adequately identify the reasonably foreseeable future actions, present a comprehensive listing of the effects across ALL subregions, nor analyze how the alternatives' actions would affect actions and decisions in neighbouring states/jurisdictions.

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***Response***

Can direct reader to cumulative impacts; note that the cums impacts are updated based on work done between Draft & Final; see if there is anything specific you can add to clarify how actions in neighbouring jurisdictions/states were addressed in the cums.

Regional call on whether to roll up effects totals into a region wide estimate as suggested by commenter.

**Section 4.8 - Residual Effects - Unavoidable Impacts**

*No comments are associated with this issue.*

**Section 4.9 - Mitigation Measures**

Total Number of Submissions: 13

Total Number of Comments: 18

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**Comment Number:** IDMTSG-14-0056-11

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Arbitrarily mandating specific RDF's or BMP's at a land use planning level is unacceptable. These items should only be considered as a "tool box" to be used at the activity plan level and then only used after an impact assessment has been made. This will avoid indiscriminant and unnecessary restrictions on land uses.

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**Comment Number:** IDMTSG-14-0105-12

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

[Vol2]Page 2-14 Adaptive Management and Monitoring need a more discussion. The two alternatives, D and E, are dependent on a clear understanding of when those triggers are implemented. And how that data was collected and analyzed and all impacts are fully investigated.

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**Comment Number:** IDMTSG-14-0105-9

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

Vol2

Page 1-21 There is a brief discussion about Monitoring to insure compliance with the desired goals of the LUP amendment. Other than that, there was very little discussion on what type of monitoring would occur for each of the alternatives.

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**Comment Number:** IDMTSG-14-0157-21

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

alternative [D] incorporates adaptive management using habitat and population triggers. When a trigger is tripped, a management response in the form of further restrictions or exclusions is imposed. Section 4.6.7. These types of triggers with management responses are only imposed upon the regulated community, including ranchers. This approach is not well-suited to the two primary threats in Idaho from wildfire and invasive species. See Section 2.4.4.

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**Comment Number:** IDMTSG-14-0168-21

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

1-26

"Regulations at 43 CFR 1610.4-9 require that the proposed LUPA establish intervals and standards, as appropriate, for monitoring and evaluation of the plan, based on the sensitivity of the resource decisions involved. Progress in meeting the plan objectives and adherence to the management framework established by the plan is reviewed periodically."

Comment: The statement should be expanded to include monitoring requirements specified in the BLM Sensitive Species Manual 6840 and FSM 2670. Under the No Action Alternative as well as any action alternative, BLM and the US Forest Service must monitor GRSG habitat conditions as well as the habitat conditions of other sensitive and special status species.

As clearly stated in Manual 6840 and quoted verbatim herein:

C. Implementation. On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat, by:

1. Determining, to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluating the significance of BLM-administered lands and actions undertaken by the BLM in conserving those species.
2. Ensuring that BLM activities affecting Bureau sensitive species are carried out in a way that is consistent with its objectives for managing those species and their habitats at the appropriate spatial scale.
3. Monitoring populations and habitats of Bureau sensitive species to determine whether species management objectives are being met (emphasis added).

The US Forest Service lists sage-grouse as a sensitive species and has similar direction in Forest Service Manual 2670.

Additional evidence of statewide GRSG habitat monitoring can be found at

[http://www.blm.gov/pgdata/etc/medialib/blm/wo/Comrnunications\\_Directorate/public affairs/sage-grouse.Par.57380.File.dat/s-blm nevada web pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Comrnunications_Directorate/public%20affairs/sage-grouse.Par.57380.File.dat/s-blm%20nevada%20web.pdf)

Please add an explanation in the EIS to explain how the BLM Manual 6840 explicitly directs BLM to manage GRSG and other sensitive species and habitat to promote their conservation and to minimize the likelihood and need for listing under the ESA... In compliance with existing laws, including the BLM multiple use mission as specified in the FLPMA, the BLM shall designate Bureau sensitive species and implement measures to conserve these species and their habitats, including ESA proposed critical habitat, to promote their conservation and reduce the likelihood and need for such species to be listed pursuant to the ESA."

The US Forest Service lists sage-grouse as a sensitive species and has similar direction in Forest Service Manual 2670

**Comment Number:** IDMTSG-14-0178-32

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

Site Specific Management (ES-13) – Specific or prescriptive RDFs and BMPs should not be delineated at this level, but rather at the allotment level

**Comment Number:** IDMTSG-14-0179-11

**Organization1:** Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

We appreciate the intent of the “no net unmitigated loss of PPMA” in Alternative D but the lack of definition of this term is problematic. The Idaho Conservation League is very supportive of mitigation efforts when impacts have first been avoided and minimized and are guided by a larger mitigation framework. Because of the difficulty in accurately determining the negative effects of a project in advance and producing effective mitigation on the ground, a 3% disturbance cap in both CHZ and IHZ is a more protective measure.

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**Comment Number:** IDMTSG-14-0179-16

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

**Adequate Regulatory Mechanism Needed for Travel Planning**

Even if travel plans are completed and travel is restricted to existing routes in the interim, we are concerned that travel plan implementation is not an adequate regulatory mechanism as it stands today. There are an extremely limited number of BLM enforcement officers available to educate and enforce user groups and compliance among user groups is problematic along designated routes. As such, we do not believe that the US Fish and Wildlife Service can make the determination that there is an adequate regulatory mechanism, funding, or agency commitment at this point.

As part of the implementation of the ROD, the State of Idaho and BLM are going to develop additional MOUs for implementation of various measures. We recommend that the BLM and State of Idaho also establish an MOU regarding enforcement actions on BLM lands. The Idaho Department of Fish and Game has a number of Conservation Officers who patrol BLM areas as part of their work. An MOU would enable Fish and Game Conservation Officers to help enforce travel management plans on BLM-managed lands. The Idaho Department of Fish and Game already has an MOU with the Forest Service for enforcement actions on National Forest property and this has been very useful in protecting forest resources.

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**Comment Number:** IDMTSG-14-0179-17

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

The BLM needs to clarify its authority to require compensatory mitigation as a condition for a permit and to deny such permits if mitigation is not possible or well-designed. An appropriate mitigation ratio needs to be developed which factors in the quality of habitat affected, direct and indirect effects, construction and operational impacts, and the time delay for beneficial result and the risk of failure, among other factors:

The effectiveness of restoration activities (ultimately determined by sage-grouse use and population trends) must be demonstrated prior to receiving any credit for mitigating losses. Restoration activities should be developed within a framework that allows for necessary adjustments.

-Greater Sage-Grouse Conservation Objectives Final Report, p. 32.

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**Comment Number:** IDMTSG-14-0179-7

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

BLM needs to provide additional details on a comprehensive monitoring program regarding the efficacy of fire prevention, suppression and rehabilitation measures, fuel reduction programs, infrastructure avoidance and minimization, West Nile virus control efforts, habitat restoration projects, livestock grazing effects on rangeland conditions (particularly in riparian and upland areas), recreation impacts and efficacy of mitigation programs. The adaptive management triggers need to be based on conditions in both the CHZ and IHZ, and not just the CHZ as proposed in a more recent version of the State Alternative.

**Comment Number:** IDMTSG-14-0180-35

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

When measured in isolation any of the conservation measures outlined in Alternative E very likely produce similar results as those identified in Alternative B and D. However, these measures cannot be assessed in a vacuum, as BLM did here. Instead, these measures should be analyzed in relationship to the triggers that make them operational. A conservation measure is just an idea, unless a management plan states how it will be implemented and then actually implements it.

**Comment Number:** IDMTSG-14-0181-2

**Organization1:**Idaho Mining Association

**Commenter1:**Jack Lyman

**Other Sections:** 13.1

**Comment Excerpt Text:**

Thus, in both the Section 10 and Section 7 context, there is no absolute prohibition on activities that might “take” a species. An ESA listing does not summarily put off limits mining projects that might adversely affect the species or its critical habitat. Rather, project approval is based on whether, after applying the mitigation measures proposed by the applicant, the action will appreciably reduce the likelihood of the survival or recovery of the species, or result in jeopardy, respectively. The ESA permitting processes encourage cooperation between the Service and the applicant to find solutions that allow the applicant’s project to move forward while conserving the species.

By contrast, the Agencies’ proposed phosphate lease and saleable minerals closures potentially would put up to nearly 11 million acres of public land off limits from such mineral development, regardless of site-specific species occurrence and habitat conditions or of mitigation opportunities that might be offered by the project proponent and authorized following ESA Section 7 consultation or pursuant to a Section 10 permit. In deciding what conservation measures should be imposed to avoid a listing, the Agencies must consider whether the measures proposed may cost more than the ESA listing that the Agencies are attempting to avoid. Further, if the Agencies’ objective in this land use planning process is to provide “adequate” regulatory mechanisms in response to the Fish and Wildlife Services’ “warranted, but precluded” finding and to avoid an ESA listing, each alternative that would impose restrictions beyond what is required or adequate under the ESA should not be considered within a reasonable range of alternatives to serving that objective.



**Comment Number:** IDMTSG-14-0183-21

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

The brief description of what the BLM hopes to present as a mitigation strategy following the completion of the NEPA process is inadequate. The lack of detail does not allow reviewers the opportunity to determine if mitigation will be appropriate for potential impacts. At a minimum, the Draft EIS should provide a “menu” of mitigation project types; criteria for determining appropriate mitigation sites and priorities; expected benefits of each mitigation type; mitigation ratios; and monitoring and success criteria.

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**Comment Number:** IDMTSG-14-0183-22

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. ES-12

Monitoring Strategy

The BLM and Forest Service are currently in the process of finalizing a Monitoring Framework which will be included in the Proposed LUP Amendment/FEIS; the major components of this Monitoring Framework can be found in Appendix E of this Draft EIS.

Only a draft of the Monitoring Framework is provided, with insufficient detail to provide a meaningful opportunity to comment. There is insufficient information provided to determine what monitoring efforts will be implemented by the BLM and if these monitoring efforts will support mitigation measures and to what extent. The Draft Monitoring Plan falls short of what can be reasonably expected of a DEIS to provide a meaningful opportunity to comment

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**Comment Number:** IDMTSG-14-0212-18

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

P4 Production appreciates the Agencies’ incorporation in Alternative D of the concept of no net unmitigated loss of PPMAs and recognition of a suite of actions to offset or restore disturbed sage-grouse habitat. See Draft LUPA/EIS p. 2-74. However, the Agencies provide no explanation of the measures that would be applied to implement the standard. The Draft LUPA/EIS mentions “prescribed mitigation ratios” but goes no further to discuss the substance or calculation of such ratios. See Draft LUPA/EIS p. 2-75. In order for the public to fully evaluate the mitigation requirements proposed under this alternative, the Agencies should explain the ratio calculation that will be applied. Any such calculations should recognize that mitigation benefits may take years to develop. The temporal elements of a mitigation project should be incorporated into the mitigation credit calculation, however, there should be no blanket requirement that such benefits manifest before disturbance can proceed. Otherwise, the incentive for pursuing the mitigation project—i.e., to move forward with the development project—would be lost.

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**Comment Number:** IDMTSG-14-0278-2

**Organization1:**Idaho Wildlife Federation

**Commenter1:**Stephen V. Goddard

**Comment Excerpt Text:**

Adaptive regulatory triggers in Alternative E exclude GHZ and require that two of the following three factors occur in a conservation area before the CHZ restrictions apply within the 1HZ:

- (1) The finite rate of population change over three years is significantly less than 1.0. The term "significantly" is not defined.
- (2) Number of males on lek routes declines by greater than 20 percent over a three-year period compared to 2011.
- (3) A 30 percent or greater loss of sagebrush habitat within defined breeding or winter habitat in a three year period. (DEIS at D. 31).

These triggers are ineffective to deal with declining GRSG habitat or populations for several reasons. First, Factor (2) does not provide a true population index when it is based on the "number of males on lek routes." That number could easily be manipulated by simply counting more leks. The better, and more scientific measure, is the average number of males per lek or the average number of males per occupied lek. (DEIS at 2-73, 2-74). Using these numbers, Fish and Game lek counts from 2011 to 2013 show that populations have declined by 25.5 percent and 41.3 percent respectively in Zone 1 (Attachment B) and by 15.0 percent and 22 percent in Zone 2 (Attachment C).

Second, if the soft triggers are reached, no additional restrictions in IHZs are required (DEIS at 2-80). The population could be declining at 20 percent a year, but the trigger is not tripped until after the third year. At that point, it may be too late to effectively respond. This is demonstrated by a study cited in Alternative E where 16 percent of an area was lost, and the population declined by 73 percent. (DEIS Appendix D at 180.)

third, Attachments B and C show that the number of males counted has declined by 19 percent in Zone 1 in two years and by 26 percent in Zone 2.

Fourth, the 30 percent decline in breeding or wintering habitat used in Alternative E is not supported by the State's supporting material which states a hard trigger is set at a 20 percent loss of breeding or wintering habitat in a conservation area (DEIS Appendix D at 181.) By contrast, Alternative B sets the trigger at 20 percent habitat loss anywhere in a population area or a loss of 10 percent of the nesting or wintering habitat.

Fifth, the emergency clause proposed in Alternative E (DEIS Appendix D-32) is also inadequate because it only applies to the CHZ when 200,000 acres or more habitat is burned or when 50 percent or more of the important breeding or wintering habitat could be lost in the CHZ. If this loss occurs in the 1HZ or GHZ, the emergency clause would not apply.

Finally, there is no scientific evidence provided that these adaptive triggers will be effective.

**Comment Number:** IDMTSG-14-0322-5

**Organization1:**Stevenson Intermountain Seed, Inc.

**Commenter1:**Ronald M. Stevenson

**Comment Excerpt Text:**

"Appendix C-Reclamation Plan" in the Wyoming Greater Sage-Grouse Draft EIS contained some very valuable ideas and direction for sage-grouse habitat restoration and may be worthwhile to incorporate a version of it in this EIS.

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**Comment Number:** IDMTSG-14-0325-6

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

Adaptive Management.

NTT and USGS purport to be the "best available science", not only in broad or general terms, but to very minute and specific standards (e.g. the exact percentage of anthropogenic influence each finds permissible.) This LUPA proposes to make numerous regulatory changes that will affect BLM land users based on the "science" and assumptions set forth in the NTT and USGS reports. If the conclusions and resulting use amendments are not effective to the degree that a management plan or action should be changed, BLM should revisit the matter by amending the LUPA, not by a 'trial and error' process.

Adaptive management, as specified in Alternatives B, C, D and F should not be used where it results in more restrictive conditions to existing uses. If BLM desires to implement more restrictive management changes based on "new" scientific information, the new information should be subject to the same LUPA procedure as current information. BLM should also review the reasons the current science is being replaced and hold the author(s) accountable for any bias or inaccuracy.

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***Summary***

1. The BLM needs to include a monitoring, mitigation, and adaptive management plan/framework in the FEIS that will include specific criteria for determining sage grouse conservation success and how the disturbance percentages will be calculated.
2. BLM needs to clarify the relationship between the disturbance thresholds and the monitoring framework.
3. The BLM needs to release the mitigation strategy for public review.

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***Response***

The BLM and the Forest Service complied with the NEPA by including a discussion of measures that may mitigate adverse environmental impacts of the alternatives in the DLUPA/EIS. See 40 CFR 1502.14(f), 1502.16(h). Potential forms of mitigation include: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (5) compensating for the impact by replacing or providing substitute resources or environments. 40 CFR 1508.20. Taking certain actions [or not taking action, depending on position of issue statement], such as [cite to any specific examples included with comments], is only one of many potential forms of mitigation. The BLM and the Forest Service must include mitigation measures in an EIS pursuant to the NEPA; yet the BLM and the Forest Service have full discretion in selecting which mitigation measures are most appropriate, including which forms of mitigation are inappropriate.

[Cite specifics relevant to the sub-regional for where the alternatives have incorporated mitigation measures designed to avoid or reduce impacts within the management actions and supporting information in the

appendices. If there are many, then note that the impacts presented in Chapter 4, therefore, are considered unavoidable and would result from implementing the management actions and mitigations. Cite a few examples of the actions that include specific mitigation measures as part of the alternative(s). Sample: “Action BIO-1: Implement the standard operating procedures (SOPs) contained in Appendix O (Biological Standard Operating Procedures) and Appendix P (Standard Operating Procedures for Oil and Gas) for all project work would help to mitigate effects as a result of oil and gas activities on biological resources.”]

A monitoring framework was developed by a Disturbance and Monitoring Team that focuses on the implementation and effectiveness of the conservation measures in the planning documents. The BLM and the Forest Service worked with WAFWA to define a standardized process for data sharing and definitions of priority areas of conservation boundaries. Monitoring methods and indicators were derived from the best available science. Corporate data-sets will be established so that data can easily be “rolled up” for reporting monitoring results across the range of greater sage-grouse, as defined by Schroeder et al. (2004); by populations and subpopulations as defined by Connelly et al. (2004); by LUP area; by the seven (WAFWA) Greater Sage-grouse Management Zones (Stiver et al. 2006), and by Priority Areas for Conservation (PACs) as defined in the greater sage-grouse Conservation Objectives Team (COT) Report (U.S. Fish and Wildlife Service 2013). [If needed, based on specifics of comments and/or summary statement, include statement to the effect that broad- and mid-scale monitoring will be conducted as funding allows.]

[Refer to the Monitoring Framework in the appendix.] To accomplish effective monitoring, the BLM and the Forest Service will analyze the monitoring data to characterize the relationship among disturbance, implementation actions, and habitat condition at the appropriate and applicable geographic scale or boundary. When available from WAFWA and/or state wildlife agencies, effectiveness monitoring can be supplemented with population trend information, taking into consideration the lag effect response of populations to habitat changes.

## **Section 5 - FLPMA**

*Total Number of Submissions: 7*

*Total Number of Comments: 12*

**Comment Number:** IDMTSG-14-0131-11

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

### **Comment Excerpt Text:**

Emphasizing one resource, sage-grouse, to the exclusion of all others, across an entire planning area is inconsistent with FLPMA, and BLM must resolve this issue before the Final EIS is published. The EIS must evaluate how the land use restrictions, prohibitions, and effective withdrawals that are in Alternatives achieve the required balance in managing the public lands.

**Comment Number:** IDMTSG-14-0131-12

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

### **Comment Excerpt Text:**

BLM/USFS must acknowledge that it is required to fully consider the need for mineral development along with the need for conservation of other resources. Simplot appreciates the difficult balancing act BLM/USFS

must achieve when dealing with competing resources; however, prohibiting mineral development cannot be the mode of action. BLM/USFS must recognize that the need for mineral development (to reduce the Nation's reliance on foreign sources of the minerals, to maintain our way of life and to provide for food security), may in fact be greater than the need to uniformly conserve millions of acres of sage-grouse habitat. As such BLM/USFS must demonstrate its compliance with the mandate under the Mining and Minerals Policy Act (30 U.S.C. §21(a)), and FLPMA (43 U.S.C. §1701(a)(12)) to recognize the Nation's need for domestic minerals.

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**Comment Number:** IDMTSG-14-0131-19

**Organization 1:** J.R. Simplot Company

**Commenter 1:** Alan L. Prouty

**Comment Excerpt Text:**

There is no consideration as to how these Alternatives meet or are consistent with valid existing rights or such statutes as FLPMA, multiple-use mandates and the Mineral Leasing Act.

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**Comment Number:** IDMTSG-14-0131-28

**Organization 1:** J.R. Simplot Company

**Commenter 1:** Alan L. Prouty

**Comment Excerpt Text:**

Both the affected environment (Chapter 3) and environmental consequences (Chapter 4) of the Draft LUMA/EIS need to discuss how the various statutes that govern federal lands will be met, especially in relation to rights-of-ways and minerals. Alternatives B, C, D and F clearly do not meet the Multiple-Use Sustained Yield Act, the Federal Land Policy Act and Management Act and the Mineral Leasing Act. A clear definition of valid existing rights, along with how those rights will be maintained for both mineral developments and ROWs, needs to be provided in the LUPA/EIS.

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**Comment Number:** IDMTSG-14-0149-9

**Organization 1:** Western Energy Alliance

**Commenter 1:** Kathleen M. Sgamma

**Comment Excerpt Text:**

FLPMA clearly identified mineral exploration and development as a principal or major use of the public lands. The Multiple-Use Sustained-Yield Act of 1960 specifically states: "Nothing herein shall be construed so as to affect the use or administration of the mineral resources of national forest lands ..."

The laws require the agencies to foster and develop mineral activities, not stifle and prohibit them. It does not appear this was a primary goal during the preparation of the LUPA/DEIS. The agencies must reconsider their view of oil, natural gas and mineral development when preparing the final LUPA/EIS and ROD.

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**Comment Number:** IDMTSG-14-0151-59

**Organization 1:** Western Watersheds Project

**Commenter 1:** Katie Fite

**Comment Excerpt Text:**

**FLPMA, NFMA, Sensitive Species Policy**

While the EIS lists various local plans, it fails to adequately consider the power for making management changes that the agencies have - actually duties – under FLPMA, NFMA, and policies such as Sensitive species and other policies. The problem is they lack the political will to act.

What parts of Alternatives could be accomplished under this existing framework and the latitude agencies already have to manage lands and conserve species?

**Comment Number:** IDMTSG-14-0153-1

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The failure to look at the full range of reasonable alternatives is related to BLM's duty in any environmental analysis to develop, study, analyze and adopt mitigation measures to protect other resources. The ability to adopt post-leasing mitigation measures – see 43 C.F.R. § 3101.1-2 – is quite broad, as all reasonable measures not inconsistent with a given lease may be imposed by BLM. This is particularly true given that BLM, pursuant to FLPMA, must manage public lands in a manner that does not cause either “undue” or “unnecessary” degradation. 43 U.S.C. § 1732(b). Put simply, the failure of BLM to study and adopt these types of mitigation measures – especially when feasible and economic – means that the agency is proposing to allow this project to go forward with unnecessary impacts to public lands, in violation of FLPMA.

**Comment Number:** IDMTSG-14-0153-11

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

In the Idaho – Southwest Montana RMP Amendment EIS, BLM has failed to apply in its preferred Alternative D or E the recommended sage grouse protections presented to it by its own experts (the BLM National Technical Team), and as a result development approved under several of the alternatives analyzed (and particularly Alternatives A, D, and E) will result in both unnecessary and undue degradation of sage grouse Priority Habitats and result in sage grouse population declines in these areas, undermining the effectiveness of the Core Area strategy as an adequate regulatory mechanism in the context of the decision

**Comment Number:** IDMTSG-14-0157-20

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

This alternative is noted as an "individual or conservation group" alternative in the DEIS but is identified in the Nevada DEIS as the alternative written by Western Watersheds Project ("WWP"). Transparency of this authorship allows the public to critically assess Alternative C in the context within which it was offered and intended. Consistent with WWP's mission, it would close 11 million acres of habitat to grazing. WWP's mission is succinctly stated on its website: "The time has come to end public lands ranching." See [www.westernwatersheds.org/issues/public-lands-ranching](http://www.westernwatersheds.org/issues/public-lands-ranching). This alternative cannot be adopted by BLM

because doing so would violate FLPMA, the Taylor Grazing Act, 43 U.S.C. 315a, et seq., the Public Rangelands Improvement Act, 43 U.S.C. 1901, et seq., and the Multiple Use Sustained Yield Act, 16 U.S.C. 528, et seq., all of which call for multiple use of federal lands including lands for livestock grazing.

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**Comment Number:** IDMTSG-14-0180-6

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

We recognize the difficult task the BLM faces in managing public lands; however, three of the alternatives do not fit within BLM's mission as a land manager. Alternative B is overly restrictive for infrastructure development and oil and gas activities. Alternative C would eliminate livestock grazing entirely and the addition of ACECs through Alternative F would restrict a variety of uses. Restricting uses or unnecessarily reducing agency discretion may seem to be the prudent course of action, but the result is BLM will lose the flexibility needed to anticipate future uses and needs of the country. Without a more complete analysis of how

infrastructure projects in the past decade have impacted the population of the species, such an overreaching proposal is unnecessary.

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**Comment Number:** IDMTSG-14-0212-13

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

Given the Agencies' multiple-use mandates for land use planning, and the flexibility provided under ESA Section 10 and Section 7, the Final LUP Amendment should not provide restrictions that manage solely for sage-grouse conservation to the exclusion of leasable mineral development. In both the Section 10 and Section 7 context, there is no absolute prohibition on activities that might "take" a species. Rather, project approval is based on whether, after applying the mitigation measures proposed by the applicant, the action will appreciably reduce the likelihood of the survival or recovery of the species, or result in jeopardy, respectively. The ESA permitting processes encourage cooperation between the Fish and Wildlife Service and the applicant to find solutions that allow the applicant's project to move forward while conserving the species. The Agencies should not, in an attempt to avoid an ESA-listing for the sage-grouse, make decisions that are more restrictive than if the species was listed under the ESA, and therefore, closing all federal nonenergy leasable minerals estate lands in PPMAs and PMMAs is unwarranted.

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**Comment Number:** IDMTSG-14-0212-8

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Other Sections:** 7.6

**Comment Excerpt Text:**

In Alternative B, the Agencies would close the PPMAs to phosphate leasing. See Draft LUPA/EIS pp. 2-181

(Management Action B-MNL-1), 2-26 (Table 2-2 showing closures by acreage). This would result in 8,304,600 acres being closed to non-energy leasable minerals (compared to 621,300 acres closed to leasables under existing LUPs). See Draft LUPA/EIS p. 2-26 (Table 2-2).

These management actions would unreasonably restrict the use of public lands for phosphate mining exploration or operations contrary to FLPMA's requirement to manage "in a manner which recognizes the Nation's need for domestic sources of minerals." 43 U.S.C. § 1701(a)(12). It is also contrary to FLPMA's requirement that land use plans observe principles of multiple use, which it defines to include "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values." Id. §§ 1702(c), 1712(c)(1) (emphasis added). Closing PPMAs to phosphate or other leasable minerals entries would be contrary to the Agencies' multiple use obligations and would not serve the proper combination of balanced and diverse resource uses. It also would eliminate or discourage significant opportunities for the Agencies to work with the mining industry to develop offsite mitigation or conservation plans that could provide a net benefit to sage-grouse or their habitat in exchange for allowing some mineral development within PPMAs. Further, the Agencies have not shown that leaseable minerals operations have in the past negatively impacted the long-term viability of the sage-grouse, and accordingly, why it now makes sense to eliminate the industry on certain public lands where there is no demonstrated track record of such negative impacts by the industry.

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### ***Summary***

The DLUPA/EIS has failed to comply with the multiple-use mandates found in the BLM's FLPMA and the Forest Service's Multiple Use Sustained Yield Act because it has put protecting greater sage-grouse and sage-grouse habitat above legal requirements for balanced management.

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### ***Response***

NOTE TO BLM: this is the full national response and has been reviewed by SOL:

The BLM's FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses to which public lands can be put. The BLM's multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The FLPMA also directs the United States (US) Department of the Interior, Bureau of Land Management (BLM) to develop and periodically revise or amend its Resource Management Plans (RMPs), which guide management of BLM-administered lands, and provides an arena for making decisions regarding how public lands would be managed and used.

Consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (MUSYA), the Forest Service manages National Forest System land to sustain the multiple use of its renewable resources in perpetuity while maintaining the long-term health and productivity of the land. Resources are managed through a combination of approaches and concepts for the benefit of human communities and natural resources. Land management plans guide sustainable, integrated resource management of the resources within the plan area in the context of the broader landscape, giving due consideration to the relative values of the



various resources in particular areas. The Forest Service is required by statute to have a national planning rule: the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, requires the Secretary of Agriculture to issue regulations under the principles of the Multiple-Use Sustained-Yield Act of 1960 for the development and revision of land management plans.

The [*name of particular amendment*] is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve greater sage-grouse and to respond to the potential of its being listed (see Section 1.XX, Purpose and Need). Both, the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated appropriate regulatory mechanisms to conserve, enhance, and restore greater sage-grouse habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. For example, [*insert one or more examples of the range of actions considered, include references to sections/table where they can be found*].

Additionally, the BLM and the Forest Service developed the [*name LUPA/EIS*] with involvement from cooperating agencies, including [*name various agencies, including the state wildlife agency, state's governor's office, other fed agencies, any local agencies/governments*] to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

### **Section 5.1 - Inventories**

*No comments are associated with this issue.*

### **Section 5.2 - Consistency with other state, county, or local plans**

*Total Number of Submissions: 8*

*Total Number of Comments: 14*

**Comment Number:** IDMTSG-14-0105-3

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

#### **Comment Excerpt Text:**

. Owyhee County has made all of its plans known to and available to BLM officials yet this document has apparent inconsistencies with a number of those plans. Most notable are the County Sage Grouse Management Plan and the County Comprehensive Plan which addresses Planning and Zonings review of developmental impacts to species on private lands within the county.

**Comment Number:** IDMTSG-14-0105-4

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

#### **Comment Excerpt Text:**

Throughout the state, the 13 other LWG's have made similar LUP's and in the new EIS, only two counties are recognized. The work that has already been done is based on in-depth local knowledge and targeted to the specific aspects of each LWG. Each area has its own unique threats, and consequently effective management actions, and should be addressed as such.

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**Comment Number:** IDMTSG-14-0105-8

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

While the EIS recognizes the existence of the Idaho Greater Sage-grouse Management Plan and local management plans, it does not provide an analysis of plan consistency as required by FLPMA. Any inconsistency or perceived inconsistency with State and local plans should be clearly identified and fully explained in the EIS.

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**Comment Number:** IDMTSG-14-0149-1

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

The State of Idaho has developed a conservation plan for GSG and the State of Montana is in the process of developing a plan as well. We believe these plans should be more meaningfully incorporated into the final LUPA/EIS and Record of Decision (ROD).

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**Comment Number:** IDMTSG-14-0149-16

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

Myriad local, state, tribal and federal conservation measures are already in place; and, it is essential that they be fully and clearly recognized in the planning process and more meaningfully incorporated into the final LUPA/EIS and ROD.

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**Comment Number:** IDMTSG-14-0157-24

**Organization1:**Y-3 II Ranch

**Commenter1:**Christopher Clark

**Comment Excerpt Text:**

Consideration of federal, state, and local plans is required by 40 C.F.R. § 1502.16(c). While some statement is made to the effect that these plans are considered (Section ES.7 and 1.7), there is no discussion of how the proposed alternatives may conflict with BLM Manual 6840 Special Status Species Management. Nor, as noted above, is there any clear discussion of the conflict with most of the action alternatives and the Secretary's designation of these BLM lands as chiefly valuable for grazing.

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**Comment Number:** IDMTSG-14-0159-15

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Other Sections:** 4.4

**Comment Excerpt Text:**

The Agencies have artificially deflated Alternative A, the “No Action” Alternative because it fails to quantify the impacts associated with ongoing implementation of the many existing local, state and Federal conservation measures and the existing BLM policies designed to protect the GRSG and its habitat. The No Action Alternative must review the existing regulatory framework, including Federal, state, local and private efforts, including voluntary conservation measures, to determine what positive effects those measures will produce.

**Comment Number:** IDMTSG-14-0168-1

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

2-18

"Since the direction in these plans is already included within the existing range of alternatives these county plans were not included as additional unique alternatives for detailed analysis."

We disagree with this statement as the authors of the DEIS failed to capture the comprehensive nature of the Custer County Plan. It was not designed to function properly if policies are randomly selected for the purpose of justifying different agendas. Rather it is to be implemented comprehensively. Each of the principles and policies were deliberately designed to work together to ensure that the relationship between the cause of impacts and conservation measures implemented would never be separated and would always be guided by an active and current science based perspective. Pointing to different alternatives, each agreeing with one or two of the Counties policies is bad governance. It does not satisfy NEPA's requirement that conflicts with the County's plan and the agency's proposed action be resolved in the NEPA document. A Custer County Alternative should be developed that could be selected as part of the proposed action for the area within the political boundaries of Custer County.

**Comment Number:** IDMTSG-14-0168-10

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

Apndx A

This Appendix includes a discussion of some of the policies and principles in the Custer County Sage-Grouse Comprehensive Plan. It notes whether the policy is: (1) already in Challis RMP Direction, (2) whether it is Challis RMP Compliant, and (3) whether Included in Amendment EIS. All of these are helpful for the public to compare the County's plan to existing alternatives, however, this analysis does not identify whether or not the specific principles and policies are consistent with the "proposed action." The Appendix needs to be revised to include an additional column which includes this analysis of all of the Counties specific principles and policies.

**Comment Number:** IDMTSG-14-0168-4

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

General

NEPA requires a discussion of "Possible conflicts between the proposed action and the objectives of Federal, regional, State and local land use plans, polices and controls for the area concerned." (40 CFR I 502.1 6(c)) It is the clear policy as stated in numerous County plans that the lands within the political boundaries of the county be maintained to ensure a vibrant local economy that is built on the historic use of and right to the productive use of these lands.

Restricting and in some alternatives, eliminating these uses conflicts with the Counties policies. These conflicts have not been identified, analyzed or resolved in the DEIS.

**Comment Number:** IDMTSG-14-0168-5

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

NEPA requires that "Where an inconsistency exists [with local plans] the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law." (40 CFR 1506.2(d)) Because the agency has selected two possible alternatives, and plans to choose different parts of each, the parts of which are not specifically identified, then it becomes impossible for the county to comment on whether or not the proposed action is consistent with its plans. A proposed action should be clearly identified, and the draft document redistributed for comment to allow for adequate public and county input.

**Comment Number:** IDMTSG-14-0179-2

**Organization1:** Idaho Conservation League

**Commenter1:** John Robison

**Comment Excerpt Text:**

certain passages in Alternative E focus solely on protecting the CHZ, emphasize the use of the IHZ as the "buffer zone" to protect the CHZ, and appear to diminish the State's commitment to protecting the IHZ:

IHZ: Provide a population buffer to CHZ to minimize the risk of habitat loss from wildfire, invasive species while providing the opportunity to consider limited, high-value infrastructure development  
-Idaho and Southwestern Montana Greater Sage-Grouse DEIS, E-OBJ-2 on p. 2-95

This following citation appears to further demote the IHZ from a buffer zone to more of a sacrifice zone:

The State will be able to provide a level of protection to conserve at least 65% of the current known leks within the State, which are fully captured in the CHZ.

-State of Idaho Alternative, Idaho and Southwestern Montana Greater Sage-Grouse DEIS, Volume III-A, p. D-29.

We recommend that the BLM, Forest Service and State of Idaho commit to maintaining sage-grouse populations and habitat within the IHZ and restore habitat in strategic locations, as recommended:

In light of these significant uncertainties, impacts to sage-grouse and their habitats should be avoided to the maximum extent possible to retain conservation options. This approach will ensure that potentially unidentified key components to long- term viability of sage-grouse are not lost, and that management

flexibility and the ability to implement changes will be retained as current information gaps are filled.  
-Greater Sage-Grouse Conservation Objectives Final Report, page 31.

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**Comment Number:** IDMTSG-14-0198-4

**Organization1:**AWHP

**Commenter1:**

**Comment Excerpt Text:**

Requirement that any land use policy changes resulting from the sage grouse plan be in conformance with the National Academy of Sciences' 2013 recommendations for reform of federal wild horse management program.

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**Comment Number:** IDMTSG-14-0205-1

**Organization1:**Montana Wollgrowers Association

**Commenter1:**James E. Brown

**Comment Excerpt Text:**

there is little or no discussion in any of the proposed alternatives as to how those alternatives, if adopted, would conflict with existing state and local plans, such as the State of Montana's sage-grouse management strategy.

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***Summary***

The BLM's actions considered in the alternatives conflict with local and state agency plans and policies; furthermore, the BLM did not review all of the county and state plans to ensure that conservation measures are as consistent as possible with other planning jurisdictions.

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***Response***

The BLM land use plans and amendments must be consistent with officially approved or adopted resource-related plans of Indian tribes, other Federal agencies, and State and local governments to the extent that these resource-related plans comport with FLPMA and other Federal laws and regulations (see 43 CFR 1610). The BLM has worked closely with State and local governments during preparation of the Draft LUPA/EIS. The Draft LUPA/EIS lists the cooperating agencies actively involved in the planning process in Section 6.XX. The BLM works to find a balance among uses and needs as reflected in these local government plans and has done so in the preparation of the LUPA/EIS; a list of these plans can be found in Chapter 1, Section 1.XX, Relationship to Other Policies, Plans, and Programs. While the BLM is not obligated to seek consistency, the agency is required to describe the inconsistencies between the proposed action and the other plans, policies, and/or controls within the EIS. This information has been updated in the FEIS. [NOTE TO BLM: Might need to add this sentence (regarding obligations) to Section 1.7, Relationship to Other Policies, Plans, and Programs, of the FEIS. Also need to ensure that the FEIS describes any such inconsistencies.]

The BLM coordinates with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the State of Idaho has clear jurisdiction, such as wildlife populations, the BLM has worked closely with that State agency. In cases where a county or agency has expertise, such as local county socioeconomic information, the BLM has worked closely with the group to incorporate the information into

the EIS.

NOTE TO BLM: plans, policies that commenters felt needed to be reviewed for consistency:  
 Gooding conservation district sage grouse conservation plan  
 National Academy of Sciences 2013 recommendations for the WHB program  
 State of MT sage-grouse management strategy  
 Custer County plans  
 Owyhee County plans

### **Section 5.3 - Cooperating Agency Relationships**

*No comments are associated with this issue.*

### **Section 5.4 - Planning Regs 43 CFR 1600**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

**Comment Number:** IDMTSG-14-0130-4

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

#### **Comment Excerpt Text:**

No explanation is given for the delineation of the planning area boundary. The fluctuation between using state lines in some areas, Rocky Mountain/Great Basin Region lines in others and WAFWA Zone lines in yet others will ultimately result in ineptitude and confusion when implementing management decisions

**Comment Number:** IDMTSG-14-0159-37

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

#### **Comment Excerpt Text:**

Further, because mineral exploration and development are recognized and acceptable uses of public lands, the multiple use mandate requires BLM and the USFS to work diligently to find ways to remain flexible and ensure that resources can be developed in a manner that has minimal impacts to GRSG.

#### ***Summary***

The BLM did not provide an explanation for how and why they defined the planning area as they did.

#### ***Response***

[NOTE TO BLM: This is from a national response.]

The framework for the scope of analysis for the project is based upon the BLM and the Forest Service Planning and NEPA manual and handbooks definitions of the planning, decision, and analysis areas. Specifically, Forest Service Manual 1900-Planning Chapter, Zero Code defines the Area of Analysis as “The geographic area within which ecosystems, their components, or their processes are evaluated during analysis

and development of one or more plans, plan amendments, or plan revisions. This area may vary in size depending on the relevant planning issue. For a plan, an area of analysis may be larger than a plan area. For development of a plan amendment, an area of analysis may be smaller than the plan area and include multiple ownerships.”

For this environmental impact statement, decision areas are those public lands and mineral estates within the planning area that are encompassed by all designated habitat (ADH) (which includes preliminary priority habitat [PPH], preliminary general habitat [PGH], and linkage/connectivity habitat).

**Planning Area.** The geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM’s jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for a RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices and/or states, as necessary.

**Plan areas.** National Forest System lands covered by land use plans. (36 CFR 219.16)

[If not included in DEIS already, make a notation that the FEIS will be updated to note definitions of planning, decision, and analysis areas to clarify these terms.]

## **Section 6 - Other Laws**

*Total Number of Submissions: 11*

*Total Number of Comments: 15*

**Comment Number:** IDMTSG-14-0056-19

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

### **Comment Excerpt Text:**

- As indicated within the discussion of Alternatives A,B,C, and F, indiscriminate retirement of grazing privileges is not in compliance with the Taylor Grazing Act or FLPMA. (DLG/ Rm-7, page 2-137)

**Comment Number:** IDMTSG-14-0056-4

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Other Sections:** 16.1

### **Comment Excerpt Text:**

Given the benefits shown above, any alternative that arbitrarily reduces, eliminates or allows retirement of livestock grazing AUMs is contradictory to the goal of long-term sage grouse conservation. In addition, there is statutory evidence and case law, that the BLM is overstepping its bounds in the DEIS by suggesting that grazing permits may be terminated permanently. The BLM is authorized to decrease or temporarily discontinue grazing through a decision process, but the Taylor Grazing Act and Federal Land Policy Management Act mandate that forage resources on grazing districts, if deemed healthy, are to be made available for livestock grazing. Eliminating grazing on public land will also result in reduced or eliminated grazing on intermingled state land and a subsequent decline in funding available to the endowed institutions of the state.

**Comment Number:** IDMTSG-14-0130-15

**Organization1:**Simplot Livestock Co.

**Commenter1:**Chuck Jones

**Comment Excerpt Text:**

We question if expansion of HMAs is even legal under the Wild Horse and Burro Act. (D-WHE-4, page 2-116)

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**Comment Number:** IDMTSG-14-0130-18

**Organization1:**Simplot Livestock Co.

**Commenter1:**Chuck Jones

**Comment Excerpt Text:**

As indicated within the discussion of Alternatives A,B,C and F, indiscriminate retirement of grazing privileges is not in compliance with the Taylor Grazing Act or FLPMA. (D-LG/Rm-7, page 2-137)

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**Comment Number:** IDMTSG-14-0149-12

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

Section 363 of the Energy Policy Act of 2005 (EPAAct) requires federal land management agencies to ensure that lease stipulations are applied consistently and to ensure that the least restrictive stipulations are utilized to protect many of the resource values to be addressed. The LUPA/DEIS ignores established BLM policy that states “the least restrictive stipulation that effectively accomplished the resource objectives or uses for a given alternative should be used.” Moreover, the agencies have failed to demonstrate that less restrictive measures were considered but found insufficient to protect the resources identified. A statement that there are conflicting resource values or uses does not justify the application of restrictions. Discussion of the specific requirements of a resource to be safeguarded, along with a discussion of the perceived conflicts between it and oil and natural gas activities must be provided.

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**Comment Number:** IDMTSG-14-0159-1

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Mining and Minerals Policy Act of 1970

The Mining and Minerals Policy Act of 1970, which declares that it “is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in (1) the development of economically sound and stable domestic mining, mineral, metal and mineral reclamation industries, (2) the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs, . . . .” 30 U.S.C. § 21a. BLM’s planning criteria for the proposed LUPA omit any reference to this important Congressional policy statement. It is also evident that BLM and the Forest Service overlooked this important national policy in formulating LUPA elements and alternatives.<sup>9</sup>

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**Comment Number:** IDMTSG-14-0168-27



**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Other Sections:** 3

**Comment Excerpt Text:**

Chapter 3, General

Too much of the chapter reads like a one-size fits all, cut and paste of Connelly. Connelly is cited at least 100 times in the EIS. Quoting Connelly's summary of sage-grouse studies is NOT the best available science. The original studies and publications that Connelly references are the best available science. Many of the documents referenced in Connelly are not available to the public. Some are available, but only for a fee.

Quoting Connelly's quotes of other authors violates the Information Quality Act of 2001 (Section 515 of Public Law 106-554).

**Comment Number:** IDMTSG-14-0169-29

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 16.1

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The BLM should reconsider whether sage-grouse habitat is “chiefly valuable” for livestock grazing.**

Most grazing on BLM lands occurs within grazing districts established by the Taylor Grazing Act of 1934 (43 U.S.C. § 315). The act required the Secretary of Interior to determine that lands within grazing districts were “chiefly valuable” for livestock grazing (43 U.S.C. § 315). However, the Secretary can also separately conclude that any lands within grazing districts are “more valuable or suitable for any other use than for [grazing]” (43 U.S.C. § 315f). To meet the purpose and need of the National Greater Sage-Grouse Planning Strategy (76 Fed. Reg. 77009) and the draft Idaho/SW Montana plan (ES-4), the Secretary should, as part of the current planning process, reconsider whether sage-grouse habitat, or a subset of extant habitat (e.g., priority habitat), in grazing districts is still “chiefly valuable” for grazing as opposed to other priorities, such as sage-grouse conservation. The Secretary can adjust boundaries of grazing districts to exclude grazing where it may continue to harm the species.

**Comment Number:** IDMTSG-14-0178-9

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 16.1

**Comment Excerpt Text:**

Alternative C “focuses on the complete removal of livestock grazing from all occupied sage grouse habitat...” (ES-15, 2-64) while Alternative F “focuses on restrictions...” (ES-16). For the reasons described above in the “Benefits of Livestock Grazing” section, these alternatives will prove to be disastrous to both the environment and the economy of the planning area.

Given the benefits shown above, any alternative that arbitrarily reduces, eliminates or allows retirement of livestock grazing AUMs is contradictory to the goal of long-term sage grouse conservation. In addition, there is statutory evidence and case law, that the BLM is overstepping its bounds in the LUPA/DEIS by suggesting that grazing permits may be terminated permanently. The BLM is authorized to decrease or temporarily discontinue grazing through a decision process, but the Taylor Grazing Act and Federal Land Policy Management Act (FLPMA) mandate that forage resources on grazing districts, if deemed healthy, are to be made available for livestock grazing.

**Comment Number:** IDMTSG-14-0181-4

**Organization1:**Idaho Mining Association

**Commenter1:**Jack Lyman

**Comment Excerpt Text:**

it is unclear how the Agencies intend to apply the three percent disturbance cap to mining activities authorized under the Mining Law of 1872. BLM's land use planning process "cannot be used to preclude mining or restrict certain types of mining activities." BLM Surface Management Handbook, H-3809-1, at 8-14 (Sept. 17, 2012). Specifically, land use plans "cannot be used to 'zone' areas where open pit mining is not allowed . . . or generally place limits on the type or size of an operation." Id. If the Agencies intend that the disturbance cap will be used to preclude locatable minerals activities in certain areas once the threshold is met, the disturbance cap would create de facto mineral entry withdrawal "zones" in violation of the Agencies' mineral entry withdrawal regulations and policy. See Sw. Res. Council, 96 IBLA 105, 120 (1987); BLM Surface Management Handbook, at 8-14. In order to clarify that the three percent disturbance cap would not apply to locatable minerals activities, the Final LUP Amendment should clarify that the three percent cap would not be implemented in a manner to interfere with mining activities authorized under the Mining Law of 1872

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**Comment Number:** IDMTSG-14-0182-11

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

CEQ regulations at 40 CFR 1502.16(c) require BLM and USFS to include discussion of "[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies, and controls for the area concerned." The surface use restrictions and land withdrawals proposed under the actions alternatives described in the DEIS conflict with BLM's own policy in BLM Manual 6840, USFS's policies in USFS Manual 2670, the General Mining Law, and BLM's multiple use mandates under FLPMA. The DEIS makes no virtually no attempt to analyze and resolve these conflicts.

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**Comment Number:** IDMTSG-14-0182-8

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

The Information Quality Act requires that information used by agencies be based upon verifiable data and reproducible results, and not based upon opinion. The NIT Report, and the DEIS following from it, cannot selectively use conclusions from studies such as Lyon and Anderson (2003) or Holloran (2005) to support their own conclusions, when those studies produced statistically insignificant data and/or were rebutted by more recent and comprehensive data.

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**Comment Number:** IDMTSG-14-0216-2

**Organization1:**Public Lands Council/National Cattlemen's Beef Association

**Commenter1:**Marci L. Schlup

**Comment Excerpt Text:**

The proposed standards and guidelines contravene the TGA because they myopically focus on sage-grouse range management to the detriment of livestock grazing and development of the range.

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**Comment Number:** IDMTSG-14-0325-1

**Organization1:****Commenter1:** William J. Mulder**Comment Excerpt Text:**

The following comments correspond to the order and headings in Table 2-17 and Table 2-18:

**GOALS**

Goals expressed in B-GOAL-1 and D-GOAL-1 should not be pursued to the detriment of existing legal uses, should not be contrary to the Taylor Grazing Act or FLPMA, and should not be pursued to the detriment of BLM/USFS multiple-use mandates.

**Comment Number:** IDMTSG-14-0325-16**Organization1:****Commenter1:** William J. Mulder**Comment Excerpt Text:**

Livestock grazing on BLM lands is regulated by the Taylor Grazing Act and FLPMA.

Livestock grazing is regulated on USFS and BLM lands by permit conditions which specify use dates, livestock stocking rates, exclosures, salt/supplement locations, etc ..

Livestock grazing is subject to detailed forage use and rangeland health standards.

Every aspect of livestock grazing on USFS and BLM lands is regulated.

Livestock permit retirement and/or relinquishment are regulated under relevant statute. D-LG/RM-7 should be deleted.

***Summary***

The BLM has failed to document how the EIS and/or actions considered in the EIS comply with other laws, including all Onshore Orders regulating oil and gas development, the Energy Policy Act of 2005 and Energy Policy and Conservation Act of 2000, the Taylor Grazing Act, the Mining and Minerals Policy Act, the Information Quality Act, the Wild Horse and Burro Act, other multiple use mandates (e.g., Multiple-Use Sustained Yield Act of 1960, Forest and Rangeland Renewable Resources Planning Act of 1974, National Forest Management Act of 1976), and compliance with other federal agency regulations (e.g., XXX).

***Response***

[NOTE TO BLM: This response may need to go up the chain for review.]

As noted under Section 5 of this Report, the Draft LUPA/EIS is consistent with the BLM's FLPMA and the Forest Service's Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (MUSYA). The Idaho Greater Sage-Grouse Land Use Plan Amendment is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve greater sage-grouse and to respond to the potential of it being listed (see DEIS Section 1.2, Purpose of and Need for the Land Use Plan Amendments). Both the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated appropriate regulatory mechanisms to conserve, enhance, and restore greater sage-grouse habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any

valid existing development rights.

Additionally, the BLM and the Forest Service developed the Idaho Greater Sage-Grouse Draft Land Use Plan Amendment/DEIS with involvement from cooperating agencies (see DEIS Section 6.3, Cooperating Agencies), including [*ID state wildlife agency, counties, etc.*] to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

The Draft EIS Section 2.5, Management Common to All Alternatives (pages 39 and 40), states that all alternatives would comply with state and federal laws, regulations, policies, and standards, and implement actions originating from laws, regulations, and policies. Actions in the Proposed LUPA have been reviewed and found to be consistent and within the bounds of all required laws, regulations, and policies.

## **Section 7 - Sage Grouse**

*No comments are associated with this issue.*

### **Section 7.1 - NTT report/findings**

*Total Number of Submissions: 11*

*Total Number of Comments: 32*

**Comment Number:** IDMTSG-14-0056-5

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

#### **Comment Excerpt Text:**

The use of the BLM National Technical Team (NTT) report as a stand-alone alternative (Alternative B) is problematic in that it contains overly burdensome recommendations that are not based on local conditions. It appears the report contains many methodological and technical errors, selectively presents scientific information to justify recommended conservation measures, and was disproportionately influenced by a small group of specialist advocates. See (Ramey, 2013), which we incorporate by reference in its entirety to our comments

**Comment Number:** IDMTSG-14-0130-6

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

#### **Comment Excerpt Text:**

The use of the BLM National Technical Team (NTT) report as a stand-alone alternative (Alternative B) is problematic in that it contains overly burdensome recommendations that are not based on local conditions. It appears the report contains many methodological and technical errors, selectively presents scientific information to justify recommended conservation measures, and was disproportionately influenced by a small group of specialist advocates. See (Ramey, 2013), which we incorporate by reference in its entirety to our comments.

**Comment Number:** IDMTSG-14-0148-1

**Organization1:**Western Counites Alliance

**Commenter1:**Kenneth Brown

**Comment Excerpt Text:**

NTT report did not include input from

Any affected stakeholder or interdisciplinary experts aside from state and federal scientists and specialists, it ignores regional variances in sage grouse needs, is not a comprehensive representation of the literature and research surrounding livestock grazing and other uses, and has not been scientifically peer reviewed for accuracy. For these reasons, any alternative based on the NTT report is not justifiable

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**Comment Number:** IDMTSG-14-0149-15

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Other Sections:** 7.3

**Comment Excerpt Text:**

Reliance upon the NTT Report and the COT Report is misplaced because these documents fail to meet established standards of scientific integrity under the ESA, the Data Quality Act, and Presidential and DOI memoranda and orders.

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**Comment Number:** IDMTSG-14-0149-3

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

The NTT report asserts that oil and natural gas “impacts are universally negative and typically severe,”<sup>1</sup> but provides no scientific data to support that assertion. This statement is predicated upon a select few studies while ignoring other data and studies that clearly demonstrate impacts from oil and natural gas are not universally negative and typically severe. While we acknowledge there may be temporary decreases in lek counts within close proximity to initial well construction and other activities, this cannot be construed to indicate general population declines. Rather, it has been scientifically demonstrated that GSG are temporarily displaced to other areas with less activity until the initial area returns to a less active state.

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**Comment Number:** IDMTSG-14-0149-4

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

The Department of the Interior (DOI) has been criticized by the Western Association of Fish and Wildlife Agencies (WAFWA) for using the NTT report as BLM’s only source of GSG management direction. In a letter sent to the Interior Secretary on May 16, 2013, WAFWA member states made it clear they never endorsed the sole use of the NTT or any other scientific publication. Rather, they believe that a wide variety of peer reviewed publications that collectively provide the best available science for GSG should form BLM’s basis for conserving the species. They went on to recommend that management and regulatory mechanisms be centered upon the best available science which would provide the best strategy for near- and long-term management of GSG and provide the best opportunity for precluding a listing under ESA.

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**Comment Number:** IDMTSG-14-0149-5

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Other Sections:** 7.9

**Comment Excerpt Text:**

We are concerned that many of the Required Design Features (RDF) recommended by the NTT are included in the LUPA/DEIS. These features fail to reflect the complexity of oil and natural gas exploration and development and represent a one-size-fits-all management approach that disregards topography, local conditions, and practicality. We recommend that the agencies revisit the RDFs proposed in the LUPA/DEIS to ensure they are technically feasible and appropriate. Further, the agencies must maintain flexibility required when considering design features on a site-specific basis. For these reasons, we strongly urge the agencies to refrain from directly incorporating any of the NTT report recommendations into the preferred alternative in the final LUPA/EIS and ROD.

**Comment Number:** IDMTSG-14-0149-6

**Organization1:** Western Energy Alliance

**Commenter1:** Kathleen M. Sgamma

**Comment Excerpt Text:**

To further elucidate these concerns, attached to these comments is an independent review of the NTT report, entitled Review of Data Quality Issues in A Report on National Greater Sage-Grouse Conservation Measures Produced by the BLM Sage-Grouse National Technical Team (NTT).<sup>2</sup> [Full citation provided for this report: Review of Data Quality Issues in A Report on National Greater GRSG Conservation Measures Produced by the BLM GRSG National Technical Team (NTT) Dated December 21, 2011. Dr. Rob Roy Ramey. (September 19, 2013)]

This review describes a number of shortcomings with the report, including:

- ? Failure to use the best available science
- ? Selective presentation of scientific information
- ? Misrepresentation of the impact of oil and natural gas operations on GSG
- ? Disproportionate influence from a small group of specialist advocates
- ? Bias against voluntary conservation
- ? Unnecessarily restrictive recommendations
- ? Undefined priority habitat
- ? Lack of credible peer review.

**Comment Number:** IDMTSG-14-0157-19

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The NTT Report does not enjoy any presumption of validity; it never went through Administrative Procedure Act ("APA") rulemaking. The development of the NTT Report was a closed process lacking important insight and input from the public. When a federal agency issues a directive concerning the future exercise of discretionary power, APA notice and comment procedures are required if the directive constitutes a substantive rule. Even though BLM may have considered the NTT Report as a general statement of policy and not subject to the APA, the agency's label given to its exercise of administrative power is not determinative. The NTT Report constituted a legislative rule that should have been noticed for comment pursuant to APA Section 553 (5 U.S.C. § 553(b)-(c)). Because the NTT Report is a necessary element of BLM's planning pursuant to Instruction Memorandum 2012-044, the Report will determine the substantive outcome of the revisions of the land use plans and have a practical binding effect that will be applied to private parties including the delay or denial of applications or the imposition of certain terms and conditions for use of Sage-grouse habitat.

In an opinion by Idaho Federal District Judge B. Lynn Winmill, he made a statement in dicta that the NTT

Report is the best available science. See *Western Watersheds Project v. Salazar*, 2012 WL 5880658 at \*2 (D. Idaho Nov. 20, 2012). But Judge Winmill's comment was not based on a thorough discussion of the merits of the NTT Report, especially in light of subsequent reports and scientific statements that throw into question the validity of the NTT Report and its creation. For example, the Service's Conservation Objectives Team ("COT") Report also purports to be the best available science. See Section 1.1.1. The State of Nevada's plan purports to be the best available science. See Section ES.8.5.

WAFWA sent a letter to the Secretary of the Interior on May 16, 2013 cautioning against using the NTT Report's "one size fits all" approach. The NTT Report suffers from possible Federal Advisory Committee Act problems due to the constitution and makeup of the NTT Committee and the lack of compliance with Federal Advisory Committee Act's standards. 5 U.S.C. App. 2, §§ 1-16.

Peer review comments on the NTT Report dated December 18, 2012 also raise a number of concerns related to the scientific integrity of the Report. These reviewer comments were attached to correspondence from Secretary Salazar to Congressman Doc Hastings dated December 18, 2012. The review comments speak for themselves but specific comments raise significant concerns:

- "The approach taken in the document is rather short-term and narrow."
- "This seems a strange blend of policy loosely backed by citations, with no analysis of the science."
- "Lack of consideration of space, and particularly (in this document) time is a critical mistake that, to me, renders this document problematic, if not dangerous."

The FEIS should explain how these and other critical comments were incorporated into the final version of the NTT Report that was issued very shortly after this critical peer review.

**Comment Number:** IDMTSG-14-0157-2

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The NTT Report was followed very shortly by BLM's Instruction Memorandum 2012-044 providing BLM's strategy for revision of the Idaho and other land use management plans. IM 2012-044 never went through the Administrative Procedure Act rulemaking process nor was it subjected to analysis under the National Environmental Policy Act. Therefore, it does not enjoy a presumption of validity. The same is true regarding the NTT Report. These concerns will be set forth below in the portion of these comments dedicated to a discussion of Alternative B that is based upon the NTT Report. Suffice it to say at this juncture that the concerns regarding the NTT Report both as to AP A and NEP A compliance and other concerns infect not only Alternative B but the other alternatives that are based in whole or in part upon the NTT Report including Alternative C, Alternative D, and Alternative F.

**Comment Number:** IDMTSG-14-0159-32

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

## Alternative D, the BLM “Co-Preferred” Alternative, Fails to Appropriately Balance Resource Use and Resources under FLPMA

### a. Alternative D is Fatally Tainted by the NTT Process and is Not Grounded in the Best Available Science

Alternative D, the Sub-regional “Adjusted” Alternative, would restrict large-scale infrastructure development across 8.3 million acres within Idaho and provides a laundry list of BMPs on the remainder of the identified threats. Alternative D also includes an additional 700,000 acres of habitat outside of what the USFWS called for the Priority Area Conservation areas, or PACs, under the COT approach.

The failure of the BLM Adjusted Sub-Regional Alternative is that it is dependent on assumptions developed from the fatally-flawed NTT process. As described earlier, the NTT Report is based on stale science and otherwise fails to properly account for categorical statutory commands under the Mining Law and FLPMA. In short, if the “NTT-only” Alternative, (Alternative B) cannot meet the purpose and need of this LUPA process, Alternative D cannot meet the purpose and need either.

The NTT Report was published in December 2011. Nearly two years have passed since its publication. The last two years, both Governor’s Alternative and the Service’s final COT Report were published and reflect the current best available science. The WAFWA has agreed, stating in a letter that the NTT alone is not the best available science for sage-grouse. See Exhibit 7.

Further, the NTT Report has been used to support a four-mile buffer around active leks. This buffer size is far greater than necessary and relies upon suspect data, unfounded assumptions, and uncertain modeling. The presumed necessity of 4-mile radius NSO buffer around sage grouse leks is based upon the subjective opinion of the NTT and selected authors. The practical effect of such a restriction would be to "protect" vast areas of non-habitat and marginal habitat with no demonstrable benefit to sage grouse populations. The area of this 4-mile radius circle surrounding each lek is 50 square miles per breeding area. This scientifically unsupported land reservation element in the proposed Alternative is not supported. Further, 50 square miles is equivalent to about 32,000 acres per lek—a withdrawal of which far exceeds 5,000 acres and thus violates FLPMA’s Congressional approval requirement. thus violates FLPMA’s Congressional approval requirement

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**Comment Number:** IDMTSG-14-0159-4

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The NTT Report evolved without adequate science, analysis of its legal adequacy, or analysis of the economic impacts these policies will have on local communities and the Nation’s economy.

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**Comment Number:** IDMTSG-14-0159-5

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The Instruction Memorandum Requiring Consideration of the NTT Report has Expired

In addition to having been overcome by subsequent scientific review and assessment of GRSG science, the use of the NTT Report to inform any “NTT-Only” Alternative or “Adjusted” Alternative is inappropriate because Instruction Memorandum (IM) 2012-044, directing consideration of the NTT Report, has expired. The IM expired September 9, 2013, well ahead of the publication date of the LUPA/DEIS reviewed here.



However, there is no acknowledgment in the DEIS documents of the expiration of the IM or explanation of any continuing authority to include any NTT Report recommendation for GRSG conservation into any proposed Alternative. This IM has apparently failed to continue as a policy directive for the agency. Additionally, the Purpose and Need Statement does not disclose that one of the main purposes of the DEIS to respond to Instruction Memorandum 2012-044, see discussion below.

**Comment Number:** IDMTSG-14-0159-6

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

The DLUPA/DEIS incorporates the NTT Report’s habitat management recommendations for GRSG priority habitat, including prescriptive restrictions and categorical prohibitions on access and use of lands within priority habitat including, among others: 1) 3% limit on surface disturbance; 2) 50-70% sagebrush cover threshold; 3) four-mile No Surface Occupancy (NSO); 4) Right-of-Way (ROW) exclusion and avoidance areas; 5) one disturbance per 640 acres; and 6) mineral withdrawals.

The DLUPA/DEIS proposes arbitrary conservation measures based on unproven assumptions that: 1) a minimum range of 50 -70% of the acreage in sagebrush cover is required for long-term persistence of sage-grouse; 2) that discrete anthropogenic disturbances must be limited to less than 3% of the total sage-grouse habitat regardless of ownership, NTT Report at 6-7; and 3) a 15-25% minimum canopy cover is necessary in all sage-grouse seasonal habitats.

These arbitrary measures conflict with studies that indicate sagebrush cover preference differs between seasons. Thus, using a single percent cover is inappropriate and is not supported by the literature. A one-size-fits-all limit on disturbance to less than 3% of the total habitat is arbitrary, which is discussed in detail below. The United States Geological Survey (USGS) Report indicates that habitat fragmentation “generally begins to have significant effects on wildlife when suitable habitat becomes less than 30 to 50 percent of the landscape”, which directly contradicts the threshold stating that 70% of the landscape must be suitable habitat in order for the sage-grouse to persist.<sup>18</sup>

**Comment Number:** IDMTSG-14-0159-7

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Other deficiencies present in the NTT Report and associated studies include lack of independent authorship, methodological issues, and data quality issues such as failure to identify limiting factors, inadequate sampling, and use of inferior equipment.<sup>19</sup> Accordingly, any element of an Alternative chosen by BLM that relies on NTT will be legally flawed

**Comment Number:** IDMTSG-14-0159-8

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

While the NTT Report may have some experimental value, it must be narrowly considered in the context in which it was derived. Notably, at the time the NTT Report was prepared there was no USFWS directive to the states and Federal land management agencies. However, the landscape was fundamentally changed when the FWS issued the COT Report. The COT Report was designed to “serve as guidance to Federal land management agencies, state sage-grouse teams, and others in focusing efforts to achieve effective conservation for this species.”

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**Comment Number:** IDMTSG-14-0168-23

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

The NTT Report and EIS Alternatives B and D, which are based on the NTT Report, are fatally flawed. The EIS and NTT selectively presented information in support of certain pre-conceived conclusions, while ignoring contrary information. Key assertions in the EIS and the NTT report are both biased and in error, especially the frequently repeated. The NTT Report is not the best available science.

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**Comment Number:** IDMTSG-14-0178-8

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Other Sections:** 7.5

**Comment Excerpt Text:**

According to ES 14, Alternative B “focuses on restrictions on resource uses...”. Simply by reading the summary, it is clear that this alternative ignores the agencies’ multiple use mandates and proves that there is a predetermined desire to eliminate land use. Further, the use of the BLM National Technical Team (NTT) report is problematic as it contains overly burdensome recommendations that are not based on local conditions in Idaho. The NTT report fails to make use of the latest scientific and biological information available. According to an independent review of the report, it contains many methodological and technical errors, selectively presents scientific information to justify recommended conservation measures, and was disproportionately influenced by a small group of specialist advocates (Ramey, 2013). For these reasons, Alternative B and the NTT report should no longer be considered a suitable or appropriate management guide for sage grouse and no parts of the report should appear in the final LUPA/DEIS.

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**Comment Number:** IDMTSG-14-0180-10

**Organization1:**

**Commenter1:** C.L. Butch Otter

**Comment Excerpt Text:**

Failure to obtain the FACA letter in a timely manner coupled with such an implicit restriction on the Team’s ability to share the draft, provided governors no opportunity to evaluate whether appointees were actually adhering to the instructions of their sponsor states.

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**Comment Number:** IDMTSG-14-0180-11

**Organization1:**

**Commenter1:** C.L. Butch Otter

**Comment Excerpt Text:**

And, alarmingly, the NTT appears to tailor the recommendations to be consistent with legal settlements with environmental litigants, rather than an unbiased assessment of conservation alternatives.

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**Comment Number:** IDMTSG-14-0180-12

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Two of the four sub-objectives assert that 70% of the range within priority habitat needs to provide “adequate” sagebrush habitat to meet sage-grouse needs, and that discrete anthropogenic disturbances in priority habitat be limited to less than 3% of the total sage-grouse habitat regardless of ownership (NTT at 7). But the report does not address the issue of scale very clearly, so the accuracy of this data is questionable. Nor do these recommendations account for State specific differences as noted in Gov. Mead’s letter.<sup>52</sup>

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**Comment Number:** IDMTSG-14-0180-13

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The outside science reviewers’ concerns related to the lack of discussion on limiting habitat does not appear to have been adequately addressed, and is a significant omission because it fails to provide a mechanism for prioritizing management efforts and assumes the same risks are representative across the entire range.<sup>53</sup>

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**Comment Number:** IDMTSG-14-0180-14

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The NTT and “Appendix A” of the DEIS fail to provide reason or support for consolidating all sage-grouse seasonal habitat range-wide, regardless of relative importance or quality to sage-grouse populations.

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**Comment Number:** IDMTSG-14-0180-15

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

If this is indeed was a “science” document comprised of “scientists” –the science underlying these “game-changing” measures should have been completely validated before releasing the document. Notwithstanding the fact that BLM had almost three more years until the RMP revisions were due, the agency nonetheless felt it mission critical to release a flawed document.

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**Comment Number:** IDMTSG-14-0180-16

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

## 2. The NTT Report Does Not Provide Adequate Support for its Conclusions

The NTT Report has been used to support anthropogenic disturbance caps of less than five percent and total disturbance caps of less than 30 percent without any scientific data that they are: (1) scientifically defensible; (2) achievable; (3) would result in stable GSG populations; (4) would not result in irreparable harm to other species; and (5) would not unnecessarily have a negative effect on local economies.

The NTT report recommended numerous one-size-fits-all regulatory prescriptions, and made no allowance for recommendations for including local sage grouse conservation plans (i.e. county-level, working group, or private land) that have tailored conservation measures to local conditions, including unique habitat and threats, and socio-economic factors.

The new best management practices (BMP) proposed by the NTT are unnecessarily restrictive, are not supported by scientific information, and do not address specific cause and effect mechanisms that are known to be deleterious to sage grouse. The imposition of new BMPs was made without any tracking and testing of the effectiveness of currently required BMPs.

**Comment Number:** IDMTSG-14-0180-17

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

According to WAFWA, the NTT report provides valuable information, but it does not reflect all of the current science, especially that found in the Studies in Avian Biology volume “Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and Its Habitats” and other recent peer-reviewed publications.<sup>58</sup>

**Comment Number:** IDMTSG-14-0180-7

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The NTT Report is part of the BLM’s National Sage-Grouse Conservation Strategy. This strategy is highly bureaucratic, relying on the development of 15 or more teams. It is led by a sage-grouse coordinator that appears to have no real experience with either sage-grouse or sagebrush. This approach is heavily dependent on the National Technical Team. The goal of the National Technical Team was to ensure BLM management actions were effective and based on the “best available science.” Should not the test isn’t best available science it’s the data that matters and that data comes from the species manager – the State. To achieve that end, logically, the team would be comprised of highly qualified and knowledgeable scientists that would largely be independent of BLM. Instead, 78% of this 23 member team were federal employees; with 61% coming directly from BLM. Of the 23 members, none have more than 15 years of experience with sage-grouse or sagebrush or a substantial publication record. This is not for lack of highly knowledgeable, independent scientists to call on for such a study. In fact, at least two state and two university biologists, one of which Idaho heavily relied on, with a combined total of more than 100 years of experience dealing with sage-grouse were not involved. Out of twenty senior authors of chapters in the SAB volume on sage-grouse, only two were on the Technical Team. Neither of those two team members has more than 15 years working on sage-grouse. There were four authors of sage-grouse management guidelines, which were used in Alternative E, but none of these authors were on the Technical Team. This seems to violate the decision in Western Watersheds where the court found that while the Service consulted experts, the agency excluded them from the listing decision, thus violating the statutory requirement that “best science” be applied.<sup>36</sup> This

creates “opacity when transparency is required.”<sup>37</sup>

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**Comment Number:** IDMTSG-14-0180-8

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

A December 21, 2011 email exchange between Dwight Fielder (BLM Washington Office, Chief of Fish and Wildlife Conservation) and Pat Deibert (Service; National Sage-Grouse Coordinator) recognizes that some of the measures in the report were legally flawed, as described in a December 20, 2011 email from Jim Perry (BLM Washington Office, Senior Natural Resource Specialist). The BLM attempted to paper over this issue by adding a caveat that the document had not undergone policy or legal review.

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**Comment Number:** IDMTSG-14-0180-9

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

To qualify for an exemption from FACA, the State representatives to the NTT Team must have a letter from their respective governor.<sup>49</sup> These letters were sent only after the NTT Team met, developed a draft, and the issue was identified by the Office of the Solicitor on or around September 22, 2011.

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**Comment Number:** IDMTSG-14-0182-4

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

the key studies cited in the NTT Report, Lyon and Anderson (2003), erroneously characterized oil and gas development as having a negative effect on sage grouse nest initiation rates. That unsupported opinion has been cited by the BLM as a scientifically valid conclusion in the NTT Report. However, the authors acknowledged that the data they developed was not statistically significant, stating that their conclusions were based on subjective believe, stating: "Finally, even though nest initiation between disturbed and undisturbed hens was not statistically significant, we believe lower initiation rates for disturbed hens were biologically significant and could result in lower overall sage grouse productivity." Additionally, Holloran (2005) reported that nest success that was virtually identical and not significantly different between disturbed and undisturbed areas, using a much larger sample size compared to Lyon and Anderson (i.e., n=213 used by Holloran vs. n=77 used by Lyon and Anderson). Holloran also reported results indicating the probability of sage grouse survival was higher (61.5 +6.4%) in disturbed areas compared to less disturbed areas (29.6 +18.1%) or control areas (48.5 +14.4%).

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**Comment Number:** IDMTSG-14-0182-5

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

The requirement of 4-mile buffers and surface disturbance caps (whether they are 3% or 5%) is based on the

opinions of selected authors, some of whom were NTT members<sup>6</sup> and the erroneous assumption that a local and temporary displacement of sage grouse from an area of development establishes that a population decline has occurred. However, none of the cited studies actually ever documented a population decline. One of the most frequently cited reports, the unpublished dissertation by Holloran (2005), is outdated and proved incorrect in its prediction of population declines in the Pinedale area of -8.7 to -24-4% annually. More recent data from Wyoming has documented that the sage grouse population in Pinedale actually increased from 1990 to 2012. It has consistently been above statewide averages and has the highest density of sage grouse in the state.

6 The presence on the NIT of authors whose studies became the basis for the policy choices made in the NTI Report raises obvious questions regarding the quality and reliability of the analysis in the NTI Report, and consequently every NEPA document that relies upon it.

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**Comment Number:** IDMTSG-14-0201-2

**Organization1:** Wild Earth Guardians

**Commenter1:**

**Comment Excerpt Text:**

Development on previously existing oil and gas leases should be restricted to levels that will have no negative effect on sage grouse, in accordance with the recommendations of the BLM's own National Technical Team

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***Summary***

Commenters contended that the NTT report is not based on the best available science, contains technical and methodological errors, is not based on local conditions, and has not undergone adequate peer review. Commenters questioned why the NTT report was used when the IM requiring its use has expired.

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***Response***

A National Technical Team (NTT) was formed as an independent, science-based team to ensure that the best information about how to manage the greater sage-grouse is reviewed, evaluated, and provided to the BLM and the Forest Service in the planning process. The group produced a report in December 2011 that identified science-based management considerations to promote sustainable greater sage-grouse populations. The NTT report (NTT 2011) used the best current scientific knowledge to guide the BLM planning efforts through management considerations to ameliorate threats, focused primarily on priority greater sage-grouse habitats on public lands. The NTT report cited 122 references including published papers from the formal scientific literature such as Journal of Wildlife Management, Conservation Biology, Biological Conservation, Wildlife Biology, BioScience and others, as well as graduate theses and dissertations, conservation strategies, FWS 2010 finding, and others representing the best available science. The NTT report was intended to be used at a programmatic scale and may not reflect local conditions.

The BLM used the NTT report per BLM IM 2012-044 to construct an alternative that would meet the purpose and need. This report was not the only source of information for developing a range of alternatives (see Section 7.5, Range of Alternatives).

[NOTE TO BLM- Clarify in FEIS the policy requirements for Administrative Procedure Act (APA), NEPA relative to IM, and NTT and clarify the NTT process and FACA in the FEIS.]

BLM is implementing IM 2012-044 through the Greater Sage-grouse planning effort. When an IM expires without being superseded, it can still be applicable and provide guidance to the BLM. The fact that IM 2012-044 expired does not mean the BLM has no authority to continue to analyze the conservation measures identified in the NTT Report. The BLM is appropriately considering and evaluating the measures in the NTT

Report, in addition to any other relevant science, through the Greater Sage-grouse planning process.  
 {Note: Suggest asking for National justification of why the NTT was an appropriate source}

## **Section 7.2 - BER**

*Total Number of Submissions: 1*

*Total Number of Comments: 2*

**Comment Number:** IDMTSG-14-0151-34

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

### **Comment Excerpt Text:**

It does not adequately address threats posed by livestock grazing disturbances to microbiotic crusts, whose destruction by livestock helps paves the way for cheatgrass invasion. USDI Belnap et al. Tech. Bull 2000, Masters and Sheley 2001, Deines et al. 2007, Ponzettii et al. 2007.

**Comment Number:** IDMTSG-14-0151-35

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

### **Comment Excerpt Text:**

The Manier report also does not include a critical analysis of vegetation manipulation treatment harms. Recent review papers summarize large-scale problems with aggressive treatments of both sagebrush and pinyon-juniper. See Hess and Beck 2010 and 2012, Jones et al. 2013.

## ***Summary***

The BER contains outdated baseline literature and the EIS should be updated with suggested literature.

## ***Response***

[NOTE TO BLM: The BLM is reviewing suggested literature and will include where necessary.]

A baseline environmental report, titled Summary of Science, Activities, Programs, and Policies That Influence the Rangeland Conservation of Greater Sage-grouse (*Centrocercus urophasianus*) (referred to as the BER), was released on June 3, 2013, by the U.S. Geological Survey. The peer-reviewed report summarizes the current scientific understanding about the various impacts to greater sage-grouse populations and habitats and addresses the location, magnitude, and extent of each threat. The data for this report were gathered from BLM, Forest Service, and other sources and were the best available at the range-wide scale at the time collected. The report provides a framework for considering potential implications and management options, and demonstrates a regional context and perspective needed for local planning and decision-making.

The BLM reviewed the literature sources provided by commenters to determine if there were new or updated sources that should be considered in the EIS. BLM's findings of this review were... [insert the results from the literature review. While it doesn't directly address the BER report being updated, it's addressing the point that BLM did make the effort to consider new or updated info in the EIS in addition to the BER report.]

While there was consistent direction provided in alternative develop, such as BLM WO IM 2012-044, variation across sub-regionals was needed to accommodate the local issues and specific state and Forest Service requirements.

Alternative D was developed by the BLM in coordination with the Forest Service and local FWS. This alternative includes modifications to the conservation measures identified in the NTT report and is designed

to address local ecological site variability. This alternative also emphasizes balancing resources and resource use among competing human interests, land uses, and the conservation of greater sage-grouse habitat. Alternative E was developed from recommendations by the State of Idaho's greater sage-grouse task force and would apply to all BLM-administered and National Forest System lands located in the state. See Section 2.1.2 regarding alternative development and explanation of components of each alternative. {Note: Suggest including more justification of the BER in response}

### **Section 7.3 - COT**

*Total Number of Submissions: 9*

*Total Number of Comments: 17*

**Comment Number:** IDMTSG-14-0105-13

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

#### **Comment Excerpt Text:**

Vol2, Page 2-37: Regarding Alternative D- Habitat Triggers

1. A net 20 percent loss in mid-late sagebrush cover anywhere within the population area.
2. A net 10 percent loss of nesting habitat within the population area.
3. A net 10 percent loss of winter habitat within the population area.

It is unclear as to how these would be applied since there is no definition of "population area". It is entirely unclear as to how the status of the triggers would be discovered. The wording implies a far greater ability to precisely determine habitat loss than is the actual case. The methods and protocols for distinguishing population areas, seasonal habitats and for assessing the status of habitat triggers are not adequately defined and described.

The trigger would cause all PMMA areas to be managed as PPMA. Thus, the scope of the effect (in all PPMAs) of hitting a trigger is substantially greater than the assessment of trigger status in a "population area". Thus, a disastrous fire in some remote "population area" would trigger a change in management for the entire planning area. Such action is neither warranted nor productive.

The concept of habitat triggers, assessment of trigger status and resulting action or location of actions is unworkable and the ambiguity leaves future application of the concept to multiple interpretations and inconsistent application.

**Comment Number:** IDMTSG-14-0149-15

**Organization1:** Western Energy Alliance

**Commenter1:** Kathleen M. Sgamma

**Other Sections:** 7.1

#### **Comment Excerpt Text:**

Reliance upon the NTT Report and the COT Report is misplaced because these documents fail to meet established standards of scientific integrity under the ESA, the Data Quality Act, and Presidential and DOI memoranda and orders.

**Comment Number:** IDMTSG-14-0149-7

**Organization1:** Western Energy Alliance



**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

While the COT Report is intended to serve as a guidance document to federal agencies, states, and others, there are several data quality issues that should be taken into consideration before it is used to guide conservation efforts for the species. An independent review of the COT Report, which is attached to these comments, found that it is a selective review of scientific literature and unpublished reports on GSG, was not adequately or legitimately peer-reviewed, presents outdated information, overstates some threats to GSG while downplaying others, and relies on a threats analysis that contains methodological bias and error. [Full citation provided for this report: Data Quality Issues in the Greater Sage-Grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report. Dr. Rob Roy Ramey. (October 16, 2013).]

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**Comment Number:** IDMTSG-14-0149-8

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

the COT report does not represent a comprehensive scientific review; rather, it is simply an incomplete examination of limited literature and unpublished reports that were used to identify conservation objectives to ensure the long-term viability of the GSG. In fact, the COT report provides no original data or quantitative analyses and fails to review all of the available scientific literature on the GSG. Due to these significant flaws, we request that BLM reconsider its reliance on the COT report in the final LUPA/EIS and ROD.

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**Comment Number:** IDMTSG-14-0151-106

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

If:

- *Maximum number of males on lek routes [WHERE \_ CHZ, or CHZ plus IHZ?] declines by greater than 20% over a three year period compared to 2011 values*

- *A 30% or greater loss of sagebrush habitat is documented within defined breeding or wintering range over a five year period.* [Isn't this in conflict with Connelly et al. 2000 – where “treatments” are not to take out 20% over a 20 year period?]. This allows 30% in a five year period. This also means that even with a major fire or sage die-off in the best population remaining, action may not occur until a five year period is over].

- The infinite rate of change over 3 years starting with the baseline years 2009-2011 is significantly less than 1. [What does this mean?]. How does using these years affect the process?

There is no science cited to back up the claim that declines greater than 20% over a 3 year period “compared to 2011 values” would indicate a problem, but less than that would not

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**Comment Number:** IDMTSG-14-0151-29

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The Idaho State Plan does the following:

Divides ID sage-grouse habitat into Core (CHZ), Important (IHZ), Other (GHZ). It then takes the COT cuts one step further. It segregates the COT PAC area into two categories. These are Core and General. Yet the

COT PACs are the areas where the COT report as it made the cuts then remonstrated that there can be no loss in PACs. It shrinks the highest value land area (Core) even further.

**Comment Number:** IDMTSG-14-0151-33  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS at 1.1.2 fails to provide an adequate analysis and take a hard look at the negative impacts of the COT process and outcome. The COT did not undergo NEPA. The DEIS fails to take NEPA's required hard look at the severe blow the COT habitat cuts dealt to sage-grouse conservation, habitats and population viability in Idaho – and that will have adverse effects on viability of populations shared with neighboring states. The DEIS cannot blindly accept the results of the COT group (various agency staff and a Wyoming operative). Prominent sage-grouse scientists distanced themselves from the COT. The harmful and negative aspects of the COT habitat cuts and segregation must be fully aired and subject to scrutiny under NEPA in this current DEIS process. They have not been.

**Comment Number:** IDMTSG-14-0151-39  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The COT perpetuated the WAFWA categorization of sagebrush habitat that has been used to mask concerns about loss of increasingly isolated populations and openly track declines – the Management Zones. Grouse populations were lumped in SMZs – based on generalized vegetation communities. But the vegetation communities of the contrived MZs have no real relation to the health/condition of sage- grouse habitat, or the viability of the species. Sage-grouse can survive just fine in sagebrush vegetation in any of the SMZs – and can move between some of the SMZs. The use of this SMZ category allows agencies to overlook sharp declines (or the disappearance/extirpation) of entire populations (the Weiser population in ID or the Quinn PMU in NV for example), or overlook very low numbers until it is too late) The MZs typically lump several smaller or isolated populations in with a couple of larger ones in the 7 vegetation-based SMZs.

**Comment Number:** IDMTSG-14-0151-41  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Sweeping claims were made in the COT, but habitat and population analysis necessary to understand actual habitat conditions, trajectory of habitats (including degree of degradation and vulnerability to cheatgrass/medusahead/brome expansion) degree and severity of stresses that actually exists, degree of habitat fragmentation (and along with this the needs to re-connect and restore habitats to provide for viable populations), grazing disturbance load, etc. are not apparent in the report.

**Comment Number:** IDMTSG-14-0159-33  
**Organization1:** American Exploration and Minind Association  
**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Alternative D's Population Areas are an unrealistic method of categorizing sage-grouse habitat. Alternative

D's Priority zone contains 7 million acres and the medial zone has 1.3 million acres. This is in contrast to more balanced approach in the Governor's Alternative of 4.9 million acres in CHZ and 2.7 million acres in IHZ.

As Alternative D is written, its implementation is virtually irrelevant tripping a trigger only extends protection to an additional 1.3 million acres. By contrast, the Governor's Alternative is able to protect twice the acreage so triggers will actually have an impact on habitat protection. The Governor's Alternative includes 95% of the sage-grouse population in Idaho within CHZ and IHZ's 7.6 million acres. Thus, BLM's inclusion of an additional 700,000 acres equates to saving at best, a few more percentage points, without affecting a listing determination.

Alternative D delineates habitat outside of the COT Priority Areas of Conservation (PACs) into all three of its zones. This is unnecessary and inefficient. The Governor's Alternative's CHZ contains 73% of the male sage-grouse population, whereas GHZ contains 5%. However, through BLM's map, it would dedicate resources to areas outside of PACs because it has designated these areas as higher priority. It is unclear why it has done so, when both the USFWS and the State have not. The BLM should comply with the COT's directive and coordinate these designations with the State to ensure efficiency in both priorities and use of scarce public resources.

**Comment Number:** IDMTSG-14-0178-33

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

COT Report (1-6) – We are concerned about any management prescriptions based on the USFWS Conservation Objectives Team (COT) report. The COT provides no original data or quantitative analysis. It fails to provide a comprehensive and unbiased review and perpetuates outdated information and beliefs. The COT proposed to regulate activities with little to no scientific support that those activities cause population declines.

**Comment Number:** IDMTSG-14-0179-8

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

Regarding the time period to look at changes relative to the 2011 baseline, Alternative E currently proposes a three-year period. It should not be necessary to wait three years to determine that a trigger has been reached. If a 20% decline is detected in the first or second year, a determination should be made that a trigger has been reached.

Regarding the soft triggers, additional details are needed on what type of review would be required, how long such a review might take, what role the Local Working Groups would play, what types of adaptive management adjustments could be implemented, and how long it might take to implement them.

**Comment Number:** IDMTSG-14-0179-9

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

We strongly recommend that the trigger incorporate additional protections that focus on other primary threats as well as secondary threats. The Conservation Objectives Report does not simply say focus on any one single issue:

Stop population declines and habitat loss. There is an urgent need to “stop the bleeding” of continued population declines and habitat losses by acting immediately or reduce the impacts contributing to population declines and range erosion.

-Greater Sage-Grouse Conservation Objectives Final Report, p. 31.

**Comment Number:** IDMTSG-14-0206-6

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The adaptive management triggers should be based on habitat and population change in both IHZ and CHZ. As explained above, maintaining populations in IHZ is essential to accomplishing long-term conservation of sage grouse. Expanding the area covered by the adaptive management mechanism helps ensure, that the plan is capable of “stopping the bleeding” should significant habitat losses or population declines occur in the IHZ.

Another reason we favor Alternative D’s approach to the trigger is that limiting the adaptive management mechanism to CHZ is a significant change from the State of Idaho’s Draft Alternative for Sage Grouse Conservation (June 29, 2012), which was issued after the Idaho Sage Grouse Task Force deliberations. That draft proposed linking the triggers to changes in both CHZ and IHZ. We are not aware of any justification for altering the State’s original recommendation.

Therefore, we recommend adding “IHZ” to the adaptive management triggers recommended in Alternative E.

**Comment Number:** IDMTSG-14-0206-7

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The first “hard trigger” proposed in Alternative E should be edited for clarity. The current language would invoke the adaptive management response in the event of a:  
20% decline in maximum number of males counted and a finite rate of change significantly below 1.0 within CHZ within a CA over a period of three years

The final Plan should make it clear that the trigger is tripped in the event of a 20% decline in any three-year period relative to the 2011 baseline. Some might read the trigger as currently written to allow sequential three-year periods with population declines of up to 20% each. Such an interpretation, of course, would lead to a wholly insufficient level of protection.

**Comment Number:** IDMTSG-14-0232-2

**Organization1:****Commenter1:**Katie Fite**Comment Excerpt Text:**

There was no public process whatsoever associated with the COT. There was no public opportunity to provide comments or attend meetings held by the COT group. From what we have been able to determine, the USFWS COT group consisted of Bob Budd (who - as was shown in his talk in the State Capitol building in Boise two years ago - pushes the core model as a way to exclude habitat from protection so development can occur, and who also casts aside and pretty much scorns controls on grazing), some state game departments, and a handpicked group of federal officials from various agencies.

Not only are we are concerned that the COT group violated FACA, it appears that politics and not conservation, enhancement and restoration of sage-grouse habitats, drove this process to a significant degree.

In Idaho, nearly all sage-grouse habitat and populations in eastern Idaho were cut by the COT. This is mirrored by the ID Gov Plan. This area is targeted, as you may know, for large-scale phosphate development by Simplot and others with very close ties to the state of Idaho and the Governor (Simplot's former son-in-law).

Elsewhere in the state, areas with several occupied leks are inexplicably cut from the COT. The Weiser population, though small, has persisted for a considerable period of time - notably **without hunting** and (like the sharptail pop. occupying the same habitat,) relies significantly on CRP lands which **had not been being grazed much**. It is written off by the COT. This Weiser area just so happens to coincide with the area of Idaho now targeted for potential oil and gas leasing and where it is reported that 100,000 acres or more of leases are already held by energy interests.

In the area of Craters of the Moon, a very large portion of the Big Desert area was also cut by the COT and mirrored by ID- despite numerous very important active leks. I note that this and some other inexplicable cuts by the COT may be favoritism shown to a large group of woolgrowers or other grazing interests whose livestock annually inundate this Big Desert area in spring when sage-grouse are nesting.

**Comment Number:** IDMTSG-14-0242-5**Organization1:**U.S. Fish and Wildlife Services**Commenter1:**Dennis Mackey**Comment Excerpt Text:**

We recommend that the FEIS include both a hard and a soft trigger. Fire primarily impacts sage-grouse through the direct loss of sagebrush cover. Land cover of sagebrush has been identified through various research methodologies as one of the primary factors affecting the long-term persistence of sage-grouse within a landscape (Walker et al. 2007, Aldridge et al. 2008, Wisdom et al., 2011, Knick et al. 2013). Wisdom et al. (2011) found that "preferably 65% of the landscape needed to be dominated by sagebrush for long-term sage-grouse persistence." Similarly, Aldridge et al. (2008) found that a high probability (>0.9) of long-term sage-grouse persistence required 65% sagebrush cover within a 30.77-km radius scale and Knick et al. (2013) found that "90% of the active leks had at least 40% of the large-scale landscape dominated by sagebrush."

***Summary***

Commenters had two distinct views regarding the COT report. One group considered the report overly biased and not representative of the best available information. The other group suggested the DEIS was not fully consistent with the COT report habitat mapping and therefore requires revision to address those deficiencies.

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### ***Response***

In March 2012, the FWS initiated a collaborative approach to develop range-wide conservation objectives for the greater sage-grouse to inform the 2015 decision about the need to list the species and to inform the collective conservation efforts of the many partners working to conserve the species. In March 2013, this team released the Conservation Objectives Team (COT) report based upon the best scientific and commercial data available at the time that identifies key areas for greater sage-grouse conservation, key threats in those areas, and the extent to which they need to be reduced for the species to be conserved. The report serves as guidance to Federal land management agencies, State greater sage-grouse teams, and others in focusing efforts to achieve effective conservation for this species.

Table 2-20 demonstrates how the BLM and Forest Service management actions under each alternative address the threats to the populations in the Idaho and southwestern Montana sub-region. In Idaho, Core and Important Habitat Zones under Alternative E were used to derive the PACs in the COT. The BLM and Forest Service have continued to work with the USFWS and State agencies to develop a proposed plan.

[NOTE TO BLM: Clarify in the FEIS the validity of NTT, COT, and BER as relative to the established standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders. Ensure the FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS). Clarify MZs and population monitoring efforts in the FEIS.]

### **Section 7.4 - Policy Guidance**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0257-6

**Organization:** EPA, region 10

**Commenter:** Christine B.

### **Comment Excerpt Text:**

we recommend that the Final LUPAIEIS include additional information on the action alternatives' consistency with the USFWS's Evaluation Criteria for Conservation Plans. The evaluation criteria are (i) the certainty that the conservation effort will be implemented, and, (ii) the certainty that the conservation effort will be effective. Consider including the following information:

- the relative certainty of adequate resources for full implementation (i.e., funding, conservation partners etc.) under the alternatives;
- the relative consistency of the alternatives with existing management practices and regulations;
- indications of where procedural requirements, like further Land Use Plan amendments or acts of congress, would be required to implement a conservation measure;
- the relative reliance on voluntary participation to meet conservation objectives;
- a comparison of implementation schedules;
- indications that all necessary parties will approve required agreements - such as for collaborative monitoring efforts;
- more detailed comparisons of how the alternatives' conservation measures would reduce identified threats;
- incremental conservation objectives and dates for achieving them;
- quantifiable and scientifically defensible parameters that will demonstrate achievement of objectives;

- provisions for implementation and effectiveness monitoring

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### ***Summary***

The BLM and Forest Service should include additional information to improve consistency with USFWS's Policy for Evaluation of Conservation Efforts.

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### ***Response***

The BLM and Forest Service are working closely with the USFWS to ensure certainty of implementation and effectiveness to the extent possible. However, certain management actions, such as restoration activities, are contingent on funding availability and thus some uncertainty remains.

### **Section 7.5 - Range of Alternatives**

*Total Number of Submissions: 28*

*Total Number of Comments: 90*

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**Comment Number:** IDMTSG-14-0030-1

**Organization1:**

**Commenter1:**Greg Cooper

**Comment Excerpt Text:**

The Final draft strategy should include adequate buffers to occupied leks in order to conserve the species. The proposed 1-mile no surface occupancy buffer is not large enough to encourage the use of leks. (Strategy 14) 1 mile is too close to encourage breeding. According to the (NTT) report a buffer of 4 miles is necessary to provide adequate protection from surface disturbance. Four miles should be the surface disturbance buffer for surface disturbance of leks.

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**Comment Number:** IDMTSG-14-0030-2

**Organization1:**

**Commenter1:**Greg Cooper

**Comment Excerpt Text:**

The NTT report recommends limiting surface disturbance to no more than 3 percent per section (SGNTT 2011:8) Knick (2013) found that 99 percent of active Greater Sage- Grouse leks are in landscapes with less than 3 percent disturbance within 5km of the lek. D has no limits (ES.6.5) and the E alternative recommends a 5% limit (ES.6.6). These alternatives allow for too great of disturbance levels and will lead to a further decline in Greater Sage-Grouse numbers.

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**Comment Number:** IDMTSG-14-0046-3

**Organization1:**

**Commenter1:**Jim Gerber

**Comment Excerpt Text:**

The other planning issue that is missing is predator control. Predator control is an integral part of protecting

and conserving sage grouse. Studies in Idaho show predators account for 26 to 76 percent of lost sage grouse nesting sites annually.

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**Comment Number:** IDMTSG-14-0049-2

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

We note that the DEIS identifies Alternatives D and E as co-Preferred Alternatives. We do not believe that either of these alternatives do enough to truly protect sage-grouse and sage-grouse habitat, and we believe that implementation of either of these alternatives would not rise to the level of adequate regulatory mechanisms sufficient to prevent listing of the sage-grouse under the Endangered Species Act. These two alternatives, in fact, are the weakest action alternatives in the DEIS and are not supported by the best available science. We thus urge the BLM and USFS to go further in adopting amendments that will truly benefit and help recover sage-grouse in this region.

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**Comment Number:** IDMTSG-14-0049-21

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Structural range improvements can also cause negative impacts to sage-grouse. Water infrastructure and fences to manage livestock pose increased mortality risks to sage-grouse. Within specially designated priority sage-grouse habitats, development or modification of water infrastructure should be done in a way that minimizes the potential propagation of West Nile virus. Existing and new fencing should be marked, modified or removed to reduce sage-grouse strikes and mortality, particularly near leks, in known flight paths, in concentrated winter range, or where fence strikes have been documented.

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**Comment Number:** IDMTSG-14-0049-23

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Based on the science, we propose that anthropogenic disturbances in general sage-grouse habitat are also limited to 3% of a square mile or section of habitat. Moreover, although we have proposed to designate all priority habitat as special designations for sage-grouse that would not allow for any discrete anthropogenic disturbances, if the agencies do not adopt that recommendation, we support applying this 3% cap to priority habitat. In both priority and general habitat, where the 3% cap is already exceeded, no new disturbances should be allowed and restoration activities should be employed.

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**Comment Number:** IDMTSG-14-0049-3

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

we now slightly alter this request to propose that all lands identified as preliminary priority habitat in the DEIS in the Pocatello, Upper Snake, and Dillon Field Offices receive some form of special management designation for the protection of sage-grouse and sage-grouse habitat. Thus, we request a total of 2,590,351 acres of



preliminary priority habitat for sagegrouse  
on BLM lands in the Pocatello, Upper Snake, and Dillon Field Offices be specially designated for sage-grouse

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**Comment Number:** IDMTSG-14-0049-32  
**Organization1:** Greater Yellowstone Coalition  
**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

As with specially designated priority sage-grouse habitats, management of livestock grazing in general habitat should incorporate sage-grouse habitat objectives in all grazing allotments or permit renewals. Allotments not in compliance with rangeland health standards must be brought back to a healthy condition that continues to function as sage-grouse habitat.

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**Comment Number:** IDMTSG-14-0053-3  
**Organization1:** Hagenbarth Livestock  
**Commenter1:** Jim Hagenbarth

**Comment Excerpt Text:**

Attempts have been made in recent published studies by various individuals to identify the impact of various activities on the GRSG and their behavior. These studies are then used to develop regulations designed to mitigate the activity or disturbance. Some activities may even be prohibited in core habitat. This exercise is necessary to satisfy the USFWS and the court that a plan has the structure necessary to mitigate an activity's threat to the GRSG and its habitat. These recent studies are short term and may not reflect the bird's ability to adapt to changes in its environment. The bird has been adapting for centuries and will continue to do so. It is important that regulations be made, but essential to recognize we need to better define, measure and monitor these disturbances and study how the bird adapts on a long term basis. This is where the adaptive management discussions in the plan become so important. The plan must allow the regulations designed to mitigate disturbances to be adjusted as we better understand all the threats and their impacts. It seems like regulations are easy to make, but hard to change

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**Comment Number:** IDMTSG-14-0056-17  
**Organization1:** Helmick Ranch  
**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

There is no published research that supports restricting or closing grazing, in areas adjacent to burns, in order to compensate for loss of habitat attributable to wildfire. (DESR- 5, page 2-134). This proposed management action makes an assumption that grazing has negative impacts to grouse, but there are no compelling data to support such an assertion.

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**Comment Number:** IDMTSG-14-0056-6  
**Organization1:** Helmick Ranch  
**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Alternative B also puts sage grouse at the center of nearly every management decision. While avoiding a listing of the bird is commendable, BLM must not forget its statutory multiple-use mandate. Furthermore, multiple-use management is a wise management approach in that "Successful management of ecosystems

threatened by multiple stressors requires development of ecosystem conservation plans rather than single species plans.”(Davies et al. 2011). That being said, adaptive management action B-SSS-5 (outlined in Table 2-18, page 2-101) that provides for certainty to address unintended negative consequences on sage grouse is an acceptable strategy that would to be beneficial if employed in any selected alternative

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**Comment Number:** IDMTSG-14-0056-9

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Other Sections:** 7.6

**Comment Excerpt Text:**

• Alternative E includes the requirement for any assessment to determine whether or not a given area has the ability to provide sage grouse habitat (See Appendix D, page D-36). This is critical because as the maps are difficult to decipher on the large scale, and personal knowledge of the area reflects that some areas identified as within PPGH or Core habitat do not have the ability to provide for sage grouse needs.

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**Comment Number:** IDMTSG-14-0088-1

**Organization1:** Madison County Board of Commissioners

**Commenter1:** David Schulz

**Comment Excerpt Text:**

Reduce the recommended buffer area around lek areas from one mile to 0.6 miles. No scientific data exists to justify a greater distance and the USFWS has accepted this in Wyoming. Also existing in USFWS policy is the recommendation to restrict overall surface disturbance to 5% per 640 acres.

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**Comment Number:** IDMTSG-14-0088-2

**Organization1:** Madison County Board of Commissioners

**Commenter1:** David Schulz

**Comment Excerpt Text:**

Eliminate the three-year cessation of development activities if grouse populations fall regardless of the cause and through no fault of human or development activity. Drought, disease, wildfire and other natural disasters are beyond human control.

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**Comment Number:** IDMTSG-14-0098-1

**Organization1:** Montana Fish, Wildlife and Parks

**Commenter1:** M Jeff. Hagener

**Comment Excerpt Text:**

Given that Alternative D requires no net unmitigated loss of priority habitat, FWP recommends local, professional consultation when determining acceptable areas for habitat loss and appropriate compensatory mitigation.

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**Comment Number:** IDMTSG-14-0098-2

**Organization1:** Montana Fish, Wildlife and Parks

**Commenter1:** M Jeff. Hagener

**Comment Excerpt Text:**

Montana FWP recognizes some restoration potential on BLM land that was historically seeded to nonnative grasses in the Dillon area. FWP supports the restoration recommended in the 2013 Upper Horse Prairie Watershed EA as an experiment to determine how effective various treatments are at restoring and enhancing sage-grouse habitat. We also recognize that not all non-native seeded areas are good candidates for restoration and suggest the BLM consult with experts in the field of restoration ecology before attempting any large-scale restoration effort.

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**Comment Number:** IDMTSG-14-0098-4

**Organization1:** Montana Fish, Wildlife and Parks

**Commenter1:** M Jeff. Hagener

**Comment Excerpt Text:**

Research specifically on wind energy is still developing; however impacts to sage-grouse from wind development are expected to be similar to impacts from oil and gas development and anthropogenic surface disturbance. The BLM may want to consider excluding rather than avoiding wind energy in priority habitats until additional information becomes available. This would be consistent with recommendations in the U.S. Fish and Wildlife Conservation Objectives Report and other current management guidance.

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**Comment Number:** IDMTSG-14-0100-1

**Organization1:**

**Commenter1:** Justin Naderman

**Comment Excerpt Text:**

None of the alternatives as proposed will prevent sage grouse listing over the long term because they propose no active habitat restoration. As written the alternatives may delay listing for a few years but as sage grouse habitat continues to fragment, and decline in quality, sage grouse numbers and distribution will also continue to decline. Therefore, whatever alternative is chosen it must include a section on active habitat restoration to minimize listing over the long term.

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**Comment Number:** IDMTSG-14-0105-14

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

Vol 2, Page 2-37 & 38: Regarding Alternative D - Population Triggers

A net 20% decline in the average maximum count of males per lek within a consecutive 3 to 5 year period, relative to the appropriate 3 to 5 year baseline average (2009-2011).

A finite rate of population change significantly below 1.0 within the population area for a given 3 to 5 year period, relative to the appropriate 3 to 5 year baseline average (2009-2011)

It is unclear how any particular percentage decline in hard count numbers under the first trigger would translate to a downward trend relative to the second trigger. Thus, there is no rational basis for having two

triggers based on the same information but simply analyzed differently.

While the second trigger may seem more "scientific and precise" it is limited by application to imprecise data. The second "population trend" trigger is unnecessary and burdensome. Placing the first trigger on a 5 year rolling average would provide both direct population change and trend information that would also account for short term climatic variation and events. When coupled with a habitat trigger, population data would provide all information necessary to adjust management strategies. This approach may require some adjustment of the trigger point.

The triggers do not distinguish the area to which they would apply. Since they do not mention a "population area" it is assumed they apply to changes occurring within the entire planning area. Accordingly, management strategy changes based thereon would also apply to the entire planning area. Such action would be inefficient and ineffective

**Comment Number:** IDMTSG-14-0130-10

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

The management prescriptions for Alternative D fail to recognize that located within designated PPMA, PMMA and PGMA habitat there are sites that will not or cannot support sage grouse. Mandating management actions, guidance and restrictions across the entire area without acknowledging and giving consideration for flexibility within these "sites of incapability /unsuitability" is unacceptable.

**Comment Number:** IDMTSG-14-0130-21

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

"Impacts from transmission lines constructed before 2002 are likely fully manifested." It is probable this same manifestation applies to Range Improvements and the need to modify projects constructed prior to 2002 is questionable. Also, as stated previously, the DEIS fails to recognize the benefits range improvements provide.

**Comment Number:** IDMTSG-14-0130-3

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Within the Goals and Objectives listed for All Alternatives, there is no rationale or basis for determining what constitutes acceptable numbers, acceptable levels or acceptable thresholds necessary to maintain abundance and distribution of sage grouse.

**Comment Number:** IDMTSG-14-0131-1

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The Draft LUMA/EIS does not provide a detailed technical basis for these prescriptive recommendations. Furthermore, there is no or little discussion of the “science” that is the basis of conservation of the GSG and also the uncertainty of such “science”. For example, the NTT report has the objective of a minimum 50-70% of the acreage in sagebrush cover for long-term persistence of the GSG. However, other studies, such as a USGS review of the GSG (USGS 2013) states that fragmentation “generally begins to have significant effects on wildlife when suitable habitat becomes less than 30 to 50 percent of the landscape” (page 26).

**Comment Number:** IDMTSG-14-0151-10

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In addition to failing to take a “hard look” at the range of ecological and socioeconomic issues identified in the preceding section, the analysis in the DRMPA/DEIS contains a number of flaws that must be remedied before the final plan amendment is issued.

The DEIS segregates habitat that BLM itself found to meet the Priority habitat requirements into a lesser “Medial” category, and otherwise minimizes conservation to levels far below the NTT. Varying habitat categories between the BLM and the state confuse the matter more.

The DEIS presents insufficient baseline information and an inadequate range of alternatives.

**Comment Number:** IDMTSG-14-0151-19

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In addition, within any percentage limits on anthropogenic disturbance, fire should be included as was recently recommended by USFWS in its comments on the Northwest Colorado Greater Sage-grouse DLUPA/DEIS. TAILS 06E24100-2014-CPA-0001 at p. 1. The preferred alternative excludes fire from anthropogenic disturbance. Fences, small roads, and water developments must also be included in “anthropogenic disturbance.” BLM’s definition does not explicitly include fences, water developments /water haul sites, supplement sites or small roads often related to livestock facilities.

A major problem with the DEIS is its failure to define livestock grazing as a surface-disturbing activity. The NTT report defines grazing as a “diffuse disturbance,” which is also the way that fire is classified. Like fire, grazing should be considered as a surface-disturbing activity in the DEIS.

**Comment Number:** IDMTSG-14-0151-87

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In D, there would be a “no net unmitigated” loss of PPMA and PGMA. [Note: At times, this is stated as no

net loss]. This means there could be large-scale loss as long as there was some kind of mitigation of uncertain effectiveness. Does no net loss means you actually make up for the loss, not just go through the motions of doing something, vs. no net unmitigated loss? How will effectiveness be gauged? vs. no unmitigated loss. Please explain this under all Alternatives.

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**Comment Number:** IDMTSG-14-0151-90  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

What is meant (DEIS 2-200) by “in addition to avoidance and exclusion in Alt A, all GRS habitat would be managed as avoidance”?

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**Comment Number:** IDMTSG-14-0153-26  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar  
**Other Sections:** 7.7

**Comment Excerpt Text:**

In Idaho, noise from military overflights can create noise in excess of 100 dBA. Disturbance from low-altitude military overflights from Mountain Home Air Force Base has been raised as a concern in this EIS. DEIS at 4-15. Please analyze the frequency and number of low-level overflights historically and currently over identified sage grouse habitats, the altitude at which these overflights occur, the types of aircraft making such low-level overflights, and the estimated decibel noise levels at affected leks. Sage grouse Priority and General Habitats should thus be closed to low-level military overflights during the breeding and nesting season for sage grouse. We recommend that noise limits be imposed in the RMP, allowing no greater than 32 dBA noise levels in sage grouse nesting and breeding habitats

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**Comment Number:** IDMTSG-14-0153-27  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Of course, eliminating fences has the effect of reducing collisions to zero. With this in mind, fences in sage grouse Preliminary Priority and General Habitats should be inventoried to identify the minimum necessary fencing required for livestock management. In the Idaho – Southwest Montana planning area, there are 12,600 miles of fences within Preliminary Priority Habitat, and 6,200 miles of fences within Preliminary General Habitat. DEIS at 3-74. Fences determined to be unnecessary should be removed, especially in flat areas near leks, and remaining fences should be outfitted with reflectors or other visibility devices to reduce sage grouse collisions. No new fences should be permitted in sage grouse habitats within Priority Areas. New fences should be precluded on all lands within Priority Habitats, and the RMP should include language to prioritize dismantlement of existing fences and addition of visibility markers for those that remain.

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**Comment Number:** IDMTSG-14-0153-28  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

In Priority Habitat, the NSO Condition of Approval of 4 miles from a lek is prescribed in the NTT

recommendations but does not appear in any of the alternatives for this EIS. The lack of any lek buffer as a COA in sage grouse habitats will result in major impacts to active leks within the PPMA and PMMA areas (where applicable) themselves, as this proximity results in significant impacts to breeding grouse on the lek and will result in development occurring in the midst of the most prime nesting habitats that surround the affected lek.

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**Comment Number:** IDMTSG-14-0153-30

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 8.1

**Comment Excerpt Text:**

BLM must ensure that all Core Area/Priority Habitat and/or ACEC protections are nondiscretionary standards, so the agency can rely on them as conservation measures that are adequate and reliable in the context of Endangered Species decisionmaking by the U.S. Fish and Wildlife Service.

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**Comment Number:** IDMTSG-14-0153-38

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Connectivity Areas need to be established to connect Priority Habitats. In addition, it is critically important for BLM to identify and protect winter concentration areas. These lands, once identified under the RMP supplement, should be withdrawn from future mineral leasing and entry of all kinds, with Conditions of Approval applying NSO stipulations inside and within 2 miles of these areas, disturbance limits of 3% per square mile and one wellpad per 640-acre section, exclusion of overhead powerlines, and seasonal road closures within the winter habitats

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**Comment Number:** IDMTSG-14-0159-20

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The No Action Alternative fails to properly analyze the existing conservation measures and authorities the BLM is already using to conserve the GRSG and its habitat. The No-Action Alternative proffered by the Agencies must acknowledge Manual 6840 as the status quo, baseline policy governing present GRSG conservation. If BLM believes that such existing regulatory mechanisms are inadequate, then the burden is on the agency to explain how and why this is so.

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**Comment Number:** IDMTSG-14-0159-21

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

If BLM does not believe the conservation measures prescribed in Manual 6840 are sufficient, then it must explain and quantify those deficiencies. Otherwise, the public cannot gauge and understand the need (if any) for land use management changes in BLM's Preferred Alternative.

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**Comment Number:** IDMTSG-14-0159-34

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Alternative D's Approach to the "Threat" To Infrastructure is Overly Restrictive  
Alternative D is unnecessarily restrictive for an additional 2.1 million acres in their Priority designated areas, and 700,000 additional total acres. In contrast to the Governor's Alternative, in CHZ, infrastructure is generally precluded except for valid existing rights, rights and/or incremental upgrade and/or capacity increase of existing subject to some limitations. Essentially, CHZ is as restrictive as is legally allowed.

The CHZ protects 73% of the male lek population. Infrastructure is generally permitted subject to certain criteria in IHZ. This is a practical approach, reflective of what sage-grouse actually need, in contrast to blanket restrictive policies across a large landscape. The CHZ and IHZ were the result of Dr. Jack Connelly's extensive study of sage-grouse and his determination of how resources could be prioritized to ensure maximum viability and long-term preservation. This is also a realistic approach to future economic development in Idaho, being flexible to accommodate the needs of Idaho as its population grows.

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**Comment Number:** IDMTSG-14-0159-36

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

As discussed earlier, although the "No-Action" Alternative is required by NEPA, it is nonetheless required to accurately portray the proposed environmental baseline to anchor the NEPA analysis. Notwithstanding that the GRSG has been in some state of official administrative status at the Department of the Interior since 2002, the No-Action Alternative fails to account for a key preexisting BLM tool: Manual 6840.

Additionally, Alternative A fails to catalog and calibrate the several voluntary candidate conservation agreements in existence in the proposed action area as they may be providing momentum to GRSG conservation. The Final EIS documents should not be published without a full, detailed and accurate No-Action Alternative that incorporates and analyzes a full range of conservation measures, including existing strategies, and will provide future monitoring data that will satisfy USFWS' requirements. This will better fit the Purpose, Need, and Objectives of the LUPA DEIS and would be consistent with FLPMA, the Mining Law of 1872, the Mining, Minerals and Policy Act, and BLM's sage-grouse conservation goals and objectives.

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**Comment Number:** IDMTSG-14-0166-3

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak



**Comment Excerpt Text:**

Alternative D states that its goal is to “Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners,” and Alternative E states that its goal is to “Conserve the GRSG and its habitat to avoid a listing under the ESA.”<sup>27</sup> However, the appropriate goal, used in Alternatives C and F should be “to maintain and increase abundance and distribution of greater sage grouse”.

Maintaining current populations, which have been in a continuous decline, will not provide secure long term populations well distributed across the range. Indeed, if current populations were adequate, the greater sage grouse would not have been found to be warranted for listing under the Endangered Species Act. Given current levels of habitat fragmentation, individual populations will become increasingly isolated reducing genetic interchange. Smaller populations are at greater risk of extirpation. Further, given the pervasive spread of highly flammable invasive plants (cheatgrass) largely from grazing and the resulting increase in wildfire, sage brush habitat will be lost to fires over the next several decades. Therefore, recovery efforts must take stochastic events into account and aim to increase, rather than maintain sage grouse populations.

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**Comment Number:** IDMTSG-14-0166-4

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak

**Comment Excerpt Text:**

The Preferred Alternatives fails to incorporate measures that would result in exclusion of activities known to be detrimental to sage-grouse or sage-grouse habitats, relies on discretionary measures such as “avoidance” rather than “exclusion” of activities, includes numerous exceptions and exemptions where protective measures will only apply on a conditional basis. This is particularly relevant to the BLM objective of initiating “proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA” (Manual 6840.02(B)), since the lack of adequate regulatory mechanisms to conserve sage-grouse and their habitats was identified as a primary threat leading to the FWS’ warranted but precluded finding for the species.

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**Comment Number:** IDMTSG-14-0166-5

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak

**Comment Excerpt Text:**

The agencies recognize that management techniques will not be implemented uniformly across the planning region. Instead, the agency will “focus on the highest quality GRSG habitat [and] limit any impacts of disturbance from development in these areas.”<sup>39</sup> As noted by the BLM and the Forest Service, a consequence of this action is it could result in “shifting disturbance and related forage loss to nonhabitat on BLM-administered and other lands.” First, the term “highest quality” GRSG is undefined in the LUPA/EIS, making it impossible for us to determine how much GRSG habitats are actually covered under this criterion. Furthermore, the BLM fails to acknowledge that by focusing on the “highest quality” GRSG habitat it will essentially neglect all other GRSG habitats it does not deem to meet this standard. In providing that temporary or longer-term adjustments “may” be required Alternative D allows BLM to implement grazing adjustment at its discretion upon unsatisfactory allotment evaluations. Thus this discretionary approach will fail to improve sage-grouse habitats on all grazing allotments, which is necessary to conserve and recover sage-grouse populations in the Sub-Region’s grazing allotments.<sup>40</sup>

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**Comment Number:** IDMTSG-14-0166-8

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak

**Other Sections:** 2

**Comment Excerpt Text:**

A coalition of environmental organizations<sup>73</sup> developed and previously submitted a new alternative for consideration entitled, the Sage-Grouse Recovery Alternative.<sup>74</sup> Our recommendations build upon some of the proposed actions contained in the Sage-Grouse Recovery Alternative (Alternative “F” in the DEIS, although the DEIS did not faithfully follow all of the recommendations), and so they are not identical. For instance, our recommendations also incorporate very recent research results on the impacts of noise and ravens on sage grouse. In addition, our proposed system of sage grouse conservation areas system includes winter

distribution habitat and does not solely focus on mapping breeding and brood-rearing areas; within sage grouse conservation areas we generally buffer active leks with a 10 km buffer for surface occupancy and new roads, and 7.6 km for new trails, while Alternative F uses more conservative buffers.

A. The BLM Should Designate a System of Sage Grouse Conservation Areas (“SGCA”)

The Center requests that the agencies map and implement a conservation reserve system for the recovery of the sage grouse. Tools to implement and sustain such as system are limited however the agencies should take advantage of all existing land designations to do so, and pursue more durable and lasting designations through rule-making and Congressional actions.<sup>75</sup> Primary among existing designations are the Area of Critical Environmental Concern authorized in the BLM’s regulations, and the USFS may “adopt special designations through plan amendment or revision” to conserve natural resources (36 CFR § 219.27). The USFWS should administratively designate sage grouse conservation areas in the current planning process with similar purpose and management as BLM ACECs to conserve sage-grouse and other sagebrush dependent species on National Wildlife Refuges in the planning area.

A primary concern is that none of the administrative designations now in existence provide for long term assurances that the lands will be managed for the recovery and conservation of the grouse. As a parallel effort, the Center urges the agencies to pursue new authorities to enter into long term conservation for the grouse another species that provide for durable protections.

<sup>73</sup> Including the American Bird Conservancy, Defenders of Wildlife, the Sierra Club, and Wild Earth Guardians.

<sup>74</sup> Attached

<sup>75</sup> For fuller discussion, refer to the Sage-Grouse Recovery Alternative, pages 28-31.

At the heart of the effort to avoid the extirpation and extinction of the sage grouse, there must be a profound and fundamental recognition that further habitat declines are very serious in nature. Early conservationist Aldo Leopold once said, “To keep every cog and wheel is the first precaution of intelligent tinkering.”<sup>76</sup> Due to the heavy impacts of man, fire and climate change on the landscape, we are facing a crisis of losing the “cogs” that form an intact and functional sage grouse ecosystem. Immediate steps are needed to stabilize the losses and lay the foundation for future recovery.<sup>77</sup>

Towards this end, the Center and others are proposing a system of habitat reserves to provide for the conservation and recovery of the grouse. Rationale and details for this proposed reserve system are now provided.

Greater sage grouse are a landscape species.<sup>78</sup> Migratory populations have large annual ranges that can encompass >2,700 km<sup>2</sup> / 667,184 ac.<sup>79</sup> Large-bodied birds like sage grouse are generally more strongly

affected by habitat loss and fragmentation.<sup>80</sup> Although conclusive data on minimum patch size is unavailable, conserving large expanses of sagebrush steppe is the highest priority to conserve sage-grouse.<sup>81</sup> <sup>82</sup> One study identified ten lek complexes that were >5,000 km<sup>2</sup> / 1,235,526 ac) (range 5,395–100,288 km<sup>2</sup>) and 8 of them contained >100 leks (range 143–1,139).<sup>83</sup> Some sagebrush-dependent species use different habitat composition, structure or succession than sage grouse prefer. Protecting large blocks of habitat will also help preserve a mosaic of different habitats of varying successional stages used by sage-grouse and other sagebrush-dependent species.

Preserving large habitat islands in itself is not enough – these centers must be inner-connected for several reasons.

76 Leopold, Aldo. In: Round River: From the Journals of Aldo Leopold (published 1953) by Oxford University Press, page 147.

77 Knick, Steven T., Hanser, Steven E., and Kristine L. Preston. 2013. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: implications for population connectivity across their western range, U.S.A. Ecology and Evolution. John Wiley & Sons Ltd., page 2,

78 Connelly et al. 2011a.

79 Knick, S. T. and J. W. Connelly. 2011b. Greater Sage-grouse and sagebrush: an introduction to the landscape. Pages 1-9 in S. T. Knick and J. W. Connelly (eds). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

80 Winter, M., D. H. Johnson, J. A Shaffer. 2006. Does body size affect a bird's sensitivity to patch size and landscape structure? Condor 108(4): 808-816.

81 Aldridge, C. L., S. E. Nielsen, H. L. Beyer, M. S. Boyce, J. W. Connelly, S. T. Knick, M. A. Schroeder. 2008. Range-wide patterns of Greater Sage-grouse persistence. Diversity and Distrib. 14(6): 983–994.

82 Connelly et al. 2011b.

83 Knick, S. T. and S. E. Hanser. 2011. Connecting pattern and process in Greater Sage-grouse populations and sagebrush landscapes. Pages 383-405 in S. T. Knick and J. W. Connelly (eds). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

Knick et al. stated that, “Species that have multiple interconnected populations are more likely to persist because risk of extirpation caused by regional events...connectivity among populations ensures that recolonization can occur following local extirpation assuming that sufficient habitat remains.”<sup>84</sup>

In addition, some sage grouse populations (known as “migratory”) move long distances between seasonal habitats, sometimes in two distinct movements.<sup>85</sup> Annual movements of 40-160 km by sage grouse along established routes have been reported.<sup>86</sup> Thus Beck et al. recommended conserving habitat corridors to facilitate easier movement for migratory sage grouse.<sup>87</sup>

Protecting smaller habitat patches can help connect larger areas. Successful conservation strategies for sage grouse would preserve networks of populations and/or habitat patches, including connecting smaller lek complexes within 18 km that could serve as intermediary islands of habitat for dispersing sage grouse.<sup>88</sup>

#### a. Reserve Components

Several habitat characteristics capable of being mapped are included as components in the reserve system—courtship, breeding and nesting areas, brood rearing areas, winter habitats and linkages.

## i. Courtship, breeding and nesting areas

In the spring, during the breeding season, sage-grouse males seek out courtship areas, known as “leks” that are open areas of bare soil, short grass steppe, windswept ridges, or exposed knolls in which to gather and perform their ritualized mating displays and breed with females.<sup>89</sup> An important factor affecting lek location appears to be proximity to as well as configuration and abundance of nesting habitat.<sup>90</sup>

Leks are normally “traditional”, and occur in the same location each year. Some leks studied by early investigators have persisted for 28–67 years since first counted. The presence of broken bird-point arrowheads on some leks suggests that sage-grouse had used those sites for at least 85 years. Leks and the number of attending males are regularly used to monitor the long-term status of populations because of their traditional locations.<sup>91</sup>

84 Knick et al. 2013.

85 Connelly et al. 2011a.

86 Ibid.

87 Beck, J. L., K. P. Reese, J. W. Connelly, M. B. Lucia. 2006. Movements and survival of juvenile greater sage--grouse in southeastern Idaho. *Wildl. Soc. Bull.* 34(4): 1070--1078.

88 Knick and Hanser. 2011.

89 Manier et al. 2013.

90 Connelly, J.W., C.A. Hagen, and M.A. Schroeder. 2011c. Characteristics and dynamics of greater sage-grouse populations. Pages 53-67 in S. T. Knick and J. W. Connelly (eds). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biol. Series, vol. 38, Univ. Calif. Press. Berkeley, CA.

91 Ibid.

Although the actual lek sites are typically open areas, they are usually located in the midst of denser shrub stands, which together provide the necessary combination of visibility, protection, food, and thermal regulation.<sup>92</sup>

In a recent study looking at greater sage grouse across six western states, it was reported that 90% of the active leks were surrounded by areas having greater than 40% sagebrush cover. Further, 99% of the active leks were in landscapes with less than 3 % of the area in human development.<sup>93</sup> Successful leks occurred in areas with low road densities – less than 1 km/km<sup>2</sup> of secondary roads, less than .05km/km<sup>2</sup> of highways, and less than .01 km/km<sup>2</sup> of interstate highways. Another pertinent finding was that habitat suitability was highest when power line densities were less than .06 km/km<sup>2</sup>; leks were absent where power line densities exceeded .2 km/km<sup>2</sup>. With respect to communication/cellular towers, leks were absent when tower densities exceeded .08 km/km<sup>2</sup>.<sup>94</sup>

Wisdom et al. reported that areas extirpated of sage grouse had 27 times the human density, 3 times more area in agriculture, were 60% closer to highways, and had 25% higher density of roads than what was found in occupied habitat. Also, it was found that power lines and cellular towers had significant impacts on whether or not a habitat was occupied.<sup>95</sup>

Studies published by Braun in 1977 and Connelly in 2000 initially set the standard that leks should be buffered by a 3.2 km or 3.1 mile radius, both to provide security for the grouse and to acknowledge the fact that many, but by no means all, female grouse will nest in the immediate area of the lek.<sup>96</sup>

However, more recent studies have suggested that the 3.2 km is questionable as to whether or not it

adequately provides for the conditions needed for successful breeding and nesting.

It was found in one study that a 3 km buffer encompassed only 45% of the nesting females associated with that lek, while a 5 km buffer accommodated 64% of the nests. It was also reported that nests located within 1 km of another nest tended to have lower nesting success likely due to enhanced prey detection by predators.<sup>97</sup> The same study further suggests that to protect and maintain sage grouse populations residing in relatively contiguous sagebrush habitats, managers should minimize or halt actions that reduce the suitability of nesting habitats within 5 km of a lek until detailed site specific monitoring suggested otherwise. It also noted that a substantial number of females nested distances greater than 5 km from a lek and that this additional increment of individual recruitment could be important for population viability.<sup>98</sup>

92 Manier et al. 2013.

93 Knick et al. 2013.

94 Ibid.

95 Wisdon et al. 2011.

96 Connelly, J. W., M. A. Schroeder, A. R. Sands, C. E. Braun. 2000. Guidelines to manage sagegrouse populations and their habitats. *Wildl. Soc'y Bull.* 28(4): 967-985.

97 Holloram, Matthew J. and Stanley H. Anderson. 2005. Spatial distribution of greater sage-grouse nests in relatively contiguous sagebrush habitats. *The Condor* 107:742-752.

98 Ibid.

For a related grouse, the U.S. Fish and Wildlife Service recommended "... avoiding placing wind turbines within 5 miles [8 km] of known leks (communal pair formation grounds) in known prairie grouse habitat".<sup>99</sup>

Johnsgard indicated that there was no obvious relationship between lek location and nest site. In 5 different studies involving more than 300 nests the average distance between lek and Sage-grouse nest where the females was first seen or captured was 3.5 mi (5.6 km).<sup>100</sup>

A majority (~90%) of nesting and brood-rearing habitat was within 10 km (6.2 miles) of active leks in Alberta (Aldridge and Boyce 2007); 97 percent of nests were found within 6.2 miles of leks where females were marked in the Powder River Basin in Montana and Wyoming.<sup>101</sup>

Walker et al. in another study found that the impacts from energy development on lek persistence and nesting were still apparent at a distance of 6.4 km from the disturbance.<sup>102</sup>

Connelly et al. reported in their assessment for the Western Governors' Association that road traffic within 7.6 km had adverse impacts on male grouse attendance at leks.<sup>103</sup>

## ii. Brood-raising areas

Brood rearing habitats are a very important component of sage-grouse habitats. A mosaic of upland sagebrush vegetation intermixed with mountain meadows and spring systems compose brood rearing habitat.

Placing a heavy focus on habitat protection around leks is not suitable for ensuring the viability of sage grouse populations. Studies have shown that both nest and brood rearing habitats are on average 6 km from leks, and it is not until 10 km from leks that one reaches the threshold where 90% of the habitat occurs.<sup>104</sup>

Brood occurrence is greater in more heterogeneous sagebrush stands, where patchy cover reduces predator efficiency but still affords necessary forb resources. Sage grouse are more abundant in patchy habitats containing a mix of mesic, forb-rich foraging areas interspersed within suitable sagebrush escape cover.<sup>105</sup>

- 99 Manville, A.M., II. 2004. Prairie grouse leks and wind turbines: U.S. Fish and Wildlife Service justification for a 5-mile buffer from leks; additional grassland songbird recommendations. Division of Migratory Bird Management USFWS, Arlington, VA, peer-reviewed briefing paper. 17 pp.
- 100 Johnsgard, P.A. 2002. Grassland grouse and their conservation. Smithsonian Institution Press, Washington and London, cited in Manville, A.M., II. 2004, page 11.
- 101 Doherty, K. E., D. E. Naugle, B. L. Walker. 2010. Greater Sage-grouse nesting habitat: the importance of managing at multiple scales. *J. Wildl. Manage.* 74(7): 1544-1553.
- 102 Walker et al. cited in Naugle et al. 2011.
- 103 Connelly et al. 2004.
- 104 Aldridge, Cameron L. and Mark S. Boyce. 2007. Linking Occurrence and Fitness to Persistence: Habitat-Based Approach for Endangered Greater Sage-Grouse. *Ecological Applications* 17(2):508-526.
- 105 Manier et al. 2013. Page 21.

Broods are typically found in areas near nest sites for the first 2–3 weeks after hatching. Such habitat needs to provide adequate cover and areas with sufficient forbs and insects to ensure chick survival in this life stage.  
106

As the chicks get older, sage-grouse tend to move into more moist areas (streambeds or wet meadows) because as herbaceous vegetation dries out, wetter areas provide more forbs and insects for hens and their chicks.<sup>107</sup> Droughts resulting in reduced cover can make these habitats risky for sage grouse chicks, particularly if livestock grazing intensities have exacerbated the vegetative declines.<sup>108</sup>  
iii. Wintering habitat

As previously mentioned, although leks are important focal points for breeding and subsequent nesting in the surrounding region, other seasonal use areas and habitat requirements may be equally limiting to sage-grouse populations.<sup>109</sup>

Suitable and diverse winter habitats are critical to the long-term persistence of grouse populations.<sup>110</sup> As summer ends, the diet of sage grouse shifts from a diet of insects, forbs and sagebrush to one comprised almost entirely of sagebrush.<sup>111</sup> In winter, the grouse depends heavily on sagebrush for cover, habitat selection being driven by snow depth, the availability of sagebrush above the snow, and topographic patterns that favorably mitigate the weather.<sup>112</sup>

Abundance of sagebrush at the landscape scale greatly influences the choice of wintering habitat. One study found that the grouse selected for landscapes where sagebrush dominates over 75% of the landscape with little tolerance for other cover types.<sup>113</sup> Because appropriate wintering habitat occurs on a limited basis and because yearly weather conditions influence its availability, impacts to wintering habitat can have large disproportional effects on regional populations. One study in Colorado found that 80% of the wintering use occurred on only 7% of the area of sagebrush available.<sup>114</sup> Additionally, some degree of site fidelity to winter areas is suspected to exist, and wintering areas not utilized in typical years may become critical in severe winters.<sup>115</sup>

106 Ibid.

107 Ibid.

108 Aldridge and Boyce, 2007.

109 Knick et al. 2013.

110 NDOW 2012.

111 Doherty, Kevin E., David E. Naugle, Brett L. Walker, and Jon M. Graham. 2008. Greater Sage-Grouse Winter habitat Selection and Energy Development. *J. of Wildlife Management* 72(1):187/195.

112 Manier et al. 2013. Page 21.

113 Doherty et al. 2008.

114 Ibid.

115 Caudill, Danny, Terry A. Messmer, Brent Bibles, and Michael R. Guttery. 2013. Winter habitat use by juvenile greater sage-grouse on Parker Mountain, Utah: implications for sagebrush management. *Human-Wildlife Interactions* 7(2):250-259, Fall 2013.

Lower elevation sagebrush winter habitat used by sage grouse may also constitute important winter areas for big game and early spring forage areas for domestic livestock. Due to differing vegetative condition requirements, land treatments on lower elevation sagebrush areas to increase big game or livestock forage at the expense of sagebrush cover and density could have long-term negative consequences for the grouse.116

Sage grouse in the Powder River Basin were 1.3 times less likely to use otherwise suitable winter habitats that have been developed for energy (12 wells/4 km<sup>2</sup>), and avoidance was most pronounced in high-quality winter habitat with abundant sagebrush.117

#### iv. Linkages

Because use and availability of these seasonal habitats are spread across a given landscape, sage-grouse require vast areas of contiguous sagebrush to meet their needs on an annual basis.118 Although leks are important focal points for breeding and subsequent nesting in the surrounding region, other seasonal use areas and habitat requirements may be equally limiting to sage-grouse populations. Population size and isolation can have serious negative impacts on genetic variability and population persistence.119

Science informs us that populations of rare species in small, disjunct areas of occupied range have a high risk of extirpation, and that the probability for extinction increases for populations that become increasingly small and isolated.120

Naugle et al. recently observed, that the severity of impacts to sage grouse from human disturbances, in particular energy development dictate the need to shift from a local to a landscape view for basing conservation actions.121

Any conservation reserve system for sage grouse must ensure the connectivity between metapopulations are preserved. GIS modeling can identify sage-grouse habitat, at a larger scales. There are limitations to a GIS-designed reserve system—for instance, within areas identified by GIS modeling as nesting habitat, there is some local variability in which sites are actually suitable for nesting, nests may be clumped in one area and not another, or local topography makes a linear distance from a lek meaningless. Still, for purposes of identifying crucial habitat for the grouse it is a crucial first step. As inventory and telemetry work advance, the system can be fine-tuned. The important thing is that key habitats and linkages not be lost and the precautionary principle applied to sage grouse management. 122

116 Caudill et al.2013.

117 Doherty et al. 2008.

118 Manier et al. 2013.

119 Knick et al. 2013

120 Wisdom et al. 2011.

121 Naugle, D.F., K.E. Doherty, B.L. Walker, M.J. Holloran, and H.E. Copeland. 2011. Energy development and Greater Sage-Grouse. Pp. 489-503 in S.T. Knick and J.W. Connelly (editors). *Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats*. Studies in Avian Biology (vol. 38). University of California Press. Berkeley, CA.

122 The precautionary principle states: “Precautionary Principle states that when an activity causes some threat or harm to the public or the environment, general precautionary measures should be taken. When a

scientific investigation proves that there is a possible risk in doing some activity, then this principle should be applied. Internationally, one of the most important expression of the Precautionary principle is the Rio Declaration from the United Nations Conference on Environment and Development. Principle 15 of the Rio Declaration reads:

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

This principle is applied in the context of human activities on the environment and human health.

In U.S the precautionary principle is not expressly mentioned in any laws or policies. Despite U.S. acceptance of the precautionary principle in international treaties and other statements, little work has been done to implement this principle.” From: <http://definitions.uslegal.com/p/precautionary-principle/>

## A. Threats and Management Direction

The DEIS identified about a dozen issues and threats to be considered in the land use plan amendment process. What follows is the Centers brief reaction to theses and recommendations for addressing them. We separate our recommendations into two general categories – inside our proposed sage grouse conservation areas (“SGCAs”) and sage grouse habitat outside of them.

### a. Energy Development and Transmission

The Center strongly supports and advocates for energy policies that rapidly phase out fossil- based sources in favor of renewable sources, including ending fossil fuel extraction on public lands, and supports renewable sources of energy such as wind, solar and geothermal, with the goal in mind of halting the rapid rise of greenhouse gas concentrations in the atmosphere and slowing the tide of climate disruptions.

At the same time, the Center is highly concerned about the impacts from poorly sited renewable energy projects on rare species and their habitats. We advocate for locating renewable energy projects on private or previously disturbed lands near transmission lines, or through roof-top solar distributive-community systems.

The threats from energy developments are many pronged. In addition to the direct impacts of destruction of actual habitat by the footprint of the project, secondary and indirect impacts due to energy development include avoidance of previously used areas due to species psychology, increased predation, traffic-associated mortality, increased chance and spread of diseases such as the West Nile virus.

Transmission lines—a key component of renewable energy development—also negatively impact sage grouse populations. One study found that the mean distance to electric transmission lines was greater than 2 times further in occupied range than in extirpated range.<sup>123</sup>

<sup>123</sup> Wisdom et al. 2011.

The Center brings to your attention recent research on the impacts of ravens on sage grouse and other species in sagebrush habitats, with emphasis on how it relates to raven use of transmission lines.

Common raven populations in the western United States have more than quadrupled over the last 40 years.<sup>124</sup> This increase is believed to be a result of human alterations of natural habitats that provide subsidies and benefits to the ravens. For instance, road-kills, trash dumps and landfills, and livestock operations provide readily available sources of food. Water developments for livestock, irrigation and sewage lagoons provide new water sources. But with respect specifically to energy development, tall structures (e.g., power poles and transmission towers) constructed by humans provide ravens with elevated perches and



nesting substrate in areas where natural tall structures (e.g., trees) are rare or nonexistent. 125

Howe et al. found that ravens selected nest locations that were (1) in close proximity to transmission lines; (2) in close proximity to land cover edges; and (3) within areas that contained abundant edge formed by adjoining land cover types. Selection for edge-dominated areas, specifically edges between sagebrush and grasslands and nonnative cover types, suggests that ravens are taking advantage of new habitat conditions caused by a combination of habitat fragmentation and conversion. 126

In their research Howe and her co-authors, found that ravens preferred nest sites that were closer to transmission lines than expected based on availability. Transmission poles provided nesting substrates and perches taller than any other substrate present in their study area. 127

Increased presence of ravens can be deleterious to other species within the geographical range of ravens, and raven abundance has been positively correlated with predation of eggs or nestlings of other birds breeding within raven range, including eggs and nestlings of sage grouse. 128 In another study nests in fragmented habitats were approximately 9 times more likely to be depredated than those in contiguous habitat. 129

It is quite clear from observation and reported science that ravens are increasing and benefiting from fragmentation and human changes on the landscape. As this occurs, there will be continued negative consequences to sage grouse nesting success and recruitment into the breeding population.

124 Sauer, J. R., J. E. Hines, J. E. Fallon, K. L. Pardieck, D. J. Ziolkowski Jr., and W. A. Link (2011). The North

American Breeding Bird Survey, Results and Analysis 1966–2009, Version 3.23.2011.

125 Howe, Kristy B., Peter S. Coates and David J. Delehanty. 2014. Selection of anthropogenic features and vegetation characteristics by nesting Common Ravens in the sagebrush ecosystem. *The Condor, Ornithological Applications*, Vol. 116, 2014, pp. 35-49.

126 Howe et al. 2014.

127 Ibid.

128 Coates, P.S. and D. J. Delehanty. 2010. Nest predation of Greater Sage-Grouse in relation to microhabitat factors and predators. *J. of Wildlife Management*, 74:240-248.

129 Vander Haegen, W. M., M. A. Schroeder, and R. M. DeGraaf. 2002. Predation on real and artificial nests in shrubsteppe landscapes fragmented by agriculture. *The Condor* 104:496–506.

The infrastructure associated with energy development within sagebrush ecosystems threatens the contiguous habitats remaining in the western United States. The linear right-of-ways associated with wind and other energy developments likely provide anthropogenic nesting subsidies and fragmented landscapes, both of which increase nesting opportunities for ravens. Preventing fragmentation by transmission lines, roads, and other human interventions is integral to stemming the increase and range expansion of raven populations. 130

We recommend the following strengthened management approaches to minimize further degradation of sage grouse habitats from energy-related development.

Management Prescriptions:

i. Management Inside SGCAs in sage grouse habitat

- Exclude these areas from new energy leasing and rights-of-way.
- Whenever possible, bury existing transmission lines within 10 km from active leks.
- Institute seasonal restrictions on surface occupancy within 10 km from leks during courtship and early

brood-rearing periods.

- No new road construction within 7.6 km of active leks.
- If existing disturbed area in the SGRA exceeds 3% of the surface area, institute measures to provide additional mitigation to offset the impacts on the grouse.

ii. Management outside SGCAs in sage grouse habitat

- Institute seasonal restrictions on surface occupancy within 5 km from leks during courtship and early brood-rearing periods.

b. Livestock Grazing and Wild Horses

Grazing by settlers during the latter part of the 19th and early 20th centuries was largely unregulated and seriously depleted native forbs and grasses needed by sage-grouse. Historic grazing practices also facilitated invasions by non-native plants, including cheatgrass. A conservation assessment of sage grouse and its habitats found that impacts attributable to historic overgrazing have not been remedied, because, “plant communities still are not given rest from grazing” and “distribution of livestock has changed because water developments have increased the area that could be grazed.” Consequently, the assessment stated, “We cannot conclude that the effect of grazing has been reduced because even reduced numbers of livestock may still exert a larger influence on those habitats.” 131

130 Howe. Et al. 2014.

131 Connelly et al. 2004.

Livestock grazing remains the most widespread use of land in the sagebrush biome. Domestic livestock continue to alter the sagebrush steppe by consuming native grasses and forbs, trampling sagebrush, and spreading nonnative weeds like cheatgrass. The introduction of invasive plant species increases the risk and severity of wildfires, which can irreversibly alter the composition of the ecosystem. Livestock grazing also compacts the soil, destroying the microbotic soil crusts that retain moisture and limit wildfire. In addition, grazing livestock degrade riparian areas when, during hot periods, they congregate around water sources and shady areas, damaging streams, springs, seeps, and wet meadows, which are also crucial for the grouse.132  
133

Standards and guidelines for management of public grazing lands are established by local resource advisory councils and must address habitats and conservation measures for endangered, threatened, proposed, candidate, or other at-risk or special status species. Under this set of criteria for rangeland health, 58% of lands that have been assessed (25% of all lands under management by the U.S. Bureau of Land Management) (including non-sagebrush habitats) met the standards or were making progress towards meeting those standards. Livestock were a factor in 36% of the assessed lands not meeting standards (15% of the all lands). Another 6% of the assessed lands were not meeting standards for causes other than livestock grazing. Fifty-seven percent (>37 million ha) of the public lands managed by the U.S. Bureau of Land Management have not been assessed.134

For further documentation of the impacts of livestock and grazing on sage grouse and its habitats we refer you to the Sage-Grouse Recovery Alternative, and incorporate these comments as our own.135

The Center emphasizes our agreement with the Sage-Grouse Recovery Alternative regarding the treatment of livestock grazing as a diffuse disturbance on sage grouse habitat.136 The readily and all too often observed sacrifice zone of utter destruction that occurs around watering, salting and gathering corrals is anything but diffuse. As Holechek and others observed, depending on topography, areas of severe degradation, or “sacrifice areas” around water sources, including water developments, can extend from one to several miles from water sources.137

132 Ibid.

133 Holloram and Anderson. 2005.

134 Connelly et al. 2004, page 7-34.

135 Pages 16-21.

136 Sage-Grouse Recovery Alternative, pages 20-21.

137 Holechek, J. L., R. D. Pieper, C. H. Herbel. 2001. RANGE MANAGEMENT: PRINCIPLES AND PRACTICES. 4th ed. Prentice-Hall. Upper Saddle River, NJ.

Given the state of degradation and the pervasive nature of livestock grazing, we recommend establishing a utilization rate of 25-30% while meeting sage grouse habitat objectives. While definitions of light grazing use vary, numerous references have settled on a general 25 percent harvest coefficient for allocating forage for livestock.<sup>138</sup> Although this rate is more conservative than others prescribed for light grazing, it allows both forage species and livestock to maximize their productivity, allows for error in forage production estimates, accounts for the potential effects of drought, and supports multiple use values.<sup>139</sup> Holecheck et al. also noted that, because most ranchers have difficulty monitoring and measuring annual grazing utilization (and the BLM doesn't regularly monitor and collect utilization information), use of grazing coefficients higher than 25 percent "invariably leads to land degradation...when drought occurs because of rancher reluctance [to reduce livestock numbers]."<sup>140</sup> Limiting livestock grazing to 25 percent utilization would also support other sage-grouse habitat objectives, such as maintaining a minimum stubble height.<sup>141</sup> A case study of the Antelope Springs Allotment in southern Idaho demonstrates that ranching operations can be successful and improve sage-grouse habitat using a 20 percent utilization standard.<sup>142</sup>

We recommend the following strengthened management approaches to minimize further degradation of sage grouse habitats from livestock grazing and the impacts from feral wild horses.

#### Management Prescriptions:

##### i. Management inside SGCAs in sage grouse habitat

- Issue no new grazing permits.
- Identify existing grazing allotments where permanent retirement of the grazing privileges are feasible, and proceed with such retirements.
- Avoid all new structural range improvements, and prohibit water developments and salting within 10 km of active leks.
- Authorize no new water developments for diversion from spring or seep sources.
- Ensure new or rehabilitated water developments are designed to use best management practices to limit and mitigate potential impacts from the West Nile virus.
- Remove, modify or mark fences in areas of moderate or high risk to sage grouse collisions.<sup>143</sup>
- Institute 25-30% grazing utilization standard on existing allotments while meeting objectives for sage grouse habitat conditions.
- Prioritize completion of land health assessments and ensure grazing systems and practices under permit are designed and required to meet sage grouse habitat objectives. Institute timely monitoring to ensure objectives are being met.
- Manage riparian and wetland areas to meet properly functioning condition standards. Manage wet meadows to maintain perennial forbs and a rich species mix needed for sage grouse brood-rearing.
- Review free-roaming horse and burro herd management plans with sage grouse habitat objectives in mind. Aggressively manage herds to maintain them at or below herd management objectives.

138 Holechek, J. L., R. D. Pieper, C. H. Herbel. 2010. RANGE MANAGEMENT: PRINCIPLES AND PRACTICES. 6th ed. Prentice-Hall. Upper Saddle River, NJ (citing Troxel and White 1989; Galt et al. 2000; Lacey et al. 1994; Johnson et al. 1996; White and McGinty 1997; NRCS 1997)).

139 See generally Holechek et al. 2010, id.

140 Holecheck et al. 2010, at 157.

141 See Holechek et al. 2010, at 164; see also Manier, D. J., D. J. A. Wood, Z. H. Bowen, R. M. Donovan, M. J. Holloran, L. M. Juliusson, K. S. Mayne, S. J. Oyler-McCance, F. R. Quamen, D. J. Saher, A. J. Titolo. 2013. Summary of science, activities, programs, and policies that influence the rangewide conservation of greater sage-grouse (*Centrocercus urophasianus*). U.S. Geological Survey, Open-File Report 2013–1098; available at <http://pubs.usgs.gov/of/2013/1098/>.

142 Stuebner, S. "Jared Brackett -- Ranching in a Fishbowl," Times-News (Twin Falls, ID) (Dec. 29, 2013).

143 Stevens, B. S. 2011. Impacts of fences on Greater Sage-grouse in Idaho: collision, mitigation, and spatial ecology. Masters thesis. University of Idaho. Moscow, ID.

## ii. Management outside SGCAs in sage grouse habitat

- Identify existing grazing allotments where permanent retirement of the grazing privileges are feasible, and proceed with such retirements.
- Avoid all new structural range improvements, and prohibit water developments and salting within 10 km of active lets.
- Authorize no new water developments for diversion from spring or seep sources.
- Ensure new or rehabilitated water developments are designed to use best management practices to limit and mitigate potential impacts from the West Nile virus.
- Remove, modify or mark fences in areas of moderate or high risk to sage grouse collisions.<sup>144</sup>
- Institute 25-30% grazing utilization standard on existing allotments while meeting objectives for sage grouse habitat conditions.
- Manage rangelands to meet properly functioning condition standards. Manage wet meadows to maintain perennial forbs and a rich species mix needed for sage grouse brood-rearing.
- Manage free-roaming horse and burro populations at levels demonstrated to achieve and maintain sage grouse habitat objectives.

## c. Landscape-scale changes and vegetation management

The Center addresses this issue by defining vegetation management as treatments to achieve and protect sage grouse life-cycle habitat needs and the control and prevention of noxious and invasive species.

The need for vegetation management to manage for specific resource objectives arises from changes to the natural ecosystems, either through natural changes in succession or state, or from large scale disturbances such as wildfires, spread of invasive and non-native species, climate disruption, or other human alterations to ecosystems.

The DEIS does a credible job of documenting the ecosystem changes that have occurred over the past 100+ years.

144  
Ibid.

The Center believes it is important to state that human-induced landscape-scale changes to sage grouse ecosystems pose a dire threat to the long term continued existence of the species. We are not alone. Miller et al. noted that sagebrush habitats are severely stressed across much of the range, and their total area likely will decline in the relatively near future as a result of invasive species, fire, and climate change.<sup>145</sup>

At lower elevations and in the more arid portions of the sage grouse range, the catastrophic spread of cheatgrass, aided and abetted by the impacts from over-grazing and changes in fire frequency and intensity has led to a lasting, if not permanent changes in ecosystem states. Repeat fires that eliminate or reduce shrubs, native grasses, and forbs; disturb soils and biological crusts; and release nutrients have allowed cheatgrass and other introduced annuals to replace the native shrub and herb layers. The resultant landscape is largely composed of introduced annuals, and is more susceptible to annual weather patterns and varies greatly from year to year, depending on moisture availability. Long term changes in climate that facilitate or enhance invasion and establishment by invasive annual grasses further exacerbate the fire regime and accelerate loss of sagebrush habitats.146

At higher and cooler elevations, changes in fire frequency and intensity have come at the expense of sagebrush ecosystems in a different manner. Under pre-European settlement conditions, wildfires and indigenous planned fires kept pinyon pine and western junipers (“PJ”) confined to areas where fires would not typically reach – mainly rocky terrain where the fuels needed to carry the fire were patchy and disjunct. Once modern settlers arrived in the mid-1880s this pattern changed. Heavy livestock grazing initially greatly reduced the fine fuels needed to carry fires, and later active human intervention suppressed fires to prevent their spread. As a result, PJ species were able to establish seedlings in grass and shrubland areas where formerly fires would have eliminated them. This then was the beginning of the woodland expansion into sage grouse habitat that continues today.147 148 Prior to 1860 two-thirds of the landscape was treeless and occupied by sagebrush-steppe communities. Today, less than one-third of the landscape remains treeless and more than 90 percent of the trees have established since the 1860s. These data support the need for active management in tree removal. In the absence of disturbance, woodlands will continue to expand, mature, and close.149

145 Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, and A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. Pp. 145–184 in S. T. Knick and J. W. Connelly (editors). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology (vol. 38), University of California Press, Berkeley, CA.

146 Ibid.

147 Miller, R.F., and R.J. Tausch. 2001. The role of fire in pinyon and juniper woodlands: a descriptive analysis. Pages 15–30 in K.E.M. Galley and T.P. Wilson (eds.). Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species. Fire Conference 2000: the First National Congress on Fire Ecology, Prevention, and Management. Miscellaneous Publication No. 11, Tall Timbers Research Station, Tallahassee, FL.

148 Miller, Richard F.; Tausch, Robin J.; McArthur, E. Durant; Johnson, Dustin D.; Sanderson, Stewart C. 2008. Age structure and expansion of piñon-juniper woodlands: a regional perspective in the Intermountain West. Res. Pap. RMRS-RP-69. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research

Station. 15 p.

149 Ibid.

Ibid.

#### Management Prescriptions:

##### i. Management inside of SGCAs in sage grouse habitat

Restoring sage grouse habitat that is degraded or fragmented might be useful tool for the benefitting the species. However, these programs are likely to be both difficult and expensive, and may take centuries to achieve a complete restoration of a functioning system of sagebrush habitats within a landscape mosaic.150 The obvious and best way to provide for the species at least in the short to intermediate term is to protect the remaining existing habitat, which is the intent of the Center’s proposed conservation reserve system.

- Where it will achieve sage grouse habitat objectives, passive restoration approaches should be favored over active methods.
- Any vegetation treatment plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring of treated areas.
- Ensure that vegetation treatments create landscape patterns which most benefit sage--grouse. Only allow treatments that are demonstrated to benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat objectives (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage--grouse habitat).
- Identify and prioritize sage-grouse habitat for restoration projects based on environmental variables that improve chances for project success.<sup>151</sup> Prioritize restoration in seasonal habitats that are thought to be limiting sage--grouse distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).
- Restrict activities in SGCAs that facilitate the spread of invasive species, including recreational and commercial use by off-road vehicles.
- Do not use prescribed fire as a tool in low elevation areas where the potential for cheatgrass invasion is above low.
- Retain sagebrush canopy cover at or above what is expected for that ecological site, consistent with sage-grouse habitat objectives unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage--grouse habitat and conserve habitat quality for the species.
- Aggressively monitor and control invasive vegetation in sagebrush steppe ecosystems. Rapidly restore burned or disturbed habitat to minimize or prevent the incursion of invasive plants.
- In areas of PJ, avoid treating the areas of persistent woodlands. Persistent woodlands are an ecological condition, irrespective current observed “fire condition class”, where site conditions and disturbance regimes are inherently favorable for PJ, and where trees are a major component of the vegetation unless recently disturbed. These woodlands do not represent twentieth century conversion of formerly non-wooded vegetation types, but are places where trees have been an important stand component for several hundred years.<sup>152</sup>
- In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical methods rather than prescribed fire.
- Apply appropriate seasonal restrictions for implementing management treatments consistent with the types of seasonal habitats present.

## ii. Management outside SGCAs in sage grouse habitat

- Where it will achieve sage grouse habitat objectives, passive restoration approaches should be favored over active methods.
- Identify and prioritize sage-grouse habitat for restoration projects based on environmental variables that improve chances for project success.<sup>153</sup> Prioritize restoration in seasonal habitats that are thought to be limiting sage--grouse distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).
- Restrict activities in SGCAs that facilitate the spread of invasive species.
- Do not use prescribed fire as a tool in low elevation areas where the potential for cheatgrass invasion is above low.
- Retain sagebrush canopy cover at or above what is expected for that ecological site, consistent with sage-grouse habitat objectives unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage--grouse habitat and conserve habitat quality for the species.
- Aggressively monitor and control invasive vegetation in sagebrush steppe ecosystems. Rapidly restore burned or disturbed habitat to minimize or prevent the incursion of invasive plants.

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- In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical methods rather than prescribed fire.
- Apply appropriate seasonal restrictions for implementing management treatments consistent with the types of seasonal habitats present.

150 Miller et al. 2011.

151 Meinke, C. W., S. T. Knick, D. A. Pyke. 2009. A spatial model to prioritize sagebrush landscapes in the intermountain west (U.S.A.) for restoration. *Restoration Ecol.* 17(5): 652-659.

152 Romme, William H., Craig D. Allen, John D. Baily, William L. Baker, Brandon T. Bestelmeyer, Peter M. Brown, Karen S. Eisenhart, Lisa Floyd-Hanna, David W. Huffman, Brian F. Jacobs, Richard F. Miller, Esteban H. Muldavin, Thomas W. Swetnam, Robin J. Tausch, and Peter J. Weisberg. 2008. Historical and Modern Disturbance Regimes, stand structures, and Landscape Dynamics in Pinon-Juniper Vegetation of the Western U.S. Colorado Forest Restoration Institute, Colorado State University, Fort Collins, CO. ([www.cfri.colostate.edu](http://www.cfri.colostate.edu)).

153 Meinke et al.2009.

154 Romme et al. 2008.

#### d. Wildfire Operations

Wildfires present a huge threat to sage grouse ecosystems - between 2000 and 2012, over 2 million acres of GRSG habitat in the planning area were affected by wildland fire, and the threat of future wildfires are discussed in the DEIS.<sup>155</sup>

As discussed in Section 3 c of these comments, the best and most prudent approach is to protect and preserve existing sage grouse habitats as opposed to being in the position of restoring or replacing damaged or lost habitats.

Fire suppression activities should be aggressive and aimed at minimizing acres burned. Protecting sage grouse habitats should generally rank above protection of human property and always behind protection of human lives.

#### e. Recreation and Travel Management

Although specific work addressing effects of roads, trails, and OHV use on sagebrush habitats and sage-grouse has not been conducted, research suggests common effects including habitat loss and fragmentation, invasive plant spread, induced displacement or avoidance behavior, creation of movement barriers, noise, and direct encounters.<sup>156</sup> Reducing the extent and influence of roads and trails can be incorporated into near-term and long-term plans for consolidating, conserving, and improving priority habitat areas. The impacts of roads and other surface occupancy on grouse and their habitat needs are covered in Section 2 of these comments, and form the basis for our management recommendations.

Some non-inclusive examples of the motorized recreation threat to sage grouse could be useful and informative and are now provided.

In the late-2000s the U.S. Forest Service conducted travel management planning on its administrative units in

Nevada. The Center and other concerned groups and individuals raised the issue of conflicts and adverse impacts on sage grouse from such a public land use. The result demonstrated a general lack of concern by the Forest Service. In its final decisions, the Forest Service<sup>157</sup> allowed the following:<sup>158</sup>

155 DEIS, Chapter 3.7.

156 Knick, S.T., Hanser, S.E., Miller, R.F., Pyke, D.A., Wisdom, M.J., Finn, S.P., Rinkes, E.T., and Henny, C.J.,

2011, Ecological influence and pathways of land use in sagebrush, in Knick, S.T., and Connelly, J.W., eds., Greater Sage-Grouse: ecology of a landscape species and its habitats: Berkeley, Calif., University of California Press, Cooper Ornithological Union, p. 203–252.

157 In this case the Humboldt-Toiyabe National Forest

158 See decision documents at:

<http://www.fs.usda.gov/wps/portal/fsinternet/projects/htnf/landmanagement/projects?sortby=1&archive=1>

- On the Ely Ranger District, 79 miles of open motorized routes were allowed within 2- miles of an active lek. There were minimal seasonal closures.
- On the Austin and Tonopah Ranger Districts, 240 miles of open routes were approved in nesting and brood-raising areas, including 24 miles within .5 km of active leks. There were minimal seasonal closures.
- The Bridgeport Ranger Districts (partly in California and all within Bi-state sage grouse areas) left open 719 miles of routes in nesting and brood-raising areas, including 388 miles that “pass through leks”. There were minimal seasonal closures.
- The Mountain City, Jarbridge and Ruby Mountain Ranger Districts left open 146 miles in nesting areas, including 24-miles that came within .5 miles of an active lek. These districts did identify 86 miles of open routes to be seasonally closed to benefit sage grouse.

#### Management Prescriptions:

##### i. Management inside SGCAs in sage grouse habitat

- All travel must be on designated open roads and trails, subject to seasonal restrictions.
- Seasonal restriction should include the periods of courtship, nesting and early brood raising, as well as times when the grouse are on wintering habitats.
- No new trail construction within 7.6 km of active leks.
- Close existing trails and roads to achieve an open road and trail density not greater than 1 km/km<sup>2</sup>.<sup>159</sup>
- During travel management planning evaluate the closure of secondary and primary roads in the SGRA.
- Seasonally prohibit camping within 7.6 km of active leks.
- Allow no commercial or special use permitted activities in SGRAs unless there is a demonstrated beneficial affect for the grouse.

##### ii. Management outside SGCAs in sage grouse habitat

- All travel must be on designated open roads and trails, subject to seasonal restrictions.
- Seasonal restriction should include the periods of courtship and nesting, as well as times when the grouse are on wintering habitats.
- No new trail construction within 6.4 km of active leks.
- Seasonally prohibit camping within 6.4 km of active leks.

##### f. Mineral Development

The impacts from the various minerals development activities – fluid, coal, locatable, leasable and sand and gravel have been amply documented in by Connelly, Naugle and others and have been cited elsewhere in our comments.<sup>160</sup> <sup>161</sup> While the impacts are much akin to those of energy development, on-the-whole they



involve much greater human presence and activity and noise, and hence have a much greater impact on the grouse.

159 Knick et al. 2013.  
160 Connelly et al. 2011a  
161 Naugle et al. 2011.

In addition, we wish to highlight a few of the examples.

Energy development can cause radical changes to sagebrush ecosystems. Analysis of oil and gas developments found cases where such lands contained twice as many roads and power lines and the density of development far exceeded the grouse's threshold of tolerance. 162

Energy development and its related infrastructure impacts grouse in many ways, both direct and indirect, cumulatively and synergistically.

Males and females may abandon leks if repeatedly disturbed by raptors perching on power lines near leks, by vehicle traffic on nearby roads, or by noise and human activity associated with energy development. Collisions with power lines and vehicles and increased predation by raptors may increase mortality of birds at leks. Roads and power lines may also indirectly affect lek persistence by altering productivity of local populations or survival at other times of the year. Sage-grouse mortality associated with power lines and roads occurs year-round, and artificial ponds created by development that support breeding mosquitoes known to vector West Nile virus elevate risk of mortality from disease in late summer. Sage-grouse may also avoid otherwise suitable habitat as development. Impacts from well sites to leks were still evident out to 6.4 km from the well. 163

Sage-grouse in the Powder River Basin were 1.3 times less likely to use otherwise suitable winter habitats that have been developed for energy (12 wells/4 km<sup>2</sup>), and avoidance was most pronounced in high-quality winter habitat with abundant sagebrush. 164

Blickley found in a treatment-control paired study that there was an immediate and sustained decline in male grouse attendance on leks subjected to human noise associated with well sites (29% decline on drilling noise leks and 73% decline on traffic noise leks relative to paired non- noise leks) and evidence of similar declines in female attendance. 165

As reported in the Sage-Grouse Recovery Alternative,

162 Ibid.  
163 Ibid.  
164 Doherty et al. 2008.  
165 Blickley et al. 2012.

“A new study commissioned by the Bureau of Land Management has exposed major difficulties with the agency's current approach to sage-grouse conservation in the Powder River Basin, a region that is heavily developed for gas and oil. The study indicates that an increasing density of coalbed methane wells and conventional oil and gas wells coupled with an outbreak of West Nile virus could cause "functional extinction" of sage-grouse in the Powder River Basin. Under such a scenario, modeling predicts that 370 active leks known today in the Basin would be reduced to only six (Taylor et al. 2012). The authors estimate

that 27 percent of the pre-development sage grouse population has already been lost as a result of heavy coalbed methane and conventional drilling in the Powder River Basin, and predicts that only 39 percent of the original population will remain when coalbed methane is fully developed (with up to eight wells per section) in the Basin, even in the absence of a West Nile virus outbreak (Taylor et al. 2012). The study also found that sage-grouse censused at large leks would be expected to decline by 70 percent from pre-development numbers as well spacing reaches 4 wells per square mile. Finally, effects of drilling on sage-grouse were noticeable out to 12.4 miles from leks, indicating that current core areas may not be large enough to conserve and recover the species (Taylor et al. 2012).”166

#### Management Prescriptions:

##### i. Management inside SGCAs in sage grouse habitat

- Close/find unsuitable/withdraw all unleased or available areas to fluid, solid, locatable or salable mineral leasing.167
- Upon expiration or termination of existing leases, do not re-lease the area.
- Only allow geophysical exploration activities by helicopter portable drilling methods in accordance with appropriate seasonal and timing restrictions.
- Ensure that with any new leasing do not contribute to a total human disturbance exceeding 3% per section of that area.
- In existing leased and permitted areas, apply a 10 km non-surface occupancy around active leks and limit permitted disturbance to 1 per section and no more than 3% surface disturbance per section.
- Apply best management practices to minimize surface disturbing activities.
- Implement courtship, nesting, early-brood rearing and winter seasonal and timing restrictions for all human activities.
- Avoid the surface disposal of produced water168 unless it can be proven to be beneficial to sage grouse and includes measures to preclude the spread of West Nile virus.

##### ii. Management outside SGCAs in sage grouse habitat

- Apply a 10 km non-surface occupancy around active leks and limit permitted disturbance to 1 per section and no more than 3% surface disturbance per section.
- Apply best management practices to minimize surface disturbing activities.
- Implement courtship, nesting, early-brood rearing and winter seasonal and timing restrictions for all human activities, including exploration.
- Avoid the surface disposal of produced water unless it can be proven to be beneficial to sage grouse and includes measures to preclude the spread of West Nile virus.

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**Comment Number:** IDMTSG-14-0168-3

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

#### **Comment Excerpt Text:**

The No Action Alternative fails to properly analyze the existing conservation measures or authorities the BLM is already using to conserve the GRSG and its habitat. BLM must not ignore Manual 6840.

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**Comment Number:** IDMTSG-14-0169-34

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 7.7

**Comment Excerpt Text:**

**Analysis of Key Conservation Measures**

We developed a matrix comparing the key science-based conservation measures for sage-grouse with prescriptions in preferred Alternative D in the draft Idaho/SW Montana. We categorized the application of each conservation measure in the preferred alternatives into one of three categories: adopted the conservation measure (color coded green); adopted the conservation measure, but did not adopt the full prescription, did not make it mandatory, deferred application to future, project-level planning, or allowed for exception, waiver and modification of the measure (yellow); or did not adopt the prescription (red). Our analysis is presented in Table 1. We are concerned that the preferred alternative designates less priority habitat to conserve sage-grouse than other alternatives; fails to require buffers to protect sage-grouse leks and associated nesting and brood-rearing habitat from various land uses and disturbance; does not cap development density for most land uses in priority habitat; does not recommend withdrawal of priority habitat from entry for locatable minerals; fails to protect sage-grouse winter habitat; and does not clearly prescribe needed conservation measures for managing livestock grazing in sage-grouse range.

**Comment Number:** IDMTSG-14-0169-39

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Smaller sage-grouse lek buffers may be justified where research demonstrates that most sage-grouse nests (i.e., > 90 percent) would be protected by the smaller buffer (see, e.g., Conservation Plan for Greater Sage-Grouse in Utah, unpublished: 9), although the impacts from continued and future land use (pursuant to valid existing rights) in nesting habitat would still advise adopting larger 4-mile lek buffers to conserve the species

**Comment Number:** IDMTSG-14-0169-42

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 7.7

**Comment Excerpt Text:**

While it appears that the adaptive management scheme prescribed in the preferred alternative would attempt to retain/restore sagebrush steppe to a minimum of 80 percent of land cover in sage-grouse seasonal habitats, the alternative doesn't actually commit to the minimum standard (vol 2, 2-73). Also, the concurrent allowance of habitat disturbance of between 10-20 percent could be negative for sage-grouse (vol 2, 2-73).

**Comment Number:** IDMTSG-14-0169-43

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Designate restoration sage-grouse habitat to focus habitat restoration efforts to extend sage-grouse habitat and mitigate for future loss of priority habitat (BLM Memo MT-2010-017). Restoration habitat may be degraded or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if restored to its potential natural community. Restoration habitat should be identified in management planning based on its importance to sage-grouse and the likelihood of successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005a). Effective restoration requires a regional approach (e.g.,

sub/regional EISs) that identifies appropriate options across the landscape (Pyke 2011). Passive restoration is preferred for restoring these areas over active restoration methods.

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**Comment Number:** IDMTSG-14-0178-13

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Additional questions and concerns we have about Alternative D include, but are not limited to, the following:

- The alternative fails to recognize site potential to support sage grouse.
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**Comment Number:** IDMTSG-14-0178-15

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

[This comment refers to Alternative D] Mitigation (2-74) – We are concerned that alternative’s “no unmitigated loss” goals will result in the arbitrary reduction of livestock grazing with no site-specific cause and effect decision-making ability. The document states that fires are expected so other uses will be used as mitigation. All too often, livestock grazing is used as the mitigating factor simply because it is the easiest use to manage and restrict.

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**Comment Number:** IDMTSG-14-0178-6

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 7.7

**Comment Excerpt Text:**

A. Alternative A – Current Management

While the USFWS has determined that there are not adequate regulatory mechanisms in place to ensure the conservation of sage grouse, we assert that the agencies could have made stronger arguments in the LUPA/DEIS to explain how their existing regulations promote the viability of species and have safeguards to protect against habitat degradation.

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**Comment Number:** IDMTSG-14-0178-8

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 7.1

**Comment Excerpt Text:**

According to ES 14, Alternative B “focuses on restrictions on resource uses...”. Simply by reading the summary, it is clear that this alternative ignores the agencies’ multiple use mandates and proves that there is a predetermined desire to eliminate land use. Further, the use of the BLM National Technical Team (NTT) report is problematic as it contains overly burdensome recommendations that are not based on local conditions in Idaho. The NTT report fails to make use of the latest scientific and biological information available. According to an independent review of the report, it contains many methodological and technical errors, selectively presents scientific information to justify recommended conservation measures, and was disproportionately influenced by a small group of specialist advocates (Ramey, 2013). For these reasons, Alternative B and the NTT report should no longer be considered a suitable or appropriate management guide for sage grouse and no parts of the report should appear in the final LUPA/DEIS.

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**Comment Number:** IDMTSG-14-0179-3  
**Organization1:** Idaho Conservation League  
**Commenter1:** John Robison

**Comment Excerpt Text:**

Regarding suitable buffer zones, the GHZ is a large expanse of fairly compromised habitat that represents only 10% of known leks and 5% of male sage-grouse attending leks. Instead of utilizing the Important Habitat Zone as the buffer as described in Alternative E, we believe it makes more sense to utilize the interface between General Habitat Zone (GHZ) and the IHZ as the actual buffer zone for mechanical fuel breaks, experimental areas for intensive grazing for fuel reduction, and back fires during wildfire events.

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**Comment Number:** IDMTSG-14-0180-18  
**Organization1:**  
**Commenter1:** C.L. Butch Otter

**Comment Excerpt Text:**

In contrast, Alternative D has 10 Population Areas, that with individually applied adaptive triggers. While some of these Population Areas align well with Alternative E's Conservation Areas, several go beyond Alternative E's designated habitat and are relatively small areas. For example, Alternative D's Sawtooth population is roughly 27,000 acres. Tripping a trigger in this area is likely to occur often, due to its small size. Further, a trigger in this small of an area is likely not going to impact sage-grouse in the same way as a trigger would in a larger Population Area, like the Mountain Valleys population, which is over 4 million acres. This disparity makes it difficult for BLM to prioritize resources and land management decisions.

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**Comment Number:** IDMTSG-14-0180-20  
**Organization1:**  
**Commenter1:** C.L. Butch Otter

**Comment Excerpt Text:**

Alternative D's Population Areas are an unrealistic method of categorizing sage-grouse habitat. In fact, Alternative D includes protections for an additional 700,000 acres. Alternative D's Priority zone contains 7 million acres and the medial zone has 1.3. This is in contrast to Alternative E's more balanced approach of 4.9 million acres in CHZ and 2.7 million acres in IHZ. As Alternative D is written, its trigger program is rendered largely ineffective because tripping a trigger only extends protection to an additional 1.3 million acres. Alternative E is able to protect twice that, so triggers will actually have an impact. Alternative E includes 95% of the sage-grouse population in Idaho within CHZ and IHZ's 7.6 million acres. Thus, BLM's inclusion of an additional 700,000 acres equates to saving at best, a few more percentage points, without affecting a listing determination. BLM would be required to spend time and effort monitoring areas that the Service has not identified as significant for sage-grouse.

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**Comment Number:** IDMTSG-14-0180-21  
**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM argues that these areas are important for “connectivity” for sage-grouse, as the bird cannot appreciate the boundaries the government has created for it. However, the Service still has determined that these areas are relatively unimportant to the entire population and has excluded these areas from its PACs. It is unclear why BLM continues to insist on expending limited resources on these additional acres, when both the Service and the State identified other areas as higher priorities.

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**Comment Number:** IDMTSG-14-0180-22

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

For both Alternative D and E, the triggers are individualized per conservation or population area. That means in Alternative D, a hard trigger, requiring immediate management change would become operative in any of the ten areas. This makes Alternative D’s trigger mechanism extremely sensitive. The Governor is not sure that this type of sensitive trigger is actually implementable by BLM. Further, BLM has not provided any scientific justification for this sensitive of a trigger. In contrast, Alternative E’s triggers are spread over much larger areas, providing a more manageable, practical mechanism for changing management when necessary. Even Alternative E’s trigger mechanism is conservative, and more sensitive than necessary. However, the Governor believed it was important to be proactive in addressing and minimizing threats across sage-grouse’s range. Alternative D goes too far and will ultimately be too sensitive to allow for efficient allocation of time and resources.

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**Comment Number:** IDMTSG-14-0180-27

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Further, “no net unmitigated loss” is vague. BLM needs to clarify concerns such as issues of habitat quality within a particular category.

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**Comment Number:** IDMTSG-14-0180-48

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The Department is concerned by Alternative D's trigger application to the populations. The triggers propose to count all leks within a population over a 3-5 year period. Currently, approximately 50% of leks in Idaho are counted in any given year. Many leks across the state are not counted because of limited resources or leks are inaccessible during the breeding season. Thus, an effort to count all leks in a consistent manner called for under Alternative D is not logistically or financially feasible. Moreover, some populations (e.g., East Central and Sawtooth) may not have active leks or enough active leks for the proposed population triggers to accurately indicate population changes. Therefore, the Department is concerned that collecting the necessary information for the population trigger under Alternative D is not feasible.

The Department is concerned with Alternative D's habitat trigger that indicates a 20% loss of any sagegrouse

habitat in a population area will trip a trigger. Habitat triggers should focus on critical habitats (e.g., breeding or wintering habitats) rather than account for losses in all seasonal habitats (e.g., summer habitat) that are able to sustain additional losses. Moreover, Connelly et al. (2000) indicated that productive brood rearing or summer habitats are usually characterized by the area having over 40% sagebrush cover, not 80% as suggested in Alternative D.

**Comment Number:** IDMTSG-14-0182-10

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

large areas designated as PPH and PG include areas that are objectively not GRSG habitat, including grasslands and juniper woodlands. Moreover, areas designated as PPH are equated in the DEIS as "occupied" habitat, without a definition of what constitutes occupation or actual field observation to establish it. Areas that, as discussed above, are demonstrably not GRSG habitat by definition cannot be "occupied" by GRSG.

**Comment Number:** IDMTSG-14-0183-1

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Adaptive management actions for the protection of nesting and winter habitat would occur if there was a 10% net loss of either of these habitats within a population area. However, the mapping prepared to date is insufficient to identify either of these habitats at a scale such that a 10% change could be measured with confidence. Page 4-7 of the Draft

Environmental Impact Statement (EIS) states, “Seasonal ranges of migratory and non-migratory GRSG are largely encompassed within GRSG Habitat Designations but are not sufficiently mapped to provide an assessment of direct impacts.” The EIS should identify the specific measures the BLM and U.S. Forest Service (USFS) will implement to identify and accurately map seasonal habitat to correctly identify baseline conditions, measures that will be used to update mapping, and how the net loss will be calculated.

**Comment Number:** IDMTSG-14-0183-2

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Alternative D proposes a “no net unmitigated loss of PPMA habitat.” On the surface, it makes good conservation sense to not lose more of the “best of the best”; however, “net” is not well defined. To effectively comment on no net unmitigated loss of PPMA habitat, it would be helpful to have answers to the following questions:

- Issues of habitat quality within a habitat category (e.g., areas within a PPMA may not be meeting functional sage grouse habitat needs or may have burned recently. Restoration of these areas such that they meet sage grouse habitat needs doesn’t change the number of acres of PPMA habitat and therefore would not meet the “net” definition).
- Can the mitigation/restoration of habitat in a lower-quality habitat category, such as a PGMA, move that area to a higher-quality habitat and therefore meet the “net” criteria? Is this the only way “net” can be met? What spatial correlation would such improved habitat need to have to PPMA to count as mitigated?

- How would non-restoration, protection mitigation be allocated toward “net”? If mitigation protects x thousands of acres from burning, how is that calculated toward net?
- How is the maturation of seeded restoration projects calculated? (i.e., the time it takes for plant communities to provide functional habitat).

**Comment Number:** IDMTSG-14-0183-31

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Pg. 4-8, 2nd bullet point:

Assumption

Energy extraction such as oil and gas, geothermal, and plan of operation mining can cause impacts up to 11.8 miles (19 kilometers) based on direct impacts of field development, including associated infrastructure, noise, lighting, and traffic (Johnson et al. 2011; Taylor et al. 2012).

Research findings by Johnson et al. (2011) appear to be overstated. Johnson et al. (2011) stated that for oil and gas wells “leks tended to have more positive trends if they were farther away from producing wells.” Also, leks trends appeared to increase to about 20 km in the Great Plains and Wyoming Basin. Johnson et al. (2011) also reported a declining trend in leks within 5 km-, but a less strong relationship within 18 km for interstate highways. The presence of secondary roads appeared not to influence lek trends. Distance from lek to nearest powerline suggested no relationship across all sage grouse management zones (Johnson et al. 2011). Thus, the statement in the LUPA/DEIS, regarding the spatial direct impacts of energy extraction, based on Johnson et al. (2011) is inaccurate and misleading.

Coates et al. (2013) showed that nearly 90% of utilization distributions of sage grouse across four subpopulations and all four seasons in Mono County (CA) were contained within approximately 5-km radius of each lek. Coates et al. (2013) suggest that the distances between 5 and 7.5 km from leks—depending on migratory status of sage grouse—are likely to limit both direct and indirect adverse effects to sage-grouse nesting associated with anthropogenic disturbance—not 19 km

**Comment Number:** IDMTSG-14-0183-33

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Other Sections:** 14.3

**Comment Excerpt Text:**

Pg. 4-15, 1st para.

Impacts from energy development accrue both locally and cumulatively at the landscape scale. Accumulated evidence across landscape-scale studies show that GRSG populations typically decline following oil and gas development (Holloran 2005; Walker et al. 2007; Doherty et al. 2008). Oil and gas infrastructure and associated human activity have been shown to adversely affect GRSG populations collectively and in some instances, impacts have been directly attributed to certain anthropogenic features (e.g., roads, power lines, noise, and associated infrastructure; Walker et al. 2007; Doherty et al. 2008; Lyon and Anderson 2003; Holloran 2005; Kaiser 2006; Aldridge and Boyce 2007).

Connelly et al. (2004) provided a broad and general review of powerline- sage-grouse interaction and combined powerlines with other energy developments such as oil and gas exploration and roads, as well as



other anthropogenic activities such as campgrounds, landfills, and agriculture activities. The authors state that non-renewable energy development—a large category that includes all industrial development from oil and gas exploration to the electric power grid—impacts sage-grouse habitat on a large spatial scale, but do not provide specific information on powerlines. Information on the impact of transmission lines on a landscape level by Leu and Hanser (2011) and Johnson et al. (2011) would be more appropriate to reference in relation to sage-grouse persistence in the landscape.

Walker et al. (2007) showed that all top models to explain lek persistence included a strong positive effect of sagebrush habitat and a strong negative effect of Coal Bed Natural Gas (CBNG) development. Furthermore, the best habitat-plus-CBNG model was 28 times more likely to explain patterns of lek persistence than the best habitat-plus-infrastructure model (including powerlines) and 50 times more likely than the best habitat-only model. Lastly, models with powerline effects were weakly supported compared to models with CBNG, although powerlines appear to have a negative effect on lek persistence. The powerline variable included lines associated with CBNG as well as non-CBNG powerlines. So no attempt was made to isolate the effect of powerlines from the confounding effect of CBNG development. IPC suggest that a more complete statement is included in the USGS report regarding the effects of energy developments on sage-grouse lek persistence in relation to Walker et al. (2007) study. It appears that selective use is being made of the information provided by Walker et al. (2007), narrowly focusing on the (weak) effect of powerlines on sage-grouse lek persistence.

Doherty et al. (2008, Holloran (2005) and Aldridge and Boyce (2007) evaluated Coal Bed Natural Gas wells, but did not evaluate effect of powerlines. Lyon and Anderson (2003) evaluated the effect of vehicular traffic associated with natural gas developments. Therefore, none of these studies provide information on the effects of powerlines.

**Comment Number:** IDMTSG-14-0206-1

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

We are uncertain, however, about the meaning of the two quoted objectives in Alternative E in light of the statement that immediately follows them. In the following paragraph, the DEIS explains that: “This would enable the State of Idaho to maintain a viable population of at least 65 percent of the GRSG leks for the foreseeable future.” DEIS at 2-78. Table 2-17 paraphrases the same language in describing the objectives of Alternative E. DEIS at 2-95. Table 2-17 does not mention the objective of stabilizing populations in the IHZ, which is referred to merely as a “buffer” for the CHZ.

We worry that this language could be read to suggest that the State’s objective is to protect just the CHZ with 65% of the leks in Idaho and that a population decline in the IHZ would be consistent with this objective. This could lead state and federal agencies to “manage down” to a lower population level rather than seek to prevent further decline. An “objective” of permitting a one-third reduction in the number of leks and an unstated but presumably greater population decline is not appropriate. Such a decline could lead to a decision to list the sage grouse under the Endangered Species Act.

**Comment Number:** IDMTSG-14-0206-11

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

At a general level, both the “no net unmitigated loss” wording of Alternative D and the “no population decline” wording of Alternative E provide important narrative standards. Both ideas should be included in the final plan.

However, we are very concerned that neither alternative adequately explains what the standards mean and how they would be implemented. The lack of such an explanation will lead to prolonged fights, confusion, and needless expense when future infrastructure proposals come before the federal agencies for approval

**Comment Number:** IDMTSG-14-0206-12

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The central problem with the “no net unmitigated loss” standard is that not all infrastructure impacts can be offset with any reasonable level of confidence.

**Comment Number:** IDMTSG-14-0206-13

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The “no net unmitigated loss” standard is particularly difficult to apply as an avoidance policy because it couples two inherently uncertain tasks: estimating project impacts and determining the effectiveness of proposed mitigation. Uncertainty expands geometrically when the agency decision hinges on making defensible findings in both dimensions.

A better approach would be to apply the “no net unmitigated loss” policy only after applying a standard setting a maximum allowable impact on sage grouse populations and habitat. The “no net unmitigated loss” could be a valuable addition to the final Plan but it should not come into play until the agency has decided that the overall impact of the project is at an acceptable level

**Comment Number:** IDMTSG-14-0206-14

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The central problem with the quoted “no population decline” standard is that it is a general narrative standard that provides little guidance in determining an acceptable level of impact. The standard should be accompanied by metrics and methods for determining the level of disturbance that produces “unnecessary and undue habitat fragmentation” and “decline in population.”

**Comment Number:** IDMTSG-14-0206-15

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

We urge BLM/USFS to adopt the 3% surface disturbance cap in the final Plan and to apply it to CHZ. Best available scientific literature has identified that many populations show negative impacts at disturbance values lower than 3% and there are significant, demonstrable negative impacts to the species at 3% disturbance (Knick et al. 2013). Therefore a 5% cap is not sufficient and would limit the ability to achieve the objectives of sage grouse conservation and increase the risk that this species will continue to decline in areas that exceed the recommended 3% cap (see Holloran 2005, Naugle et al. 2011, Baruch-Mordo et al. 2013)

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**Comment Number:** IDMTSG-14-0206-2

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Therefore, we recommend deleting the language referring to maintaining the viability of 65% of leks from the objectives section. Table 2-17 should be changed to include the objective of stabilizing populations at the current level in both CHZ and IHZ, as stated on page 2-78.

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**Comment Number:** IDMTSG-14-0206-3

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The Conservancy recommends that state and federal scientists review the following areas that are designated as PPMA in Alternative D but are either GHZ or IHZ in Alternative E. The purpose of the review should be to determine whether to upgrade the designation applied to these areas under Alternative E:

- Big Desert area
- Coterrel Mountain/Albion Range
- Owyhee Front
- Upper Snake Plan – north of the sand dunes along the Red Road
- Southern Pioneers – Little Wood, Fish Creek watersheds

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**Comment Number:** IDMTSG-14-0206-5

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

We see some advantage to Alternative D's approach because it allows a more site-specific and rapid response to habitat or population change within a particular area. However, Alternative E's approach of having fewer, larger conservation areas will help trigger a broader response to significant regional losses. Given the potentially burdensome regulatory effects of tripping a hard trigger, a broader response that is invoked less often is the best choice.

**Comment Number:** IDMTSG-14-0212-10

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

Under Alternative C, all occupied habitat (PPH and PGH covering a total of 11,119,900 acres) would be classified as PPMAs and managed similarly under the strictest of guidelines. See Draft LUPA/EIS p. 2-98 (Sub-Objective C-SSS-1). The Agencies’ approach of treating all habitat the same ignores, however, the Agencies’ own distinction drawn between the two habitat categories, which was based in part by the value of the same and the principle that each habitat category should be managed differently

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**Comment Number:** IDMTSG-14-0212-14

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The majority of the phosphate leasable minerals resources are located in Western Association of Fish and Wildlife Agencies (“WAFWA”) Sage-Grouse Management Zone IV. See Draft LUPA/EIS pp. 3-6 (Figure 3-1 showing WAFWA management zones), 3-115 (Figure 3-13 showing unleased KPLAs). Pursuant to the Draft LUPA/EIS, wildfire, invasive weed species, and small population size—and not minerals development—are the major threats to sage-grouse in WAFWA Management Zone IV. See Draft LUPA/EIS p. 4-297. Closing these areas to leasable minerals development will not address the primary threats to the species. See, e.g., Draft LUPA/EIS p. 4-297 (concluding that all action alternatives, including the State’s alternative that does not propose any leasable minerals closures, “would likely prevent the threat of isolation/small size from worsening”). Further, by eliminating leasable minerals development, the Agencies are foreclosing potentially beneficial cooperation opportunities to provide a net benefit to the species through mitigation or conservation programs developed by the entities engaged in leasable minerals development. In this way, closing the areas is inconsistent with the goal of Alternative D, which is to conserve sage-grouse “in cooperation with other conservation partners.” Draft LUPA/EIS p. 2-95 (Goal D-GOAL-1).

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**Comment Number:** IDMTSG-14-0212-2

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The Draft LUPA/EIS does not address possible ESA Section 7 reasonable and prudent measures, suggesting that the sage-grouse conservation measures provided in the LUP Amendment presumably would remain in effect even if the Service lists sage-grouse in the future. To avoid potentially unnecessary, duplicative conservation measures in the event the sage-grouse is listed, the Final LUP Amendment should recognize that, if the sage-grouse is listed, the conservation measures identified through the ESA Section 7 consultation process will replace the conservation measures in the LUP and no new LUP amendment is required for the same.

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**Comment Number:** IDMTSG-14-0242-10

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

Implementation and effectiveness monitoring are imperative to ensuring a comprehensive adaptive management strategy. Both Alternatives D and E currently lack a clear explanation of how implementation monitoring would be executed (including intervals and standards). Such an explanation is needed for us to fully evaluate the efficacy of the monitoring being proposed.

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**Comment Number:** IDMTSG-14-0242-11

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

In some Population Areas, as described under Alternative D, there are not an adequate number of known or monitored leks to provide a robust sample size to support the associated population triggers, while in other Population Areas, additional lek routes would need to be monitored to adequately inform the triggers. Based on our review of the draft plan, the effectiveness monitoring strategy in Alternative E will result in better long-term conservation of GRSG than that described in Alternative D.

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**Comment Number:** IDMTSG-14-0242-12

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

With regard to habitat monitoring, it is currently unclear how habitat change will be monitored within either Alternative D or Alternative E. For example, habitat monitoring discussed in Alternative D (Chapter 2) is significantly different than the Monitoring Framework Plan discussed in Appendix E. While we support the habitat characteristics identified in Alternative E, a more robust description of the habitat monitoring program should be provided

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**Comment Number:** IDMTSG-14-0242-15

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

There are several management actions within both Alternatives D and E that lack the specificity needed to ensure conservation measures are consistent with the COT. For example, management action A-FM-2 (Table 2-18) states "Design fuels management projects in PPMA to strategically and effectively reduce wildfire threats in the greatest area." If not designed and implemented appropriately, fuels management projects as defined above may have adverse impacts, rather than beneficial impacts to GRSG.

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**Comment Number:** IDMTSG-14-0242-17

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Other Sections:** 7.9

**Comment Excerpt Text:**

We hope that through our comments, the BLM and FS will expand the detail of several key components to a level where we can fully evaluate the FEIS pursuant to the COT. Some key components include:

- a. Details on how habitat and disturbance will be monitored;
- b. Methods of landscape-scale prioritization and implementation of step-down assessments for addressing threats from fire and invasive species; and
- c. Details on how mitigation will be applied. We are participating on national interagency teams associated with these plan components and will continue to provide input on these components through our membership on these teams. It will be critical that the FEIS provide additional specificity in each of the above areas

**Comment Number:** IDMTSG-14-0242-19

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

PACs/Habitat Categorization

We recommend that the habitat categories included in the FEIS be biologically meaningful and pragmatically effective. To be biologically meaningful, the Important Habitat Zone (Alternative E) or Medial Management Area (Alternative D) must represent an adequate portion of Idaho's GRSG population. It is currently unclear how biologically meaningful Alternative D's Medial Habitat Area is, whereas Alternative E's Important Habitat Zone supports 22 percent of Idaho's GRSG population within approximately 4 million acres of habitat. To be pragmatically effective, the habitat categories must include enough land area (i.e., acres) to discourage a habitat or population loss trigger being tripped. The Important Habitat Zone (Alternative E) includes approximately twice as many acres of federal lands as the Medial Habitat Area (Alternative D), therefore we believe that Alternative E's current habitat categorization more effectively discourages a trigger being tripped, and thus is more protective of the species and its habitat because of increased incentive to take early management actions

**Comment Number:** IDMTSG-14-0242-28

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

The DEIS does not provide adequate specificity regarding how the "no net habitat loss" standard would be implemented to determine its consistency with the COT objective. If it is the intent of Alternative D to implement a 3 percent disturbance cap as well as the above mentioned NSOs and noise stipulations, it would be consistent with the COT objective. Although Alternative E is largely consistent with the COT, we would recommend that the 3 percent disturbance cap be consistently applied across the P ACs (CHZ and the 1HZ) and that it include other anthropogenic disturbances (as discussed above).

**Comment Number:** IDMTSG-14-0242-6

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

We believe that inclusion of a soft trigger (10%) in the FEIS would provide increased responsiveness to

stochastic threats and additional flexibility for proactive management; both important elements that increase stakeholder participation and early implementation of incentive-based conservation actions.

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**Comment Number:** IDMTSG-14-0242-7

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

However, the concept of an Implementation Team/Commission, identified in Alternative E but not in Alternative D, is intended for inclusion in both soft and hard triggers to identify the causal factors and effectively implement appropriate secondary actions that are necessary to address the identified threats. We recommend that an Implementation Team/Commission process be included in the FEIS. The process should also include specificity regarding team composition and how science will inform the process and ultimate decision regarding remediation actions

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**Comment Number:** IDMTSG-14-0242-8

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

For both of the preferred alternatives, an explanation should be provided for why the identified baseline year was selected for the adaptive management triggers

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**Comment Number:** IDMTSG-14-0242-9

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Other Sections:** 7.6

**Comment Excerpt Text:**

Noise and seasonal stipulations should be considerations during the construction and long-term implementation of land use activities. Your proposed implementation of noise and seasonal stipulations across all alternatives appears to be applied only to initial construction activities. However, most land use activities result in permanent disturbances on the landscape and the associated human activity, traffic, and noise disturbances have long-term effects to GRSG. Although the surface area covered by various types of development can be relatively small, the effects of noise extend far beyond the development itself (Blickley and Patricelli 2010). For example, the construction of a compressor station may have short-term implications to GRSG use of seasonal habitats, but the long-term operation and noise of the compressor station may result in GRSG habitat abandonment (Blickley and Patricelli 2012, Blickley et al. 2012). Similarly, seasonal restrictions applied only to drilling and construction do not address effects to populations over long periods of time (Walker et al. 2007).

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**Comment Number:** IDMTSG-14-0256-1

**Organization1:**

**Commenter1:**Dave Ellis

**Comment Excerpt Text:**

If adaptive regulatory response measures are "triggered" we need to make absolutely certain that all impacted

entities are included in discussions that might change the planning or implementation of resource use actions. e.g. If livestock grazing measures needed to be altered on an allotment a collaborative format would be used to ensure that the notification, participation, and consensus of all permittees on that allotment.

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**Comment Number:** IDMTSG-14-0256-2

**Organization1:**

**Commenter1:** Dave Ellis

**Comment Excerpt Text:**

using a 3-year time frame for habitat and population trend assessment is not enough time to effectively show a definite pattern

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**Comment Number:** IDMTSG-14-0257-1

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

We recommend that the Final LUPNEIS consider changing the strategy of Alternative E's adaptive management for the Important Habitat Zone to more fully protect a greater amount of priority habitat. Rather than preventing further loss of habitat and populations by increasing protection when monitoring results show dramatic habitat and population declines, we recommend the more precautionary approach of initially managing the IHZ consistent with CHZ protections and only decreasing protections of habitat and population metrics show clear improving trends or signs of robust stability.

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**Comment Number:** IDMTSG-14-0257-4

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

The environmentally preferable alternative should include active removal of juniper from GRSG habitat. We agree with the Draft LUPA EIS' s conclusions that active removal can enhance sagebrush ecosystems.

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**Comment Number:** IDMTSG-14-0257-5

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Alternative D appears to be relatively more consistent with national guidelines in addressing threats from livestock grazing. We believe that consistency with national habitat guidelines will increase the likelihood of effective implementation at a broad scale, and, in turn, increase the extent to which the threat of livestock grazing will be alleviated.

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**Comment Number:** IDMTSG-14-0321-1

**Organization1:** 06 Livestock

**Commenter1:** Dennis L. Stanford

**Comment Excerpt Text:**



Also not having livestock in a pasture at the time of hatching and brood rearing is harmful to the sage grouse young as they are dependent on high protein for survival, mostly insects. Fresh cow manure is where most face flies, horn flies and bot flies lay their eggs (dinner for young sage grouse).

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### ***Summary***

Commenters proposed revisions or requested additional details and clarifications to the alternatives related to GRSG. Topics of concern included:

- The size of lek buffers
- Level of predator control
- Need for and size of disturbance cap
- Restrictions on wind energy development
- Noise restrictions
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring
- Need for an improved definition of no net unmitigated loss
- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality
- Lack of active habitat restoration
- Habitat monitoring

Commenters were concerned about greater sage-grouse habitat mapping, including suggesting clarifications or revisions to the habitat map and concerns about using the map for site-scale projects.

Commenters were also concerned that Manual 6840 was not used as the baseline policy governing present GRSG conservation in the No Action alternative.

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### ***Response***

As noted above in the response in Section 4.3, Range of Alternatives, Section 2.1 of the Draft EIS describes how the Idaho and southwestern Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA and worked closely with the State with assistance from the USFWS.

Meaningful differences among the six alternatives are described in Table 2-2, Comparative Summary of Alternatives by Acres Allotted, and in Section 2.6, Detailed Description of Alternatives, of the Draft EIS. [Specify where changes have been made to the FEIS regarding each of the bullets below]. Refer to tab 32 regarding predator control. All of these issues have been addressed in new management actions prepared for the proposed plan and analyzed in Chapter 4 (and reference relevant appendices regarding AM and monitoring, etc).

Regarding the following issues:

The size of lek buffers -lek buffers will be revised in final plan/FEIS reflecting additional review of best science.

- Level of predator control
- Need for and size of disturbance cap- Additional specificity regarding the disturbance cap has been further explained in the FEIS.
- Restrictions on wind energy development
- Noise restrictions. Noise and seasonal stipulations for both construction and long-term implementation of land use activities has been included in the final EIS. [NOTE TO BLM (from Makela)- Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.]

- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring. The BLM and FS believe the management actions described in the Proposed Plan will adequately address sage-grouse conservation needs without the need for additional large scale designations.
- Need for an improved definition of no net unmitigated loss- Additional specificity regarding the no net habitat loss objectives has been further explained in the FEIS.
- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality. The BLM and FS used the latest science in developing management actions relatives to fences that adequately address collision risk. No change has been made to the document regarding this issue in the FEIS.
- Lack of active habitat restoration- Site specific projects are not identified in the broad scale plan, but there are a number of restoration actions described in Table 2-18 Vegetation/Restoration section in the DEIS and in the Proposed Plan.
- Habitat monitoring- The BLM and FS, in coordination with the state, have clarified monitoring and mapping expectations in the FEIS.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives. The Proposed Plan will contain a mechanism that allows for evaluation of circumstances on case by case basis at the site specific scale that would be addressed via subsequent project level NEPA analysis.

Manual 6840 is referenced in Chapter 1, Section 1.x, Planning Criteria, and provides general guidance for special status species, but it does not provide language relative to specific conservation actions for specific species. [BLM- ensure Manual 6840 is discussed in Alternative A and also relevant FS policy].

[NOTE TO BLM: Ensure Proposed Plan has appropriate provisions/clarity for actions in General management areas. Needs additional discussion.]

## **Section 7.6 - Best Available Info Baseline Data**

*Total Number of Submissions: 38*

*Total Number of Comments: 97*

**Comment Number:** IDMTSG-14-0046-6

**Organization1:**

**Commenter1:**Jim Gerber

### **Comment Excerpt Text:**

There is no historical record in the affected environment to indicate how grouse populations have fluctuated over time, and what factors may have caused those shifts.

**Comment Number:** IDMTSG-14-0046-7

**Organization1:**

**Commenter1:**Jim Gerber

### **Comment Excerpt Text:**

There is no discussion of predator control in the AE. Are there no studies of predators and their affect on sage grouse in Idaho and other parts of the country? I know this is not true because I am aware of studies in Idaho that show predators cause a 26 to 76 % loss of nesting sites.

**Comment Number:** IDMTSG-14-0053-10

**Organization1:**Hagenbarth Livestock

**Commenter1:**Jim Hagenbarth

**Comment Excerpt Text:**

In Table 2-2 the LUP/DEIS identifies the estimated acres in each alternative for the different GRSG habitat categories. The number of acres and size of the habitat is huge. The GRSG population has steadily trended downward since the 1960's and will probably continue until equilibrium is reached with all the threats. Given the millions of acres of habitat spread throughout the eleven western states where little development is foreseen, it is not reasonable to believe the GRSG will become extinct. No population number has been suggested as the lowest recoverable figure by the USFWS or anyone else.

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**Comment Number:** IDMTSG-14-0053-4

**Organization1:**Hagenbarth Livestock

**Commenter1:**Jim Hagenbarth

**Comment Excerpt Text:**

How the LUP/EIS proposes to measure GRSG population is reasonable given the difficulty of counting every single bird. Male lek counts are the only parameter we have to develop population trends. My concern is that the artificially high numbers in the past will impact our ability to recognize when the downward trend will level off to a population that is stable given the current threats. I am not that familiar with the ESA, but there is too much good sagebrush habitat in the west that will remain ecological sustainable in the future. The value and availability of water will insure millions of acres of intact sagebrush habitat. We most likely will be converting abandoned desert farm ground back to its native sagebrush habitat. The plaintiffs are attempting to use the GRSG and the ESA to change land use based on decreasing bird numbers. The USFWS needs to come up with a finite number before listing is warranted, not just a declining population trend. We have and will continue to have suitable habitat to sustain a healthy population of GRSG.

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**Comment Number:** IDMTSG-14-0053-9

**Organization1:**Hagenbarth Livestock

**Commenter1:**Jim Hagenbarth

**Comment Excerpt Text:**

Predation in the list of threats has been given a lower priority, yet most infrastructure placement/height regulations are based on either infrastructure use as perches and/or nesting by avian predators and vegetative cover guidelines relate to hiding and nest cover from all predators. There is no question that many predator populations have increase exponentially in the last 40 years and their impact is significant on bird populations. Raven populations on the INEL have increased 900% since 1985. Predator populations are dynamic and are very difficult and cost prohibitive to manage without using lethal poisons and this is not an option. There is a smorgasbord of nutrition through out the west that supports many predator populations. GRSG will adapt to these predators, but I believe their numbers are going to adjust downward more than is anticipated. In the alternative chosen it is important we mitigate infrastructure design as much as possible to reduce perching and nesting of avian predators. As GRSG numbers continue to decline lower to more stable levels, it is appropriate that human predation of the GRSG be stopped. It is not acceptable to allow hunting when all other activities are being marginalized. Hunting does not give us a lot of pertinent management data.

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**Comment Number:** IDMTSG-14-0056-9

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Other Sections:** 7.5

**Comment Excerpt Text:**

- Alternative E includes the requirement for any assessment to determine whether or not a given area has the ability to provide sage grouse habitat (See Appendix D, page D-36). This is critical because as the maps are difficult to decipher on the large scale, and personal knowledge of the area reflects that some areas identified

as within PPGH or Core habitat do not have the ability to provide for sage grouse needs.

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**Comment Number:** IDMTSG-14-0098-3

**Organization1:** Montana Fish, Wildlife and Parks

**Commenter1:** M Jeff. Hagener

**Comment Excerpt Text:**

Recent research

suggests that oil and gas development and associated infrastructure can negatively impact sage-grouse lek persistence up to 4 miles from the lek (Holloran 2005, Walker et al. 2007, Harju et al. 2010).

Approximately 5%, 28%, and 90% of the total area used by sage-grouse has been documented in a different study area to be encompassed by buffers of 0.25, 0.60, and 3 miles around leks, respectively (Coates et al. 2013). Research also suggests that cumulative anthropogenic surface disturbance in excess of 3% of the landscape has negative impacts on sage-grouse lek occurrence (Knick et al. 2013). We encourage the BLM and USFS to use this science to help guide final decisions regarding oil and gas surface occupancy and controlled use in southwestern Montana.

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**Comment Number:** IDMTSG-14-0100-4

**Organization1:**

**Commenter1:** Justin Naderman

**Comment Excerpt Text:**

A concern that is not addressed in any of the alternatives is threetip sagebrush (*Artemisia tripartita*) dominance on the landscape following fire (wildfire, or repeated fires, both controlled and prescribed) and repeated chemical treatment of big sagebrush. (Lowe, B. 2006), found sage grouse nest success was lower when nests were associated with threetip sagebrush compared to sage grouse nests associated big sagebrush species. My own observations suggest that sage grouse are seldom associated with threetip sagebrush during winter.

Threetip sagebrush is a natural component of sagebrush steppe communities across southern Idaho. However, following large-hot wildfires, or repeated controlled or prescribed fire, or chemical brush management treatments threetip sagebrush becomes the dominant sagebrush species. Today, there are sizable acreages of threetip sagebrush monocultures following wildfire or brush management projects across southern Idaho. Once threetip becomes dominant on the landscape it appears to suppress recovery of Wyoming and mountain big sagebrush species. Historical literature (Winward) indicates this dominance persists at least 50 years in Clark County, Idaho. Conversion from big sagebrush species to threetip sagebrush following wildfires and brush management practices can be observed the mountain valley, north side Snake, south side Snake and east central Idaho population areas. The dominance of threetip sagebrush on the landscape may be the primary reason sage grouse numbers are so limited and their distribution so fragmented in the east central Idaho population area.

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**Comment Number:** IDMTSG-14-0105-7

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

There are a number of instances where the methods and protocol for conducting assessment of GRSG populations and habitat need to be clearly and concisely described. The need is not just to describe the on ground procedures but to establish the kinds and amount of data necessary to justify a conclusion, (e.g. a lek route must be counted at least x times in a given year to yield actionable results). Any time that future actions or decisions are to be based on any specific data or information, there must be assurance that the data and information is sufficiently reliable to justify the action. The BLM self-inflicted time crunch to renew the Owyhee 68 permits has resulted in numerous abbreviated and shortcut methods that are incapable of yielding trustworthy data and information yet they are the basis for drastic change.

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**Comment Number:** IDMTSG-14-0108-6

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

The Draft LUPA EISs devote voluminous space to the current status of the affected environment and to the expected environmental consequences of the various alternatives under consideration for almost everything under the sun, except for the status and environmental consequences with respect to greater sage-grouse population levels and trends, thereby failing to meet the overriding purpose for the project. The EISs analyze the status and environmental consequences with respect to other special status species, vegetation, fish and wildlife, wild horses and burros, wildfire, livestock grazing, recreation, travel management, lands and realty, mineral resources, special designations, soil resources, water resources, cultural resources, tribal interests, visual resources, roadless areas, air quality, climate change, social and economic conditions, and forest and woodland products, among other things. But the Draft LUPA EISs give only cursory attention to the current status of greater sage-grouse populations and essentially no attention to the environmental consequences of the various alternatives under consideration on greater sage-grouse population levels and trends.

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**Comment Number:** IDMTSG-14-0108-9

**Organization1:** Western Range Service

**Commenter1:** Quinton J. Barr

**Comment Excerpt Text:**

Neither of the Draft LUPA EISs analyzes whether the greater sage-grouse meets the ESA definitions for listing as endangered or threatened. Thus, both the Draft LUPA EISs fail to meet the overall purpose for the EISs identified by the NOI. To evaluate whether the greater sagegrouse presently meets the criteria to be listed as endangered or threatened under the ESA, one must answer two questions: 1] How many greater sage-grouse are needed to safeguard the species against extinction; and, 2] Do current greater sage-grouse population numbers and trends put the greater sage-grouse at risk for imminent extinction or for eventual extinction in the foreseeable future?

The U.S. Fish and Wildlife Service (FWS) provided the information required to answer these questions in its 2010 FWS Findings. The FWS Findings identified greater sage-grouse populations below 50 breeding adults “as being at short-term risk of extinction” and identified populations below 500 breeding adults “as being at long-term risk for extinction.” See FWS Findings<sup>6</sup>, page 13959. The FWS Findings further qualified that the minimum effective population size needed to protect the species long-term may be as high as 5,000 individuals in order to “maintain an effective population size of 500 birds” (see, FWS Findings<sup>6</sup>, page 13985) and to maintain “minimal viable population(s)” (see, FWS Findings<sup>6</sup>, pages 13959 and 13985). Thus, a population that exceeds 50 breeding adult sage-grouse is needed to safeguard the species against the short-term risk of imminent extinction, and as many as 5,000 individual sage-grouse may be needed as a

minimum effective population to safeguard the species against the long-term risk of extinction in the foreseeable future.

The FWS Findings estimated that the recent range-wide greater sage-grouse population totals over 535,000 birds, which is 107 times larger than the minimum effective population of 5,000 birds. See FWS Findings<sup>6</sup>, Table 4, page 13921. All eleven of the locations reported in Table 4 greatly exceed a population of 50 breeding adults. Likewise, given the estimated number of males by Management Zone reported in Table 6 of the FWS Findings (see FWS Findings<sup>6</sup>, page 13923) and the female skewed sex ratio for greater sage-grouse (reported to average about two females to one male, FWS Findings<sup>6</sup>, pages 13916 and 13992), it is evident that all seven Management Zones greatly exceed a population of 50 breeding adults. Thus, all seven Zones exceed the population size below which greater sage-grouse are considered to be at risk for short-term extinction, so there are at least seven areas that support sufficient populations to prevent the greater sage-grouse from being listed as endangered under the ESA.

In fact, all seven of the Management Zones exceed a population of 500 breeding adults, and five of the Zones greatly exceed the minimum effective population of 5,000 individual birds below which greater sage-grouse are considered to be at risk for long-term extinction. Additionally, estimates for the rate of decline in greater sage-grouse populations from 1985 through 2007 have averaged about 1.4% per year. See FWS Findings<sup>6</sup>, page 13922. Assuming that current management practices endure and this rate of decline continues indefinitely, it would take more than 330 years for the existing greater sage-grouse population to dwindle below the minimum effective population. Speculating what might occur over three centuries from now reaches well beyond the foreseeable future. Thus, there are now numerous areas that will support populations that exceed the minimum effective population of 5,000 birds into the foreseeable future to preclude listing the greater sage-grouse as threatened under the ESA.

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**Comment Number:** IDMTSG-14-0125-2

**Organization1:**

**Commenter1:** Thom Seal

**Comment Excerpt Text:**

1. We all recognize that the GRSG habitat in the west is in the midst of a severe drought, GRSG “hen survival July-August, 2003” was about 76% with no WNV and 20% with WNV.

2 Thus the hen population decreases by nearly 75% and further information showed that WNV reduced the GESG population by 25% in 2003!

3 The GESG population had a lek attendance decline of about 85% in 2004 due to WNV. WNV was detected in the GESG in the states of CO, ID, MT, ND, NV, OR, SD, UT, & WY.

4 “WNV affects both sexes and all age classes”

5 and “Lab tests confirm that all birds that contact disease die”

6 GRSG Survival scenarios show a decrease of GESG of 6-9% per year!

7 The presentation also suggests ways to manage the land to reduce mosquito’s population.

1 D. Naugle, B. Walker, J. Tack, “West Nile Virus: Ecology and Impacts on Greater Sage-grouse Populations”, U of

Montana, [http://www.wy.blm.gov/prbgroup/research\\_mtg/westnile.pdf](http://www.wy.blm.gov/prbgroup/research_mtg/westnile.pdf)

2 Walker et al, 2004, Wildlife Society Bulletin.

3 Naugle et al, 2004, Ecology Letters

4 D. Naugle, B. Walker, J. Tack, “West Nile Virus: Ecology and Impacts on Greater Sage-grouse Populations”, U of

Montana, [http://www.wy.blm.gov/prbgroup/research\\_mtg/westnile.pdf](http://www.wy.blm.gov/prbgroup/research_mtg/westnile.pdf)

5 Aldridge 2005, Kaczor 2008, Walker 2008

6 Clark et al. 2006

7 D. Naugle, B. Walker, J. Tack, "West Nile Virus: Ecology and Impacts on Greater Sage-grouse Populations", U of Montana, [http://www.wy.blm.gov/prbgroup/research\\_mtg/westnile.pdf](http://www.wy.blm.gov/prbgroup/research_mtg/westnile.pdf)

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**Comment Number:** IDMTSG-14-0130-2

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

We question the validity the various habitat delineations. Lek counts are not statistically reliable. The definition of what constitutes an a clive lek is not universally accepted; and the science relating to the appropriate buffer to use within a model is inconclusive. Determination of PPI-1, PGI-1, etc and their subsequent use in designating Preliminary Management Areas must be re-evaluated. The regional scale and nature of the modeling techniques used fail to recognize major inclusions of nonhabitat.

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**Comment Number:** IDMTSG-14-0131-27

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The effects and consequences of activities such as mineral development can be very site (condition) specific; this can result in different impacts or benefits to the landscape and ecology from such activities. The Draft LUPA/EIS needs to discuss in further detail what has been learned about such activities and what the uncertainties are in regards to impacts and/or benefits. As an example, the discussion of mining on pages 4-12 and through 4-13 of the Draft LUPA/EIS fails to adequately discuss the uncertainty regarding mineral activities and effects on GSG habitat and populations.

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**Comment Number:** IDMTSG-14-0131-4

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

the discussion on threats from infrastructure/right-of-way (page 2-165), the conservation objective for infrastructure is identified as "to avoid development within the priority areas for conservation." This objective results in a one-size fits all, "no-utilization" approach to managing federal lands for the GSG; it is not evident that there is a scientific basis for such an approach.

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**Comment Number:** IDMTSG-14-0131-5

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Studies that address the effects of anthropogenic disturbances on sage-grouse have primarily focused on the effects of oil and gas developments, as well as human induced fires. In addition, due to the recent increase in

energy developments within the western United States, researchers have begun to study the potential effects that tall structures can have on sage-grouse. The potential effects of surface mining activities (i.e., the extraction of non-liquid minerals such as phosphate) on sage-grouse have been largely neglected by researchers. As a result, the magnitude and extent of impacts from mining activities on sage-grouse and sagebrush habitats is largely unknown (Braun 1998, USGS 2013). However, a few small studies have shown that mining activities in sagegrouse habitats can result in a decline of sage-grouse within the mining area.

Eng et al. (1979) found that male sage-grouse attendance decreased at a lek located near a coal mine (distance between lek and mine was not reported), with 23 male sagegrouse observed at the lek in 1974, and only 6 males by 1979. The researchers stated that the overall increase in traffic and noise level from the mine may have contributed to the decline.

A study of a coal mine found that the number of displaying sage-grouse on two leks located within 2 kilometers of an active mine in northern Colorado declined by approximately 94 percent during a 5-year period following an increase in mining activity (Remington and Braun 1991).

Braun (1998) and Tate et al. (1979) reported that recovery of sage-grouse populations may occur after initial development and subsequent reclamation of mine sites, although populations do not recover to pre-development sizes.

Based on the limited information available, the exact extent that sage-grouse numbers may decline as a result of mining activities is uncertain. For example, the USFWS (2010) presented the results of a study conducted in northeast Wyoming where no decline in female survival was detected in a population of sage-grouse located near a large surface coal mine and nest success did not appear to be reduced either; they did however, conclude that continued mining would result in fragmentation and eventual impacts to the population if adequate reclamation and restoration of disturbed areas was not conducted (USFWS 2010).

**Comment Number:** IDMTSG-14-0148-4

**Organization1:** Western COUNITES Alliance

**Commenter1:** Kenneth Brown

**Other Sections:** 7.7

**Comment Excerpt Text:**

The BLM & USFS should have analyzed the effectiveness of current rangeland health standards and guidelines before developing alternatives, and should have used that analysis for considering appropriate changes to the RMP with respect to livestock grazing and range management.

**Comment Number:** IDMTSG-14-0150-10

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Comment Excerpt Text:**

The forecast that greater sage-grouse populations will continue to significantly decline into the foreseeable future within the Great Basin also appears to be wrong. Nevada Department of Wildlife Studies report that greater sage-grouse populations increased within the state from 2008 through 2010.

**Comment Number:** IDMTSG-14-0150-6

**Organization1:** Western Range Service



**Commenter1:**QuintonJ. Barr

**Other Sections:** 7.7

**Comment Excerpt Text:**

The Draft LUPA EISs devote voluminous space to the current status of the affected environment and to the expected environmental consequences of the various alternatives under consideration for almost everything under the sun, except for the status and environmental consequences with respect to greater sage-grouse population levels and trends, thereby failing to meet the overriding purpose for the project. The EISs analyze the status and environmental consequences with respect to other special status species, vegetation, fish and wildlife, wild horses and burros, wildfire, livestock grazing, recreation, travel management, lands and realty, mineral resources, special designations, soil resources, water resources, cultural resources, tribal interests, visual resources, roadless areas, air quality, climate change, social and economic conditions, and forest and woodland products, among other things. But the Draft LUPA EISs give only cursory attention to the current status of greater sage-grouse populations and essentially no attention to the environmental consequences of the various alternatives under consideration on greater sage-grouse population levels and trends.

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**Comment Number:** IDMTSG-14-0150-8

**Organization1:**Western Range Service

**Commenter1:**QuintonJ. Barr

**Comment Excerpt Text:**

The FWS Findings estimated that the recent range-wide greater sage-grouse population totals over 535,000 birds, which is 107 times larger than the minimum effective population of 5,000 birds. See FWS Findings6, Table 4, page 13921. Given the estimated number of males by Management Zone reported in Table 6 of the FWS Findings (see FWS Findings6, page 13923) and the female skewed sex ratio for greater sage-grouse (reported to average about two females to one male, FWS Findings6, pages 13916 and 13992), it is evident that all seven Management Zones exceed a population of 500 breeding adults, and five of the Zones greatly exceed the minimum effective population of 5,000 individual birds which precludes a population from the long-term risk of extinction. Thus, five Management Zones exceed the population size below which greater sage-grouse are considered to be at risk for long-term extinction, so there are at least five areas that support sufficient populations to preclude the greater sage-grouse from being listed as threatened under the ESA according to data reported within the FWS Findings.

When discussing two stronghold habitat areas, the FWS Findings implicitly concede that the greater sage-grouse does not qualify to be listed as threatened under the ESA. The FWS Findings state “the ability of these strongholds to maintain high densities to date in the presence of several threats indicates that there are sufficient habitats currently to support the greater sage-grouse in these areas” (see FWS Findings6, page 13962) and admits that the FWS expects that these “two strongholds of contiguous habitat will still remain in fifty years even though the threats discussed above will continue there” (see FWS Findings6, page 14009). The FWS expectation that these two stronghold areas will maintain high densities (large populations) in fifty years, even in the face of existing threats, demonstrates that the species does not face extinction in the foreseeable future, so the greater sage-grouse is not threatened as defined under the ESA.

Given the proportional distribution of breeding males within the ten population areas identified for the Nevada sub-region (see NV Draft LUPA/EIS1, pages 3~26 – 3~32) and the total estimated greater sage-grouse population of 88,000 birds in California/Nevada (see FWS Findings6, table 4, page 13921), it is estimated that at least four populations in this sub-region greatly exceed the minimum effective population of 5,000 individual birds which precludes a population from the long-term risk of extinction. Thus, four Nevada populations likely support sufficient numbers to preclude the greater sage-grouse from being listed as threatened under the ESA.

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**Comment Number:** IDMTSG-14-0151-12  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS does not discuss how the key areas used in Standards & Guidelines assessments referred to in the DEIS overlap with sage-grouse habitat or whether the S&G parameters specifically measure the impacts of livestock at specific points in sage-grouse lifecycles. The DEIS does not explicitly link the measurements of the S&G assessments to the criteria established for sage-grouse nesting and brooding success. Without site-specific monitoring or a clear connection between the rangeland health standards and the habitat needs of sage-grouse, meeting the S&Gs cannot be considered an adequate regulatory mechanism to prevent listing. The DEIS also does not disclose exactly when the S&Gs were evaluated on the allotments, making it uncertain whether BLM's conclusions here are even timely. This type of land health assessment monitoring should also be available online.

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**Comment Number:** IDMTSG-14-0151-16  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS has virtually no information whatsoever regarding current conditions of sage-grouse habitat at the allotment level. Determinations regarding rangeland health standards do not conclusively demonstrate that an allotment is meeting sage-grouse habitat needs. This is especially the case because of the often arbitrary and livestock –industry-biased FRH processes that many BLM Offices conduct (such as those of the Idaho Falls District). Whereas the DEIS claims that BLM uses rangeland health standards to determine wildlife habitat conditions, the current rangeland health standards are general, superficial, qualitative assessments designed to provide an overarching idea of the ecological conditions of a given area, and may not be specific to habitat for any given species

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**Comment Number:** IDMTSG-14-0151-28  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In 2013, FWS considered it “best available science” to base population information on lek data that was over 5 years old. The population analysis in the COT Report Table used the Garton (Knick and Connelly 2009/2011) population analysis numbers of 2007 or 2008, and the prior decade. Using 5 year old lek data in 2013 to draw conclusions on the status of populations impacted especially by the 2007- 2008 fires makes little sense. We are not certain of the vintage of the numbers used in some of the GRSG EISs. WWP had specifically commented in Scoping that current information that reflected possible loss of leks or population declines needed to be presented in the DEISs, and it must be tied to specific areas and mapping so that the losses can be understood and immediate protective action to cushion declines taken.

FWS in the COT appears to have used 500 birds as a threshold for population viability. See COT Table Population abundance and estimated quasi-extinction risk. Yet recent science, such as the BSSG Proposed Rule – shows a much higher number, citing Traill.

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**Comment Number:** IDMTSG-14-0151-3  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Anderson and Inouye<sup>34</sup> [Anderson, Jay E. and Rishard S. Inouye. 2001. Landscape-Scale Changes in Plant Species Abundance and Biodiversity of a Sagebrush Steppe Over 45 Years. Ecological Monographs, 71(4), 2001, pp. 531-556.] found that viable remnant populations of native grasses and forbs are able to take advantage of improved growing conditions when livestock are removed. They found further that despite depauperate and homogenous conditions of permanent plots in 1950, after 45 years of no livestock grazing, vegetation had been anything but static, clearly refuting claims of long-term stability under shrub dominance. Mean richness per plot of ALL growth forms increased steadily in the absence of domestic livestock grazing. Grasses and forbs increased significantly. This information should be integrated into the “No Grazing” or “Reduced Grazing” alternatives and, given these findings, the BLM should analyze the impacts of long-term authorized grazing and its impacts on sagebrush communities and obligates compared to the impacts of removing livestock and allowing these communities to recover naturally

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**Comment Number:** IDMTSG-14-0151-31

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The EIS boundaries do not correspond to sage-grouse populations across southern Idaho. The inclusion of Montana and the tiny island of the Raft River Range Forest lands in Utah does correspond to populations. See Connelly et al (2004) mapping showing the functional populations. Nowhere in the DEIS are these functional populations adequately addressed, and their current status examined

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**Comment Number:** IDMTSG-14-0151-32

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

There is no information on the degree to which the existing Plans, especially older ones, have lived up to their sage-grouse and other habitat protection goals. The degree to which decisions made to promote conflicting portions of the Plans have harmed sage-grouse habitats and populations or led to irreversible losses and population declines has not been examined.

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**Comment Number:** IDMTSG-14-0151-36

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM must provide analysis of historical information, locations of all past vs. present trend leks, lek routes, active and all other categories of leks, how they are defined in Idaho, and patterns of change over time. In other words, the location and scale of the range contractions, perforations that are occurring must be shown to inform understanding of actions to take.

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**Comment Number:** IDMTSG-14-0151-37

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM must analyze the sub-population and population information based on current data. This includes sub-populations and populations that extend into adjacent states. This type of analysis should have been a

primary part of an EIS. This would allow BLM to take immediate and decisive action to try to conserve and mitigate habitat conditions for smaller populations before they blink out, and for larger populations that are likely declining faster than the modeling based on older lek data show.

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**Comment Number:** IDMTSG-14-0151-40  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

It is a significant concern that in this Idaho EIS, BLM mirrors the COT cuts in its down-grading of areas of Priority Habitat into a lesser “**Medial**” category. It is an even greater concern that BLM considers the state plan, which downgrades part of the COT “Priority Areas for Conservation” PACs into the non-Priority habitat sacrifice category of “Important”, to be a reasonable alternative. The COT Report, after making the cuts, then states that all the PAC habitats must be protected.

There is no information provided in the DEIS on why the habitat cuts were made, or how downgrading habitat is a conservation action in the context of declining and increasingly fragmented populations. DEIS at 3-23, describes the “Affected Environment”, but it fails to provide information based on actual populations. It uses what appear to be the Idaho 2006 Plan Key habitat categories of East-Central, Mountain Valleys, North Side Snake South Side Snake, Sawtooth (extirpated), Bear Lake, and Weiser. The text states that the number of males from 2007-2011 were used. No explanation is provided for why. There were 905 occupied leks in 2011, inclusive of land ownership based on IDF, MFWP, UDWR, and WGFD data.

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**Comment Number:** IDMTSG-14-0151-43  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

PACs are termed highly important for long-term viability. PAC “encourages but does not require” that attention be paid to important habitat outside PACs. (If it is important, it should have been in the PAC). The COT Report at 10 also admits that vegetation treatments for livestock forage result in loss or fragmentation of habitat. This is ignored in the DEIS.

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**Comment Number:** IDMTSG-14-0151-45  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

DEIS ES-2 describes range-wide 52 percent of sage habitat is on BLM lands, 8 percent on Forest; and within ID and MT 51 percent BLM, 10 percent Forest. We emphasize that sage-grouse populations occupy private lands, state lands, Reservation lands, energy/military areas, FWS wildlife refuge areas and other lands. The DEISs have wrongly failed to include other federal lands in DEISs across the West, and this must be corrected.

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**Comment Number:** IDMTSG-14-0151-70  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

How is Occupied defined in 2-28 discussion of habitats by alternatives in each state and by each agency? Is it defined the same across the range?

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**Comment Number:** IDMTSG-14-0151-71

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

DEIS 2-28, 2-29. The Montana information is confusing. Why has so little habitat in Montana made the cut as PPMA, given that 2.6 million acres are shown as habitat in general?

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**Comment Number:** IDMTSG-14-0151-76

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

This DEIS fails to comply with the NTT, and with NEPA's requirements that relevant science be considered, reasonably interpreted, and accurately presented. Uncertainties and risks need to be addressed. Hasn't there been new and updated current science since the NTT release, to further demonstrate the significant harms habitats and populations face from grazing and other disturbances? Example: Beschta et al 2012 describing how grazing amplifies adverse effects of climate change, Reisner et al. 2013 describing grazing causing cheatgrass. Various summaries of harms caused by treatments (Hess and Beck 2012, Jones et al. 2013, Bukowski and Baker 2013 examination of GLO records, showing long fire return intervals and dense sagebrush historically and trees interfacing with sage, and significant naturally dense sagebrush in the landscape at the time of settlement). Plus, BLM appears to have missed all the energy-development impacts studies from Wyoming over the past decade, as it is still using a 0.6 lek avoidance distance

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**Comment Number:** IDMTSG-14-0151-78

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Please conduct a risk assessment and analysis of the degree to which the battery of sage and tree manipulation treatments and fuels projects that are envisioned will:

- **Fragment GRSB habitats**, increase harmful edge.
  - **Reduce cover** in linkage areas.
  - **Reduce or sever patch connectivity.**
  - **Sever linkage areas.**
  - **Increase Edge Effect and patchiness** in the Landscape Matrix
  - **Increase anthropogenic disturbances** (removal of shrubs that prevent OHV use, intensified grazing in areas cleared or thinned of sage and trees, etc.).
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**Comment Number:** IDMTSG-14-0151-79

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Please provide a detailed mapping and analysis of all of the Indicator Measurements and “Suitability Characteristics” for GRSG habitats DEIS 2-69 Tables 2-5 and 2-6 as part of the baseline.

As part of fine-scale indicators, Table 2-6, please include presence of livestock in blocks of sage in the seasonal use areas during conflicting periods (breeding, winter).

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**Comment Number:** IDMTSG-14-0151-94  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Even basic scientific papers on the effects of livestock grazing and the many ways in which grazing degrades sagebrush communities are absent. Example: Mack and Thompson (1982), Fleischner 1994, Ohmart 1996, Belsky et al. 1998. Summary papers on livestock alteration of the composition, function and structure of plant communities, and livestock as a causal factor of weed invasions are ignored. See Fleischner 1994, Belsky and Gelbard 2000.

While BLM does reference the Manier et al. 2013 BER, specific actions needed to address the grazing and grazing system harms identified in Manier are lacking in Alt. D, including use of passive restoration.

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**Comment Number:** IDMTSG-14-0153-16  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

This policy required BLM to complete an Ecoregional Assessment for the Wyoming Basins Ecoregion. Id. at 11. This Wyoming Basins Ecoregional Assessment publication (“WBEA”)<sup>3</sup> was completed in 2011, and BLM should reference the findings of this report as they apply to Idaho, which falls partially within the Wyoming Basins Ecoregion, in order for the BLM has not met its obligation to “use the best available science” including publications specifically mandated under the Strategy. This study included a complete land cover mapping exercise including analysis of human footprint, which would have been useful to include in the Affected Environment section of the DEIS. Chapter 5 of this publication (WBEA at 112) specifically addresses sage grouse avoidance of oil and gas developments and other permitted facilities. This analysis found that sage grouse density was negatively correlated with major highways, powerlines, and the presence of oil and gas wells. WBEA at 124. These researchers pointed out, “Any drilling <6.5 km [approximately 4 miles] from a sage-grouse lek could have indirect (noise disturbance) or direct (mortality) negative effects on sage-grouse populations.” WBEA at 131.

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**Comment Number:** IDMTSG-14-0153-2  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

In the Idaho – Southwest Montana RMP DEIS, BLM failed to apply baseline information from the Wyoming Basins Ecoregional assessment and other scientific studies and reports to inform its analysis of impacts by

alternative. BLM also failed to map and present sage grouse wintering habitat as part of the baseline information requirement. Text on Affected Environment with regard to sage grouse habitat also failed to discuss the winter habitat needs of the birds, in spite of clear scientific evidence that impacts to sage grouse by oil and gas development on winter ranges can have profound effects on the birds (Walker 2008).

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**Comment Number:** IDMTSG-14-0153-24

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Protecting sage grouse leks and associated nesting and brood-rearing habitat are key to conserving the species. The best available science has recorded significant negative impacts from individual producing (post-drilling) oil and gas wells drilled within 1.9 miles from active leks (Holloran 2005), measureable impacts from coalbed methane fields extend out to 4 miles

(Walker 2008), and new research has recorded effects as far away as 12.4 miles from leks (Taylor et al. 2012). WGFD, using lek buffers of 0.25 mile, 0.5 mile, 0.6 mile, 1.0 mile, and 2.0 mile, estimated lek persistence of 4, 5, 6, 10, and 28 percent, respectively (Christiansen and Bohne 2008, Attachment 12).

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**Comment Number:** IDMTSG-14-0153-3

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

Alternative D would apply a 3% limit on anthropogenic disturbance, but only for future fluid mineral leases. Relevant to the issue of the 3% disturbance cap, we ask the responsible official to make a formal determination concerning which of the available scientific information is the most accurate, reliable, and relevant in determining what percentage of land area should be allowed to be disturbed in order to achieve the stated goal of the RMP Amendment. We would further ask the Forest Service to determine whether a 3% disturbance cap or no disturbance cap is the scientifically supported measure to apply as a Condition of Approval to existing fluid mineral leases. We would ask the Forest Service to consider the findings of Knick et al. (2013), which concluded in relevant part that 99% of the active leks in the study area (encompassing the entire western range of the greater sage grouse) were surrounded by habitat with 3% surface disturbance or less. See Attachment 1. We would ask the responsible official to consider the findings of Kirol (2012), which found for his study area immediately north of the planning area that surface disturbance greater than or equal to 4% of the land area had a significant negative impact on greater sage grouse brood rearing habitat. See Attachment 2. We would ask the responsible official to consider the findings of Copeland et al. (2013), which found that if all of the State of Wyoming sage grouse policy provisions (which include a 5% disturbance cap calculated using a Disturbance Density Calculation Tool) were implemented fully and to the letter, that a 9 to 15% decline in greater sage grouse populations would still occur statewide, including a 6 to 9% decline within designated Core Areas (where the 5% disturbance cap would be applied). We would ask the responsible official also to render the same determination regarding the accuracy, reliability, and relevance of science supporting the 3% disturbance cap proposed for implementation under Alternative B

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**Comment Number:** IDMTSG-14-0153-4

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

Please also make a formal determination regarding the disturbance cap in the context of sagebrush canopy cover, and if 3% is not the scientifically defensible threshold, then where that threshold should be set, for the same reasons as noted above for the 3% and 5% disturbance caps. Please review the studies listed above, and any and all additional studies that directly address the efficacy of a 3% disturbance cap, if any. Knick et al. (2013) found that almost all active leks were found in areas with less than 10% cropland (Figure 5). This study included all of Idaho (Knick et al. 2013, Figure 2), indicating that its findings are directly relevant to this EIS. We are unaware of any such studies, and in their absence federal agencies should employ the precautionary principle and utilize a 3% cumulative disturbance cap for all forms of disturbance

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**Comment Number:** IDMTSG-14-0153-46

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

All livestock allotments are managed under a rotational pattern, some using herding and others using fencing. However, scientific studies are split on the effectiveness of this approach, with many studies pointing out that it is the number of Animal Unit Months, not the pattern of grazing, that is the key factor in maintaining rangeland health. Bock et al. (1993) noted that rotational or uniform grazing pressure leads to uniform habitat types rather than a mosaic of successional stages, a result of the slow recovery of ecological succession compared to the typically rapid frequency of grazing rotation. But while optimization for livestock weight gain may maximize livestock production while maintaining net primary productivity, it may also shift the community away from late-successional dominants (which have high value to grouse) to mid- to early-successional annuals, including introduced weed species (Briske 1993). Given that fencing is a major cause of collision mortality for sage grouse, the use of fencing for rotational grazing should be discontinued, and allotments with fences within designated sage grouse habitat should have their fences removed

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**Comment Number:** IDMTSG-14-0153-59

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

BLM assumes that for transmission lines built prior to 2012, the impacts to sage grouse have already fully manifested, and the addition of new transmission lines to these existing right-of-way corridors will have no additional impact. DEIS at 4-7. We are concerned that ROW corridors can be quite wide, and construction of a new transmission line closer to sensitive habitat than the original line would have significant additive impacts to sage grouse populations using those habitats. BLM assumes a 4.25-mile avian predator foraging distance from powerlines (DEIS at 4-8), which seems a reasonable assumption. Please provide documentation, preferably in the form of scientific studies, that demonstrate that adding new transmission lines to existing powerline corridors has no significant impact on grouse populations and habitat use, in order to fulfill NEPA's hard look requirements.

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**Comment Number:** IDMTSG-14-0153-6

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

Alternative B would limit surface disturbances to no more than one per section, at least on future fluid



mineral leases. DEIS at 2-188. This should be implemented for all leases (future and existing) and for other types of similar disturbance in the final plan. BLM's Alternative D limits the density of wellpads to one per square mile, but for future mineral leases only (DEIS at 2-191); this needs to be applied to existing leases also as a Condition of Approval. Please review the best available science and make a determination regarding whether one wellpad/disturbance per section, or no limit at all, is the most scientifically supported approach or whether no limit on wellpad density would best achieve the purpose and need of the plan amendment. Please consider the following studies which directly address the threshold of well density at which impacts to sage grouse occur: Holloran (2005), Doherty (2008), Walker et al. (2007), Taylor et al. (2012), and Copeland et al. (2013). Attachments 3, 4, 5, 6, and 7, respectively. Each of these studies find significant declines of sage grouse populations as well densities exceed one pad per square mile, and some of these studies indicate negative effects on sage grouse at lower wellpad densities

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**Comment Number:** IDMTSG-14-0153-62

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Knick et al. (2013) found that 99% of active leks in the planning area were surrounded by less than 3% surface disturbance. Manier et al. (2013) reviewed a variety studies, and found that risk of brood loss increased significantly when a threshold of 4% surface disturbance was surpassed (p. 59), and also noted additional disturbance thresholds. The Idaho-Southwest Montana DEIS does not disclose the current thresholds of surface disturbance by population area as baseline information, nor does it estimate the projected disturbance percentage by area for each alternative. DEIS at 4-72 and following sections. This information is critical to determine how the alternatives compare in terms of resulting in significant impacts to sage grouse based on exceedences of varying disturbance thresholds under each alternative. This key analysis is missing from the DEIS

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**Comment Number:** IDMTSG-14-0153-7

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.9

**Comment Excerpt Text:**

The federal agencies propose to compensatory mitigation as a key element of Alternative D DEIS at 2-74. These are intended to offset impacts. Id. We call upon the Forest Service to reach a determination regarding the effectiveness of the proposed compensatory mitigation to result in no net loss of sagebrush populations for the area in question. Please document any and all scientific studies that conclude that compensatory mitigation efforts have yielded an increase in sage grouse populations for the area to which mitigation efforts apply. We are unaware of any cases in which a compensatory mitigation program has resulted in a significant increase in sage grouse compared to an untreated landscape. The fact that "compensatory mitigation" funding frequently is used to purchase conservation easements is problematic, because this is a paper transaction with legal ramifications preventing future potential losses, but can never yield population gains to offset the very real and immediate losses of sage grouse habitats and populations incurred as a result of industrial development

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**Comment Number:** IDMTSG-14-0153-8

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

Please evaluate the scientific basis for the effectiveness of timing limitation stipulations as an alternative to no surface occupancy stipulations, using the scientific studies cited in these comments and any other studies that examine the changes in sage grouse populations when drilling and construction activities are allowed within 4 miles of sage grouse leks, but construction and drilling activities are prohibited during the breeding and nesting seasons

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**Comment Number:** IDMTSG-14-0157-1

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The DEIS continues this approach by failing to provide any current information on Sage-grouse populations in Idaho even though population numbers were obtainable in 2007 pursuant to the Service's findings. BLM should update its population counts in Idaho before publishing the Final Environmental Impact Statement ("FEIS") and Record of Decision. In addition, BLM, working with the Service, should determine how many birds are necessary to avoid a listing under the ESA so that the public and the agencies can accurately understand the situation as it currently exists and as it may need to change rather than simply relying on trend data as set forth in DEIS Section 3.2.1.

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**Comment Number:** IDMTSG-14-0157-9

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Y -3 II is concerned about the lack of discussion within the DEIS of the impact of predators and disease on Sage-grouse populations. Disease and predation are among the explicit factors that the Secretary must consider when determining whether to list a species as threatened or endangered. 16 U.S.C. § 1533(a)(1)(C). Y-3 II recognizes that the Service concluded that disease and predation were not significant threats to the species so as to require a listing under the Act. However, the Service did provide significant details on the effects of both West Nile Virus and predation in its warranted but precluded finding. See 75 Fed. Reg. at 13966-973. Specifically, the Service's discussion of disease is dominated by West Nile Virus analysis. It is an important issue in southern Idaho where Y-3 II operates. Idaho identified West Nile Virus as a threat in 2006. See Table 1.2. For example, Sage-grouse hunting in adjacent Owyhee County was closed in both 2008 and 2009 due to population declines resulting from West Nile Virus. Id at 13968. The disease has been detected in ten states and one Canadian province and Sage-grouse survival is extremely low. Id. at 13969. The Service notes the need for a comprehensive monitoring program to determine the extent and effects of the disease range-wide. The disease is a "significant mortality factor for greater sage-grouse when an outbreak occurs ...." Id. At 13970.

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**Comment Number:** IDMTSG-14-0159-24

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Additionally, new data and research published by Gibson et al. (2011) have refuted the frequently repeated belief that there is a no additive demographic effect of hunting on sage-grouse populations. Thus, the hunting

of populations within Idaho will have an effect not only on those populations but also on nearby populations that are not hunted (but are genetically and demographically linked by dispersal) throughout the range of the GRSG in the Western United States.

26. See M. Maxwell, “BLM’s NTT Report: Is It the Best Available Science or a Tool to Support a Pre-Determined Outcome”, Northwest Mining Association (2013). A copy of this report is attached hereto as Exhibit 9 and incorporated herein by reference. [Hereinafter “Maxwell Report”].

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**Comment Number:** IDMTSG-14-0159-25

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Landscapes with less than 30% area in sagebrush within 6.4 km of lek center have the lowest probability of lek persistence. In response to this data, Governor’s Alternative takes a conservative approach to allow for quicker reaction time. A “soft” trigger is set at a 10% loss of breeding or wintering habitat in CHZ or IHZ within a Conservation Area. A “hard” trigger is set at a 20% loss of breeding or winter habitat in CHZ within a Conservation Area.

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**Comment Number:** IDMTSG-14-0160-2

**Organization1:** Avian Power Line Interaction Committee

**Commenter1:** Sherry Ligouri

**Comment Excerpt Text:**

[APLIC requests that the BLM consider these new studies, which use current telemetry techniques and specifically investigate sage-grouse responses to power lines, when addressing power lines in its LUP update.]  
Messmer, T., A., R. Hasenyager, J. Burruss, and S. Liguori. 2013. Stakeholder contemporary knowledge needs regarding the potential effects of tall structures on sage-grouse. *Human-Wildlife Interactions* 7(2):273-298.

Nonne, D., E. Blomberg, and J. Sedinger. 2011. Dynamics of Greater Sage-grouse (*Centrocercus urophasianus*) populations in response to transmission lines in central Nevada. Progress Report: Year 9. December 2011. Department of Natural Resources and Environmental Sciences, University of Nevada, Reno. 79pp.

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**Comment Number:** IDMTSG-14-0167-1

**Organization1:** Pioneer PR and Development LLC. Trifold Media Company

**Commenter1:** Mitch Staley

**Comment Excerpt Text:**

Under the heading “Population Estimates/Status” within the “Sage-Grouse ESA Species Listing Form,” there are numerous cases of admission to the fact that methodology reliant upon male lek counts in extrapolating data to determine total species population estimates is “difficult as the relationship of those data to actual

population size (e.g. ratio of males to females, percent unseen birds) is usually unknown (WAFWA 2008, p.3; Fedy and Aldridge 2011, p.17).” Subsequently, all estimates of sage-grouse populations are inadequate to qualify as quality data under the U.S. DOI Information Quality Guidelines Section II: 4 (a) and (b)

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**Comment Number:** IDMTSG-14-0167-6

**Organization1:** Pioneer PR and Development LLC. Trifold Media Company

**Commenter1:** Mitch Staley

**Comment Excerpt Text:**

Not knowing an accurate control number for sage-grouse prior to implementing any management treatment (whether its ESA listing or stricter management) is un-scientific and would determine invalid results that no proper conclusions could be drawn to infer upon the greater sage-grouse population.

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**Comment Number:** IDMTSG-14-0168-20

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

1 - I 8

"If current trends in wildfire, populations and habitat activities continue, then populations of sage-grouse in MZ IV are estimated to decline by 55 percent between 2007 and 2037, and by 66 percent in MZ II (USFWS 2010, citing unpublished version of Garton et al. 2011). Modeling suggests that if current conditions and trends continue, at least 13 percent of the GRSG populations may decline below effective population sizes of 50 within the next 30 years and at least 75 percent of the populations may decline below effective population sizes of 500 within the next 100 years (Garton et al. 2011)."

Comments:

Why was the unpublished version of Garton et al. 2011 cited? If these predictions are not in the final version of Garton et al they should not be used. Citations of citations of unpublished versions of reports are NOT the best available science.

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**Comment Number:** IDMTSG-14-0169-25

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Sage-grouse management guidelines recommend that grazing maintain = 18 cm grass height in nesting and brood-rearing-rearing habitat (Connelly et al. (2000); see also Braun et al. 2005). Gregg et al. (1994: 165) noted that “[I]and management practices that decrease tall grass and medium height shrub cover at potential nest sites may be detrimental to sage grouse populations because of increased nest predation. ... Grazing of tall grasses to <18 cm would decrease their value for nest concealment. ... Management activities should allow for maintenance of tall, residual grasses or, where necessary, restoration of grass cover within these stands.” Kaczor (2008: 26) found that taller grass height was positively correlated with sage-grouse nest success in South Dakota and recommended that “[I]and managers should attempt to leave or maintain maximum grass heights [greater than or equal to] 26 cm, the inflection point for 50% nest success.” Because sage-grouse nesting generally begins prior to the onset of the growing season, residual vegetation from the previous year dictates available hiding cover (Cagney et al. 2010). Consequently, management must ensure

that grass height averages = 18 cm after the growing season to support sage-grouse nesting the following year.

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**Comment Number:** IDMTSG-14-0169-33

**Organization:** Defenders of Wildlife

**Commenter:** Mark Salvo

**Comment Excerpt Text:**

**Best Available Information**

**The plan should consider important, new information concerning sage-grouse and sagebrush steppe.**

The National Environmental Policy Act requires agencies to use “high quality” information in planning (40 C.F.R. § 1500.1(b)) and the BLM’s own sensitive species policy requires the agency to “obtain and use the best available information deemed necessary to evaluate the status of special status species in areas affected by land use plans” (BLM Manual 6840.22A) (see also BLM NEPA Handbook H-1790-1, 6.8.1.2 (January 2008), “Use the best available science to support NEPA analyses...”). The Forest Service, a cooperating agency in the Planning Strategy, also committed to using best available science in land use planning in its transitional 2000 planning rule (36 CFR § 219.35) and its new 2012 planning rule (77 Fed. Reg. 21162). Finally, planning criteria for the draft Idaho/SW Montana plan assures that all proposed management actions will be based on current scientific information and technology (vol 2, 1-35). The following new information related to sage-grouse and sagebrush steppe was published during preparation of the draft plan and should be considered in the final plan, as appropriate.

1. Beschta, R. L., D. L. Donahue, D. A. DellaSala, J. J. Rhodes, J. R. Karr, M. H. O'Brien, T. L. Fleischner, C. Deacon-Williams, Cindy. 2012. Adapting to climate change on western public lands: addressing the ecological effects of domestic, wild, and feral ungulates. Environmental Management, available at [http://fes.forestry.oregonstate.edu/sites/fes.forestry.oregonstate.edu/files/PDFs/Beschta/Beschta\\_2012EnvMan.pdf](http://fes.forestry.oregonstate.edu/sites/fes.forestry.oregonstate.edu/files/PDFs/Beschta/Beschta_2012EnvMan.pdf).

2 Sage-Grouse Recovery Alternative for criteria for designating sagebrush reserves, p. 41 ([www.sagebrushsea.org/pdf/Sage-Grouse\\_Recovery\\_Alternative.pdf](http://www.sagebrushsea.org/pdf/Sage-Grouse_Recovery_Alternative.pdf)).

- Domestic livestock and other ungulates alter vegetation, soils, hydrology, and wildlife species composition and abundances that exacerbate the effects of climate change on western landscapes. Removing or reducing livestock grazing across large areas of public land would alleviate a widely recognized and long-term stressor and make ecosystems less susceptible to the effects of climate change.

2. Knick, S. T., S. E. Hanser, K. L. Preston. 2013. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: implications for population connectivity across their western range, U.S.A. Ecology and Evolution, available at <http://onlinelibrary.wiley.com/doi/10.1002/ece3.557/pdf>.

- Sage-grouse require sagebrush-dominated landscapes containing minimal levels of anthropogenic disturbance. Ninety-nine percent of remaining active sage-grouse leks were in landscapes with less than 3 percent disturbance within 5 km of the lek, and 79 percent of the area within 5 km was in sagebrush cover.

3. Copeland, H. E., A. Pocewicz, D. E. Naugle, T. Griffiths, D. Keinath, J. Evans, J. Platt. 2013. Measuring the effectiveness of conservation: a novel framework to quantify the benefits of sage-grouse conservation policy and easements in Wyoming. PLoS ONE 8(6): e67261. doi:10.1371/journal.pone.0067261. Available at [www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0067261&representation=PDF](http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0067261&representation=PDF).

- Modeling indicates that the Wyoming sage-grouse core area conservation strategy, fully applied, plus \$250 million invested in targeted conservation easements, would slow, but not stop projected sage-grouse population declines in the state. The Wyoming core area policy prohibits or restricts surface occupancy within 0.6 miles of sage-grouse leks, generally limits development to one site per 640 acres, and limits cumulative surface disturbance to 5 percent per 640 acres in core habitat.

4. Taylor, R. L., J. D. Tack, D. E. Naugle, L. S. Mills. 2013. Combined effects of energy development and

disease on greater sage-grouse. PLoS ONE 8(8): e71256. doi:10.1371/journal.pone.0071256. Available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0071256>.

- The predicted cumulative impact of dense fluid minerals development (3.1 wells/km<sup>2</sup>) and West Nile virus outbreaks on greater sage-grouse quadrupled inactivity at leks in northeast Wyoming compared to the individual impacts of development or disease. Noting the deleterious effects of cumulative impacts on sage-grouse, the researchers concluded that "conservation measures should maintain sagebrush landscapes large and intact enough so that leks are not chronically reduced in size due to energy development, and therefore vulnerable to becoming inactive due to additional stressors." They also advised "placing new developments outside of core [habitat] areas has the greatest likelihood of sustaining [sage-grouse] populations."

5. Howe, K. B., P. S. Coates, D. J. Delehanty. 2014. Selection of anthropogenic features and vegetation characteristics by nesting Common Ravens in the sagebrush ecosystem. *Condor* 116: 35-49.

- The proximity of transmission lines was, among other factors, predictive of nest location for common ravens in/near sagebrush steppe. The research supports other findings that transmission lines subsidize ravens, a predator of sage-grouse.

**Comment Number:** IDMTSG-14-0169-41

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 3

**Comment Excerpt Text:**

Failure to map sage-grouse winter habitat could be grounds for remanding an RMP/EIS back to BLM to address the omission. *WWP v. Salazar*, 4:08-CV-516BLW, Slip Op. at 3.

**Comment Number:** IDMTSG-14-0178-30

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Local Issues (1-11) – The final LUPA/EIS must acknowledge that threats, such as overabundant predator populations, vary at the local level. Solutions are best made closer to the ground which is what makes Alternative E move effective and practical.

**Comment Number:** IDMTSG-14-0179-12

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

Activities must not result in a decrease in sage-grouse populations within the given Conservation Area. Negative effects from energy infrastructure have been measured up to 12.4 km from leks.<sup>4</sup> Within high potential areas in the IHZ, we recommend a disturbance threshold of 3% instead of 5%. As discussed earlier, strong protective measures need to be implemented within the IHZ and it is well-documented that a 5% threshold is insufficient to protect sage-grouse.<sup>5</sup> Limiting the density of development features to no more than one well pad per square mile is a significant factor in conserving sage-grouse as well. <sup>6</sup> The NTT report also recommends utilizing closed-loop drilling systems.

4

Taylor, R.L., D.E. Naugle, L.S. Mill. 2012. Viability analysis for conservation of sage-grouse populations:

Buffalo Field Office, Wyoming. BLM Contract 09-3225-012; Number G09AC00013. Final Report. Prepared for Bureau of Land Management, Buffalo Field Office. Buffalo, WY.

5 Manier, D.J., D.J.A. Wood, Z.H. Bowen, R.M. Donovan, M.J. Hollaran, L.M. Juliusson, K.S. Mayne, S.J. Oyler-McCance, F.R. Quamen, D.J. Saher, and A.J. Titolo. 2013. Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater Sage-Grouse (*Centrocercus urophasianus*). U.S. Geological Survey Open-File Report 2013-1098, 170 p., <http://pubs.usgs.gov/of/2013/1098/>.

6 Copeland, H.E., A. Pocewicz, D.E. Naugle, T. Griffiths, D. Keinath, J. Evans, and J. Platt. 2013. Measuring the Effectiveness of Conservation: A Novel Framework to Quantify the Benefits of Sage-Grouse Conservation Policy and Easements in Wyoming. *LOOS ONE* 8(6): e67261.

Doi:10.1371/journal.pone.0067261.

**Comment Number:** IDMTSG-14-0182-3

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

The estimate of how much GRSG habitat has been lost is speculative. Connelly (2004) used a hypothetical "pre-European sage grouse distribution" but provides no data or evidence of historic sage grouse habitat or populations. The Final EIS must be based on science, not speculation. Connelly's 2004 monograph relies on extensive GIS analysis to translate speculative habitat conditions into theoretical historical habitat, which is then compared to current potential sage grouse habitat. The theoretical habitat loss since European settlement is calculated through this exercise. Areas known to be occupied historically by sage grouse were not included, and areas where there is no data of sage grouse occupancy are included.

**Comment Number:** IDMTSG-14-0182-9

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

**Comment Excerpt Text:**

More efficient operations and mitigation efforts further documented in Ramey, Brown, and Blackgoat (2011). Neither the DEIS nor the NIT Report acknowledges that nearly all of these measures have been implemented in the years since Holloran's data gathering occurred (from 1997 to 2003).

**Comment Number:** IDMTSG-14-0183-10

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Power line collisions accounted for 33 percent of juvenile (1st winter) mortality in low-elevation areas in Idaho (Beck and others, 2006). (Manier et al. [2013])

Beck et al. (2006) reported 2 out of 43 (4.6%) radio-tracked sage grouse killed by colliding with a powerline. The total number of grouse that have been reported in the literature as being killed by colliding with a powerline is 3. One was reported by Connelly et al. (2000) and 2 by Beck et al.(2006). This citation is misleading in reporting only juvenile mortalities and suggests that colliding with powerlines is common and constitutes a major mortality factor.

**Comment Number:** IDMTSG-14-0183-11

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Poles and towers associated with transmission lines have been shown to influence raptor and corvid distributions and hunting efficiency resulting in increased predation on sage-grouse (Steenhof and others, 1993; Connelly and others, 2004). (Manier et al. [2013])

Steenhof et al. (1993) documents ravens and raptors colonizing a newly built 50-kV transmission line. Connelly et al. (2004) references Steenhof et al. (1993) to state that raptors and ravens perch and nest on poles and towers and may prey on sage grouse. No information or data is provided in either citation as to whether poles and towers influence hunting efficiency, resulting in increased predation on sage grouse.

**Comment Number:** IDMTSG-14-0183-27

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 2-70.

Table 2-7 Fine-Scale Indicators Suitability Characteristics for GRSB Lek Sites

Suitable Habitat Characteristics: Trees or other tall structures are not within line of sight of lek and absent or uncommon within 3 km of the lek.

Very limited information is available on the direct behavioral response of sage-grouse to tall structures. Walters et al. (2014) reviewed the effect of tall structures on birds, primarily functional habitat loss due to avoidance. They did not detect any consistent response to tall structures and concluded that a structure's "tallness" could not be isolated from other factors associated with the development such as human activity. The most frequently cited literature supposedly providing evidence of avoidance of tall structures by sage-grouse are either unpublished or non-peer reviewed reports (Ellis 1985, 1987; Braun 1998; Braun et al. 2002). There is no empirical evidence that "tall structures" would impact leks up to 3 km. Recent studies have shown that sage-grouse responses to tall structures are variable and do not necessarily show avoidance of structures and associated habitat. LeBeau (2012) also found that sage-grouse selected nesting habitat closer to transmission lines that have existed for over 10 years and are within quality habitat at Simpson Ridge. Also, female survival in the study area was greatest at closer proximity to the transmission lines. Nest site selection was higher closer to transmission lines in one study area and not a factor in the other study area. Brood rearing habitat selection in one study area increased with distance to the transmission line up to 4.7 km and then declined, but in the other study area brood rearing habitat selection was highest in the area around the transmission line. The risk of nest failure increased as distance from the transmission line increased. Brood survival was not impacted by distance to transmission lines. The study found female survival was highest near the transmission lines throughout the study area. Long-term studies associated with the Falcon-Gondor transmission line Nonne et al. (2013) conducted a 10-year study of greater sage-grouse in response to a (major) transmission line in central Nevada and reported that habitat conditions had the greater effect on sage grouse nests, brood success, and overall survival than did proximity to the transmission line

**Comment Number:** IDMTSG-14-0183-3

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas



**Comment Excerpt Text:**

Messmer et al. (2013), citing UWIN's stakeholder-based literature and knowledge-based review of tall-structure impacts on sage grouse, states that "Stakeholder's concluded that there were no results in the published, peer-reviewed literature of experimental studies designed to evaluate the potential landscape effects of tall structures on sage-grouse." The article goes on to state the following:

Stakeholders concluded that a major impediment they encountered in reviewing the papers or reports cited regarding the potential effects of tall structures on sage-grouse were largely related to a lack of BACI experimental designs. Specific stakeholder concerns included:

- (1) observational studies or observations based on personal communication or unpublished data;
- (2) inadequate descriptions of control and treatments or pre-existing habitat conditions;
- (3) inferences to sage-grouse from studies conducted on other species;
- (4) retrospective studies that did not quantify related environmental conditions;
- (5) inappropriate or misuse of citations;
- (6) the use of results from cumulative impact studies of other energy development to make inferences about the effects of tall structures on sage-grouse; and
- (7) small sample sizes.

(Utah Wildlife-in-Need Foundation 2010)

These same limitations plague the BLM's Draft Land Use-Plan Amendment (LUPA)/EIS evaluation of powerline impacts. The literature and research findings used by the BLM appear selective, at times appear misrepresentative of the actual research results, use observations as if they are peer reviewed research, and fail to recognize the contradictory findings in studies.

**Comment Number:** IDMTSG-14-0183-30

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Pg. 3-11 and 3-12. Predation

Predation is the most commonly identified cause of direct mortality for GRSG during all life stages (Connelly et al. 2011; USFWS 2010a citing others), but studies suggest that predation is not limiting populations (Hagen 2011).

In areas where habitat is not limited and of good quality, predation is not a threat to the persistence of the species (USFWS 2010a). However, predation may limit population growth in fragmented habitats or areas where predator populations have supplemental food sources, [...], or where electrical transmission or other human-made structures facilitate nesting and perching by avian predators such as ravens (Howe 2012; Hagen 2011).

These statements are in apparent contradiction. At the one hand, the BLM argues that predation is not limiting greater sage-grouse populations, or not a threat to greater sagegrouse if "habitat is not limited and of good quality". Electrical transmission lines or human-made structures may facilitate nesting and perching by avian predators, but the direct impacts of human-made structures to nesting populations of greater sage-grouse have not been clearly demonstrated given all other environmental factors that influence predators and habitat conditions. In fact, Walters et al. (2014) in a review of the effects of tall structures on birds and concluded that none of the reviewed studies provided data on presence of predatory birds or measured survival associated with distance from a structure. Moreover, ideas presented in the discussion of the reviewed papers presented as hypotheses to explain an observed pattern were assumed by other researchers to represent an empirically tested causal mechanism. Howe (2012) showed that transmission lines, in association with human presence in the landscape, and non-native habitat increased the likelihood of the presence of common ravens. However, if habitat is not fragmented, or otherwise degraded and there are no

food subsidies available to common ravens, there is little evidence that common ravens are impacting greater sage-grouse populations. Nonne et al. (2013) conducted a 10-year study of greater sage-grouse in response to a (major) transmission line in central Nevada and reported that habitat conditions had the greater effect on sage grouse nests, brood success, and overall survival than did proximity to the transmission line. Furthermore, Nonne et al. (2013) found no evidence that predation increased with distance to the transmission line, because nest survival and female survival did not show a relationship to distance to the line. Thus, assuming increased predation by avian predators, including common ravens with the presence of either an existing or newly-built distribution/transmission line is too simplistic and does not take into account other parameters that influence predator presence and likelihood of greater sage-grouse nest predation.

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**Comment Number:** IDMTSG-14-0183-34

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

GRSG exhibit extremely high site fidelity which strongly suggests that unfamiliarity with new habitats may also reduce survival (Baxter et al. 2008), as evidenced in other grouse species (Yoder et al. 2004). GRSG avoid other anthropogenic features such as roads, power lines, oil and gas wells, and buildings (Lyon and Anderson 2003; Pruett et al. 2009).

This is an inaccurate characterization of the (potential) effects of powerlines on alleged avoidance behavior of sage-grouse of “tall structures”. Very limited information is available on the direct behavioral response of sage-grouse to tall structures. The most frequently cited literature supposedly providing evidence of avoidance of tall structures by sage-grouse are either unpublished or nonpeer reviewed reports (Ellis 1985, 1987; Braun 1998; Braun et al. 2002). Avoidance by sage-grouse of leks and habitats that are near energy developments have been well documented (Lyon and Anderson 2003, Holloran et al. 2010, Walker et al. 2007, Hess and Beck 2012).

Recent studies have shown that sage-grouse responses to tall structures are variable and do not necessarily show avoidance of structures and associated habitat. LeBeau (2012) found that sage-grouse did not avoid wind turbines during the nesting and brood-rearing periods, but selected for habitats closer to turbines during the summer season. Although sage-grouse nest and brood survival decreased in habitats in close proximity to wind turbines, female survival appeared not to be affected by wind turbines. Also, wind energy infrastructure appears not to be affecting male lek attendance 4 years post development. Ongoing studies associated with the Falcon-Gondor transmission line (Nonne et al. 2011, 2013) did not show avoidance behavior of radio-tracked sage-grouse of tall structures (powerline corridors).

Pruett et al. (2009) examined radio-telemetry tracking locations of lesser prairie chicken and greater prairie chicken in Oklahoma, not greater sage-grouse. Furthermore, Pruett et al. (2009) did not provide the contextual details of the study area that allow for the assessment of effect magnitude.

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**Comment Number:** IDMTSG-14-0183-4

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Following are examples of literature used in the Draft LUPA/EIS and by Manier et al. (2013), which is relied on heavily in the Draft LUPA/EIS document.

Observational Study or Observations Based on Personal Communication or an Unpublished Study  
GRSG may abandon leks if repeatedly disturbed by raptors perching on power lines or other tall vertical structures near leks (Ellis 1984), by vehicular traffic on roads (Lyon and Anderson 2003) or by noise and human activity associated with energy development (Braun et al. 2002; Holloran 2005; Kaiser 2006). (Idaho/Montana [ID/MT] Draft LUPA/EIS)

Ellis (1984) describes the behavioral response of sage grouse to golden eagles at a lek. Some males flushed, others remained (“master cocks”) and continued displaying after a while. There is no evidence provided that the lek was abandoned because of the presence of golden eagles. IPC suggest the BLM carefully evaluates Ellis (1984) and makes changes to the statement in the Draft EIS accordingly.

Manier et al. (2013) - Braun (1998b) reported that use of areas near transmission lines by sage-grouse increased as distance from transmission lines increased up to 1970 ft (600 m). (Presentation abstract from unpublished data) Braun (1998) did not provide information on how many transects were established, the frequency and timing of surveys, and habitats that were surveyed. No controls or treatments were identified. This is unreliable data and should not be perpetuated as science.

**Comment Number:** IDMTSG-14-0183-5

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

GRSG avoid other anthropogenic features such as roads, power lines, oil and gas wells, and buildings (Lyon and Anderson 2003; Pruett et al. 2009). (ID/MT Draft LUPA/EIS)

Pruett et al. 2009 evaluates the response of prairie chicken to roads and powerlines, not greater sage grouse. They found that prairie chickens avoided the powerline by at least 100 meters (m) and documented prairie chickens crossing powerlines, finding that 17 fewer prairie chickens with locations within 2 kilometers (km) of the powerline crossed the line 1 to 4 times. They also found that 8 greater prairie chickens with locations within 2 km of the powerline crossed the line 2 to 5 times. An analysis of the data showed prairie chickens crossed the powerline less often than expected if birds moved randomly. No attempt was made in the study to relate movements to other habitat features present in the landscape, including agricultural fields, oil/gas wells and houses, which were present in the same landscape but not accounted for in the analysis of the data, potentially confounding the outcome of this investigation.

**Comment Number:** IDMTSG-14-0183-6

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

One study reported that the frequency of raptor/GRSG interactions during the breeding season increased 65 percent and golden eagle interactions alone increased 47 percent in an area in pre- and post-transmission line comparisons (Manier et al. 2013, pp. 81-82). (ID/MT Draft LUPA/EIS)

The data provided by Ellis (1985) in an unpublished report and incorrectly quoted by Manier et al. (2013), lack detailed information and do not provide firm evidence for most of the study conclusions. Therefore, Ellis (1985) conclusions, as quoted by Manier et al. (2013), cannot be substantiated and should be interpreted with caution rather than accepted as fact. Specifically, there is scant evidence that

sage grouse do not tolerate construction of a new transmission line near a lek (200 m). Raptors will use transmission towers as perching and hunting sites, but there is no evidence this would result in increased predation of sage grouse. Ellis (1985) conducted his study during 3 field seasons (1983 through 1985); 2 years prior to construction (1983 and 1984) and 1 year after the construction (1985) of a new transmission line. The number of sage grouse displaying decreased over the period of study at the observed lek but increased at a “new” lek discovered in 1985, 1 km from the observed lek (Ellis 1987). It is unclear if the new lek discovered in 1985 had been used in previous years and could be considered a satellite lek. Interestingly, Walker et al. (2007) grouped leks within 2.5 km of each other in the same lek complex to avoid lek-count problems with leks close to each other. Therefore, the conclusion drawn by Ellis (1985) is premature because sage grouse could either be displaced by golden eagles perching on the (newly) constructed transmission line or some other dynamic that influenced sage grouse leks.

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**Comment Number:** IDMTSG-14-0186-10

**Organization:** Intermountain Range Consultants

**Commenter:** Bob Schweigert

**Comment Excerpt Text:**

Relative to assessment of trends concurrent with the current LUPs, Garton et al 2011 should not be relied upon, for at least six reasons:

The first reason is that Garton et al 2011 uses “effective population sizes” that have not been established as relevant for Sage-grouse, at least as so far as I could determine from reading Garton et al 2011.

The second reason is that Garton et al 2011 analyzes a period of 1965-2007; however, the period of 1965-1980 pre-dates the existence of almost all, if not all, of the LUPs that comprise Alternative A. To condemn management under the existing LUPs, one cannot reasonably start with an extremely high baseline (i.e. sage-grouse populations in 1965) which pre-dates the existence of, and beneficial effects of, the various LUPs.

The third reason is that Garton et al 2011 uses discreet, but ARBITRARY, five-year time periods. It is not rational to conclude that a population size in, for example, 1980, was not influenced by the population size in 1979; that the population size in 2000 was not influenced by the population size in 1999, and so on. I am not a statistician, but as a biologist it seems more reasonable to conduct analyses upon a running five year average, rather than discreet “chunks of time” that are entirely arbitrary. Why, for example, did Garton et al 2011 not begin with the most recent data (i.e. 2007) and work their way back through 5-year time periods? It is entirely likely that the numbers generated would look different, and the conclusions may be different, depending on where one “starts and stops the clock”.

The fourth reason is that the analysis is biased toward the negative when the data do not present such negative:

One example is found at Garton’s Table 15.52 (Knicht et al 2011, p. 350), and the accompanying narrative, wherein Garton states, relative to the Snake River Plain Management Zone, that “The proportion of active leks decreased over the assessment period, declining from 88% in 1975-1979 to 64% by 2005-2007 (Table 15.52).” However, as to the “proportion of active leks”, the total number of leks counted increased by 563% from the 1965-70 period (when researchers generally agree only the largest leks and/or easiest to access were counted – thus resulting in a relatively high “proportion of active leks”). Through time, as some groups of birds moved to new leks<sup>2</sup>, the “inactive” leks continued to be “counted.” Additionally, Table 15.52 indicates that more than five-times as many leks were active in 2002-2007 (643 leks) as were active in 1965-1970 (125 leks). This is like saying, “In 1965 my parking lot contained 146 parking spots (counted leks), and 125 of those spots had vehicles parked in them. We expanded our parking lot over time until in 2007 we had 1012

parking spots (counted leks) and 643 of those spots had vehicles parked in them. Therefore we have a downward trend in the population of vehicles.” This is not a reasonable conclusion.

Further as to Garton et al. 2011, the narrative states, relative to the Snake River Plain Management Zone that “Population trends, as indicated by average number of males per lek decreased over the assessment period by 54%, and average number of males per active lek decreased by 39% (Table 15.52).” However, this statement is relative only to the false “timeline” that starts in 1965, i.e., about 15 years before any of the current LUPs were in place. (See also fifth reason, below). Table 15.52 reports that there has not been any decline between 1980-84 and 2000-07. The 1980-84 period saw an average of 19 males/active lek, whereas in 2000-07, there were 20 males/active lek. This is a 5% increase in males/active lek. It is also a 35% increase over the 1995-99 period (which itself was the lowest level in the 1980-2007 period).

2 I have personal knowledge of a population of sage-grouse changing lek locations from a site on BLM land where a meadow (created by a livestock trough overflow in a sagebrush-dominated crested wheatgrass seeding) was used for lekking until the adjacent Forest Service land, also severely dominated by sagebrush, burned. Once the population had a new open area on the Forest, they moved the lek to the Forest, and ceased to use the BLM (now “inactive”) lek. In this individual case, the “proportion of active leks” went from “100%” to “50%”, since the agencies continue to consider the original lek site. Further there exists “little published research documenting the fluidity of lek establishment, formation, and extinction.” Connelly et al 2004.

The fifth reason is that Garton et al 2011 analysis only begins in 1965, and does not assess against the longer term of sage-grouse populations at the time of European settlement or even the date of passage of the Taylor Grazing Act. Instead, 1965 was during a time of long-term high-intensity predator control, including control of coyotes, eagles, hawks, ravens, and other avian and mammalian predators. For example Compound 1080 (sodium fluoroacetate) was used extensively on the federal rangelands from about the 1940s through about 1972. Likewise, M-44s (containing sodium cyanide) had a long history of use for predator control, and was also banned on federal rangelands in 1972. In addition, there were much higher numbers of sheep, and therefore sheepherders with their guns and dogs, during the 1960s than there have been since 1980. It is highly likely that the high numbers of sage-grouse, deer, and other prey species that existed during that time period, is directly correlated to the 1940s-through-1970s long-term spacial and temporal predator control. The 1965 (and surrounding) sage-grouse numbers must therefore be considered an artificially elevated number of sage-grouse (above that which existed prior to the 1940s or after the 1970s).

The sixth reason is that Garton et al 2011 is itself based upon methods of counting sage-grouse on leks that are themselves not consistent and/or consistently applied, and the underlying base data is not uniformly collected.

However, if Garton et al 2011 is relied upon, it demonstrates that only a small percentage of populations (13% of the populations, but NONE of the SMZs) are predicted to decline below “effective population size” within the next 30 years. The agencies, if they rely upon Garton et al 2011, should concentrate on management and restoration of the areas associated with those populations (not the SMZs and not the overall population) identified by Garton.

**Comment Number:** IDMTSG-14-0186-16

**Organization 1:** Intermountain Range Consultants

**Commenter 1:** Bob Schweigert

**Other Sections:** 3

**Comment Excerpt Text:**

26. Page 2-71 [141]. Table 2-8 does not reflect the best science, at least relative to residual vegetation

heights. Connelly et al 2000 (and other researchers) measured residual vegetation after the hens had left the nest, and in some cases after hens had entirely vacated the study area. See Hausleitner et al 2005.

27. Page 2-71 [141]. Table 2-8 provides no literature source for Footnote 2. Such source is NOT Connelly et al 2000.

**Comment Number:** IDMTSG-14-0186-18

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-73 and 2-74 [143 and 144]. The DEIS fails to identify how maximum lek counts within the whole population area constitutes “best science”, when it is established that counts associated with lek routes provide more reliable data. Connelly et al 2004 state that “lek routes are preferable to lek counts because they should increase the probability of detection of male grouse”. Connelly et al 2004, p 6-7[204]. Further, these authors stated that: “Standard techniques for censusing leks have been available for a number of years (Patterson 1952, Eng 1963, Jenni and Hartzler 1978, Emmons and Braun 1984) and were recently summarized (Connelly et al. 2003). Connelly et al.(2003) differentiated between lek survey, lek count and lek route (see Population Database section in this chapter) and recommended the use of lek routes whenever possible.” Connelly et al 2004, p. 6-16 [213].

**Comment Number:** IDMTSG-14-0186-19

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-73 [143]. The document states that “Connelly et al (2000) suggested at least 80 percent of a seasonal habitat’s area should reflect rangeland characteristics indicative of productive GRSG habitat as noted in the Guidelines”, and that a “loss of 10% of nesting and winter habitat were also selected as triggers, since these are especially important for population maintenance.” However, Connelly et al 2000 did not make the stated suggestion relative to all habitats, and that paper specifically recommends “>40%” relative to brood rearing habitat. Therefore, there is no rational basis to apply “80%” (i.e. a trigger of 20%) to brood rearing habitat based upon Connelly et al 2000. Likewise, Connelly et al 2000 did recommend the “80%” relative to nesting and winter habitats, and there exists no rational basis to apply “90%” (i.e. triggers of 10%) relative to these habitats based upon Connelly et al 2000. If any “triggers” are adopted in the final document, the final document should accurately portray Connelly et al 2000.

**Comment Number:** IDMTSG-14-0186-24

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-139 [209]. E-LG/RM-13. While the idea of retaining residual vegetation for nesting sage-grouse is proper, the proper criterion is not necessarily reflected in the referenced Appendix D. Appendix D of the Idaho State Plan references Connelly et al. 2000, Hausleitner 2003, and Holloran et al. 2005. However, all three of these works report residual vegetation cover and height post-hatch, and in at least the case of

Holloran et al 2005, post-evacuation of the area by all hens. These do not reflect residual heights at the time of nest initiation, because plants continued to grow while nesting was occurring. In contrast, Hausleitner et al, 2005 assessed available residual heights at nest-initiation, at nest bushes that had been successful in the previous year. Hausleitner et al 2005 should be relied upon. This same comment applies to E-LG/RM-14 at 2-139 to 2-140 [209-210], and to wherever the Idaho State Plan Appendix D “standards” are described.

**Comment Number:** IDMTSG-14-0186-27

**Organization 1:** Intermountain Range Consultants

**Commenter 1:** Bob Schweigert

**Comment Excerpt Text:**

Appendix I reports that grasslands and areas of juniper are included as PPH. However, tills is a discretionary administrative Decision, in and of itself, that should have been subject to the NEPA and Decision making process. In other words, BLM & FS included areas that are specifically known NOT to support sage-grouse, and included them as areas of "highest priority". This is pre-deciding what is "critical habitat". This is not a biological fact, but instead is a LUP-level decision as to what areas BLM will manage for sage-grouse. The agencies should withdraw the current DEIS/LUPA, provide opportunity for the public to comment upon what vegetation types constitute the " highest conservation value", should issue a LUPA on such designation, and only then should rerelease the (amended and corrected) DEIS relative to how to manage such areas.

**Comment Number:** IDMTSG-14-0186-3

**Organization 1:** Intermountain Range Consultants

**Commenter 1:** Bob Schweigert

**Comment Excerpt Text:**

BLM’s modeling of habitat is first of all flawed in at least three ways. The first way is that BLM did not use all of the available lek count years that are available, and did not provide a rational basis for why it included or excluded certain years. The second is that BLM did not follow the best science, i.e. Connelly et al 2000, and included leks that had been used only one year out of the past five, rather than two years out of the past five. The third way is that BLM applied a “buffer” which is not supported by the best science (i.e. Connelly et al 2000, Knicht et al 2011).

**Comment Number:** IDMTSG-14-0186-7

**Organization 1:** Intermountain Range Consultants

**Commenter 1:** Bob Schweigert

**Other Sections:** 3

**Comment Excerpt Text:**

The document appears to contain numerous internal inconsistencies. Appendix I reports 5% sagebrush cover as “suitable” in Montana (Appendix I), whereas 10% is required at page 2-68 [pdf 138]. Likewise, Connelly et al 2000 reports that 80% (or 40%) of sage-grouse-occupied rangeland should be maintained with certain characteristics, whereas the NTT states that 50-70% of the seasonal habitats should contain those same characteristics. I could find no rational basis expressed for the DEIS’s use of 70% for analysis (Appendix I). While this appears to “split the baby”, Connelly et al 2000 and the NTT are two

disparate recommendations that are not scientifically rectified/justified by the DEIS.

**Comment Number:** IDMTSG-14-0186-9

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Overall, the “best available science” is not consistently used. For example, as to residual vegetation heights for nesting sage-grouse, the entire document is silent to the fact that the cited authors measured residual vegetation after the hens had left their nests, not at nest-initiation. Hausleitner et al 2005 1 is not even referenced by the document, let alone relied upon; however, Hausleitner et al 2005 established that residual heights of 3.5-3.9 inches characterized the nest bowl and surrounding 1 meter around the nest bowl at the time of nest-initiation. Significant vegetative growth occurs between nest-initiation and post-hatch.

1 Hausleitner, Doris, K.P. Reese, and A.D. Apa. 2005. Timing of Vegetation Sampling at Greater Sage-grouse Nests.

Rangeland Ecol Manage 58:553-556.

**Comment Number:** IDMTSG-14-0203-1

**Organization1:** Motorcycle Industry Council

**Commenter1:** Duane Taylor

**Comment Excerpt Text:**

While we understand that on the local level there may need to be consideration of how OHV trails and areas impact the sage-grouse on a case- by-case basis, there seems to be little science supporting OHV use as a substantial factor affecting overall sage-grouse populations.

**Comment Number:** IDMTSG-14-0204-1

**Organization1:** Mountain Home Local Working Group

**Commenter1:** Jeff Lord

**Comment Excerpt Text:**

None of the alternatives have habitat maps reflecting habitat using the life cycle of the Sage-grouse.

**Comment Number:** IDMTSG-14-0206-25

**Organization1:** The Nature Conservancy

**Commenter1:** William Whelan

**Comment Excerpt Text:**

**A Literature Review of Transmission Line Effect Distances**

ENTER TABLE ON PAGE 25-27

Effect Distance Value	Source	Comments
No effect detected at 5 and 18km of	(Johnson et al. 2011)	Authors examined trends in lek counts and anthropogenic features (1997-2007). No general pattern/association was found across the entire study area with transmission at tested 5km and 18km of lek.



a lek.		
200 m	(Ellis 1985)	The erection of a transmission line located within 650ft (200 m) of an active sage-grouse lek, and between the lek and day-use areas, in northeastern Utah resulted in a 72 percent decline in the mean number of displaying males and an alteration in daily dispersal patterns during the breeding season within 2 years. This project also reported that the frequency of raptor–sage-grouse interactions during the breeding season increased 65 percent and golden eagle interactions alone increased 47 percent between preand post-transmission line comparisons.
360 m +/- 60, 630 m +/- 40	(Robel et al. 2004)	Data are from a 6 year study of energy development on lesser prairie-chickens in Kansas. Distances are mean (+/- SE) distance to electric power lines avoided by 90% of 187 nesting prairie checking and mean distance to power lines across which 95% of 18,866 telemetry locations of prairie chickens were absent, respectively.
450-650 m	(Hagen et al. 2004)	In Kansas, the average displacement of prairiechicken use sites was about 450 meters from power lines and the average displacement of nests was about 650 meters from power lines.
400m	(Pitman et al. 2005)	Data are from a study on lesser prairie-chickens in Kansas and found that nest proximity was “seldom less than 400 meters from a transmission line” (Table 3)
500m	(Hanser et al. 2011)	Wyoming Basins Ecoregional Assessment: Study of responses of sage-grouse to anthropogenic effects. Authors tested effects at .5 km and 1km and found the most significant effect of transmission lines on sage-grouse abundance at .5 km.
500m	(Pruett et al. 2009)	Oklahoma prairie-chicken study found that displacement of prairie-chickens was at least 500m from a power line.
600 m	(Braun 1998)	In Colorado, pellet transects illustrated declining habitat use by sage-grouse up to 600 meters from power lines.
600 m	(Gillan et al. 2013)	Using a spatial statistical approach with telemetry data from Idaho, this study found that sage-grouse avoided power transmission lines by 600 m.
0-4.7 km	(LeBeau 2012)	A wind turbine effects and infrastructure study that examined infrastructure related to wind development within the two study areas in SE Wyoming and found that the estimated odds of sage-grouse selecting brood-rearing habitat within the Seven Mile Hill study area increased as distance from nearest overhead transmission line increased up to 4.7 km (90% CI: 2.2–18.5 km), then declined. However, LeBeau also found that sage-grouse selected for nesting habitat closer to transmission lines within Simpson Ridge study area.
4.8 km	(Rodgers 2003)	In California, power lines resulted in sage-grouse lek abandonment and reduced lek attendance up to 3 miles away.
6.4 km	(Steenhof et al. 1993, Connelly et al. 2004)	Additionally, higher densities of power lines within 4mi (6.4 km) of a lek may negatively influence lek persistence. Power lines may be locally significant causes of mortality due to collisions. Potentially more important, poles and towers associated with transmission lines have been shown to influence raptor and corvid distributions and hunting efficiency resulting in increased predation on sage-grouse.

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**Comment Number:** IDMTSG-14-0209-1

**Organization1:**North Magic Valley LWG

**Commenter1:**David Skinner

**Comment Excerpt Text:**

We wish to add our completed Local Working Group Conservation Plan to the reference record for the EIS. It can be found at the Idaho Fish and Game's website at:

<http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174>

under North Magic Valley Conservation Plan.

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**Comment Number:** IDMTSG-14-0210-2

**Organization1:**NorthWestern Energy

**Commenter1:**Mary Gail Sullivan

**Comment Excerpt Text:**

Current Literature Does Not Support Sage-Grouse Avoidance of Power Lines

Two recent studies have used radio-telemetry to assess impacts of energy infrastructure on sage-grouse. LeBeau (2012) investigated the impacts of wind facilities and an associated transmission line in Wyoming, and Nonne et al. (2013) released a final report of a 10-year study of a transmission line in Nevada. The Nonne study is currently the only long-term study conducted that specifically evaluates potential impacts of a power line on sage-grouse.

The LeBeau study indicated that habitat quality is a significant influencer of sage-grouse occupancy, regardless of the presence of a transmission line. Sage-grouse selected for nesting habitat closer to transmission lines at Simpson Ridge, where the lines have existed for over 10 years and are within quality habitat. Also, female survival in the study area was greatest at closer proximity to the transmission lines. While the DEIS cites the LeBeau study, it fails to mention these study results that do not show a negative power line impact. NorthWestern Energy requests that the BLM assess valid scientific studies, regardless of the results.

LeBeau, C.W. 2012. Evaluation of Greater Sage-Grouse Reproductive Habitat and Response to Wind Energy Development in south-Central Wyoming, MS, Department of Ecosystem Science and Management, University of Wyoming. August 2012.

In February 2013, Nonne et al. released the final progress report of a 10-year research study of sage-grouse near the Falcon-Gondor transmission line in central Nevada. This report is the only long term study of impacts from a high voltage transmission line on sage-grouse. The authors were unable to document negative effects on sage grouse which could be explained by proximity to the transmission line. While the Nonne study is included in the literature cited of the DEIS, the results were not mentioned in the DEIS text.

Nonne, D., E. Blomberg, and J. Sedinger. 2013. Dynamics of Greater Sage-grouse (*Centrocercus urophasianus*) populations in response to transmission lines in central Nevada. Progress Report: Year 10. February 2013. Department of Natural Resources and Environmental Sciences, University of Nevada, Reno. 75pp.

Recently Messmer et al. (2013) summarizes stakeholder workshop results and a literature review specifically related to sage-grouse and tall structures, such as power lines. The paper concludes that there are no peer-reviewed, published papers that address sage-grouse interactions with power lines using experimental design (Note: the Nonne et al. (2013) study referenced above is the only study that has used an experimental design to assess impacts of a power line on sage-grouse, but it is not yet published). Preliminary studies of radio-tagged sage-grouse in Utah, also conducted by Dr. Messmer, do not support a power line avoidance theory.

Messmer, T., A., R. Hasenyager, J. Burruss, and S. Liguori. 2013. Stakeholder contemporary knowledge needs regarding the potential effects of tall structures on sage-grouse. *Human-Wildlife Interactions* 7(2):273-298.

NorthWestern Energy requests that the BLM consider these new studies, which use current telemetry techniques and specifically investigate sage-grouse responses to power lines, when addressing power lines in its LUP update.

The DEIS cites Manier et al. (2013) in regard to power line impacts of sage-grouse. The page references to Manier et al. in the DEIS are incorrect, and how Manier et al. is portrayed in the DEIS is misleading. The DEIS cites Manier et al. (2013) as if it is new data on sage-grouse/power line interactions, whereas the Manier paper summarizes older literature (e.g., references to Ellis, 1985, regarding golden eagle predation of sage-grouse).

**Comment Number:** IDMTSG-14-0212-3

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

Site-specific determination or confirmation of sage-grouse habitat

The Agencies recognize that the sage-grouse habitat designations provided in the Draft LUPA/EIS are “preliminary,” but they do not specify a clear process whereby project proponents may provide site-specific information or data to change habitat designations or habitat designation boundaries without amending the relevant LUP. The Draft LUPA/EIS provides for changes to habitat designations through “LUP maintenance.” See Draft LUPA/EIS p. 4-3. Because public land users should not be burdened by restrictive sage-grouse conservation measures on areas that are not suitable for the species or burdened with seeking a LUP amendment if it is determined the Agencies’ habitat designations are incorrect, the Final LUP Amendment should clarify that “LUP maintenance” does not mean that a LUP amendment would be required to modify the relevant, preliminary sage-grouse designations based on new data.

**Comment Number:** IDMTSG-14-0212-4

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

Changes to habitat designations within Caldwell Canyon and Trail Creek Exploration Project planning area

When P4 Production prepared its Caldwell Canyon and Trail Creek exploration project Environmental Assessment, our ground-truthing efforts identified that approximately 19% of the presumed PGH was actually found to consist of forest community vegetation species that do not represent viable sage-grouse habitat. See

Attachment 1, at 3-41. That equates to approximately 279 acres that had been mischaracterized as sage-grouse habitat when in reality it is made up of Douglas fir and Aspen stand communities. See *id.* The Agencies should update their sage-grouse habitat maps to recognize that these 279 acres are not Greater sage-grouse habitat.

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**Comment Number:** IDMTSG-14-0212-7

**Organization 1:** Soda Springs Plant

**Commenter 1:** Randy Vranes

**Comment Excerpt Text:**

Alternative A is intended to represent the continuation of current management direction. The Agencies list the existing sage-grouse-related management directions considered as part of Alternative A. See Draft LUPA/EIS pp. 2-10 to 2-11. The list, however, does not include BLM Manual 6840—Special Status Species Management (Dec. 12, 2008), which provides direction to BLM regarding conservation of BLM special status species (including sage-grouse) and the species' habitat. If the Agencies did not consider the management directions provided in Manual 6840 or include the same as part of Alternative A, the Agencies possibly did not adequately consider or explain the environmental baseline or provide a proper comparison among the proposed alternatives. See 40 C.F.R. § 1502.15.

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**Comment Number:** IDMTSG-14-0212-8

**Organization 1:** Soda Springs Plant

**Commenter 1:** Randy Vranes

**Other Sections:** 5

**Comment Excerpt Text:**

In Alternative B, the Agencies would close the PPMAs to phosphate leasing. See Draft LUPA/EIS pp. 2-181 (Management Action B-MNL-1), 2-26 (Table 2-2 showing closures by acreage). This would result in 8,304,600 acres being closed to non-energy leasable minerals (compared to 621,300 acres closed to leasables under existing LUPs). See Draft LUPA/EIS p. 2-26 (Table 2-2).

These management actions would unreasonably restrict the use of public lands for phosphate mining exploration or operations contrary to FLPMA's requirement to manage "in a manner which recognizes the Nation's need for domestic sources of minerals." 43 U.S.C. § 1701(a)(12). It is also contrary to FLPMA's requirement that land use plans observe principles of multiple use, which it defines to include "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values." *Id.* §§ 1702(c), 1712(c)(1) (emphasis added). Closing PPMAs to phosphate or other leasable minerals entries would be contrary to the Agencies' multiple use obligations and would not serve the proper combination of balanced and diverse resource uses. It also would eliminate or discourage significant opportunities for the Agencies to work with the mining industry to develop offsite mitigation or conservation plans that could provide a net benefit to sage-grouse or their habitat in exchange for allowing some mineral development within PPMAs. Further, the Agencies have not shown that leaseable minerals operations have in the past negatively impacted the long-term viability of the sage-grouse, and accordingly, why it now makes sense to eliminate the industry on certain public lands where there is no demonstrated track record of such negative impacts by the industry.

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**Comment Number:** IDMTSG-14-0213-2

**Organization1:** Rocky Mountain Power

**Commenter1:** Jeff Richards

**Comment Excerpt Text:**

**Current Literature Does Not Support Sage-Grouse Avoidance of Power Lines**

Two recent studies have used radio-telemetry to assess impacts of energy infrastructure on sage-grouse. LeBeau (2012) investigated the impacts of wind facilities and an associated transmission line in Wyoming, and Nonne et al. (2013) released a final report of a 10-year study of a transmission line in Nevada. The Nonne study is currently the only long-term study conducted that specifically evaluates potential impacts of a power line on sage-grouse.

The LeBeau study indicated that habitat quality is a significant influencer of sage-grouse occupancy, regardless of the presence of a transmission line. Sage-grouse selected for nesting habitat closer to transmission lines at Simpson Ridge, where the lines have existed for over 10 years and are within quality habitat. Also, female survival in the study area was greatest at closer proximity to the transmission lines. While the DEIS cites the LeBeau study, it fails to mention these study results that do not show a negative power line impact. Rocky Mountain Power requests that the BLM assess valid scientific studies, regardless of the results.

In February 2013, Nonne et al. released the final progress report of a 10-year research study of sage-grouse near the Falcon-Gondor transmission line in central Nevada. This report noted correlations between annual plant production, related to annual climatic fluctuations, and sage-grouse survival, reproductive success, and population growth. Wildfire impacts on habitat also influenced the population. The report found "no negative effects on demographic rates (i.e., male survival and movement, female survival, pre-fledging chick survival, and nest survival) that could be explained by an individual's proximity to the transmission line". The Nonne study is included in the literature cited of the DEIS, but its results are not referenced in the document text.

Messmer et al. (2013) summarizes stakeholder workshop results and a literature review specifically related to sage-grouse and tall structures, such as power lines. The paper concludes that there are no peer-reviewed, published papers that address sage-grouse interactions with power lines using experimental design (Note: the Nonne et al. [2013] study referenced above is the only study that has used an experimental design to assess impacts of a power line on sage-grouse, but it is not yet published). Preliminary studies of radio-tagged sage-grouse in Utah, also conducted by Dr. Messmer, do not support a power line avoidance theory.

Rocky Mountain Power requests that the BLM consider these new studies, which use current telemetry techniques and specifically investigate sage-grouse responses to power lines, when addressing power lines in its LUP update.

The DEIS cites Manier et al. (2013) in regard to power line impacts of sage-grouse. The page references to Manier et al. in the DEIS are incorrect, and how Manier et al. is portrayed in the DEIS is misleading. The DEIS cites Manier et al. (2013) as if it is new data on sage-grouse/power line interactions, whereas the Manier paper summarizes older literature (e.g., references to Ellis, 1985, regarding golden eagle predation of sage-grouse).

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**Comment Number:** IDMTSG-14-0215-1

**Organization1:**Prairie Falcon Audubon

**Commenter1:**Julie Randell

**Comment Excerpt Text:**

PFA believes the mismanagement of livestock grazing (overgrazing) is the number one issue facing GRSG conservation in Idaho. Overgrazing largely contributes to the loss of GRSG, and other sagebrush obligate species' habitat due to degradation of important sage-steppe ecosystems across the state.

Below is a list that was included in our 2012 scoping comments of impacts PFA members have observed and documented over the last twenty or more years:

- Soil erosion and compaction (we believe in most cases, the degree of severity is limited only by topography)
- Dysfunctional watersheds and the loss of:
  - mesic and riparian vegetation; and bank integrity, resulting in gulley and wash formation
  - lowering of the water table
  - water quality condition from temperature, chemical, and nutrient pollution e.i. introduction of livestock feces and urine
- Little or no native understory in many areas and the loss of:•
  - mosses and biotic soils
  - native vegetation such as forbs, shrubs, trees, and grasses
- Trampling of nesting and brooding areas of ground nesting birds including GRSG;
- Invasive weeds and grasses
- Large “sacrifice” areas near streams, springs, seeps, and water developments (improvements?)
- Over-utilized and diminished crested-wheat seedings
- Plant pedestalling, surrounding bare ground, and exposed roots
- Large areas of open and connecting bare ground
- Fencing unfriendly to wildlife, netting and many strand fencing still found on BLM, Forest and State Lands
- Increased fuel loads from invasive annual grasses and weeds and repeated fire cycle;
- Loss of reseeded areas, burns and vegetation treatment projects by allowing livestock back before plants have sufficient growth to survive (less then two years);
- Grazing in early spring, late winter, prolonged wet seasons, and year round
- Insufficient cover for wildlife
- Frequent aerial gunning (observed and documented by PFA members in Burley F.O.);
- Failure to maintain water troughs. Substituting with ponds that quickly become polluted and may encourage the spread of West Nile Virus
- Failure to rehabilitate pipelines and burns (invasive weeds, grasses and bare ground).

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**Comment Number:** IDMTSG-14-0234-3

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

It is also hard to understand why BLM is bothering to kill a single tree for grouse in eastern idaho, since you have followed the state's lead and written off nearly all the habitat in E ID (including occupied leks) as non-Priority habitat. Yet there appear to be scads of tree killing projects planned - demonstrating that sage-grouse are being used as cover for livestock forage-related deforestation.

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**Comment Number:** IDMTSG-14-0242-9  
**Organization1:** U.S. Fish and Wildlife Services  
**Commenter1:** Dennis Mackey  
**Other Sections:** 7.5

**Comment Excerpt Text:**

Noise and seasonal stipulations should be considerations during the construction and long-term implementation of land use activities. Your proposed implementation of noise and seasonal stipulations across all alternatives appears to be applied only to initial construction activities. However, most land use activities result in permanent disturbances on the landscape and the associated human activity, traffic, and noise disturbances have long-term effects to GRSG. Although the surface area covered by various types of development can be relatively small, the effects of noise extend far beyond the development itself (Blickley and Patricelli 2010). For example, the construction of a compressor station may have short-term implications to GRSG use of seasonal habitats, but the long-term operation and noise of the compressor station may result in GRSG habitat abandonment (Blickley and Patricelli 2012, Blickley et al. 2012). Similarly, seasonal restrictions applied only to drilling and construction do not address effects to populations over long periods of time (Walker et al. 2007).

**Comment Number:** IDMTSG-14-0318-1  
**Organization1:**  
**Commenter1:** Steve Smith

**Comment Excerpt Text:**

Nothing is talked about the drought effect of how moisture is key to a good egg hatch

**Comment Number:** IDMTSG-14-0319-1  
**Organization1:**  
**Commenter1:** Wiley F. Smith

**Comment Excerpt Text:**

There were lots of sage grouse until in the 1950's when grouse got the "tape worm disease". Grouse were dead all over the land. It took a lot of years to start making a come back in numbers. We did not kill any grouse and would not let people come hunt them after the disease hit. In the 1970's fox moved into the upper valley and in the 1990's ravens moved in. The fox and ravens are death on the eggs and small chicks and the increased hunter population has added to the death loss

**Comment Number:** IDMTSG-14-0325-2  
**Organization1:**  
**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] Goals expressed in B-GOAL-1, D-GOAL-1 and F-GOAL-1 may not be appropriate as no base population number of GRSG proven necessary to perpetuate the species has been established. To assume that an increase in population (and the management actions indicated to effect such increase) is necessary or desirable may be beyond the proper scope of LUPA

***Summary***

Commenters suggested new or additional literature for the BLM and Forest Service to consider in the DLUPA/EIS related to:

- Determination of GRSG population size and trends – inaccuracy of past counts; insufficient data to determine trend.
- Effects of livestock grazing, predation, drought, noise, and anthropogenic development
- Appropriate lek buffers and disturbance cap to incorporate
- Mitigation
- Hunting– outside scope but managed via the Idaho and Montana state plans
- GRSG habitat requirements
- Accuracy of the habitat mapping
- Infrastructure
- West Nile virus

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## ***Response***

As described in Section 4.4 of this comment report, The BLM and the Forest Service used the most recent and best information available that was relevant to a land-use planning-level analysis including the Baseline Environmental Report (BER; Manier et al. 2013), NTT report (NTT 2011), and COT report (USFWS 2013). Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, scientific literature, field and district office data. Considerations included but were not limited to [list the types of data or GIS layers that were gathered/used.].

Of the suggested studies and references put forth by the commenters, the BLM and Forest Service reviewed them to determine if they presented new information that would need to be incorporated into the FEIS, were references already included in the draft EIS, or if the references provided the same information as already used or described in the Draft EIS. The BLM determined that several of these references contained new or relevant information regarding xxx resources and the analysis was clarified and references cited in Sections XXX of the FEIS. In some cases, the additional literature was essentially the same as existing sources and was not incorporated.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives.

## **Section 7.7 - Impact Analysis**

*Total Number of Submissions: 22*

*Total Number of Comments: 70*

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**Comment Number:** IDMTSG-14-0031-5

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

### **Comment Excerpt Text:**

The EIS must evaluate and acknowledge that close range viewing of sage grouse leks produces significantly more impacts on sage grouse than motorized recreation which is located some distance away. The EIS must include an accurate inventory of all viewing activity in order to reasonably assess this activity and its impact. Examples of the popularity and magnitude of the lek viewing activity include:

- <http://www.craigdailynews.com/news/2011/mar/01/local-environmental-groups-organizing-sage-grouse/>
- <http://www.siskadee.org/view.htm>
- [http://www.gorp.com/parks-guide/travel-ta-birdwatching-la-junta-comanche-and-cimarronnational-grasslands-golden-spike-national-historic-site-sidwcmdev\\_055433.html](http://www.gorp.com/parks-guide/travel-ta-birdwatching-la-junta-comanche-and-cimarronnational-grasslands-golden-spike-national-historic-site-sidwcmdev_055433.html)
- <http://coloradobirdingsociety.net/16.net/zsbirdingspots.htm>



- <http://www.naturescapes.net/phpBB3/viewtopic.php?f=9&t=150579>
- [http://gf.state.wy.us/wildlife/wildlife\\_management/sagegrouse/index.asp](http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/index.asp)
- <http://www.blm.gov/nstc/library/pdf/TN424.pdf>
- <http://wildlife.state.co.us/Viewing/EventsFestivals/Pages/ViewingEvents.aspx>
- [http://billingsgazette.com/lifestyles/recreation/blm-wgf-holds-sage-grouse-lek-viewingtrip/article\\_d3f3abe0-d2ec-56b1-9eb9-3cfad0a1d561.html?print=1](http://billingsgazette.com/lifestyles/recreation/blm-wgf-holds-sage-grouse-lek-viewingtrip/article_d3f3abe0-d2ec-56b1-9eb9-3cfad0a1d561.html?print=1)
- [http://uwacadweb.uwyo.edu/wildlifesociety/NewSite/photo\\_gallery/LekViewing/LekViewing.htm](http://uwacadweb.uwyo.edu/wildlifesociety/NewSite/photo_gallery/LekViewing/LekViewing.htm)
- BLM Buffalo Field Office Hosts Sage-grouse Lek Viewing Trip

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**Comment Number:** IDMTSG-14-0031-7

**Organization1:** Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

The analysis should also disclose impacts of the hunting of the Grouse, which is still allowed in at least 8 of the 11 states where it is found.

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**Comment Number:** IDMTSG-14-0046-10

**Organization1:**

**Commenter1:** Jim Gerber

**Comment Excerpt Text:**

The lack of specificity in the EC makes it nearly impossible to analyze the alternatives in any useful way.

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**Comment Number:** IDMTSG-14-0046-4

**Organization1:**

**Commenter1:** Jim Gerber

**Comment Excerpt Text:**

At least one of the alternatives ( Alt. A) talks about maintaining a mosaic of species and age classes on the landscape to protect grouse habitat, which I thought was a great idea. But when I went to the environmental consequences section of the DEIS to see what the benefits of having a mosaic are, there were none. In fact, there was no discussion of a mosaic of age classes at all. Call me crazy, but if you are going to have an alternative that strives to maintain a mosaic of species and age classes, there should be some benefit from doing that, and that benefit should show up in the consequences. The fact that you prescribe an alternative with the objective of producing a mosaic of age classes on the landscape, but that objective is never achieved, makes it appear like this is a straw man alternative designed to achieve some purpose, when in fact it does not.

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**Comment Number:** IDMTSG-14-0050-22

**Organization1:**

**Commenter1:** Kathleen Gregg

**Other Sections:** 7.8

**Comment Excerpt Text:**

While BLM and USFS often propose chaining, chemical and burning treatments that may benefit domestic livestock grazing (Bishop RMP, 1993) there is no evidence these treatments benefit sage-grouse. To the contrary, these treatments have negative direct, indirect, and cumulative effects on sage-grouse. The proposed

EIS must include an analysis of the cumulative effects of the existing fences, prescribed burning and other proposed treatments and the effects of domestic livestock grazing on greater sage-grouse.

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**Comment Number:** IDMTSG-14-0056-10

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Alternative D erroneously concludes any anthropogenic feature on the landscape results in fragmentation and has a negative influence on sage grouse. Missing from the document is an assessment of the impact (positive or negative) from various sizes and types of anthropogenic features. Over emphasis is placed on restricting infrastructure that may or may not have any impact on sage grouse. The significance a project may have on habitat avoidance must be included in the analysis and only determined at the activity plan level.

---

**Comment Number:** IDMTSG-14-0056-21

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

The analysis fails to recognize that many leks are the result of past livestock activities and sage grouse tolerance for disturbances attributable to livestock trailing has never been evaluated or determined. (D-LG/RM-18, page 2-143)

---

**Comment Number:** IDMTSG-14-0056-22

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Final document must analysis the benefits range developments can have on sage grouse and other wildlife. The current document focuses on only the negatives

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**Comment Number:** IDMTSG-14-0056-24

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Predators may be a causal factor in population declines and their impact must be considered whenever adjustments to permitted uses are being proposed.

---

**Comment Number:** IDMTSG-14-0130-11

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Alternative D erroneously concludes any anthropogenic feature on the landscape results in fragmentation and has a negative influence on sage grouse. What is missing from the discussion is the fact that while a feature may divide an area, the division does not necessarily result in an area becoming unusable by sage grouse. Over emphasis is being placed on restricting infrastnIcture that may or may not have any impact on sage grouse. The significance a project may have on habitat avoidance must be included in the analysis and only determined at the activity plan level.

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**Comment Number:** IDMTSG-14-0130-12

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

Also

"

missing from the discussion are the benefits to sage grouse that most range improvements provide.

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**Comment Number:** IDMTSG-14-0130-20

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

The significance of trailing livestock to sage grouse is over exaggerated. The analysis fails to recognize that many leks are the result of past livestock activities and sage grouse tolerance for disturbances attributable to livestock trailing has never been evaluated or determined. (D-LG/RM-18, page 2-143)

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**Comment Number:** IDMTSG-14-0130-7

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

A flaw within the entire document is the failure to quantify the relative significance of the 14-19 identified threats to sage grouse. These threats, currently only subjectively ranked greatest to least (see table ES-2), must be evaluated and responded to within the context of significance.

---

**Comment Number:** IDMTSG-14-0131-10

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The Draft LUPA/EIS closes certain phosphate leasing areas; the Agencies need to articulate a satisfactory explanation for its action, including a factual connection between the proposed Alternatives and existing habitat and populations. As an example, the discussion of identified threats to the GSG (Draft, page 1-11) identifies mining near the bottom of threats to GSG in Idaho.

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**Comment Number:** IDMTSG-14-0131-3

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The effects from mineral development on GSG habitat and populations vary. The discussion of the threats to GSG from mining (pages 2-202 and 4-202) fails to discuss this spectrum of study results. For example, certain reclamation practices can improve existing habitat for GSG. Mineral development is localized, and not a constant disturbance feature across the landscape. Mineral development activities can be adjusted to address sensitive environmental conditions at the location of the mineral. The restrictions and prohibitions on mineral development in the alternatives need to have proportionality to the actual and potential effects of mineral development on GSG.

**Comment Number:** IDMTSG-14-0131-6

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

While some surface mine activities may be similar to those found at oil and gas facilities, the two disturbances differ enough that it may be speculative to assume that the effects on sage-grouse from an oil and gas facility would be the same at a surface mine. For example, the Draft LUPA/EIS (at pages 4-12 through 4-13) cites oil and gas studies to describe the effects that mineral development may have on sage-grouse. While oil and gas research may be considered the best available science on the effects of surface disturbance on sage-grouse, the BLM/USFS's reliance on these studies in shaping management guidelines for other BLM authorized actions may be overly conservative and restrict the BLM/USFS from meeting its obligation to manage lands for multiple use.

The Draft LUMA/EIS fails to look at how potential effects, such as noise can be mitigated. For example, noise levels can be reduced by blasting techniques such as electronic blasting.

**Comment Number:** IDMTSG-14-0135-1

**Organization1:**

**Commenter1:** Karen Steenhof

**Other Sections:** 14.1

**Comment Excerpt Text:**

Transmission lines should be disallowed in all priority (core), important (medial), and general sage-grouse habitats. In addition, new lines within at least 5 miles of any of these management zones should be mitigated appropriately. Studies show that Common Ravens are a major predator of sage-grouse eggs. Given that ravens move an average of 5 miles and as far as 40 miles from transmission line nests and roosts to forage each day, it is important that the FEIS address the impacts of transmission lines near but outside of known grouse habitat.

**Comment Number:** IDMTSG-14-0148-4

**Organization1:** Western Counties Alliance

**Commenter1:** Kenneth Brown

**Other Sections:** 7.6

**Comment Excerpt Text:**

The BLM & USFS should have analyzed the effectiveness of current rangeland health standards and guidelines before developing alternatives, and should have used that analysis for considering appropriate changes to the RMP with respect to livestock grazing and range management.

**Comment Number:** IDMTSG-14-0150-5

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Comment Excerpt Text:**

Inexplicably, when responding to scoping comments the Draft LUPA EISs claim that analysis of greater sage-grouse population levels is beyond the scope of the project, stating that comments “questioned population levels and the need to incorporate range-wide conservation measures” and concluding that such concerns “relate to decisions under the purview of the USFWS and are not (will not be) addressed” by the Draft LUPA EISs. See ID Draft LUPA/EIS2, page 1-33 and NV Draft LUPA/EIS1, page 1~18. Thus, the Draft LUPA EISs irrationally conclude that the overriding purpose and need identified for the project is itself beyond the scope of the project. As a result of this irrational decision, the Draft LUPA EISs devote little or no effort to disclose, discuss, or analyze greater sage-grouse population levels, viability, or persistence.

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**Comment Number:** IDMTSG-14-0150-6

**Organization1:** Western Range Service

**Commenter1:** QuintonJ. Barr

**Other Sections:** 7.6

**Comment Excerpt Text:**

The Draft LUPA EISs devote voluminous space to the current status of the affected environment and to the expected environmental consequences of the various alternatives under consideration for almost everything under the sun, except for the status and environmental consequences with respect to greater sage-grouse population levels and trends, thereby failing to meet the overriding purpose for the project. The EISs analyze the status and environmental consequences with respect to other special status species, vegetation, fish and wildlife, wild horses and burros, wildfire, livestock grazing, recreation, travel management, lands and realty, mineral resources, special designations, soil resources, water resources, cultural resources, tribal interests, visual resources, roadless areas, air quality, climate change, social and economic conditions, and forest and woodland products, among other things. But the Draft LUPA EISs give only cursory attention to the current status of greater sage-grouse populations and essentially no attention to the environmental consequences of the various alternatives under consideration on greater sage-grouse population levels and trends.

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**Comment Number:** IDMTSG-14-0151-103

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Raft River –New development should be curtailed/prohibited on BLM lands. Significant areas have burned, and all the sage that remains in the Jim Sage-Cotterell-Curlew area is critically important for persistence and survival of viable populations of GSG. The PPH/PPMA cuts need to be rolled back. Crane Creek. This landscape is largely becoming a cheat/medusahead weedland- an additional stress on the very small population may lead to extirpation. West of Weiser. There are also cumulative threats posed by oil and gas – both the ground and groundwater disturbances in an already highly fragmented landscape are matters of serious concern. Castle Creek Owyhee County. BLM should be acting to restore sage-grouse leks, rather than developing lands – plus if development would extend west of Castle Creek – would it adversely impact the very small number of remaining leks near Oreana?

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**Comment Number:** IDMTSG-14-0151-23

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS does not discuss the effect of thousands of existing permitted water improvements in sage-grouse habitat that are potential WNV breeding sites. The DEIS fails to disclose the impacts of many thousands of miles of fencing that already occur within sage-grouse habitat, as well as a the battery of existing forage and fire rehab seedings and the past treatments that have taken place. It is important to understand this, as the DEIS habitat segregation scheme often relies on the BLM's own past treatments in carving off habitats into lesser sacrifice categories of Medial and General habitats

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**Comment Number:** IDMTSG-14-0151-5  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Fences have now been found to be a major source of sage grouse mortality yet no analysis of current effects of this mortality on populations and habitat fragmentation has been provided in the DEIS.

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**Comment Number:** IDMTSG-14-0151-8  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In the BLM's own 2006 paper titled Review of Livestock Grazing Management Literature Addressing Grazing Management of Sage Grouse Habitat the BLM determined from its review of the literature that “No treatment should be considered where sagebrush cover is less than 20 percent or within 2 miles of breeding, nesting, or brood areas.” This is echoed in a wide range of other research papers, a few of which we provide for your review as attachments. The other significant issue regarding such land manipulations is a high likelihood significant increases in invasive species. The DEIS does not adequately discuss where and when treatments will take place, and whether they will take place in areas such as these

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**Comment Number:** IDMTSG-14-0153-11  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar  
**Other Sections:** 5

**Comment Excerpt Text:**

In the Idaho – Southwest Montana RMP Amendment EIS, BLM has failed to apply in its preferred Alternative D or E the recommended sage grouse protections presented to it by its own experts (the BLM National Technical Team), and as a result development approved under several of the alternatives analyzed (and particularly Alternatives A, D, and E) will result in both unnecessary and undue degradation of sage grouse Priority Habitats and result in sage grouse population declines in these areas, undermining the effectiveness of the Core Area strategy as an adequate regulatory mechanism in the context of the decision

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**Comment Number:** IDMTSG-14-0153-14  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

In particular, we are concerned that under Alternatives D, the prescribed conservation measures may not apply in areas not identified as sage grouse habitat. BLM states, “by including a rule set to release areas from PPMA, PMMA, PGMA protection, some vegetation communities that do not provide habitat for GRSG could receive less protection under this alternative and could be subject to removal, damage, or reduced condition caused by human disturbances.” DEIS at 4-102. This is a key flaw because, as BLM notes throughout the DEIS, many types of human- caused disturbances cause displacement of sage grouse and reduction or

elimination of habitat effectiveness for the surrounding areas, not just the lands directly subjected to surface disturbance, and these impacts can extend for miles beyond the disturbed site. For this reason, such a “rule set” undermines the effectiveness of the prescribed protections. BLM needs to further evaluate the magnitude of these impacts for developments that would be allowed inside designated habitats but located on microsites not identified as sage grouse habitat

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**Comment Number:** IDMTSG-14-0153-20

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are concerned that neither Alternative D nor E will uphold BLM’s obligation to manage Sensitive Species to “minimize or eliminate threats,” either within or outside of Core Area habitats. As detailed elsewhere in these comments, mitigation measures applied under Alternatives D and E will inevitably lead to serious impacts to sage grouse populations within Priority Habitats. This result represents an unnecessary and undue degradation of key sage grouse habitats

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**Comment Number:** IDMTSG-14-0153-21

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

But the BLM’s Alternative D includes well density limits only for future fluid mineral leases, ignoring existing leases and other types of disturbances, which means that it has failed to emplace adequate regulatory mechanisms to protect sage grouse in this regard

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**Comment Number:** IDMTSG-14-0153-23

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

In Alternative D, Priority Habitats would have a 0.6-mile buffer where leases are issued. This is completely inadequate according to the best available science. This is an inadequate level of protection for breeding and nesting habitat even in General Habitats areas

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**Comment Number:** IDMTSG-14-0153-26

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.5

**Comment Excerpt Text:**

In Idaho, noise from military overflights can create noise in excess of 100 dBA. Disturbance from low-altitude military overflights from Mountain Home Air Force Base has been raised as a concern in this EIS. DEIS at 4-15. Please analyze the frequency and number of low-level overflights historically and currently over identified sage grouse habitats, the altitude at which these overflights occur, the types of aircraft making such low-level overflights, and the estimated decibel noise levels at affected leks. Sage grouse Priority and General Habitats should thus be closed to low-level military overflights during the breeding and nesting season for sage grouse. We recommend that noise limits be imposed in the RMP, allowing no greater than 32 dBA noise levels in sage grouse nesting and breeding habitats

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**Comment Number:** IDMTSG-14-0153-3

**Organization1:** Wild Earth Guardians

**Commenter1:**Erik Molvar

**Other Sections:** 7.6

**Comment Excerpt Text:**

Alternative D would apply a 3% limit on anthropogenic disturbance, but only for future fluid mineral leases. Relevant to the issue of the 3% disturbance cap, we ask the responsible official to make a formal determination concerning which of the available scientific information is the most accurate, reliable, and relevant in determining what percentage of land area should be allowed to be disturbed in order to achieve the stated goal of the RMP Amendment. We would further ask the Forest Service to determine whether a 3% disturbance cap or no disturbance cap is the scientifically supported measure to apply as a Condition of Approval to existing fluid mineral leases. We would ask the Forest Service to consider the findings of Knick et al. (2013), which concluded in relevant part that 99% of the active leks in the study area (encompassing the entire western range of the greater sage grouse) were surround by habitat with 3% surface disturbance or less. See Attachment 1. We would ask the responsible official to consider the findings of Kirol (2012), which found for his study area immediately north of the planning area that surface disturbance greater than or equal to 4% of the land area had a significant negative impact on greater sage grouse brood rearing habitat. See Attachment 2. We would ask the responsible official to consider the findings of Copeland et al. (2013), which found that if all of the State of Wyoming sage grouse policy provisions (which include a 5% disturbance cap calculated using a Disturbance Density Calculation Tool) were implemented fully and to the letter, that a 9 to 15% decline in greater sage grouse populations would still occur statewide, including a 6 to 9% decline within designated Core Areas (where the 5% disturbance cap would be applied). We would ask the responsible official also to render the same determination regarding the accuracy, reliability, and relevance of science supporting the 3% disturbance cap proposed for implementation under Alternative B

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**Comment Number:** IDMTSG-14-0153-31

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

New research (Copeland et al. 2013) projects continued sage grouse population declines at 14-29 percent in Wyoming if its Core Area standards are fully enforced; the Idaho – Southwest Montana Alternatives D and E do not even meet this bar. The same study estimates that, even when bolstered by \$250 million in targeted conservation easements on private property (a very unlikely assumption), the Core Area policies would only cut anticipated sage grouse population declines by half in Wyoming, and by two-thirds within high abundance areas. We are concerned that sage grouse in Idaho and Montana will fare even worse given that BLM’s Alternatives D and E are less protective in many respects than the State of Wyoming Core Area policy in many respects.

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**Comment Number:** IDMTSG-14-0153-32

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

We are concerned that many, if not most, of these “habitat improvement” projects are actually harming sage grouse habitat in the long term and that the remainder will cause short-term impacts to sage grouse populations that contribute to the multiple serious threats to their existence. The scientific basis for many such projects (which include prescribed burns and mechanical or herbicidal thinning or removal of sagebrush) is extremely shaky, and given the lack of familiarity of the project proponents with basic sage grouse habitat requirements, such projects may unintentionally cause additional damage to sage grouse habitats. The impacts



(positive and/or negative) of such projects have not been rigorously tested, and thus their results for improving (or harming) sagebrush habitats remain open to speculation.

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**Comment Number:** IDMTSG-14-0153-35

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

BLM proposes to continue to allow the use of prescribed fire in Priority Habitats, which will cause negative impacts to sage grouse populations. Prescribed fire not only harms sage grouse by eliminating the sagebrush that is their key habitat element, but also promotes the spread of cheatgrass, which are becoming ever more widespread, particularly in southern Idaho. Required measures for prescribed fires reduce the negative effects but do not drop them below the threshold of a significant impact to sage grouse

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**Comment Number:** IDMTSG-14-0153-39

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

BLM acknowledges that there is little potential for coal mining in the planning area; the agencies should therefore find Priority Habitats unsuitable for surface mining for coal in order to provide regulatory certainty. We are concerned that BLM's approach of sidestepping this potential impact creates uncertainty and also undermines the BLM's ability to describe the magnitude of impacts under the various alternatives, rendering the legally required 'hard look' impossible.

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**Comment Number:** IDMTSG-14-0153-4

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.6

**Comment Excerpt Text:**

Please also make a formal determination regarding the disturbance cap in the context of sagebrush canopy cover, and if 3% is not the scientifically defensible threshold, then where that threshold should be set, for the same reasons as noted above for the 3% and 5% disturbance caps. Please review the studies listed above, and any and all additional studies that directly address the efficacy of a 3% disturbance cap, if any. Knick et al. (2013) found that almost all active leks were found in areas with less than 10% cropland (Figure 5). This study included all of Idaho (Knick et al. 2013, Figure 2), indicating that its findings are directly relevant to this EIS. We are unaware of any such studies, and in their absence federal agencies should employ the precautionary principle and utilize a 3% cumulative disturbance cap for all forms of disturbance

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**Comment Number:** IDMTSG-14-0153-47

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

In addition, the presence of livestock in nesting habitats can cause problems for sage grouse. Livestock drives

could also negatively impact sage grouse populations during the nesting season. According to Call and Maser (1985:18), “Hens abandon their nests with little provocation during the egg-laying period (mid-April through early May). Yearling hens are prone to abandon their nests even when disturbed during incubation. The impact of a livestock drive could, therefore, be great because yearling hens are usually the largest reproductive age class.” For allotments where sage grouse nesting is known to occur, shifting on-off dates (if necessary) could minimize the chances of impacts to nesting sage grouse, and livestock drives should be routed to avoid sage grouse leks during the strutting and nesting seasons

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**Comment Number:** IDMTSG-14-0153-58

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.8

**Comment Excerpt Text:**

We are also concerned that the direct and cumulative impact analyses in the Draft EIS offer only a laundry list of conservation measures, without evaluating their efficacy and overall impact on sage grouse under each alternative. Area sage grouse populations expected to increase or decrease under each alternative in 10 years, 50 years, and 100 years? What would be the magnitude of population changes for each alternative? Copeland et al. (2013) evaluated just this question for Wyoming using a modeling approach, and we call upon the federal agencies to adopt such a modeling approach to come up with projections for sage grouse population trends under each alternative.

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**Comment Number:** IDMTSG-14-0153-6

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.6

**Comment Excerpt Text:**

Alternative B would limit surface disturbances to no more than one per section, at least on future fluid mineral leases. DEIS at 2-188. This should be implemented for all leases (future and existing) and for other types of similar disturbance in the final plan. BLM’s Alternative D limits the density of wellpads to one per square mile, but for future mineral leases only (DEIS at 2-191); this needs to be applied to existing leases also as a Condition of Approval. Please review the best available science and make a determination regarding whether one wellpad/disturbance per section, or no limit at all, is the most scientifically supported approach or whether no limit on wellpad density would best achieve the purpose and need of the plan amendment. Please consider the following studies which directly address the threshold of well density at which impacts to sage grouse occur: Holloran (2005), Doherty (2008), Walker et al. (2007), Taylor et al. (2012), and Copeland et al. (2013). Attachments 3, 4, 5, 6, and 7, respectively. Each of these studies find significant declines of sage grouse populations as well densities exceed one pad per square mile, and some of these studies indicate negative effects on sage grouse at lower wellpad densities

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**Comment Number:** IDMTSG-14-0153-61

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are also concerned that this assumption has biased the results of Tables 4-2 and 4-3 and the impacts analysis (DEIS at 4-49) regarding Alternative C, which should have the best performance in long-term range

health due to removal of the leading cause of range health decline, domestic livestock. BLM repeatedly refers to the potential of certain grazing patterns (without specifying which ones) to reduce fine fuels and thereby reduce fire risk. See e.g., DEIS at 4-125. Conversely, the agency systematically argues that restrictions on or removal of livestock increases fire risk. E.g., DEIS at 4-126. However, the agency systematically downplays the primary role that livestock grazing plays in spreading cheatgrass, which is the primary factor other than climate in increasing fire risk. Conclusions such as the statement that “the prohibition on grazing would reduce weed spread, in some areas, in conjunction with efforts to reintroduce perennial vegetation, may experience a shorter fire season and less frequent and intense wildfires” do not appear to have been taken into consideration in the overall comparison of fire risks between alternatives. We are concerned that this bias in impacts analysis leads the agencies to erroneous conclusions regarding relative fire risk across alternatives.

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**Comment Number:** IDMTSG-14-0153-67

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 26.1

**Comment Excerpt Text:**

Minimizing the use of herbicides inside sage grouse habitats, and using them as a last resort, is also a good approach for sage grouse Priority Habitats. We are concerned that aerial applications of herbicides and pesticides are reasonably foreseeable in the planning area. Insects are an important food source for sage grouse; this is particularly true during the early brood-rearing phase. Insecticide application could not only sicken or kill grouse directly, but it could also deprive them of an important food source. Aerial herbicide and pesticide applications should be precluded within one mile of sage grouse habitats to avoid inadvertent poisoning of sage grouse. Although the use of Plateau in heavily cheatgrass-infested areas might be allowed in cases where sage grouse are not using the treated habitats, aerial spraying of herbicides and insecticides over or within one mile of sage grouse habitats should not be allowed. Hand spraying might be accomplished by deliberately driving grouse off by teams on foot prior to treatment, and by treating from backpack units rather than aerial or truck/ATV application

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**Comment Number:** IDMTSG-14-0153-8

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.6

**Comment Excerpt Text:**

Please evaluate the scientific basis for the effectiveness of timing limitation stipulations as an alternative to no surface occupancy stipulations, using the scientific studies cited in these comments and any other studies that examine the changes in sage grouse populations when drilling and construction activities are allowed within 4 miles of sage grouse leks, but construction and drilling activities are prohibited during the breeding and nesting seasons

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**Comment Number:** IDMTSG-14-0157-10

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The DEIS contains very little discussion of the effects of disease and particularly West Nile Virus although it is discussed in Appendix Table C-2 regarding best management practices. Where the agency lacks sufficient information to determine the impacts, as noted by the Service, it is incumbent upon BLM to obtain the missing information or to explain to the public why the information is either unavailable or exorbitantly

expensive to obtain. See 42 U.S.C. § 4332(2)(c); 40 C.F.R. § 1503.1(a)(1). The FEIS should explain how BLM obtained sufficient information on the effects of West Nile Virus following publication of the DEIS to determine its impacts on the species or, in the alternative, why the information could not be obtained or was too expensive to obtain and how the lack of information affects the FEIS.

**Comment Number:** IDMTSG-14-0159-2

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

there is no analysis of why the proposed withdrawal from mineral entry based on risk to GRSG and its habitat is necessary where the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas.

**Comment Number:** IDMTSG-14-0168-34

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-6

"The analysis includes the following assumptions:

Alternative A would neither result in the designation of PPH or PGH nor assign additional management actions to PPH or PGH areas."

Comment:

Chapter 4 needs to be rewritten to fairly assess Alternative A. Under BLM Manual 6840 and Forest Service Manual 2670, the federal agencies are required to manage sensitive and special status species including sage-grouse to keep them from being listed. This includes "additional management actions" in sage-grouse habitat (referred to in the EIS as PPH and PGH).

**Comment Number:** IDMTSG-14-0168-39

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-49

"This is because of reduced trampling of nests by livestock during nesting season and increased herbaceous understory vegetation."

Comment:

Please provide the citation for "trampling of nests by livestock"

**Comment Number:** IDMTSG-14-0169-1

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

The final plan must adopt a more precautionary approach to conserving sage-grouse that protects essential

habitat, identifies areas for restoration, accounts for the effects of climate change on sagebrush steppe, and limits the impacts of land use and development on sage-grouse

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**Comment Number:** IDMTSG-14-0169-2

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The plan needs to include additional information on the effects of livestock grazing on sage-grouse.**

The draft Idaho/SW Montana plan only briefly reviewed the impacts of livestock grazing on sage-grouse and sagebrush steppe (e.g., 3-70 – 3-74). Livestock grazing is the most pervasive use of sage-grouse habitat in the planning area (vol 1, Figure 2-10) and grazing has myriad negative effects on the species. A more thoughtful review of the literature would not likely support a conclusion—like that included in this plan—that “the effects of removing grazing in [sage-grouse] habitats on a landscape scale are unknown, and it is unclear whether complete removal would improve [sage-grouse] habitat or increase population levels” (4-50).

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**Comment Number:** IDMTSG-14-0169-34

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 7.5

**Comment Excerpt Text:**

**Analysis of Key Conservation Measures**

We developed a matrix comparing the key science-based conservation measures for sage-grouse with prescriptions in preferred Alternative D in the draft Idaho/SW Montana. We categorized the application of each conservation measure in the preferred alternatives into one of three categories: adopted the conservation measure (color coded green); adopted the conservation measure, but did not adopt the full prescription, did not make it mandatory, deferred application to future, project-level planning, or allowed for exception, waiver and modification of the measure (yellow); or did not adopt the prescription (red). Our analysis is presented in Table 1. We are concerned that the preferred alternative designates less priority habitat to conserve sage-grouse than other alternatives; fails to require buffers to protect sage-grouse leks and associated nesting and brood-rearing habitat from various land uses and disturbance; does not cap development density for most land uses in priority habitat; does not recommend withdrawal of priority habitat from entry for locatable minerals; fails to protect sage-grouse winter habitat; and does not clearly prescribe needed conservation measures for managing livestock grazing in sage-grouse range.

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**Comment Number:** IDMTSG-14-0169-37

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

The preferred alternative does not prescribe a general no surface occupancy lek buffer to protect sage-grouse breeding, nesting and brood-rearing habitat.

The preferred alternative does not prescribe a general cap on development density (i.e., 1 site per section) in priority habitat.

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**Comment Number:** IDMTSG-14-0169-42

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 7.5

**Comment Excerpt Text:**

While it appears that the adaptive management scheme prescribed in the preferred alternative would attempt to retain/restore sagebrush steppe to a minimum of 80 percent of land cover in sage-grouse seasonal habitats, the alternative doesn't actually commit to the minimum standard (vol 2, 2-73). Also, the concurrent allowance of habitat disturbance of between 10-20 percent could be negative for sage-grouse (vol 2, 2-73).

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**Comment Number:** IDMTSG-14-0169-7

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Impacts should be considered in the context of their scale. For example, a sage grouse population in southeastern Idaho may have benefited indirectly from presence of livestock when they established strutting grounds on sheep salting areas [very small areas relative to overall habitat], whereas weed infestations induced by livestock grazing in the Great Basin may reduce quality of habitat for sage grouse populations across this vast region. (Beck and Mitchell 2000: 997, citations omitted).

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**Comment Number:** IDMTSG-14-0178-17

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

• [This comment refers to Alternative D] Trailing (2-143, 4-104) - The significance of trailing livestock to sage grouse is over exaggerated. The analysis fails to recognize that many leks are the result of past livestock activities and sage grouse tolerance for disturbances attributable to livestock trailing has never been evaluated or determined.

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**Comment Number:** IDMTSG-14-0178-6

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 7.5

**Comment Excerpt Text:**

A. Alternative A – Current Management

While the USFWS has determined that there are not adequate regulatory mechanisms in place to ensure the conservation of sage grouse, we assert that the agencies could have made stronger arguments in the LUPA/DEIS to explain how their existing regulations promote the viability of species and have safeguards to protect against habitat degradation.

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**Comment Number:** IDMTSG-14-0180-2

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The State would like to a more complete analysis of Alternative A. Following the 2010 decision, threat levels for sage-grouse were moderate. The Service's concern was long-term implementation. It's possible that BLM could have satisfied the Service's determination if it developed a better implementation structure for existing regulations. BLM's response to Governor Otter's Consistency Review indicated Wyoming's plan was

satisfactory for threats in that region, which accounts for roughly 50% of the sage-grouse population.<sup>17</sup> Yet, this analysis seems wholly lacking in this present document. Instead, BLM arbitrarily re-calibrated the environmental baseline for the species through NTT.

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**Comment Number:** IDMTSG-14-0180-31

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The Chapter 4 impact analysis is insufficient. This was an issue that the State attempted to address throughout the Administrative Draft phrase of the document, but still has not been satisfactorily improved. This is primarily because this chapter ignores the beneficial impacts of monitoring, adaptive management and how the specific conservation measures for each threat would be implemented.

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**Comment Number:** IDMTSG-14-0180-33

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Alternative E impacts are unique from Alternative B in that Alternative E includes a mechanism that provides certainty of implementation for conservation measures for all threats. The adaptive triggers allow the State and BLM to keep a close eye on what happens in sage- grouse habitat and to respond accordingly.

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**Comment Number:** IDMTSG-14-0183-12

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Oil and gas infrastructure and associated human activity have been shown to adversely affect GRSG populations collectively and in some instances, impacts have been directly attributed to certain anthropogenic features (e.g., roads, power lines, noise, and associated infrastructure; Walker et al. 2007; Doherty et al. 2008; Lyon and Anderson 2003; Holloran 2005; Kaiser 2006; Aldridge and Boyce 2007). (ID/MT Draft LUPA/EIS)

Doherty et al. (2008), Holloran (2005), and Aldridge and Boyce (2007) evaluated coal-bed natural-gas wells (CBNG) but did not evaluate the effect of powerlines. Lyon and Anderson (2003) evaluated the effect of vehicular traffic associated with natural-gas developments. Therefore, none of these studies provide information on the effects of powerlines. These studies fail to control for, among other variables, breeding habitat availability, presence of roads and other infrastructure, cultivation, and natural events.

Only Walker et al. (2007) evaluated the impact of powerlines, and they found only weak effects. Walker et al. (2007) showed that all top models to explain lek persistence included a strong positive effect of sagebrush habitat and a strong negative effect of CBNG development. Furthermore, the best habitat-plus-CBNG model was 28 times more likely to explain patterns of lek persistence than the best habitat-plus-infrastructure model (including powerlines) and 50 times more likely than the best habitat-only model. Last, models with powerline effects were weakly

supported compared to models with CNBG, although powerlines appear to have a negative effect on lek persistence. The powerline variable included lines associated with CBNG, as well as non-CBNG powerlines. So no attempt was made to isolate the effect of powerlines from the confounding effect of CBNG development. We suggest a more complete statement be included in the Draft LUPA/EIS regarding the effects of energy developments on sage grouse lek persistence regarding the Walker et al. (2007) study. It appears selective use is being made of the information provided by Walker et al. (2007), narrowly focusing on the (weak) effect of powerlines on sage grouse lek persistence.

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**Comment Number:** IDMTSG-14-0183-13

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Mean distance to transmission lines was more than two times farther in occupied range than in extirpated range, and the distance to communication towers averaged almost two times as far in occupied versus extirpated range (Wisdom and others, 2011). (Manier et al. [2013])

Both Wisdom et al. (2011) and Johnson et al. (2011) were a part of Greater Sage Grouse: Ecology and Conservation of a Landscape Species and Its Habitats. Manier cites Johnson et al. (2011) 11 times in the document but fails to mention that Johnson et al. (2011) found no effect of transmission and distribution powerlines on lek trends. Johnson et al. (2011) is cited that lek counts tend to be lower on leks within 3 miles of interstate highways.

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**Comment Number:** IDMTSG-14-0183-14

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Sage-grouse avoided brood-rearing habitats within 2.9 mi (4.7 km) of transmission lines in south-central Wyoming (LeBeau, 2012). (Manier et al. ([2013])

This statement is incomplete and is another example of the selective use of the literature. LeBeau (2012) found that brood-rearing habitat selection in 1 study area increased with distance to the transmission line up to 4.7 km, then declined, but in the other study area, brood-rearing habitat selection was highest in the area around the transmission line. LeBeau (2012) also found that sage grouse selected nesting habitat closer to transmission lines that have existed for over 10 years and are within quality habitat at Simpson Ridge. Also, female survival in the study area was greatest at closer proximity to the transmission lines. Nest site selection was higher closer to transmission lines in one study area and not a factor in the other study area. The risk of nest failure increased as distance from the transmission line increased. Brood survival was not impacted by distance to transmission lines. The study found female survival was highest near the transmission lines throughout the study area.

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**Comment Number:** IDMTSG-14-0183-15

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**



The study found female survival was highest near transmission lines throughout the study area. Nonne et al. (2013) conducted a 10-year study of greater sage grouse in response to a 345-kV transmission line in central Nevada and reported that habitat conditions had a greater effect on sage grouse nests, brood success, and overall survival than the proximity to the transmission line did. Furthermore, Nonne et al. (2013) found no evidence that predation increased with distance to the transmission line because nest survival and female survival did not show a relationship to distance to the line. Nonne et al. (2013) conducted 10 years of research in response to a BLM requirement of authorizing the Falcon–Gondor transmission line.

**Comment Number:** IDMTSG-14-0183-19

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

underground power lines result in significant cost increases, reduced reliability, greater ground disturbance during construction and repairs, longer outage periods for customers, and may not always be feasible from an engineering and operations perspective. Underground power lines can result in impacts to other federally listed species, pose a threat of negative impacts on cultural resources, and may have a negative impact to waterways. Underground power lines require a continuous excavation, including blasting in rocky terrain, through all habitat types. In sagebrush habitat, this would result in ground disturbance for the entire line route and associated access roads.

**Comment Number:** IDMTSG-14-0183-20

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

In areas where raven predation on sage grouse nests is a concern, perch discouragers may aid in the accumulation of nest material (APLIC 2006) and could potentially increase raven predation pressure due to nest construction on discouragers in sensitive areas. In addition, increased electrocution risk associated with poles modified with perch deterrents has been documented.

**Comment Number:** IDMTSG-14-0183-7

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Inappropriate or Misuse of Citations

Collisions with power lines, vehicles, property fencing, and increased predation by raptors may increase mortality of birds at leks (Connelly et al. 2000a; Lammers and Collopy 2007). (ID/MT Draft LUPA/EIS)

Lammers and Collopy (2007) evaluated the effectiveness of perch deterrents in discouraging raptors from perching on powerlines structures. They found that perch deterrents did not prevent perching but decreased the perching duration of raptors on the deterrents compared to other perching substrate. They concluded that “Perching of raptors indicated that some hunting most likely took place from the towers; therefore, the deterrents did not completely obviate the threat that avian predators posed to greater sage-grouse.” The study did not document increased predation by raptors using powerlines, only suggested it may be taking place.

Connelly et al. (2000a) evaluated the cause of death for 117 adult greater sage grouse and found 62% of

documented deaths were attributed to predation, 32% were attributed to hunting, 3% were attributed to vehicle collision, and less than 1% (1 adult male) hit a powerline. Is it appropriate to use 1 collision with a powerline to indicate an impact? The Draft LUPA/EIS implies that since raptor prey on sage grouse and raptors use powerlines to perch, powerlines impact sage grouse. This is not a cause and effect relationship, necessarily, but a spurious correlation.

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**Comment Number:** IDMTSG-14-0183-8

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Roads and power lines may also indirectly affect lek persistence by altering productivity of local populations or survival at other times of the year. GRSG mortality associated with power lines and roads occur year round (Aldridge and Boyce 2007). (ID/MT Draft LUPA/EIS)

Adridge and Boyce (2007) did not include powerlines as an explanatory variable in their model evaluating nest and brood occurrence and survival models. They state they “found no effect of edge habitats, or other human features on Sage-Grouse nest success.” The only reference to powerlines in the article states sage grouse “are killed by raptorial predators, such as Golden Eagles (*Aquila chrysaetos*) and Great Horned Owls (*Bubo virginianus*) that perch on the powerlines leading to well sites.” No data is cited to support or document that predation was occurring at the study site. Rather, the author is stating that golden eagle and great-horned owls are known predators and that they were observed perching on powerlines in the study area. Again, the BLM has made a spurious correlation appear to be a scientific fact.

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**Comment Number:** IDMTSG-14-0186-14

**Organization1:**Intermountain Range Consultants

**Commenter1:**Bob Schweigert

**Comment Excerpt Text:**

Page 2-66 [136]. Alternative D states the agencies would reduce impacts from trailing. However, no science-based impacts from trailing are reported in the document, or what those impacts are with respect to GRSG populations or habitat. The FEIS/LUPA should either remove this notion, or present credible science or monitoring data on the subject.

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**Comment Number:** IDMTSG-14-0210-5

**Organization1:**NorthWestern Energy

**Commenter1:**Mary Gail Sullivan

**Comment Excerpt Text:**

- Perch discouragers were originally designed to reduce raptor electrocutions by moving birds from an unsafe (electrocution risk) perching location to a safer alternative, either on the same structure or an alternate structure located nearby. Recent data has documented poor effectiveness in perch discouragers and greater effectiveness of covers for preventing electrocutions (see Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006), pages 17-18). Despite their declining use by electric utilities, perch discouragers have been installed in attempts to dissuade raptors and ravens from perching or nesting on power poles in areas with sage-grouse or other sensitive prey species. Perch discourager research

has shown limited effectiveness in preventing perching, potential for increased nesting on discouragers, and increased electrocution risk associated with perch discouragers. In areas where raven predation on sage-grouse nests is a concern, perch discouragers may aid in the accumulation of nest material (APLIC 2006), and could potentially increase raven predation pressure due to nest construction on discouragers in sensitive areas. The negative impacts of perch discouragers must be weighed against the limited benefits they may provide, particularly if they are contributing to mortalities of protected birds and facilitating increases in predator nesting populations. The avian predators of sage-grouse should also be considered, as different species exhibit different hunting strategies, and employ different hunting techniques for different prey species. For example, golden eagle diet is largely mammalian (80-90%, Kochert et al. 2002). Golden eagle hunting behavior of sage-grouse is not accurately represented in the DEIS. Golden eagles prey on sage-grouse opportunistically, and typically hunt sage-grouse by stooping from a high soar or low, coursing ambush flight (Watson 1997, Kochert et al. 2002). Consequently, power poles may not play an important role in eagle predation of sage-grouse. Golden eagles are vulnerable to electrocution mortality (APLIC 2006) and perch discouragers have been correlated with increased eagle electrocution risk (PacifiCorp, in prep.). Common ravens are known predators of sage-grouse nests, yet ravens are able to overcome perch discouragers and may experience higher nesting rates on poles with perch discouragers

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**Comment Number:** IDMTSG-14-0242-16

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

Our analysis of the DEIS focused on those impacts associated with GRSG and its habitat for all of the alternatives. We recommend that the impact analysis be improved through the following ways:

- a. We need more clarity as to the extent to which proposed actions within each alternative would ameliorate the threats to GRSG within the identified analysis areas. This is not to suggest that the current conservation measures within the range of alternatives are inadequate, but rather to emphasize the need for a more comprehensive impact analysis. Currently, the analysis demonstrates the extent to which an impact is reduced within a Population Area. However, it should also incorporate the best available science to show how that reduction could ameliorate the associated threat and consequently impact GRSG individuals and populations. The impacts to individuals and associated populations should then be compared across alternatives.
- b. The analysis should consider the beneficial impacts of best management practices and required specific design features where appropriate.
- c. The analysis should address the extent to which conservation measures within the alternatives meet the objectives of the COT. For example, we recommend inclusion of the COT matrix with an associated narrative. We remain committed to providing technical assistance to you and your staff to complete and incorporate this analysis.

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**Comment Number:** IDMTSG-14-0257-10

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

According to the Draft LUP AIEIS, for Alternative E, "The CHZ represents strongholds for GRSG populations in Idaho and is expected to support the highest breeding densities with approximately 65 percent of the known leks and 73 percent of the males in the state ... 8 We recommend that the Final LUPA/EIS include an estimate of the percentage of leks and males that the other action alternatives would support.

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**Comment Number:** IDMTSG-14-0257-3

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

- Alternative D would place a relatively larger area of priority GRSG habitat under the most protective designation compared to Alternative E. This larger area is preferable because it would provide stronger protection for a larger amount of more types of GRSG habitat (especially brood-rearing, winter, and connectivity habitats). Protecting a larger area with the strongest requirements would also create more habitat and population expansion opportunities, and provide greater flexibility for managing habitat changes that may result from climate change. We note that two of the four primary threats to GRSG in the Idaho SW Montana sub-region, wildfire and invasives, are likely to be exacerbated by climate change.<sup>5</sup>
- Alternative D's "no net unmitigated loss" standard for Priority Management Areas appears to be more protective than the other action alternatives' disturbance caps. We appreciate, however, that the Sage-Grouse National Technical Team Report included a three percent disturbance cap. To help determine which of these approaches is environmentally preferable for this sub-region, we recommend that the Final LUP A FEIS include additional information comparing the long term effects of each approach. Consider describing, for example, each approach's relative certainty of (i) full implementation, and, (ii) effectiveness in conserving GRSG habitat and populations.

***Summary***

The BLM and Forest Service should conduct additional, more comprehensive analysis of the impacts on greater sage-grouse to provide more substantiated conclusions.

Commenters provided suggestions on how to improve or modify the impact analysis for greater sage-grouse in several topic areas including:

- Hunting
- Predation
- Anthropogenic disturbance, disturbance caps, and lek buffers
- Expanding on beneficial effects on GRSG from range improvements
- Greater sage-grouse population size and trend
- Livestock grazing, fences, and trailing
- Noise as related to low-level military overflights
- Success of habitat improvement projects
- Prescribed fire
- Herbicides
- West Nile virus
- More detailed analysis of Alternative A
- Climate change
- Need to identify areas for restoration
- Coal suitability

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas.

***Response***

The LUPA/FEIS provides an updated and expanded discussion of the environmental consequences, including

the cumulative impacts, of the presented alternatives. As described in Chapter 2.3.2, coal was not an issue for analysis. As required by 40 CFR 1502.16, the LUPA/FEIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources should the proposal be implemented. The LUPA/FEIS provided sufficiently detailed information to aid in determining whether to proceed with the proposed plan in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. Therefore, effects on GRSG population levels are not required to be quantified as part of the impact analysis. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM: Eventually need to fill this in:] Impacts from XX on greater sage-grouse were considered in Section 4.x of the Draft EIS. Include discussion of what changes were made and where. If no change made, describe why the impact analysis is adequate for that topic. Some template text:

While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS's impact analysis relevant to [speak to the specific topic or theme of the issue statement, e.g., anticipated fluid mineral development of the planning area] was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions. Specifically, [insert a summary of the information that was updated and include a citation for where the reader could find it in the FEIS.]

The facts that sage brush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts are not sufficient methods of protecting GRSG and sage brush habitat. Additionally, this concept was considered within the range of alternatives- Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment. [NOTE TO BLM: Consider whether inserting text to this effect into the EIS is appropriate.]

## **Section 7.8 - Cumulative Impact Analysis**

*Total Number of Submissions: 3*

*Total Number of Comments: 3*

**Comment Number:** IDMTSG-14-0050-22

**Organization:**

**Commenter:** Kathleen Gregg

**Other Sections:** 7.7

### **Comment Excerpt Text:**

While BLM and USFS often propose chaining, chemical and burning treatments that may benefit domestic livestock grazing (Bishop RMP, 1993) there is no evidence these treatments benefit sage-grouse. To the contrary, these treatments have negative direct, indirect, and cumulative effects on sage-grouse. The proposed

EIS must include an analysis of the cumulative effects of the existing fences, prescribed burning and other proposed treatments and the effects of domestic livestock grazing on greater sage-grouse.

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**Comment Number:** IDMTSG-14-0151-44

**Organization 1:** Western Watersheds Project

**Commenter 1:** Katie Fite

**Comment Excerpt Text:**

Now that the analysis has been broken down this way, it places a very high burden on the agencies to properly assess the welter of indirect and cumulative effects and threats facing biologically interacting sage-grouse populations and their habitats where populations span state lines. The indirect and cumulative effects analysis must extend beyond state lines. Full current analysis of declines, losses and increasing fragmentation of habitat up to the present must be provided in a SEIS. For example, how much has the habitat for the Northern Great Basin population been impacted by fires? By expansion of cheatgrass/medusahead /exotic bromes/bulbous bluegrass, including in understories? The Idaho plan must examine the cumulative effects, and threats facing the northern Great Basin population in Nevada, Oregon and Utah. It also must examine the meager management actions now proposed for sage-grouse habitats in other states, and the potential adverse impacts of agencies adopting the BLM or state alternatives

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**Comment Number:** IDMTSG-14-0153-58

**Organization 1:** Wild Earth Guardians

**Commenter 1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

We are also concerned that the direct and cumulative impact analyses in the Draft EIS offer only a laundry list of conservation measures, without evaluating their efficacy and overall impact on sage grouse under each alternative. Area sage grouse populations expected to increase or decrease under each alternative in 10 years, 50 years, and 100 years? What would be the magnitude of population changes for each alternative? Copeland et al. (2013) evaluated just this question for Wyoming using a modeling approach, and we call upon the federal agencies to adopt such a modeling approach to come up with projections for sage grouse population trends under each alternative.

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***Summary***

The BLM and Forest Service need to provide additional analysis regarding the cumulative effects of livestock grazing and land treatments. In addition, the agencies should predict greater sage-grouse population changes based on expected cumulative actions.

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***Response***

As described in Section 4.7 of this comment report, the BLM and Forest Service analyzed cumulative effects to GRSG in the DLUPA/EIS in Section 4.16 of the EIS. The BLM and Forest Service expanded and quantified cumulative impacts for the proposed LUPA/FEIS. Section 7.7 of this comment report describes how land treatments and domestic livestock were addressed in the Environmental Consequences section of the DEIS. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This

discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and Forest Service have complied with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level. Therefore, effects on GRSG population levels are not required to be quantified as part of the cumulative impact analysis.

The BLM and Forest Service added quantitative analysis to Section 4.16 related to XXX topics. [Note to BLM/FS: insert description of any revisions made]

## **Section 7.9 - Mitigation Measures**

*Total Number of Submissions: 12*

*Total Number of Comments: 34*

**Comment Number:** IDMTSG-14-0131-23

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

### **Comment Excerpt Text:**

there are numerous methods available for restoration or conservation of sage grouse habitat. Developing a sage grouse "banking program/system" in which the implementation of these methods would result in the generation of credits for sale or trade would be a major step towards a regulatory system that provides protection for the species while still allowing development consistent with federal law. Utah, Idaho, and Nevada have developed wording in their state plans to address the development of sage-grouse conservation banks

**Comment Number:** IDMTSG-14-0149-5

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Other Sections:** 7.1

### **Comment Excerpt Text:**

We are concerned that many of the Required Design Features (RDF) recommended by the NTT are included in the LUPA/DEIS. These features fail to reflect the complexity of oil and natural gas exploration and development and represent a one-size-fits-all management approach that disregards topography, local conditions, and practicality. We recommend that the agencies revisit the RDFs proposed in the LUPA/DEIS to ensure they are technically feasible and appropriate. Further, the agencies must maintain flexibility required when considering design features on a site-specific basis. For these reasons, we strongly urge the agencies to refrain from directly incorporating any of the NTT report recommendations into the preferred alternative in the final LUPA/EIS and ROD.

**Comment Number:** IDMTSG-14-0151-62

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Provisions like WL 4.4-2 g “restrict during March-May any intensive ground disturbance activities” must be extended by this process through June 20, to be compatible with the Braun (2006) guidelines, and the needs of sage-grouse. Livestock grazing must be considered to be a disturbance that disturbs and displaces birds, promotes predation during sensitive periods, and strips protective nesting cover exposing nests and nesting birds to predators and weather extremes. See Connelly et al. 2004, WBP Finding discussing Coates et al. and Coates and Delehanty, Knick and Connelly 2011,

**Comment Number:** IDMTSG-14-0153-13

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are concerned that BLM may not fully apply mitigation measures identified in the RMP revision, using agency discretion to create loopholes in cases where project proponents find mitigation measures to be onerous. This concern is underscored by repeated references throughout the document to exceptions granted to plan standards either with or without compensatory mitigation. RMP language should be clearly articulated that standards are indeed standards and will be applied rigorously throughout the life of the Plan

**Comment Number:** IDMTSG-14-0153-33

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The net result is that, under the offsite mitigation model, immediate welfare of the sage grouse today is being mortgaged for eventual habitat improvements that are speculative at best. However, unlike pheasants, sage grouse are known to respond poorly if at all to habitat enhancement projects (WGFD 2007). In the WAFWA forum participants noted,

“It’s important for people to understand that if we are doing habitat projects, it often takes a matter of 10, 20, even 30 years to restore shrub habitat. Habitat treatments that put money on the ground today are speculating on the long-term success of the treatment, and of the sage grouse response to those treatments. So we’ll have to find a way to figure this much longer time frame into our calculations” (WAFWA 2006b: 13).

In the absence of rigorous scientific evidence supporting the translation of habitat enhancement projects into increased sage grouse population numbers, BLM should exclude such projects from sage grouse Priority and General habitats

**Comment Number:** IDMTSG-14-0153-5

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Finally, we would ask the responsible official to render a formal determination regarding any scientific support for allowing exceptions to the disturbance cap to be granted with or without mitigation when sage grouse populations are at or above population targets and stable. Please cite to scientifically valid studies that provide examples of mitigation that have increased the populations of sage grouse where they have been



implemented, to offset losses to sage grouse populations in developed areas

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**Comment Number:** IDMTSG-14-0153-7

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.6

**Comment Excerpt Text:**

The federal agencies propose to compensatory mitigation as a key element of Alternative D DEIS at 2-74. These are intended to offset impacts. Id. We call upon the Forest Service to reach a determination regarding the effectiveness of the proposed compensatory mitigation to result in no net loss of sagebrush populations for the area in question. Please document any and all scientific studies that conclude that compensatory mitigation efforts have yielded an increase in sage grouse populations for the area to which mitigation efforts apply. We are unaware of any cases in which a compensatory mitigation program has resulted in a significant increase in sage grouse compared to an untreated landscape. The fact that “compensatory mitigation” funding frequently is used to purchase conservation easements is problematic, because this is a paper transaction with legal ramifications preventing future potential losses, but can never yield population gains to offset the very real and immediate losses of sage grouse habitats and populations incurred as a result of industrial development

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**Comment Number:** IDMTSG-14-0178-28

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

Monitoring (1-30) – Although we acknowledge that effectiveness monitoring will be an essential component to exhibiting to USFWS that the BLM/FS’s plans are working, we are concerned about the BLM’s ability to adequately conduct such work, as has proven fodder for litigation in the past. Strong efforts must be made to improve monitoring methods

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**Comment Number:** IDMTSG-14-0179-10

**Organization1:** Idaho Conservation League

**Commenter1:** John Robison

**Comment Excerpt Text:**

Conservation Area are still met, among other conditions (E-LR-11 through 14: Idaho-CHZ and IHZ on p. 2-166 through 168). The Idaho Conservation League was involved in the development of this exemptions process and a high bar was set. That said, our preference would be to first avoid any infrastructure development within the CHZ and secondly within the IHZ. Even with the best-intentioned avoidance and mitigation plan, some projects are simply “unmitigatable” due to the type or location of the project. As such, we recommend expanding the list of excluded projects in CHZ to include the following:

- Landfills in sage-grouse habitats or within 5 km of sage-grouse habitats<sup>2</sup>
- (especially because landfills subsidize synanthropic predators such as ravens)
- Airports
- Mineral development (leasable, locatable and salable) and associated infrastructure (processing, milling and stockpiling facilities)
- Quarries and gravel pits over a certain size, based on best management practices
- Oil and gas development
- Commercial wind, solar, geothermal, hydroelectric and nuclear projects

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**Comment Number:** IDMTSG-14-0180-26

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Alternative D's mitigation strategy is "no net unmitigated loss" which means at best, a 1:1 ratio of acres. However, Alternative D essentially excludes infrastructure in its most restrictive management zone, so there would be no real opportunity for mitigation.

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**Comment Number:** IDMTSG-14-0180-28

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Protection mitigation should also be clarified. This type of mitigation can protect thousands of acres from burning, but could potentially not meet the "net" criteria. This definition does not define how maturation of seeded restoration projects is calculated. And this is only appropriate for large- scale infrastructure, not other activities. Overall, this idea needs to be fleshed out to determine whether it is an effective strategy for infrastructure development and mitigation.

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**Comment Number:** IDMTSG-14-0206-16

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The five gaps in Alternative D's treatment of compensatory mitigation are: (1) absence of a clear statement of BLM's authority to require compensatory mitigation; (2) failure to explain the no net unmitigated loss standard; (3) lack of policies and processes needed to ensure delivery of sound mitigation; (4) lack of guidance for conducting mitigation on federal lands; and (5) failure to explain how compensatory mitigation is linked to the metrics in the adaptive management mechanism. Each of these problems is addressed below

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**Comment Number:** IDMTSG-14-0206-17

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Alternative D currently references that policy, the final Plan should explicitly re-state its core provisions, including the following points:

- BLM has the authority to require compensatory mitigation as a condition for a right-of-way or other land use authorization or permit;
- BLM has the authority to deny applications if appropriate mitigation is not achievable through avoidance, minimization or reasonable compensation;
- Regional mitigation planning and implementation should be a routine and standard aspect of BLM's planning and permitting processes;
- A regional or landscape-scale mitigation approach will help BLM maximize the management of conservation values while providing transparency and surety to both developers and other public lands users;
- Compensatory mitigation strategies may be implemented after project approval but before construction;

- Adequate bonding to ensure compensatory mitigation compliance is required; and
- Compensatory mitigation must be durable over the life of the impact

**Comment Number:** IDMTSG-14-0206-18

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

The Plan should state the basic criteria that will be employed in evaluating the adequacy of mitigation proposals designed to meet the “no net unmitigated loss” standard. These criteria include:

- Losses to be considered include those that stem from direct, indirect and cumulative impacts based on best available scientific evidence (i.e., there should be no burden of proof that makes it easier to overlook credible but uncertain impacts);
- Losses will be assessed from baseline habitat conditions and functions and post-project or activity conditions and functions;
- Impact assessments will weigh the value of the habitat affected, including any special or unique features important to sage grouse conservation;
- The mitigation standard is to offset these losses fully;
- Losses to be mitigated include temporary impacts of the project;
- Mitigation should be scaled to reflect the lag time between the time of project impact and the time that benefits of mitigation actions are achieved; and
- In determining the adequacy of mitigation proposals, BLM will consider the risk that mitigation actions will fail to achieve their expected benefits and adjust the amount of mitigation required to provide a high probability of success.

**Comment Number:** IDMTSG-14-0206-19

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Alternative D provides little guidance on the policies and processes that the agency will use to ensure the delivery of sound mitigation.

Fortunately, the Mitigation Framework that is incorporated into Alternative E does a good job in articulating many of these policies and processes. The Mitigation Framework was developed by a subcommittee of the Idaho Sage Grouse Advisory Committee as an outline for an in lieu fee program that would offer infrastructure developers one option for delivering mitigation. However, the principles used in the document have broader application to the task of delivering sound mitigation.

The following principles and policies from the Mitigation Framework should guide the federal agencies’ approach to mitigation under the RMP revisions.

- A compensatory mitigation policy oversight committee, a science team, and a program administrator should be established to oversee and manage compensatory mitigation in Idaho. These committees should include responsible federal and state land and wildlife management agencies and tribes. Local government representatives, implementation organizations such, the Natural Resource Conservation Service, Soil and Water Conservation Districts, non-profit conservation organizations, private landowners and stakeholders

should participate as appropriate.

- The federal agencies should have an active role on the policy oversight committee and science team to ensure that mitigation efforts deliver the promised results.
- The Idaho Department of Fish and Game and Office of Species Conservation should have a lead role in organizing a statewide mitigation strategy and administering any in lieu fee mitigation program.
- Mitigation should be guided by a statewide strategy that: defines agency roles and responsibilities for implementing mitigation actions; provides guidance on how mitigation investments will be made in a statewide context for maximum benefit to the long-term viability of sage grouse populations; establishes a “common currency” (e.g., acres, habitat units) for assessing project impacts and mitigation benefits; establishes a crediting system that ensures that project impacts are actually offset with mitigation benefits in accordance with the concept of “additionality;” uses landscape-scale conservation planning to target mitigation action; identifies approved mitigation methods; and sets a fee schedule for any in lieu fee program.
- Mitigation actions should be adequately funded, including the full cost of project planning, administration, and monitoring.
- Mitigation should be subject to both implementation and effectiveness monitoring. Results of monitoring should be available to the interagency mitigation committees and to the public. The mitigation program should be adjusted to reflect the outcomes from monitoring.

**Comment Number:** IDMTSG-14-0206-20

**Organization 1:** The Nature Conservancy

**Commenter 1:** William Whelan

**Comment Excerpt Text:**

However, we also recommend that mitigation delivery be organized on a statewide basis because of the importance of involving the state fish and wildlife agencies and other agencies and organizations that are organized along state lines. Management Zone IV, which includes all of Idaho but only small portions of Montana and Utah is not a logical unit for organizing and delivering mitigation actions. It would make more sense to include the small corners of Montana and Utah that are inside of Management Zone IV within comprehensive mitigation programs in their respective states

**Comment Number:** IDMTSG-14-0206-21

**Organization 1:** The Nature Conservancy

**Commenter 1:** William Whelan

**Comment Excerpt Text:**

We recommend federal land managers explicitly state that the proximity to impacts should not be the primary factor in identifying mitigation investment. Rather, priority should be given to sites that present the best options for successful mitigation and conservation co-benefits. The offset and impact need to be ecologically similar but the assumption that “closer is better” in mitigation siting is often not defensible ecologically, especially given the associated edge effects caused by nearby infrastructure. Mitigation sites should be selected based on a large landscape (e.g., conservation area or statewide) planning that allows consideration of sage grouse population demographics and distribution as well as the project impacts in selecting mitigation areas

**Comment Number:** IDMTSG-14-0206-22

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Appendix 2 of this document addresses policies related to the durability of these mitigation investments. Durability of mitigation investments, i.e., ensuring that compensatory mitigation investments lasts over the life of the impact, in some instances in perpetuity, is critical to achieving BLM resource value goals and long-term conservation of sage grouse and their habitats. Durability cannot be achieved if mitigation for impacts to the species and its habitat continue to be negatively impacted by uses or activities that are incompatible with its conservation. BLM has numerous tools it can use to ensure a high level of mitigation durability, many of which are possible through the land use revision process. Building durability measures into the resource management plan will help ensure that mitigation investments yield their intended ecological goals

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**Comment Number:** IDMTSG-14-0206-23

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Both Alternative D and E propose adaptive management mechanisms that are triggered when habitat losses exceed a particular threshold, either 10% or 20%. And, Alternative E provides for disturbance caps that involve calculating habitat disturbance and loss. It is not clear how either of these two policies will assess habitat losses associated with infrastructure projects that will provide compensatory mitigation. Mitigation actions will typically occur after project construction and may not result in full biological benefits until a period of years or decades after the project is complete.

The Conservancy recommends that the final Plan provide that mitigation actions will be credited for purposes of applying disturbance cap at the time that the biological benefits of those actions accrue on the ground. The same approach would work for assessing whether an adaptive management trigger has been tripped.

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**Comment Number:** IDMTSG-14-0206-24

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

However, the Appendix D includes incidental language that could limit the mitigation effectiveness and lead to future conflict. Specifically, the alternative states that projects would be “subject to compensatory mitigation if new, significant and unavoidable impacts are demonstrated to be associated with the project.” Id.

The problem with this formulation is that the apparently innocuous word “significant” can lead to endless debates about its meaning as applied in specific situations. There is little value in assessing whether residual impacts are “significant” as that term is typically used in the NEPA context. Compensatory mitigation should be a tool to offset all sage grouse impacts that are not merely negligible.

We are also uncertain about what the phrase “demonstrated to be” adds to the sentence quoted above. There should be no extra burden of proof imposed on the compensatory mitigation program. Decisions about which impacts should be mitigated should be based on available evidence under existing standards. Remote and speculative impacts have never been within the scope of NEPA’s requirement to consider the environmental effects of proposed actions.

Therefore we suggest that Alternative D call for mitigation that will apply to “new unavoidable impacts associated with the project.”

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**Comment Number:** IDMTSG-14-0206-26

**Organization1:** The Nature Conservancy

**Commenter1:** William Whelan

**Comment Excerpt Text:**

Based on this information, The Nature Conservancy recommends that compensatory mitigation be based on loss of habitat services within .6 kilometers either side of the centerline of a 500 kV or other large transmission line. We note that the literature supports the conclusion that indirect impacts, such as predation, occur at much larger distances. Therefore, a 600 meter “band” on either side of the transmission line represents a moderate approach to quantifying habitat services losses that should be subject to compensatory mitigation based on available information for the habitat types affected.

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**Comment Number:** IDMTSG-14-0210-8

**Organization1:** NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

NorthWestern Energy submits that stipulations for sage-grouse included in the BLM RMP revision should not include any mitigation requirement unless it is based on valid science, not anecdotal or casual observation, and is specific to sage-grouse. NorthWestern Energy encourages the BLM to apply the APLIC/agency sage-grouse BMPs (described above), much like the BLM has for APPs, to serve as the current best practices for sage-grouse issues related to electric utility facilities.

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**Comment Number:** IDMTSG-14-0210-9

**Organization1:** NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

NorthWestern Energy encourages the BLM to develop incentives for industry that meet these conservation and customer goals. Numerous state sage-grouse plans have either included or are developing incentive programs for industry and private landowners, as these are critical to the overall conservation of sage-grouse and their habitat. NorthWestern Energy encourages the BLM to consider mitigation banks and offsite mitigation as mechanisms to pool habitat conservation resources and target conservation efforts in highest priority areas. Because habitat is the primary factor influencing sage-grouse populations, habitat conservation and enhancement efforts should be a primary focus of minimization and mitigation efforts.

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**Comment Number:** IDMTSG-14-0212-16

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

the Final LUP Amendment should clarify that sage-grouse conservation stipulations should be a preference and should not be used to unduly burden or eliminate leasable minerals development. For example, mine exploration drilling programs in sage-grouse habitat, under certain circumstances, might be able to avoid surface uses during seasonal or daily time limitations. However, impacts of actual mining in sage-grouse habitat cannot avoid surface disturbance in areas where the resource is located. Thus, the Final LUP

Amendment should recognize that, although surface use limitations might be implemented to mitigate or minimize impacts of a drilling program, such limitations might not be applicable to a mine development, the impacts of which might need to be mitigated through other means (e.g., habitat restoration).

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**Comment Number:** IDMTSG-14-0212-17

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

To incentivize immediate conservation efforts while ensuring realistic opportunities for development, the Agencies' Final LUP Amendment provisions should provide a clearer, more robust, mitigation credit program. The elements of the mitigation program should include, at a minimum, the ability of federal project proponents to pursue, and receive mitigation credits for, mitigation projects on private or state lands to offset future federal project impacts. Mitigation credit opportunities also should not be limited to traditional habitat improvement and protection activities. The Agencies should work with project proponents to develop alternative mitigation actions that could be used to offset project impacts. For example, where wildfire is the primary threat to sage-grouse habitat in Idaho, mitigation credits could be earned by providing firefighting resources that otherwise would not be available to private or state resource managers. Other examples include marking fences near leks to prevent sage-grouse collisions, which could directly and quickly provide benefits to local populations, and remediating pinyon/juniper encroachment. These non-traditional mitigation actions could provide quick, range-wide and substantial benefits, and thus, the Final LUP Amendment should recognize these for potential mitigation crediting.

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**Comment Number:** IDMTSG-14-0212-19

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

IHZ infrastructure development

It is unclear in the State's Alternative whether, or to what extent, mitigation or mitigation credits will be considered in the 10% habitat objective and population decline measurements. See Draft LUPA/EIS p. 2-95 (Objective E-OBJ-2). To encourage immediate conservation actions while providing for multiple uses of the public lands, the Final LUP Amendment should provide that project proponents are able to rely on mitigation benefits to show that the 10% habitat objective and population decline measures would be achieved.

Alternative E provides that the 10% habitat objective and population decline measures must be met "within a particular [Conservation Area]." See, e.g., Draft LUPA/EIS p. 2-95 (Objective E-OBJ-2). However, there could be mitigation opportunities outside of the project Conservation Area that could provide a benefit to the species overall. If a project proponent can show there will be an overall net benefit to the species through mitigation opportunities outside the project Conservation Area, the project proponent should be able to rely on that mitigation to offset impacts inside the area. In addition, the Agencies should provide in the Final LUP Amendment that, because it's unclear how mitigation projects on private or state lands would be considered, federal project proponents should be allowed to pursue, and receive mitigation credit for, mitigation projects on private and state lands to offset federal project impacts.

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**Comment Number:** IDMTSG-14-0212-20

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

283

Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.

Siting should be subject to practical considerations such as topography, functionality, and economics and should not result in unreasonable or impractical ROW or SUA alignments where shorter or more direct alignments can be constructed in sagebrush habitat subject to mitigation offsets.

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**Comment Number:** IDMTSG-14-0212-21

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

288 Cover (e.g., fine mesh netting or use other effective techniques) all pits and tanks regardless of size to reduce GRSG mortality. Covering all pits or tanks might not be practical and all pits or tanks might not threaten sage-grouse; this RDF should recognize such limitations. Additionally, the Agencies should clarify that the term "pit" does not include the mining pit itself, which cannot be covered.

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**Comment Number:** IDMTSG-14-0212-22

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

Reclamation - PPH

141 & 142 Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011). Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs. The Agencies should clarify that post reclamation planning might include offsite mitigation and not reclamation of sage-grouse habitat at the mine site.

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**Comment Number:** IDMTSG-14-0212-23

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

145 Irrigate interim reclamation as necessary during dry periods. Irrigation might not be possible or practical due to water availability, water rights, or other limitations.



**Comment Number:** IDMTSG-14-0242-13  
**Organization1:**U.S. Fish and Wildlife Services  
**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

We support the governance structure developed by the Idaho Sage-grouse Advisory Committee incorporated in Alternative E. This structure would provide an integrated framework for mitigation to be incorporated into the adaptive management process for all GRSG habitat categories (e.g., Core, Important, and General). We also encourage the inclusion of the concept of "additionality" and a "net conservation benefit" standard. We encourage close coordination with the State on this mitigation element in order to maintain their important collaborative conservation process

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**Comment Number:** IDMTSG-14-0242-14  
**Organization1:**U.S. Fish and Wildlife Services  
**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

We need additional detail for both Alternatives D and E regarding how mitigation will be accomplished in future decision making processes. Further clarity is needed in the following areas:

- a. Methodologies or metrics that will be used to determine expected impacts of actions and conservation measures used to offset them.
  - b. Identification of "service areas," or areas where offsets would be focused.
  - c. Inclusion of a transparent and accountable monitoring program that includes performance standards that are used to ensure conservation measures meet predetermined goals and objectives.
  - d. The role of the land management agency(s) if the Alternative E mitigation program were implemented
- 

**Comment Number:** IDMTSG-14-0242-17  
**Organization1:**U.S. Fish and Wildlife Services  
**Commenter1:**Dennis Mackey

**Other Sections:** 7.5

**Comment Excerpt Text:**

We hope that through our comments, the BLM and FS will expand the detail of several key components to a level where we can fully evaluate the FEIS pursuant to the COT. Some key components include:

- a. Details on how habitat and disturbance will be monitored;
  - b. Methods of landscape-scale prioritization and implementation of step-down assessments for addressing threats from fire and invasive species; and
  - c. Details on how mitigation will be applied. We are participating on national interagency teams associated with these plan components and will continue to provide input on these components through our membership on these teams. It will be critical that the FEIS provide additional specificity in each of the above areas
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**Comment Number:** IDMTSG-14-0325-5  
**Organization1:**  
**Commenter1:**William J. Mulder

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] SSS-GRSG  
 Monitoring.

Alternatives B, C, D and Fat SSS-4 are inadequate because they lack standardized monitoring of GRSG

population and mortality factors. As is carried throughout Alternatives B, C, D and F in this draft LUPA/EIS, BLM chooses to essentially ignore GRSG population factors and instead focus on purely regulatory "habitat" actions. It is convenient to "monitor" habitat by HAF or similar methods, but without accurate and consistent population and mortality information it is impossible to determine if success/lack of success of a management action is due to habitat management or is instead due to other life-cycle variations (e.g. weather, predation, disease, direct take, etc.).

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### ***Summary***

The BLM and Forest Service mitigation strategy is inadequate or needs clarifications. Topics of concern include:

- Certainty that mitigation will be implemented
- Lack of scientific evidence that mitigation and habitat restoration results in greater sage-grouse population increases
- Adequacy of the monitoring program
- Effectiveness of compensatory mitigation
- How mitigation proposals will be evaluated
- Siting of mitigation actions
- Durability of mitigation investments
- Consideration of using mitigation banks
- Creation of a mitigation program
- Framework behind exceptions and associated mitigation, e.g., science behind allowing exceptions; offsetting losses and prove mitigation is successful
- Need for mitigation given the restrictive management in the alternatives
- Link between compensatory mitigation and adaptive management

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### ***Response***

The Mitigation, Monitoring, and Adaptive Management strategies are described more fully in Section XX of this comment report and included in Chapter 2 and Appendices X, X, and X of the DEIS. Refer to BLM Mitigation Manual.

### **Section 8 - ACECs**

*No comments are associated with this issue.*

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### ***Summary***

### **Section 8.1 - Range of Alternatives**

*Total Number of Submissions: 9*

*Total Number of Comments: 10*

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**Comment Number:** IDMTSG-14-0005-2

**Organization1:**

**Commenter1:** Bill Baker

**Comment Excerpt Text:**

According to the Map H.1 four new ACEC are being proposed in Alternative C, Map H.2 has 16 proposed for Alternative F, Map H.3 has 18 proposed in Alternative F, and then Table H.1 has 39 listed. As I wrote in the paragraph above, where as a reader are we to see your evaluation, analysis and rationale for each of these? As a simple example of how you should have presented this whole part of this EIS can be found in a document you have. That is the Draft Amendments to Shoshone Field Office Land Use Plans of June 2002. You will see the appropriate method of displaying to the reader the relevance, importance, management prescriptions and rationale for each nomination so we have the opportunity to review your work.

**Comment Number:** IDMTSG-14-0026-3

**Organization 1:** Challis Local Working Group

**Commenter 1:**

**Comment Excerpt Text:**

The Areas of Critical Environmental Concern (ACEC) details need to be corrected. Two of the maps did not say which Alternative they represented. On page 2-65 under Alternative C the BLM will designate 39 new ACECs, but elsewhere the number 4 is used, including on Figure 2-44.

**Comment Number:** IDMTSG-14-0049-4

**Organization 1:** Greater Yellowstone Coalition

**Commenter 1:** Barb Cestero

**Other Sections:** 31.1

**Comment Excerpt Text:**

We also request that all preliminary priority habitat on USFS lands in the Caribou-Targhee National Forest be under special designation for sage-grouse, totaling 148, 646 acres.

We believe these special designations could include a combination of ACEC designation, Lands with Wilderness Characteristics (“LWCs”) designation<sup>5</sup>, or zoological areas on USFS lands, providing that regardless of the special management designation chosen, sage-grouse and sagegrouse habitat conservation are a priority for the lands under designation.<sup>6</sup>

**Comment Number:** IDMTSG-14-0151-50

**Organization 1:** Western Watersheds Project

**Commenter 1:** Katie Fite

**Comment Excerpt Text:**

BLM also places ACECs in the Issues Not Addressed Category. Yet these were part of the Preliminary Planning Criteria. Designation of special management areas is not outside the Scope of this process. ACECs are special management areas. They are adopted by Land Use Plan amendments. The Scoping and Fed Reg Notices stated that the agencies may consider ACECs. This is serious Idaho (and E MT- UT) BLM BLM backpedaling. FLPMA allows the public to nominate ACECs at any time. Numerous ACEC proposals were submitted to BLM. In fact, as discussed below, BLM appears to have prepared a small number of its own proposals, and the Forest a Zoological Area, but that effort may have run into a political blockade. See oddly unlabeled map DEIS Figure 2-46. BLM itself considered ACECs in Alternatives C and F.

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**Comment Number:** IDMTSG-14-0151-75  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM is supposed to be considering ACECs – yet DEIS at 2-42 shows none are considered under Alts B, D, E. This is not a reasonable range of alternatives

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**Comment Number:** IDMTSG-14-0153-30  
**Organization1:** Wild Earth Guardians  
**Commenter1:** Erik Molvar  
**Other Sections:** 7.5

**Comment Excerpt Text:**

BLM must ensure that all Core Area/Priority Habitat and/or ACEC protections are nondiscretionary standards, so the agency can rely on them as conservation measures that are adequate and reliable in the context of Endangered Species decisionmaking by the U.S. Fish and Wildlife Service.

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**Comment Number:** IDMTSG-14-0154-1  
**Organization1:** The Wilderness Society  
**Commenter1:** Brad Brooks

**Comment Excerpt Text:**

Even if these priority areas are not designated as ACECs, BLM can identify them as other administrative designations, which will still provide for areas of more protective management. For example, the HiLine RMP in Montana incorporated 2 designation approaches that are used to protect sage-grouse and minimize habitat fragmentation: Grassland Bird/Greater Sage-Grouse Priority Areas, and Greater Sage-Grouse Protection Priority Areas<sup>2</sup> [2 See Draft HiLine RMP, available at [http://www.blm.gov/pgdata/etc/medialib/blm/mt/field\\_offices/malta/rmp/draft\\_rmp.Par.77898.File.dat/HL%20Fact%20Sheet-Sage%20Grouse.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/mt/field_offices/malta/rmp/draft_rmp.Par.77898.File.dat/HL%20Fact%20Sheet-Sage%20Grouse.pdf)]. In the HiLine RMP, these areas had low potential for oil and gas development and were given a high level of protection in the RMP.

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**Comment Number:** IDMTSG-14-0169-44  
**Organization1:** Defenders of Wildlife  
**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Designate a subset of sage-grouse priority habitat areas as sagebrush reserves (e.g., Areas of Critical Environmental Concern (Bureau of Land Management), Zoological Areas (Forest Service),<sup>10</sup> research natural areas (Bureau of Land Management, Forest Service), or national wildlife refuges (Fish and Wildlife Service), etc.) to be specially managed refugia for sage-grouse and other sagebrush-dependent species.<sup>11</sup> Sagebrush reserves should encompass centers of sage-grouse abundance on the landscape and protect a sufficiently large proportion of habitat in each planning area to sustain biological processes, recover species and mitigate for the systematic effects of climate change, invasion by nonnative plants and unnatural fire.<sup>12</sup> Sagebrush reserves should offer additional conservation benefits for sage-grouse and other sagebrush-dependent species over priority habitat. They may be withdrawn from locatable and leasable minerals development (43 U.S.C. § 1714); closed to new surface disturbance; and prioritized for grazing permit retirement and removal of infrastructure (unnneeded oil and gas equipment, roads, range developments, fencing, etc.).

The preferred alternative would not designate any sagebrush reserves (ACECs, Zoological Areas) (vol 2, 2-194, Table 2-19). Alternative C analyzed 3,603,100 acres for designation as 39 new ACECs to conserve sage-grouse (vol 1, ES-15; vol 2, 2-27, Table 2-2). Alternative F would designate 7,791,693 acres as ACECs and Zoological Areas (including 3,460 acres as restoration habitat) (vol 2, 2-27, Table 2-2).

**Comment Number:** IDMTSG-14-0178-31

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

Special Management Designations (1-32) – This LUPA/DEIS should preclude the need for any further special management designations for sage grouse conservation and should specifically delineate this point.

**Comment Number:** IDMTSG-14-0257-9

**Organization1:** EPA, region 10

**Commenter1:** Christine B.

**Comment Excerpt Text:**

Areas of Critical Environmental Concern

We are concerned that Alternative D does not include the establishment of any new or additional Areas of Critical Environmental Concern because we believe that establishing ACECs would be an effective method of protecting relevant and important values. We recommend that the Final LUPA/EIS include additional information describing why the BLM decided not to include ACECs in the co-preferred alternatives.

***Summary***

Issue 1: In the Draft EIS/LUPA, the BLM/FS did not accurately or consistently represent the number of ACECs being proposed under each alternative, particularly Alternative C.

Issue 2: Alternatives in the Draft EIS/LUPA do not provide an adequate range of management actions for ACECs by only considering new ACECs under two of the action alternatives (C and F).

Issue 3: Whether ACECs or another administrative designation, the BLM/FS must ensure any administrative designation established for the protection of sage-grouse habitat will provide adequate non-discretionary protections.

***Response***

Response 1: The FEIS has been revised to ensure consistent representation of proposed ACECs under Alternatives C and F.

[NOTE TO BLM: Review EIS/LUPA for consistent representation of proposed ACECs under Alternatives C and F.]

Responses 2 and 3: As noted in section 4.3, NEPA Range of Alternatives, of this report, the alternatives, including the management actions for the fire ACEC program, meet the purpose and need for the EIS. Alternatives within the EIS have established that not all protective management for the Greater Sage Grouse is limited to ACEC designation. Only Alternatives C and F proposed to establish ACECs for the protection and management of the Greater Sage Grouse. While the other alternatives do not propose such designations, they still contain similarly specific management prescriptions to manage and protect the Greater Sage Grouse

and its habitat that would be equivalent to protections afforded via an ACEC or other designations.

**Section 8.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 8.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 8.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 8.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 9 - Air Resources**

*No comments are associated with this issue.*

**Section 9.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 9.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 9.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 9.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 9.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 10 - Climate Change**

*No comments are associated with this issue.*

**Section 10.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 10.2 - Best available information baseline data**

*No comments are associated with this issue.*

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**Summary****Response****Section 10.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 10.4 - Cumulative Impact Analysis**

*Total Number of Submissions: 2*

*Total Number of Comments: 5*

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**Comment Number:** IDMTSG-14-0151-24

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The DEIS does not adequately address the significant cumulative stress of climate change and incorporate recent science suggesting that a reduction in ungulate grazing would improve ecological resilience in the face of temperature and precipitation changes. See Beschta et al 2012. The DEIS does not discuss the impacts of livestock grazing on the climate resilience or the contributions of GHGs from the planning area. The impacts of climate change on a healthy resilient system are far less than on a system where resource extraction, such as livestock grazing is the predominant use. The levels of livestock grazing utilization that takes place on BLM lands place unnatural stress upon the vegetative communities which did not evolve with this non-native invasive species, cattle. There is much research regarding the impacts of drought under various levels of herbivory, the majority of which shows significant impacts to vegetation from the level of utilization generally authorized or allowed by the BLM. The impacts of drought are quite similar to that predicted from global warming. So the research regarding herbivory effects and drought are quite analogous and useful for the analysis of the impacts of climate change.

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**Comment Number:** IDMTSG-14-0151-55

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The Land Use Plans that are to be amended do not contain necessary analysis and actions to address and ameliorate adverse climate change effects (hotter temperatures, earlier spring drying, increased cheatgrass, more rapid and earlier runoff, more weather extremes, etc.). All of these predicted climate change effects will increase the weed risk and uncertainty of imposing large-scale treatments across the landscape while continuing the same grazing disturbance load.

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**Comment Number:** IDMTSG-14-0151-66  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Climate Change must be addressed under range and vegetation treatment - as grazing amplifies the adverse effects of climate change. Treatments can result in hotter, drier more weed prone and more desertified sites, and reduce the habitat's ability to buffer climate change effects.

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**Comment Number:** IDMTSG-14-0169-50  
**Organization1:** Defenders of Wildlife  
**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Account for the effects of climate change in management planning (Secretarial Order 3289, 02-22-2010; CEQ Memo, 02-18-2010 (draft)). Climate change is a recognized threat to sage-grouse (Connelly et al. 2011b: 556, Table 24.2; Blomberg et al. 2012; van Kooten et al. 2007) that is also predicted to have deleterious impacts on sagebrush steppe (Schlaepfer et al. 2012; Neilson et al. 2005). Most climate change simulations predict sagebrush steppe will contract as mean temperatures increase and the frost line shifts northward (Blomberg et al. 2012; Neilson et al. 2005). In the worst case scenario, sagebrush species are simulated to contract to just 20 percent of current distribution (Wisdom et al. 2005b: 206, citing Neilson et al. 2005). The largest remaining areas will be in southern Wyoming and in the gap between the northern and central Rocky Mountains, followed by areas along the northern edge of the Snake River Plateau and small patches in Washington, Oregon and Nevada (see Miller et al. 2011: 181, Fig. 10.19). Sagebrush steppe may also shift northward in response to increased temperatures (Schlaepfer et al. 2012; Shafer et al. 2001).

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**Comment Number:** IDMTSG-14-0169-51  
**Organization1:** Defenders of Wildlife  
**Commenter1:** Mark Salvo

**Other Sections:** 3

**Comment Excerpt Text:**

Measures for ameliorating the effects of climate change on species and landscapes include increasing the size and number of protected areas, maintaining and enhancing connectivity between protected areas, and identifying and protecting areas likely to retain suitable climate/habitat conditions in the future (even if not currently occupied by the species of concern). Management should also repulse invasive species, sustain ecosystem processes and functions, and restore degraded habitat to enhance ecosystem resilience to climate change (Chester et al. 2012; NFWPCAS 2012). The plan identifies climate change, specifically its contributions to the spread of cheatgrass and associated loss of sagebrush habitat, as a planning issue (vol 1, ES-7), but contends there “is no resource program for addressing this threat to [sage-grouse]” (vol 2, 2-5, Table 2-1). The plan claims to address the cumulative effects of climate change in section 4.15 (which is, unexpectedly, titled “Social and Economic Conditions (Including Environmental Justice”), but there is little discussion of the impacts of climate change in this section or anywhere in the plan.

The preferred alternative would generally attempt to increase the quality, extent and connectivity of sage-grouse habitat, “where possible, to accommodate the future effects of climate change” (vol 2, 2-97, Table 2-17, D-OBJ-10).

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***Summary***



The EIS does not adequately address the cumulative effects of climate change on sage-grouse or sage-grouse habitat, including the cumulative effects of livestock grazing on vegetation communities and the likelihood of a changing climate to result in an increase in invasive weeds.

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### ***Response***

Assessing the impacts of grazing on climate change is outside the scope of this document, except as it pertains to reducing impacts on GRS and GRS habitat within the planning area and in consideration of valid existing rights and the BLM's multiple use mandate under the Federal Land Policy and Management Act. The PRMP/FEIS does disclose the potential effects associated with global climate change on the Greater Sage-grouse in Section XX. However, pursuant to 40 CFR 1500.1(b), information must be "of high quality" in order to be considered in the analysis. As explained in Section xx of the EIS, it is speculative to attempt to predict the specific nature or magnitude of such changes.

NOTE TO BLM: Based on the NEPA and CEQ guidance for cumulative impacts analysis, determine if the DEIS analysis is adequate or not. If not, make necessary corrections and note what was modified here. Include direction to reader where to find revised analysis (e.g., "See Section 5.XXX for additional information.").

The BLM will review. Follow up needed with Bryce.

### **Section 10.5 - Mitigation Measures**

*No comments are associated with this issue.*

### **Section 11 - Cultural Resources**

*No comments are associated with this issue.*

#### **Section 11.1 - Section 106 consultation**

*No comments are associated with this issue.*

#### **Section 11.2 - Range of Alternatives**

*No comments are associated with this issue.*

#### **Section 11.3 - Best available information baseline data**

*No comments are associated with this issue.*

#### **Section 11.4 - Impact Analysis**

*No comments are associated with this issue.*

#### **Section 11.5 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

#### **Section 11.6 - Mitigation Measures**

*No comments are associated with this issue.*

## **Section 12 - Fire and Fuels**

*No comments are associated with this issue.*

### **Section 12.1 - Range of Alternatives**

*Total Number of Submissions: 11*

*Total Number of Comments: 15*

**Comment Number:** IDMTSG-14-0049-22

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

#### **Comment Excerpt Text:**

Recovery of sagebrush lands impacted by fire is long-term and may often take decades or even centuries. Species composition, pre-burn site conditions, fire size and intensity, fire frequency, and availability of seed sources all play a role in the ability of sagebrush habitats to recover. Without readily available sagebrush habitat, most sites affected by fire are of little to no value to sage-grouse prior to recovery.

At the same time, some priority sage-grouse habitats include substantial non-sagebrush habitat interspersed with sagebrush steppe, such as low-elevation Douglas-fir forests, where fire is a critical natural process. In the absence of fire on these landscapes or due to unnatural fire suppression efforts, there has been significant conifer expansion into sagebrush steppe and grasslands.

For this reason, we suggest that prescribed fire be used sparingly in areas specially designated for sage-grouse conservation and prohibited completely in areas dominated by xeric sagebrush species such as Wyoming big sagebrush. Prescribed fire treatments should not be designed to remove sagebrush, but rather should only be used to address issues such as conifer encroachment that may contribute to declining health in sagebrush habitats

**Comment Number:** IDMTSG-14-0053-8

**Organization1:** Hagenbarth Livestock

**Commenter1:** Jim Hagenbarth

#### **Comment Excerpt Text:**

Most of the alternatives dwell on core habitat fire suppression actions and the prevention of wildfire through education of all users. Alternative D speaks of revegetating green strips with native vegetation. Any responsible plan must include a comprehensive map of all natural and manmade firebreaks in priority habitat and then use fire specialists, landscape architects, and vegetative specialists to design additional green strip fuel breaks to further break up these fuel loads in GRSG habitats that are prone to burning. The loss of habitat from developing these green strips is minimal, compared to these huge uncontrollable fires. The cost of green stripping will be minimal compared to the cost of suppression. The ARS Forage and Range Resource Lab in Logan, Utah, has developed vegetation that can be used in green stripping. Forage kochia is one of these plants. It is very high in protein during the winter months and GRSG use of this plant has been documented. It is imperative that green stripping become a larger component in fire management.

**Comment Number:** IDMTSG-14-0151-73

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

L-5 refers to "same as Alt A but 50% less wildfire in Wyoming sage model to estimate the effects of fuels models". What does this mean?

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**Comment Number:** IDMTSG-14-0159-23

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Alternatives B and F in the Idaho DEISs propose fire and fuels management within a key/core habitat with an emphasis on protecting existing sagebrush ecosystems, but do not take into account the quality, suitability or relative importance of the habitat to GRSg. It may not be appropriate to maintain 15% sagebrush canopy in all key/core habitat in an area where removal and creation of a fuel break would have net beneficial effects on GRSg.

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**Comment Number:** IDMTSG-14-0159-26

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Governor's Alternative's prevention measures include fuel breaks, fuels reduction, and fire restrictions and closures. Governor's Alternative requires that strategy and associated NEPA for these prevention efforts should be completed within two years of signing the Record of Decision for this current EIS. Fire suppression measures include creating additional Rural Fire Protection Associations (RFPAs), response time analysis, suppression capacity analysis, water capacity analysis and implementation, and firefighter education on the importance of protection CHZ and IHZ. These measures should be implemented within one year of the Record of Decision for this EIS.

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**Comment Number:** IDMTSG-14-0168-15

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

C-9

"On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas."

This RDF would apply to alternative B and F, and is inconsistent with the policies of Custer County. Under this policy the agencies are required to prioritize protection of the Greater Sage-Grouse over human life and property. All fire suppression resources in Custer County should be positioned for the protection of human life first. Coordination of this RDF should be coordinated with the Fire Districts within this planning region, and specifically within Custer County, to determine whether or not it is consistent with their existing policies, and if this policy creates conflicts that must be resolved. A discussion as to how this will be resolved needs to be included in the DEIS.

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**Comment Number:** IDMTSG-14-0178-14

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

• [This comment refers to Alternative D] Fire Management (2-30, Appendix K) – It is important that the agencies' fire management efforts are not restricted only to written language in a plan, but rather ensures that on-the-ground decision making will be enabled and encouraged. Fire patterns vary based on circumstances and suppression efforts cannot always be managed by the book

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**Comment Number:** IDMTSG-14-0178-16

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

• [This comment refers to Alternative D] Mitigation (2-75) – The LUPA/DEIS mentions grazing management for post-fire restoration treatments. The final LUPA/EIS must make clear the need for flexibility in developing such treatments. In many cases, grazing restrictions post-fire only serve to exacerbate the invasive species problem which creates a cyclical negative impact on sage grouse.

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**Comment Number:** IDMTSG-14-0179-15

**Organization1:**Idaho Conservation League

**Commenter1:**John Robison

**Comment Excerpt Text:**

It is important to note that the Idaho Fire Restrictions Plan is just one aspect of a larger public education and prevention program.

11 <http://www.idahofireinfo.blm.gov/southwest/firerestrictions.htm>

The following criteria are among those to be considered when assessing the need for restrictions, but these criteria can be customized for each area:

- 1,000-hour fuel moisture content
- Live fuel moisture content
- Fire danger rating adjective class is at very high or extreme
- Fires are impacting available suppression resources making adequate initial attack difficult
- Area is receiving a high occurrence of human-caused fires
- Adverse fire weather conditions and risks are predicted to continue
- Social, political and economic impacts
- Life safety is jeopardized

If a certain number of the above conditions are met, Stage 1 Restrictions may be set in place which restrict building campfires and smoking beyond an enclosed vehicle or building. If even more of the above conditions are met, Stage 2 Restrictions may be set in place, which add operating motorized vehicles off designated road and trails, operating internal combustion engine such as a chainsaw, welding and using explosives.

This program was successfully utilized to protect remaining sage-grouse habitat following the Murphy Fire when extreme fire conditions were still present. These restrictions were enacted specifically to prevent human-caused fires from impacting other sage-grouse habitat during a time when resources were stretched thin. As such, this program may be able to serve as an adequate and at least partially effective regulatory mechanism.

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**Comment Number:** IDMTSG-14-0180-37

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

However, the distinction between Alternative E and its co-preferred partner Alternative D is that Alternative E is the only one that responds to the Service's concern that existing fire mechanisms were only implemented through temporary IMs that expired every two years. The table provided in Appendix D for Alternative E and also noted as Table 2-13 in this EIS provides timelines for both BLM and the Forest Service to implement long term fire management measures. This ensures that measures are not only effective in reducing the impact of fires, but also that fires can continue to managed consistently at the local level. No other Alternative in the DEIS addresses fire in this way. In fact, Alternatives C and F merely defer to Alternative B for the primary threat facing sage-grouse. Thus, while the impacts of the measures themselves may not differ substantially from Alternative A or B, Alternative E's impacts are much bigger as they are paired with a mechanism to ensure they are actually implemented.

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**Comment Number:** IDMTSG-14-0206-27

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Fuel breaks can involve ground disturbing vegetation treatments that may provide a foothold for invasive weeds and may further fragment sage grouse habitat by removing shrub cover. For this reason, constructing fuel breaks outside of CHZ and IHZ habitats but in locations that help protect these habitat area may be preferred. Nevertheless, we do not propose a per se rule excluding fuel breaks from sage grouse habitats in all instances.

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**Comment Number:** IDMTSG-14-0206-28

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Alternative E recommends prioritizing fuel breaks at the wildland-urban interface (WUI). We believe that a landscape scale analysis provides a better opportunity to place fuel breaks at locations that will be more effective at protecting sage grouse habitat than a WUI-focused strategy. Therefore, we suggest that the WUI preference not be carried forward into the final Plan.

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**Comment Number:** IDMTSG-14-0242-21

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

We recommend that the FEIS include provisions to eliminate prescribed burning in sage-grouse wintering and breeding [i.e., lekking, nesting and early brood rearing (Connelly et al. 2004, Connelly et al. 2011)] habitats unless biologically justified. The ecological role of fire in reducing sagebrush canopy and stimulating regeneration may justify the use of prescribed fire in site-specific circumstances (Manier et al. 2013). If prescribed fire is allowed in GRSG habitats, then we recommend that the FEIS commit to using the risk analysis tool currently in development by WAFWA. We also recommend incorporating literature by the Fire and Invasive Species Team (FIST), which is currently developing landscape prioritization for fire and invasive species, as well as step down assessments

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**Comment Number:** IDMTSG-14-0325-10

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

Once a wildfire is started, BLM has shown it will use BMP with available resources to suppress the fire, regardless of whether in GRSG habitat or not.

Effective control of wildfire will need to take place well before a fire occurs. None of the Alternatives adequately address this situation. Some general items that could reduce the wildfire threat are:

- develop working relationships and agreements between all firefighting entities that would minimize jurisdictional delays in initial attack (see E-WFM-8);
  - specifically develop and maintain MOU's with local Rangeland Fire Protection Associations ("RFPAs"), which can greatly reduce response times to minimize wildfire impacts;
  - in addition to Fuels Management items below, avoid Wilderness and/or Lands with Wilderness Character designations and restrictions that promote road/trail closures or prohibit significant firebreak, fire lane and fire management projects; and
  - re-allocate BLM resources from a focus on over-regulating low-threat uses (e.g. grazing, underground rights-of-way, etc.) toward developing and maintaining effective fire-control measures.
- 

**Comment Number:** IDMTSG-14-0325-11

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] Fuels Management. Mature sagebrush is arguably the most significant source of fire fuel in GRSG habitat. BLM's stated objective is conservation and rehabilitation of GRSG habitat to not less than 15% canopy. Alternatives B, C, D and F (B-FM1-F-FM1) resist any significant reduction in sage brush and the 15% cover objective, except under onerous conditions. Incredibly, many of the Alternatives are more concerned with regulating nearly insignificant uses as they relate to fuels treatments than in recognizing the problem on a broad scale (B, C and F -FM1 actions).

Failure to deal with fuel management by developing mosaic or linear breaks has contributed to massively detrimental wildfires (e.g. Murphy Complex, Long Draw, Holloway, etc.). Emphasis on actually increasing sage brush cover with more restrictive fuel treatment options will exacerbate the already primary threat.

In addition to the considerations outlined in "General" (above), the adopted Alternative should promote the "... aggressive wildlife [sic-"wildfire"] and invasive species management practices ..." outlined in EFMI-6, as well as D-FM-6-9 and D-FM13-16.

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## **Summary**

The BLM and the Forest Service should examine the location and size of proposed fuel breaks in further detail as fuel breaks in large areas of intact sagebrush limit fire and related habitat destruction. Specifically, one commenter requests use of green-strips, including non-native species, for fuel breaks. Use of prescriptive fire as a management tool should be further examined.

Timelines for long-term fire management measures should be established in the FEIS. One commenter recommends that measures be implemented one year after the ROD. Implementation details of fire control measures should be specified. The BLM/Forest Service should acknowledge the importance of flexibility in fire management plans in the FEIS and allow for on-the ground decision making for effective fire-management. Alternative language should be revised for clarity.

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## **Response**

Fuel breaks are site-specific - see Oregon response. Use of prescribed fire varies by alternative. [needs more subregional input]

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## **Section 12.2 - Best available information baseline data**

*Total Number of Submissions: 4*

*Total Number of Comments: 5*

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**Comment Number:** IDMTSG-14-0105-2

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

### **Comment Excerpt Text:**

A soon to be published study from the USGS shows that reseeding after fire has not been beneficial for Sage Grouse. And there is long term reduction in SG use in both the untreated and treated burned areas. BLM, in this LUP AIEIS, should be focusing to reduce any potential for fire with livestock grazing to reduced fuels.

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**Comment Number:** IDMTSG-14-0153-63

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

### **Comment Excerpt Text:**

Alternative E involves the widespread creation of 300-foot-wide “green strips” as fire breaks DEIS at 2-85. This is a practice unsupported by science. Please provide peer-reviewed, scientific literature that demonstrates that such “green strips” in sagebrush steppe habitat have been demonstrated to reduce fire. Our review of the literature uncovered only unpublished white papers and “fact sheets” that cited no actual scientific studies to support the assertion that “green strips” slow or halt the spread of fire. If no such evidence can be provided, such “green strips” should be explicitly forbidden in the RMP amendment. It is obvious that “green strips” will only be green in the spring, when precipitation occurs and the risk of fire is negligible. During the dry periods when fire ignitions occur and spread most readily, “green strips” will be brown and represent a concentrated source of fine fuels that will do nothing to slow the advance of a flame

front, and may indeed accelerate it.

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**Comment Number:** IDMTSG-14-0178-3

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Other Sections:** 16.2

**Comment Excerpt Text:**

Livestock grazing is a key tool to reducing the threat of catastrophic wildfires and should be recognized in the draft for the benefits it provides. Peer-reviewed studies have clearly demonstrated that grazing livestock reduces the threat of catastrophic wildfire by controlling the fuel load and increasing productivity of grasses that are less fire prone (Davies 2011). According to a newly released study entitled, “Livestock Grazing Effects on Fuel Loads for Wildland Fire in Sagebrush Dominated Ecosystems.” (2014 – Journal of Rangeland Applications, in press), grazing provides assistance in fuels management in the following ways:

- A window of opportunity may exist for targeted grazing to reduce annual grasses before perennial grasses initiate bolting or during dormancy.
- Livestock grazing can reduce the standing crop of perennial and annual grasses to levels that can reduce fuel loads, fire ignition potential and spread.
- Grazing after perennial grasses produce seed and enter a dormant state can reduce the residual biomass left on the site and thereby decrease the fire hazard the following spring and summer.
- Grazing can reduce the continuity of fuels, including the amount of herbaceous biomass between shrubs, in sagebrush ecosystems.

As stated above, ranchers are often the first responders to wildfires (Davies, 2010). Recently, several Rangeland Fire Protection Associations (RFPAs) have been established to enable ranchers’ ability to safely respond to wildfire alongside BLM and to enhance their capabilities of limiting the spread of wildfires before they grown to catastrophic and unmanageable sizes. For the 2013 fire season, four established RFPAs covered 3,622,000 acres and comprised 168 ranchers and other private citizens who are RFPA members. Additional RFPAs are in the process of developing and will further increase this proactive step to reduce the size of wildfires in sage grouse habitat. Alternative E identifies, RFPAs are a critical and innovative component to preventing and controlling the spread of wildfires. Their existence can only bring positive impacts on the rangeland and on sage grouse. RFPAs are almost entirely made up of ranchers who also graze on public lands. With reduced or eliminated livestock grazing on the range comes the reduced or eliminated presence of ranchers on the range. The effectiveness of the RFPAs, which have proven to be extremely effectual in initial attack of wildfires, correlates directly with the continuance of livestock grazing on public lands. If grazing is reduced as a result of implementation of this LUP/EIS, ranchers will not be around to operate the RFPAs and ensure their continuation, to immediately respond to fire starts, nor to coordinate fire suppression efforts with the agencies. Please refer to attachments 4 and 5 for published new stories regarding RFPAs and the value that rancher provide in protecting sage grouse habitat from wildfire.

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**Comment Number:** IDMTSG-14-0178-4

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Other Sections:** 26.2

**Comment Excerpt Text:**

Control of invasive species has a direct correlation with controlling wildfires. For the reasons mentioned above, grazing can be used as a tool to reduce many of the invasive species which also serve as fine fuel loads for fires. Peer-reviewed studies have proven that when rangeland is burned, it is much less prone to invasion by annual invasive weeds like cheat grass if it has been grazed (Davies, 2009). Due to reduced fuel loads and cooler burn temperatures, grazed rangeland is more likely to reestablish native bunch grass communities, while burned ground that has not been grazed is more likely to establish cheat grass communities. In light of



these findings, appropriate grazing should be recognized in the RMPA as a primary tool in the prevention of wildfire and reduction of invasive weeds—two of the primary threats to sage grouse habitat. Diamond et al. (2009) found that targeted grazing may be a critical tool for breaking the exotic annual grass-fire cycle by decreasing the probability of fire disturbance.

Additionally, Diamond et al. (2009) found that, on areas already invaded by exotic annual grasses, strategic grazing could reduce fuel loads and continuity enough to prevent a flame front from carrying across the treated areas, even under peak fire conditions. Ample research, including that of Olson and Lacey (1994) and Walker et al. (1994), has found livestock grazing to be an effective tool for the control of invasive plant communities.

**Comment Number:** IDMTSG-14-0223-3

**Organization1:** Theodore Roosevelt Conservation Partnership

**Commenter1:** Edward B. Arnett

**Comment Excerpt Text:**

We observed in several places where prescribed fire is mentioned and implied as a tool for management (e.g., Chapter 2, Table 2-1, page 2-4). We would argue that there is no science-based evidence to support using prescribed fire as a means of improving sage grouse habitat and in fact, studies indicate that prescribed fire will not improve habitat characteristics for sage grouse (e.g., Rhodes et al. 2010, Bates et al. 2011, Beck et al. 2011, 2012).

***Summary***

The FEIS should include citations indicating that implementation of fuel breaks in sagebrush systems reduces the rate of spread of fire. In addition, citations should be provided to support the use of prescribed fire to improve GRS habitat. The BLM and Forest Service should recognize livestock grazing as an effective fire management tool due to its role in controlling invasive plants and decreasing fuel loads.

***Response***

The EIS affected environment section provides the appropriate information for the scope and scale of the project (see section 4.4, NEPA Baseline Information of this report). However, upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 3 have been updated and revised to include clarifications or new information. Section 3.XX, [insert section name], in the FEIS has been revised to update information regarding fuelbreaks and section 3.XX, [insert section name], has been updated to clarify the relationship between livestock grazing and fire.

**Section 12.3 - Impact Analysis**

*Total Number of Submissions: 6*

*Total Number of Comments: 7*

**Comment Number:** IDMTSG-14-0056-13

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Analysis of unintended consequences that are created by increased fuel loading attributable to reduced

livestock grazing need to be considered in the document

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**Comment Number:** IDMTSG-14-0102-6

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

Adverse effects could also result from increased fine fuel loads in areas left ungrazed under Alternatives C and F. Wildfires that start in areas with excessive fine fuel loading could grow larger and more intense, increasing the risk of wildfire spread into PPMA or CHZ habitat.

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**Comment Number:** IDMTSG-14-0105-15

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Vol 2, Page 2-83: Regarding Alternative E -Fire Suppression

Table 2-11 mentions Rangeland Fire Protection Associations. These have proven extremely effective in wildfire response and suppression. However, it should be kept in mind that the ranchers involved are there because they are able to maintain viable ranching operations and thus are not only present but have a vested interest in assuring that wildfire effects are minimized. The recent grazing permit renewals in the Owyhee Field Office have the potential to substantially alter the number of such ranch operations that will remain viable and present. The wide spread public benefit of Rangeland Fire Protection Association activity and their benefit to preservation of GRSG habitat should be considered in the evaluation of Alternative impacts on grazing opportunity.

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**Comment Number:** IDMTSG-14-0130-16

**Organization1:**Simplot Livestock Co.

**Commenter1:**Chuck Jones

**Comment Excerpt Text:**

However, the management action analysis needs to be supplemented with consideration for the unintended consequences that are created by increased fuel loading attributable to reduced livestock grazing.

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**Comment Number:** IDMTSG-14-0153-34

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

Natural fire return intervals in Wyoming big sagebrush average 100-240 years (Baker 2007). Wyoming big sagebrush recovers slowly after fires, which typically result in 100% sagebrush mortality; recovery to pre-fire canopy cover takes over 100 years (Cooper et al. 2007). The Idaho – Southwest Montana DEIS mischaracterizes this as 15 to 30 years, citing Manier et al. (2013:133-134). DEIS at 4-69. Manier et al. (2013) repeatedly reference the very slow recovery times of sagebrush following fire, and the closest that they come to supporting the DEIS characterization is to note that in mountain big sagebrush habitats (as opposed to the drier Wyoming big sagebrush communities that dominate the planning area) with ideal soil and climate parameters, recovery can be as little as 20 years (at p. 79). However, even mountain big sagebrush

can take 75 years or more to recover in certain circumstances (Baker 2011). Please rectify this apparent hard-look failure in the impacts analysis

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**Comment Number:** IDMTSG-14-0180-36

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The July 1 Clarification and Refinement letter sent to BLM by the Governor outlines a wildfire strategy that focuses on prevention, suppression, and restoration. These measures also require BLM to take certain actions within one year of signing the Record of Decision. This strategy provides certainty that the measures will be implemented and that action will be taken.

Additionally, in 2012, Idaho, in collaboration with BLM established Rural Fire Protection Associations. These Associations, discussed in further detail in the attached comments from the Idaho Department of Lands, have already been established, and funded by the Idaho State Legislature and assisted BLM in the 2013 fire season. Additional Associations continue to be added and IDL recently established a full time position in their office to manage them.

In contrast, under Alternative B and D, “impacts on sage-grouse from fire suppression activities would largely be the same as Alternative A.” This determination is shocking, considering inadequate regulatory mechanisms for wildfire control was the primary purpose for the “warranted but precluded” determination. However, Alternative B does not alter the status quo. BLM reaches the same conclusions for Alternative D, saying on page 4-55, “overall, Alternative D would reduce impacts to wildfire similar to Alternative B.”

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**Comment Number:** IDMTSG-14-0180-44

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

The present DEIS is comprised of general statements about possible effects and do not constitute a “hard look.” For example, on page 4-296, the DEIS is quick to dismiss Alternative E’s extensive fire management approach because it “overall has fewer management actions to protect [sage-grouse] from fire than other action alternatives.” In contrast, the DEIS praises Alternative B, while providing vague descriptions of how that alternative can affect the impacts of fire. Again, BLM fails to understand that the Service wanted a coherent strategy to address this threat, rather than a laundry list of conservation measures. This effects analysis does not address the fact that only Alternative E provides certainty of implementation for fire management, and every other threat.

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***Summary***

The DEIS does not contain sufficient analysis of indirect impacts of reduced grazing on fuel loads and related wildfire risk. Additionally, the analysis of impacts of fire suppression activities should be reexamined. It is particularly important that this analysis is clarified as lack of sufficient regulatory mechanisms for wildland fire was cited as a primary threat to GRSG in the FWS listing decision.

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***Response***

The impact analysis provides the appropriate information for the scope and scale of the project (see section

4.6, NEPA Impact Analysis, of this report). Upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 4 have been updated and revised to include clarifications to the text. Section 4.XX, [insert section name], in the FEIS has been revised to clarify the impacts of reduced grazing on fuel loads. [BLM/Forest Service- need to add review impacts in Ch 4 for consistency with this language added to chapter 3 for relation between grazing and fire. .Review impacts analysis to make sure that impacts analysis has sufficient info on impacts of reduced grazing on fuel loads]  
 In addition, impacts analysis discussion has been modified to clarify the impacts of different suppression measures proposed by Alternative.[BLM/Forest Service- need to review and modify discussion of impacts of fire suppression measures (i.e. specific conservation measures under B vs. approach under E)]

#### **Section 12.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

#### **Section 12.5 - Mitigation Measures**

*No comments are associated with this issue.*

#### **Section 13 - Fish and Wildlife**

*No comments are associated with this issue.*

#### **Section 13.1 - ESA Consultation**

*Total Number of Submissions: 3*

*Total Number of Comments: 3*

**Comment Number:** IDMTSG-14-0150-1

**Organization1:**Western Range Service

**Commenter1:**QuintonJ. Barr

#### **Comment Excerpt Text:**

The purpose identified for the EISs by the December 9, 2011 Notice of Intent (NOI)<sup>3</sup> is “to avoid a potential listing under the Endangered Species Act.” Our review found that the analyses and alternatives considered in both Draft LUPA EISs entirely fail to address such purpose. Neither of the Draft LUPA EISs analyzes whether the greater sage-grouse presently meets the qualifications for listing (as either endangered or threatened) under the Endangered Species Act (ESA)<sup>4</sup> if current land use plan management direction continues. Western Range Service’s analysis demonstrates that the greater sage-grouse does not presently meet the criteria to be listed as either endangered or threatened, so there is no need to change current management direction anywhere within the species range to avoid a potential listing under the ESA. Thus, the only alternative that is reasonable and rational as a final decision in this case is a true no action alternative to continue the management that was in place before the BLM implemented interim sage-grouse conservation measures through their December 27, 2011 Instruction Memorandums (2011 BLM IMs)<sup>5</sup>.

**Comment Number:** IDMTSG-14-0166-1

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak

#### **Comment Excerpt Text:**

The Plan Amendments also do not meet the PECE Policy standards for ensuring that conservation measures are certain to be effective when implemented. First, the Preferred Alternatives D and E do not provide

explicit incremental objectives and dates for the conservation effort, and do not describe the steps necessary for implementing the conservation effort. The draft monitoring framework merely states an implementation workbook will be completed within one year of the ROD to track the status of implementation of each management action, and that it will be “maintained as actions occur.”<sup>13</sup> The draft mitigation strategy states that BLM will establish a Mitigation Implementation Team for each management zone covering the planning area that will “coordinate mitigation strategies” among various federal and state land management agencies. However, the strategy provides no clarity on when the team be assembled, what strategies they will adopt, and how mitigation strategies will ensure sage-grouse survival and recovery in conjunction with the implementation of the alternatives in this LUPA/DEIS.<sup>14</sup>

Furthermore, many of the alternatives do not provide quantifiable, scientific valid parameters that will allow BLM and Forest Service to measure the success of these efforts. In its framework regarding effectiveness monitoring the LUP/EIS merely states in one single paragraph that the BLM and Forest Service in coordination with state agencies will analyze monitoring data to accomplish effective monitoring for the Amendment as implemented. Additionally, the LUP/EIS provides that effectiveness monitoring will be used to inform the BLM and USFS’ adaptive management strategy, without further detailing any metrics or even measurable timelines.<sup>15</sup>

Finally, although the LUP Amendments mention monitoring and evaluating the success of conservation efforts, they provide no further details regarding the framework for the monitoring and evaluation process, a timeline for monitoring and evaluation, and as mentioned above metrics for evaluating conservation success. In its draft monitoring and evaluation plan the BLM and USFS state they will begin working with the Western Association of Fish and Wildlife Agencies (WAFWA) collecting various data including baseline vegetation cover data and disturbance data, and document progress annually toward full implementation of the land use plan. However, the agencies do not provide further detail on a deadline for data collection.<sup>16</sup> Furthermore, the agencies propose that data will be reported every five years “or as needed to respond to emerging issues,” providing no assurance that the public will be able access monitoring and evaluation data.<sup>17</sup> Thus the LUP Amendments are not certain to be effective because they lack quantifiable parameters and provisions for monitoring and evaluating the implementation status or the success of conservation efforts, without which BLM will be unable to evaluate whether the Amendments will actually conserve and restore sage-grouse populations and habitats.

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**Comment Number:** IDMTSG-14-0181-2

**Organization:** Idaho Mining Association

**Commenter:** Jack Lyman

**Other Sections:** 4.9

**Comment Excerpt Text:**

Thus, in both the Section 10 and Section 7 context, there is no absolute prohibition on activities that might “take” a species. An ESA listing does not summarily put off limits mining projects that might adversely affect the species or its critical habitat. Rather, project approval is based on whether, after applying the mitigation measures proposed by the applicant, the action will appreciably reduce the likelihood of the survival or recovery of the species, or result in jeopardy, respectively. The ESA permitting processes encourage cooperation between the Service and the applicant to find solutions that allow the applicant’s project to move forward while conserving the species.

By contrast, the Agencies’ proposed phosphate lease and saleable minerals closures potentially would put up to nearly 11 million acres of public land off limits from such mineral development, regardless of site-specific species occurrence and habitat conditions or of mitigation opportunities that might be offered by the project proponent and authorized following ESA Section 7 consultation or pursuant to a Section 10 permit. In deciding what conservation measures should be imposed to avoid a listing, the Agencies must consider

whether the measures proposed may cost more than the ESA listing that the Agencies are attempting to avoid. Further, if the Agencies' objective in this land use planning process is to provide "adequate" regulatory mechanisms in response to the Fish and Wildlife Services' "warranted, but precluded" finding and to avoid an ESA listing, each alternative that would impose restrictions beyond what is required or adequate under the ESA should not be considered within a reasonable range of alternatives to serving that objective.

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### ***Summary***

The BLM fails to address avoiding the potential to list the GRSG under the Endangered Species Act (ESA) and that the bird does not meet the criteria to be listed under the ESA.

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### ***Response***

As stated in Chapter 1, Section 1.1, Background in the DRMP, this plan amendment effort is the result of the July 2011, BLM National Greater Sage-Grouse Planning Strategy (BLM 2011). The Strategy responds to the March 2010, US Fish and Wildlife Service (USFWS) 12-Month Finding for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (75 Federal Register [FR] 13910, March 23, 2010) (2010 Finding). In the 2010 Finding, the USFWS concluded that GRSG was "warranted, but precluded" for listing as a threatened or endangered species.

### **Section 13.2 - Other Threatened and Endangered Species**

*No comments are associated with this issue.*

#### **Section 13.2.1 - Range of Alternatives**

*No comments are associated with this issue.*

#### **Section 13.2.2 - Best available information baseline data**

*No comments are associated with this issue.*

#### **Section 13.2.3 - Impact Analysis**

*No comments are associated with this issue.*

#### **Section 13.2.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

#### **Section 13.2.5 - Mitigation measures**

*No comments are associated with this issue.*

### **Section 13.3 - Other Special Status Species**

*No comments are associated with this issue.*

**Section 13.3.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 13.3.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 13.3.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 13.3.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 13.3.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 13.4 - Big Game**

*No comments are associated with this issue.*

**Section 13.4.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 13.4.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 13.4.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 13.4.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 13.4.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 13.5 - Game**

*No comments are associated with this issue.*

**Section 13.5.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 13.5.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

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**Summary**

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**Response**

**Section 13.5.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 13.5.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 13.5.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 13.6 - Fish**

*No comments are associated with this issue.*

**Section 13.6.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 13.6.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 13.6.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 13.6.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 13.6.5 - Mitigation Measures**

*No comments are associated with this issue.*



**Section 14 - Lands and Realty***Total Number of Submissions: 1**Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0049-17**Organization1:** Greater Yellowstone Coalition**Commenter1:** Barb Cestero**Comment Excerpt Text:**

That study found, inter alia, that yearling females avoid infrastructure when selecting nest sites, and yearling males avoided leks inside of development. And perhaps most importantly, the study confirmed that sage-grouse declines are explained in part by lower annual survival of female sage-grouse and that the impact on survival resulted in a population-level decline.<sup>16</sup> Although that study focused impacts from infrastructure associated with energy development, the results of the study can be correlated to other permanent infrastructure as well.

<sup>16</sup> Technical Team Report at 20.

For these reasons, we recommend that the LUPA prohibit the construction of new permanent infrastructure within lands specially designated for sage-grouse protection.

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***Summary***

The BLM should prohibit the construction of new permanent infrastructure within lands specially designated for sage-grouse protection, because studies show GRSG avoid areas with development.

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***Response***

The alternatives consider a range of alternatives regarding ROW avoidance and exclusion. Table 2-3 identifies existing ROW avoidance and exclusion areas in the lands and realty section.

**Section 14.1 - Range of Alternatives***Total Number of Submissions: 11**Total Number of Comments: 20*

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**Comment Number:** IDMTSG-14-0026-11**Organization1:** Challis Local Working Group**Commenter1:****Comment Excerpt Text:**

When avoidance areas and exclusion areas are discussed we were not sure if it applies to all rights-of-way (ROWs) or just those listed in Alternative D-Lands and Realty (LR)-3. We feel that there are some types of ROWs that would still be appropriate, for instance fish screens to promote listed fish recovery.

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**Comment Number:** IDMTSG-14-0026-9**Organization1:** Challis Local Working Group**Commenter1:**

**Comment Excerpt Text:**

We were unclear on how existing lands identified for disposal under current Land Use Plans would be affected under Alternative D. Would they still be available for disposal?

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**Comment Number:** IDMTSG-14-0049-24

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

We propose that general sage-grouse habitat should be managed as ROW avoidance areas, and therefore no ROWs should be permitted unless there is no other reasonable and less intrusive alternative. Where possible, ROWs should be co-located with existing ROWs in order to limit the footprint of the ROW and the associated developments. The National Technical Team Report supports these approaches for general sage-grouse habitat.<sup>25</sup> Additionally, new or valid-existing rights to develop should always include a thorough evaluation that prioritizes burying powerlines where possible, to limit the above-ground disturbance and to avoid creating perches for predators.

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**Comment Number:** IDMTSG-14-0049-7

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

As noted in the DEIS, developments associated with Rights-of Ways (“ROWs”) -- including but not limited to powerlines, pipelines, and renewable energy projects -- can significantly disrupt sage-grouse, “altering their behavior and potentially disrupting aspects of their life history requirements, leading to lowered productivity and reduced populations.” DEIS at 1-29. For this reason, Alternatives B, C, and F all consider PPMAs as ROW exclusion areas. DEIS Table 2-3 at 2-33. Under this paradigm, there shall be no new authorizations in PPMAs unless development occurs within an existing developed footprint. DEIS Table 2-3 at 2-33. We agree that areas specially designated for sage-grouse protection should be managed as ROW exclusion areas, and thus we request that all land set aside under a special management designation for sage-grouse be managed as ROW exclusion areas.

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**Comment Number:** IDMTSG-14-0049-8

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Additionally, because powerlines impact at least 39% of the sage-grouse range and deaths resulting from collisions with powerlines have been found to be a significant source of mortality for sage-grouse in southeastern Idaho, we strongly encourage the agencies to take advantage of opportunities to remove, bury, or modify existing powerlines within specially designated habitat.<sup>7</sup> Similarly, the agencies should reclaim areas that have been developed for powerlines that are no longer in use.

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**Comment Number:** IDMTSG-14-0053-2

**Organization1:** Hagenbarth Livestock

**Commenter1:** Jim Hagenbarth

**Comment Excerpt Text:**

It is extremely important to develop corridor routes used to deliver production generated on the western landscape to economic markets. This may cause localized impact along the route, but will limit the development of numerous routes that will over all have greater impact on habitat. It is much easier for energy companies to condemn private using eminent domain than develop shorter and better routes using all land ownership. These routes need to be identified and designated for all users. It will have less impact on all habitat in general. I did not see this discussion in any of the alternatives, and it should have been included.

---

**Comment Number:** IDMTSG-14-0135-1

**Organization1:**

**Commenter1:** Karen Steenhof

**Other Sections:** 7.7

**Comment Excerpt Text:**

Transmission lines should be disallowed in all priority (core), important (medial), and general sage-grouse habitats. In addition, new lines within at least 5 miles of any of these management zones should be mitigated appropriately. Studies show that Common Ravens are a major predator of sage-grouse eggs. Given that ravens move an average of 5 miles and as far as 40 miles from transmission line nests and roosts to forage each day, it is important that the FEIS address the impacts of transmission lines near but outside of known grouse habitat.

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**Comment Number:** IDMTSG-14-0153-18

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The NTT Report recommends that all electrical distribution lines be buried within Core Areas, period; BLM does not evaluate this under any alternative

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**Comment Number:** IDMTSG-14-0153-41

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Importantly, while only scattered oil and gas exploration has occurred in the Idaho-Southwest Montana planning area, full-scale geothermal and wind production projects have been undertaken here. So the direct threat of habitat destruction and indirect impacts of sage grouse abandoning surrounding lands that are otherwise important from a habitat perspective are more serious still for wind and geothermal projects than they are for oil and gas development (see, e.g., DEIS at 4-291), which is more of a potential than current threat in the planning area. Thus, both these types of industrial development need to be excluded, on no uncertain terms, from Priority Habitats

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**Comment Number:** IDMTSG-14-0169-40

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

5 Management measure D-LR-3, which states that new authorizations would be denied for new commercial geothermal and oil and gas development, and mineral development, appears to contradict other measures in the preferred alternative that would allow fluid minerals development, and locatable and salable mineral development in priority habitat.

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**Comment Number:** IDMTSG-14-0183-16

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

The second point of concern is safety. If powerlines and buried pipelines are nearby, a fault on the electric line can cause a dangerous rise in electrical potential in the earth, which can result in an impressed voltage potential on the pipeline. This situation is only a problem for a short amount of time until the protective equipment on the powerline senses the fault and trips the line. However, if a pipeline worker is working on any aboveground pipeline equipment (i.e., test stations, valves, etc.) at the time of the fault, the worker can be exposed to high-voltage potentials (both step and touch potentials) that could cause harm to the worker. For this reason, some pipeline companies are hesitant to colocate facilities with powerlines and others require special design measures to mitigate the potential threat.

The authorized alternative needs to recognize that colocation is not always practicable or even feasible and should provide for a process to allow additional ROWs where colocation cannot be accommodated. Given the importance of the western electric grid to the safety and well-being of those who live in the West, IPC encourages the BLM to coordinate with WECC to accommodate priority pathways that need upgraded or expanded in the final sage grouse management plan.

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**Comment Number:** IDMTSG-14-0183-17

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

NERC Transmission Planning (TPL) electric reliability standards require that utilities evaluate the simultaneous loss of 2 high-voltage transmission circuits on a common structure when determining the transfer capability of a transmission path. If colocation on common structures is required, a path transfer capability may be jeopardized, which could undermine the purpose and need of a particular project (i.e., colocating a line could result in a de-rating of the existing line and/or a lower rating of the proposed line). This would result in an overall decrease in transfer capability and would require the construction of even more lines.

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**Comment Number:** IDMTSG-14-0183-26

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

Pg. 2-65, Last paragraph.

The EIS states that buried fiber-optic lines or similar would be allowed under Alternative D. Electric utilities often install fiber optic lines on existing aboveground structures for the control and operation of their facilities. Please confirm that aboveground fiber optic lines would be allowed under the authorized action.

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**Comment Number:** IDMTSG-14-0206-8

**Organization1:** The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Unless they involve valid existing rights or an incremental upgrade of an existing facility, the following types of development should be excluded from CHZ:

- Oil and gas development (subject to the specific discussion, below);
- Commercial wind energy projects, including met towers;
- Nuclear development;
- Commercial solar energy projects;
- Mineral development (leasable minerals, common varieties);
- Commercial scale hydroelectric projects;
- Airports
- Landfills;
- Commercial geothermal projects; and
- Ancillary facilities, such as roads, landfills, and support buildings associated with these types of infrastructure projects.

The rationale for excluding these projects is that they are not needed to serve an existing need and involve large-scale construction and maintenance activities that adversely affect sage grouse.

**Comment Number:** IDMTSG-14-0206-9

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

However, Alternative D would categorically exclude a number of activities that could be essential to serving existing needs. We believe that the following activities excluded in Alternative D should be allowed to go through the CHZ exemption process provided by Alternative E:

- Transmission lines;
- Small hydropower projects;
- Paved and gravel roads; and
- Small sand and gravel extraction sites needed for road or other maintenance activities

**Comment Number:** IDMTSG-14-0210-7

**Organization1:**NorthWestern Energy

**Commenter1:**Mary Gail Sullivan

**Comment Excerpt Text:**

Rather than call for the use of perch discouragers, NorthWestern Energy recommends the BLM reference the BMPs (see below) for power lines in sage-grouse habitat they are currently helping develop. Likewise, current APLIC guidance should be applied to minimize avian electrocution and collision risks.

**Comment Number:** IDMTSG-14-0212-12

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

the Agencies should clarify in the Final LUP Amendment that the ROW or travel management provisions should recognize the ability of valid existing rights, including mineral lessees or leasable minerals exploration projects, to develop infrastructure necessary for the development of projects, subject to appropriate mitigation.

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**Comment Number:** IDMTSG-14-0212-6

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

For any management action that potentially would interfere with the exercise of valid existing rights, the Final LUP Amendment should provide flexibility for case-by-case exceptions to protect such rights without the need to amend the LUP. For example, the Final LUP Amendment should recognize that, if a BLM right-of-way through sage-grouse habitat is required to access an existing phosphate lease, the right-of-way exclusion area provisions of the LUP or other restrictions on rights-of-way will not be applied in a manner so as to make accessing the lease area unreasonable or unduly uneconomical—e.g., by requiring a 25-mile road detour around sage-grouse habitat where two miles of road would provide proper access—and without considering possible mitigation. With respect to future phosphate mining opportunities, the Final LUP Amendment should similarly allow sufficient flexibility for mineral development to coexist with sage-grouse conservation.

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**Comment Number:** IDMTSG-14-0242-20

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

The COT objective is to avoid development of infrastructure within P ACs. Alternative D proposes to implement conservation measures that are consistent with the COT. Alternative E proposes to implement conservation measures that are largely consistent with the COT, but includes an exception process for large scale infrastructure development. To be consistent with the COT, Alternative E would need to provide some reasonable certainty that those exceptions will only be granted if they are consistent with the COT. Additionally, Alternative E would need to be modified to ensure that impacts from any exceptions would be avoided, minimized or mitigated, in that order. We encourage close coordination with the State on this element in order to maintain their important collaborative conservation process.

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**Comment Number:** IDMTSG-14-0242-29

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:**

Ex-Urban Development

The COT objective is to limit urban and ex-urban development in GRSG habitats and maintain intact native sagebrush communities. Alternative D proposes conservation measures that directly addresses this and meets

the COT objectives. Alternative E does not propose conservation measures that directly address this threat and is currently inconsistent with the COT

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### ***Summary***

Commenters requested clarification regarding: types of exclusions, valid existing rights, aboveground fiber optic lines, and disposal under current land use plans.

Commenters also suggested additions to the range of alternatives considered and provided information on the feasibility of the alternatives (e.g., co-location, perch diverters, and burying lines).

Commenters noted that the document has contradicting management actions regarding geothermal development between lands and minerals sections.

Commenters noted that Alternative E did not adequately address the purpose and need.

Need to include:

Comment #14-0049-8: reclaim areas that have been developed for powerlines that are no longer in use.

Comment #14-0153-41: Comment stated that BLM did not evaluate the NTT recommendation that all electrical distribution lines be buried within Core Areas.

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### ***Response***

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (Alternative A).

Proposed avoidance and exclusion area designations vary by alternative, as explained on page 2-33 in Table 2-3. Under Alternative D, all new ROWs, unless specifically excluded, would be avoided, whenever possible, see LR-3 (ex. wind facilities, etc). Required design features that would apply to specific types of facilities in greater sage-grouse habitat are located in Appendix C.

The EIS/LUP includes an alternative that allows for placement of fiber optic lines on existing infrastructure (Alternative D Action LR-6 and LR-7 in Table 2-18).

Under Alternative D Table 2-18, LR-9, new power lines outside of existing ROWs, would be buried, where feasible. Reclamation of lands, once facilities are removed, are part of standard BMPs, Appendix C. Amendments to existing facilities that are otherwise excluded may be allowed under Alternative D, LR-6. Under Alternative D, lands currently identified for retention within priority greater sage-grouse habitat would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority habitat (LR -19 and LR-21), Alternatives A through F propose retention of all utility corridors (Table 2-18).

Lands and Minerals management actions did contradict on the topic of geothermal development (D-LR-3, page 2-162 and D-MLM-1, page 2-180) and the FEIS will correct this contradiction.

The first of the assumptions under Lands and Realty Assumptions, Page 4-158, is that BLM and the Forest Service will protect valid existing rights, as long as those ROWs comply with the terms and conditions of their ROW grant. The agencies will consider all safety concerns into all decisions to authorize a pipeline, including burying a transmission line.

## **Section 14.2 - Best available information baseline data**

*Total Number of Submissions: 5*

*Total Number of Comments: 9*

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**Comment Number:** IDMTSG-14-0049-25

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

### **Comment Excerpt Text:**

Science also notes that the existence of powerlines may have a direct impact on the use of leks, breeding success, and mortality. For example, the DEIS notes that there is an increase in predator concentration within 4.25 mile of powerlines. DEIS at 4-8. For these reasons, we propose that the LUPA include a minimum four-mile buffer from active leks for new powerlines or similar ROW developments.

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**Comment Number:** IDMTSG-14-0049-31

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

### **Comment Excerpt Text:**

In additional, because permanent infrastructure fragments sage-grouse habitat, we request that infrastructure be co-located when possible. Preferably, infrastructure would be placed in already disturbed locations where the habitat has not yet been restored. Additionally, the agencies should review the best available science to determine if buffer areas around leks or nesting sites or seasonal construction restrictions would be useful to minimize impacts to sage-grouse and their habitat.

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**Comment Number:** IDMTSG-14-0154-4

**Organization1:** The Wilderness Society

**Commenter1:** Brad Brooks

### **Comment Excerpt Text:**

the BLM should work with ROW holders to identify conflict areas and get anti-perching devices installed on existing overhead powerlines in these same habitats. Because approximately 74-80% of sage-grouse females nest within 4 miles of leks (Moynahan 20043, Holloran and Anderson 20054), this measure will help to reduce predatory pressures on nesting and foraging grouse. We recommend deterrent devices on H-frame structures because recent research indicates they are effective tools in reducing perch use of such structures (Lammers and Collopy 20075, Slater and Smith 20106).

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**Comment Number:** IDMTSG-14-0183-37

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

### **Comment Excerpt Text:**

Pg. 4-158.



## Assumptions

Power lines and other vertical structures in areas naturally devoid of perching opportunities provide a perch for raptors and increase the potential for GRSG to abandon leks (Ellis 1984). Mitigation by burying lines or including design features that do not encourage perching on lines would reduce perching opportunities and subsequent impacts on GRSG (Connelly et al. 2000).

IPC suggest that the BLM carefully evaluates this assumption, which is based on largely scant and anecdotal information.

Vertical Structures--Power poles, towers, and fence posts may provide attractive hunting and roosting perches for common raven and raptors, in addition to natural substrate (e.g., cliffs and rock outcrops). Several studies have shown that predation of sage-grouse, their nests and chicks is not a serious threat when habitat is not limited and of good quality (e.g., Coates and Delehanty 2010, Conover et al. 2009, USFWS 2010). Hagen (2011) reviewing sage-grouse predation literature, concluded that on average predation is not limiting sage-grouse populations, except in fragmented landscapes.

Very limited information is available on the direct behavioral response of sage-grouse to tall structures. The most frequently cited literature supposedly providing evidence of avoidance of tall structures by sage-grouse are either unpublished or non-peer reviewed reports (Ellis 1985, 1987; Braun 1998; Braun et al. 2002).

Walters et al. (2014) concluded reviewing published literature on the effect of tall structures on birds that there was no consistent response to tall structures and that the structure's "tallness" could not be isolated from other factors associated with the development such as human activity. Moreover, ideas presented in the discussion of the reviewed papers presented as hypotheses to explain an observed pattern were assumed by other researchers to represent an empirically tested causal mechanism.

Lek Abandonment--Ellis (1984) describes the behavioral response of sage grouse to golden eagles at a lek. Some males flushed, others remained ("master cocks") and continued displaying after a while. This study is based on a single observation and should be considered anecdotal, rather than providing evidence of predation of sage grouse by golden eagles. There is no evidence provided that the lek was abandoned because of the presence of golden eagles. IPC suggest that the BLM carefully evaluates Ellis (1984) and make changes to the statement in the DEIS accordingly.

Perch Deterrents--Mesmer et al. (2013) reviewed available information on the effectiveness of perch deterrents and concluded that these devices had not proven effective in eliminating raptor or corvid perching on transmission and distribution lines (APLIC 2006, Lammers and Collopy 2007). In fact, perch deterrents may encourage raptors and corvids to nest on structures and may increase the level of risk of electrocution for raptors. The negative impacts of perch discouragers must be weighed against the limited benefits they may provide, particularly if they are contributing to mortalities of protected birds and facilitating increases in predator nesting populations.

**Comment Number:** IDMTSG-14-0183-40

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

### **Comment Excerpt Text:**

Table C-1, GOA Number 294 Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).

Mesmer et al. (2013) reviewed available information on the effectiveness of perch deterrents and concluded that these devices had not proven effective in eliminating raptor or corvid perching on transmission and distribution lines (APLIC 2006, Lammers and Collopy 2007). In fact, perch deterrents may encourage raptors and corvids to nest on structures and may increase the level of risk of electrocution for raptors. IPC encourage the BLM to evaluate the effectiveness and suitability of perch deterrents for powerline structures.

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**Comment Number:** IDMTSG-14-0210-4

**Organization1:**NorthWestern Energy

**Commenter1:**Mary Gail Sullivan

**Comment Excerpt Text:**

• Installing new power lines underground or converting existing lines from overhead to underground result in significantly increased cost, reduced reliability, greater ground disturbance during construction and repairs, longer outage periods for customers, and may not always be feasible from engineering and operations perspectives. Underground power lines require a continuous excavation through all habitat types. In sagebrush habitat, this would result in ground disturbance for the entire line route thus creating a linear corridor and greatly increasing edge habitat favored by predators. This is in contrast to overhead lines, which result in a disturbance only at the structure locations. Underground lines also require excavation for repairs or maintenance, which would result in ground disturbance occurring temporally over the life of the line, not just during initial construction. Lengthy linear ground disturbance during construction, repairs, and maintenance can result in large, permanent displacement of excavated soil and subsequent issues with re-establishing native vegetation and preventing the overgrowth of invasive species. A University of California study (Bumby et al. 2009) found that underground power lines have more environmental impacts than overhead power lines for all categories and most scenarios in southern California. For more detailed discussion of environmental and engineering constraints associated with underground power lines, see Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012), pages 62-63. NorthWestern Energy encourages the BLM to allow overhead power lines as an acceptable alternative in the Idaho and Southwestern Montana LUP and requests that perceived impacts of overhead lines be compared with increased vegetative fragmentation, creation of both linear corridors and edge habitat for predators, loss of sage brush for extended periods and the re-creation of these impacts when repairs are needed.

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**Comment Number:** IDMTSG-14-0210-6

**Organization1:**NorthWestern Energy

**Commenter1:**Mary Gail Sullivan

**Comment Excerpt Text:**

Until an effective perch preventer is proven and available, NorthWestern Energy recommends the BLM remove stipulations that require or recommend perch discourager use in the Idaho and Southwestern Montana LUP

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**Comment Number:** IDMTSG-14-0213-1

**Organization1:**Rocky Mountain Power

**Commenter1:**Jeff Richards

**Comment Excerpt Text:**

Rocky Mountain Power currently has a number of transmission line projects undergoing various stages of the NEPA process in Idaho including the Gateway West and Boardman to Hemmingway projects. With these projects so far along in the NEPA process, Rocky Mountain Power requests that the BLM consider the efforts that Rocky Mountain Power, BLM, and other agencies working on the NEPA processes for Gateway West and Boardman to Hemmingway have undertaken thus far in its LUP update. In addition, Rocky Mountain Power requests that the Idaho BLM work with BLM offices in neighboring states to ensure a consistent approach when addressing projects that cross state boundaries, such as multi-state electric transmission lines (e.g., Gateway West, Gateway South, Boardman to Hemmingway).

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**Comment Number:** IDMTSG-14-0213-3

**Organization1:** Rocky Mountain Power

**Commenter1:** Jeff Richards

**Comment Excerpt Text:**

Installing new power lines underground or converting existing lines from overhead to underground are often raised as possible permit stipulations or mitigation options. I however, underground power lines result in increased cost, reduced reliability, greater ground disturbance during construction and repairs, longer outage periods for customers, and may not always be feasible from engineering and operations perspectives. Underground power lines require a continuous excavation through all habitat types. In sagebrush habitat, this would result in ground disturbance for the entire line route. This is in contrast to overhead lines, which result in a disturbance only at the structure locations. Underground lines would also require excavation for repairs or maintenance, which would result in ground disturbance occurring temporally over the life of the line, not just during initial construction. Ground disturbance during construction, repairs, and maintenance can result in large, permanent displacement of excavated soil and subsequent issues with re-establishing native vegetation and preventing the overgrowth of invasive species. A University of California study (Bumby et al. 2009) found that underground power lines have more environmental impacts than overhead power lines for all categories and most scenarios in southern California. For more detailed discussion of environmental and engineering constraints associated with underground power lines, see Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012), pages 62-63. Rocky Mountain Power encourages the BLM to allow overhead power lines an acceptable alternative in the Idaho and Southwestern Montana LUP and requests that requirements for placement of lines underground be removed.

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***Summary***

Commenters raised concerns with the baseline assumption (as noted in Ellis 1984 and Connelly et al. 2000) that power lines and other vertical structures increase perching opportunities for raptors and increase the potential for GRSG to abandon leks).

Commenters suggested that the BLM and the FS should have considered several additional references in their analysis, related to the relationship between GRSG and transmission lines. For example, commenters noted the DEIS did not include studies that found underground powerlines have more environmental impacts than overhead powerline placement.

Commenters questioned the data in Table 3-36, which includes the acreage of transmission lines within greater sage-grouse habitat.

Need to include:

Comment #14-0049-25 requested the LUPA include a minimum four-mile buffer from active leks for new powerlines or similar ROW developments.

Comment #14-0049-31 request to include that infrastructure would be co-located when possible.

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***Response***

Many reports have been prepared for the development of management recommendations, strategies, and regulatory guidelines. The National Technical Team report (NTT 2011), Conservations Objectives Team (COT; FWS 2013), and the Summary of Science, Activities, Programs and Policies that Influence the Rangeland Conservation of Greater Sage-Grouse (also referred to as the Baseline Environmental Report [BER]; Manier et al. 2013) are the most widely used reports that have been incorporated in BLM and Forest Service EISs that address the effects of implementing greater sage-grouse conservation measures on lands

they manage. Additionally, the BLM and the Forest Service developed the Idaho Draft Environment Impact Statement/Land Use Plan Amendment with involvement from cooperating agencies, including Idaho Department of Fish and Game to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

Management actions included in the Draft EIS/LUPA for the underground placement of powerlines are intended to reduce the potential for long-term impacts on GRSG habitat and species viability. Literature referenced in the FEIS demonstrates that overhead powerlines provide perching opportunities for ravens and other avian predators.

BLM and the Forest Service has reviewed scientific literature provided by commenters regarding the effects of powerlines on greater sage-grouse, buffers, perch diverters, and overhead versus burying lines, and the DEIS has been revised, as appropriate.

Transmission acreages came from the peer-reviewed Baseline Environmental Report (Manier et al. 2013).

### **Section 14.3 - Impact Analysis**

*Total Number of Submissions: 2*

*Total Number of Comments: 5*

**Comment Number:** IDMTSG-14-0180-40

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM provides an analysis for three separate types of infrastructure development and the impacts for each under Alternative E. Surprisingly, different conclusions are reached for each type, despite the fact that Alternative E makes no such distinction itself.

**Comment Number:** IDMTSG-14-0180-42

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM does not provide a conclusion as to the impacts from Land Uses and Realty Management with respect to wind energy for Alternative E. Again, the Implementation Commission would make a recommendation for any potential wind energy project, relying on the data provided by the Idaho Department of Fish and Game. Infrastructure development also has the potential to activate a trigger. If a necessary development activates a hard trigger, IHZ is managed as CHZ for the purposes of future infrastructure development. Thus, BLM should have concluded that impacts from wind energy would be reduced, relative to Alternative A. Further, BLM should have concluded that because of Alternative E's adaptive trigger strategy, that impacts would be reduced as compared to any other alternative included in the DEIS.

**Comment Number:** IDMTSG-14-0183-29

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 3-98; Table 3-36

Table 3-36 grossly over-estimates the acreage of transmission lines within greater sage-grouse habitat. The Draft EIS provides an unsupported assumption that the footprint for a transmission line is 656-feet wide. Typical ROW widths for transmission lines range from 100 to 200-feet wide, and that is not even the footprint of the structures or lines. The assumed width in the Draft EIS is over three times wider than the majority of ROWs

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**Comment Number:** IDMTSG-14-0183-33

**Organization:** Idaho Power

**Commenter:** Brett Dumas

**Other Sections:** 7.5

**Comment Excerpt Text:**

Pg. 4-15, 1st para.

Impacts from energy development accrue both locally and cumulatively at the landscape scale. Accumulated evidence across landscape-scale studies show that GRSG populations typically decline following oil and gas development (Holloran 2005; Walker et al. 2007; Doherty et al. 2008). Oil and gas infrastructure and associated human activity have been shown to adversely affect GRSG populations collectively and in some instances, impacts have been directly attributed to certain anthropogenic features (e.g., roads, power lines, noise, and associated infrastructure; Walker et al. 2007; Doherty et al. 2008; Lyon and Anderson 2003; Holloran 2005; Kaiser 2006; Aldridge and Boyce 2007).

Connelly et al. (2004) provided a broad and general review of powerline- sage-grouse interaction and combined powerlines with other energy developments such as oil and gas exploration and roads, as well as other anthropogenic activities such as campgrounds, landfills, and agriculture activities. The authors state that non-renewable energy development—a large category that includes all industrial development from oil and gas exploration to the electric power grid—impacts sage-grouse habitat on a large spatial scale, but do not provide specific information on powerlines. Information on the impact of transmission lines on a landscape level by Leu and Hanser (2011) and Johnson et al. (2011) would be more appropriate to reference in relation to sage-grouse persistence in the landscape.

Walker et al. (2007) showed that all top models to explain lek persistence included a strong positive effect of sagebrush habitat and a strong negative effect of Coal Bed Natural Gas (CBNG) development. Furthermore, the best habitat-plus-CBNG model was 28 times more likely to explain patterns of lek persistence than the best habitat-plus-infrastructure model (including powerlines) and 50 times more likely than the best habitat-only model. Lastly, models with powerline effects were weakly supported compared to models with CNBG, although powerlines appear to have a negative effect on lek persistence. The powerline variable included lines associated with CBNG as well as non-CBNG powerlines. So no attempt was made to isolate the effect of powerlines from the confounding effect of CBNG development. IPC suggest that a more complete statement is included in the USGS report regarding the effects of energy developments on sage-grouse lek persistence in relation to Walker et al. (2007) study. It appears that selective use is being made of the information provided by Walker et al. (2007), narrowly focusing on the (weak) effect of powerlines on sage-grouse lek persistence.

Doherty et al. (2008), Holloran (2005) and Aldridge and Boyce (2007) evaluated Coal Bed Natural Gas wells, but did not evaluate effect of powerlines. Lyon and Anderson (2003) evaluated the effect of vehicular traffic associated with natural gas developments. Therefore, none of these studies provide information on the effects of powerlines.

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**Comment Number:** IDMTSG-14-0183-38

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Table C-1, GOA Number 284

Place new utility developments (powerlines, pipelines, etc) and transportation routes in existing utility or transportation corridors.

Idaho Power is required to comply with a variety of federal regulations and the North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) standards that affect our ability to collocate facilities. Transmission lines are rated and the rating determines the amount of energy that can be carried on the lines. An economically viable project must achieve a certain capacity rating. Ratings are affected by a number of factors including adjacency to other transmission lines that serve the same pathway. Co-locating a line could result in a derating of the existing line and/or a lower rating of the proposed line, resulting in an overall decrease in transfer capability that would require construction of even more lines. WECC reliability practices may require the reduction of path transfer capability if two circuits located in close proximity experience simultaneous outages. Due to reliability impacts and potential reduction in transfer capability, Idaho Power strongly prefers a 1,500 foot minimum separation between high voltage circuits. Idaho Power also tries to minimize co-location so that IPC is able to maintain service to our customers in case of an outage. Areas are typically served by more than one line and IPC is able to change the path used to deliver power if one line goes out. If lines are co-located, our ability to do this is limited and areas may experience more frequent and /or longer outages. Thus, the BLM should be carefully evaluating the impacts of stipulating that electrical powerlines be co-located in right-of ways.

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***Summary***

Commenters stated that the BLM/FS should have concluded that because of Alternative E's adaptive trigger strategy the impacts from wind energy would be reduced compared to Alternative A.

Commenters stated that the agencies should carefully evaluate the impacts of stipulating co-location of electrical powerlines.

Commenters requested information on the impact of transmission lines on a landscape level would be more appropriate to reference in relation to sage-grouse persistence in the landscape and that information from Walker et al. 2007 has been used selectively in regards to transmission infrastructure.

Include:

Comment #14-183-38: Request that BLM re-consider and evaluate the stipulation that electrical powerlines must be co-located

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***Response***

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the

proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

Impacts from lands and realty to wind energy were discussed in DEIS/LUPA Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as required design features. This is clarified in the FEIS (see section).

Management actions included in the Draft EIS/LUPA for the co-location of new infrastructure in existing ROWs are intended to reduce the amount of surface disturbance in GRSG habitat and concentrate new development in habitat areas already affected by anthropogenic activities. The BLM and FS recognize that co-location is not feasible in all circumstances, particularly for new powerlines. Under all alternatives, the BLM and FS would continue to review proposed infrastructure projects on a case-by-case basis. Such a review would include preparation of the appropriate NEPA documentation and coordination with the responsible federal, state, and local permitting agencies.

#### **Section 14.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

#### **Section 14.5 - Mitigation measures**

*No comments are associated with this issue.*

#### **Section 15 - Leasable Minerals**

*No comments are associated with this issue.*

#### **Section 15.1 - Range of alternatives**

*Total Number of Submissions: 6*

*Total Number of Comments: 14*

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**Comment Number:** IDMTSG-14-0049-10

**Organization:** Greater Yellowstone Coalition

**Commenter:** Barb Cestero

#### **Comment Excerpt Text:**

There are currently 17 leases in Idaho located in sage-grouse habitat. DEIS at 3-103. Under Alternative B, all PPMAs would be closed to geothermal leasing; under Alternative C, 3,725,100 acres would be closed to geothermal leasing; and under Alternative F, 2,727,800 acres would be closed to geothermal leasing. DEIS at 4-187, 4-188, & 4-190. The DEIS assumes that all existing leases would be managed under the stipulations in effect when the leases were issued and that no new stipulations would apply. DEIS at 4-187. Although many of these leases contain stipulations in order to minimally impact sage-grouse and other wildlife, we propose that there should be no new leasing in specially designated areas, and valid existing rights should be subject to a No Surface Occupancy (“NSO”) stipulation. If there is a legal reason why new stipulations cannot be imposed, the federal agencies must explain those legalities in the DEIS. In any event, we propose that areas under a special designation for sage-grouse protection should be managed as closed to geothermal leasing moving forward.

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**Comment Number:** IDMTSG-14-0049-27

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Seasonal restrictions should also be considered. For example, the National Technical Team Report recommends applying a seasonal restriction on exploratory drilling that would prohibit surface-disturbing activities during the nesting and early brood-rearing season in all priority sage-grouse habitat. We propose that these seasonal restrictions are employed in general sagegrouse habitat. Because there is very little oil and gas potential in Idaho and southwestern Montana, these restrictions are reasonable and will not have a significant impact on economic potential in this subregion.

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**Comment Number:** IDMTSG-14-0049-29

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

Unfortunately in southeast Idaho, we have seen firsthand on several occasions the negative impacts from phosphate mining on fish and wildlife. When selenium is released during mining, the surrounding lands and waters are poisoned to a level that is fatal to fish, birds, wildlife, and even livestock. The impacts from phosphate mining are not contained in the land immediately surrounding the mine, however, as selenium travels and bioaccumulates in the atmosphere and in water. This problem may impact riparian areas that sage-grouse rely on for brood-rearing and during their life cycle. We have also seen that the implementation of Best Management Practices (“BMPs”) in southeast Idaho has not done enough to minimize the fatal impacts of selenium contamination.

Due to these widespread and deadly impacts, we propose that no new phosphate mining should be permitted in any sage-grouse habitat unless and until there is proven technology to capture and contain all selenium that may be released during mining. Anything less will be ineffective in protecting sage-grouse and sage-grouse habitat around phosphate mines, especially in the Pocatello BLM Field Office.

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**Comment Number:** IDMTSG-14-0049-9

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**



According to the DEIS, there has never been a single producing oil and gas well in the entire state of Idaho, and while the Dillon Field Office in Montana has 47 active oil and gas leases, none of them are producing. DEIS at 3-102 to 3-103. During the development of the 2006 Resource Management Plan for the Dillon Field Office, the BLM's evaluation of development potential found no areas of "high" development potential and only 190,722 acres of moderate potential in the area covered by the RMP (which includes over 1.3 million acres of federal mineral estate). Thus, asking that special designation areas for sage-grouse be closed to fluid minerals leasing should be an easily enforced stipulation that will not have any major negative economic impact. Additionally, because we request that special designation areas be managed as ROW exclusion areas, it may not be cost effective to develop fluid mineral resources if there is no easy means for transporting fluid minerals to processing facilities and markets. See DEIS at 4-173

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**Comment Number:** IDMTSG-14-0131-8

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

**Comment Excerpt Text:**

The southeastern Idaho area contains 19,040 acres of non-leased Known Phosphate Leasing Areas (KPLAs). The Draft LUMA/EIS states (page 4-202) that there are ten (10) active phosphate leases within GRSG habitat; the Draft is silent on whether such leases are classified as PPMA or if any new restrictions are proposed for these leases. Despite the uncertainty of determining the consequences of non-energy mineral development on GSG, all alternatives will result in loss in availability of phosphate minerals (see Table 1).

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**Comment Number:** IDMTSG-14-0149-13

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

We appreciate the acknowledgment of valid existing rights throughout the LUPA/DEIS, but are concerned the planning documents offer no explicit statements of what constitutes valid existing rights, how they relate to the new land use management options considered, or that valid existing rights will be protected. We recommend that it be clearly stated in the final LUPA/EIS and ROD that the new stipulations proposed in the preferred alternative will not apply to lands already subject to valid existing oil and gas lease rights.

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**Comment Number:** IDMTSG-14-0149-14

**Organization1:**Western Energy Alliance

**Commenter1:**Kathleen M. Sgamma

**Comment Excerpt Text:**

It is important for the agencies to recognize that oil and natural gas leases are existing rights that cannot be modified by a land use plan. *Sierra Club v. Peterson*, 717 F.2d 1409, 1411 (D.C. Cir. 1983); Solicitor's Opinion M-36910, 88 I.D. 909, 912 (1981). Once BLM has issued a lease without a No Surface Occupancy (NSO) stipulation and in the absence of a nondiscretionary statutory prohibition against development, the BLM cannot completely deny development on the leasehold. As such, BLM has no legal authority to impose mitigation measures such as an NSO Condition of Approval (COA) if it would exceed the terms and conditions of previously issued lease.

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**Comment Number:** IDMTSG-14-0159-16

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

The description in the DEIS documents as to what precisely constitute the “valid existing rights” that will survive the proposed LUPA process is obscure. What is better-defined in the proposed LUPA process is that there is a working assumption by BLM and the USFS that future proposed mineral lease modifications will have restrictions on modifying existing leases without any underlying authority to insist on those modifications

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**Comment Number:** IDMTSG-14-0159-31

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Under the Pickett Act, Presidents Taft and Wilson withdrew approximately 10,500 km<sup>2</sup> in Idaho, Utah and Wyoming and formally created the Western Phosphate Reserve. The Mineral Leasing Act of 1920 ended the acquisition of phosphate through the Mining Law and rendered moot the need for phosphate withdrawal and classification actions. In the 1960’s and 1980’s, government investigations in the Western Phosphate Reserve resulted in the identification of Known Phosphate Leasing Areas (KPLA). KPLAs are areas where the phosphate resource is available only through the competitive leasing provisions of the Mineral Leasing Act.

The DLUPA/DEIS indicates that in the planning area, there are 34,000 acres of unleased KPLAs. DEIS Vol. II B at 4-314. Under the No-Action Alternative (Alternative A) and the Governor’s Alternative (Alternative E), 11% of the unleased minerals in the planning area within KPLAs would be closed to non-energy solid mineral leasing. Six hundred and twenty acres (2%) would be open subject to net surface occupancy stipulations. be open subject to net surface occupancy stipulations.

Under the BLM/USFS Preferred Alternative, Alternative D, 3,900 of unleased KPLA-designated acres minerals in the planning area would be closed. This is in addition to an astonishing 10,882,600 of non KPLA-designated acres proposed to be closed for nonenergy solid mineral leasing in Alternative D. This is four times as many nonenergy solid mineral leasing acres subject to closure as the Governor’s Alternative.

There is no explanation or discussion for the authority to simply close public lands to non-energy leasable mineral prospecting and leasing under the LUPA process under Alternatives B, C and D. Importantly, there is no reconciliation of the multiple-use mandate under FLPMA and the KPLA designation or why, under law, KPLA-designated areas important to the Nation’s food security must simply yield to severe restrictions from access to phosphate needed to make nutrients essential for American agriculture.

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**Comment Number:** IDMTSG-14-0166-7

**Organization1:** Center for Biological Diversity

**Commenter1:** Randi Spivak

**Comment Excerpt Text:**

[Alternative D] requires Required Design Features for post-leasing actions at the individual operation level.<sup>42</sup> There is no evidence that RDF’s will be effective in providing meaningful on the ground conservation. For instance, one RDF requires fluid mineral operations to “[c]luster disturbances associated with operations (fracturing stimulation, liquids gathering, etc.) and facilities as close as possible.”<sup>43</sup> This RDF is vague and does not provide specific instructions to developers on actions that would be sufficient to comply with the RDF. The alternative fails to adopt best science that calls for specific restrictions (e.g. oil pad density requirements) based on observed sage grouse response to surface disturbances.

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**Comment Number:** IDMTSG-14-0212-1

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

The phosphate lease area closures in Alternatives B, C, D, and F are not properly tailored. Rather, the closures potentially are stricter than an ESA listing and do not adequately consider mitigation. The Agencies' objective in amending the LUPs was to conserve the sage-grouse and preclude the need to list the species under the ESA. While a potential sage-grouse listing and its regulatory consequences may be discouraging, the phosphate lease closures may be even more so. Indeed, the ESA permits the Agencies to at least consider each proposed action individually, taking into consideration project-specific circumstances, species and habitat conditions, potential effects to the species, and potential mitigation. In fact, the ESA specifically provides processes to obtain "take" authorization for both private projects and those with a federal nexus. For private projects that might result in take—defined broadly to include any activity that would or would attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a species, see 50 C.F.R. § 17.3—an applicant can obtain an Incidental Take Permit under ESA Section 10 after preparing an approved Habitat Conservation Plan that specifies the actions that will be taken by the project proponent to minimize and mitigate effects to the listed species, see 16 U.S.C. § 1539(a)(1)(B); 50 C.F.R. § 17.22(b)(1)(iii). Similarly, if an agency such as BLM or the Forest Service permits an activity that is likely to adversely affect a listed species, it must initiate Section 7 consultation with the Fish and Wildlife Service to ensure that the proposed action will not jeopardize the continued existence of the species. See 50 C.F.R. § 402.14(a). If the Service determines that the project may adversely affect the species but is not likely to jeopardize its continued existence, the Service may issue an incidental take statement allowing a specific level of take, while also allowing the project to move forward.

Thus, in both the Section 10 and Section 7 context, there is no absolute prohibition on activities that might "take" a species. An ESA listing does not summarily put off limits mining projects that might adversely affect the species or its critical habitat. Rather, project approval is based on whether, after applying the mitigation measures proposed by the applicant, the action will appreciably reduce the likelihood of the survival or recovery of the species, or result in jeopardy, respectively. The ESA permitting processes encourage cooperation between the Service and the applicant to find solutions that allow the applicant's project to move forward while conserving the species.

By contrast, the Agencies' proposed phosphate lease closures potentially would put up to nearly 11 million acres of public land off limits from phosphate development, regardless of site-specific species occurrence and habitat conditions or of mitigation opportunities that might be offered by the project proponent and authorized following ESA Section 7 consultation or pursuant to a Section 10 permit. In deciding what conservation measures should be imposed to avoid a listing, the Agencies must consider whether the measures proposed may cost more than the ESA listing that the Agencies are attempting to avoid. Further, if the Agencies' objective in this land use planning process is to provide "adequate" regulatory mechanisms to avoid an ESA listing, each alternative that would impose restrictions beyond what is required or adequate under the ESA should not be considered within a reasonable range of alternatives to serving that objective.

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**Comment Number:** IDMTSG-14-0212-11

**Organization1:** Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

Draft LUPA/EIS is unclear regarding the management restrictions or limitations, if any, applicable to valid existing rights in the ACECs. If the proposed ACEC designations or management interfere with valid existing rights, the same might, depending on their implementation, conflict with existing mineral leases or leaseable minerals interests related to existing prospecting or exploration authorizations

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**Comment Number:** IDMTSG-14-0212-26

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The management actions in Alternatives B, C, D, or F that would close certain areas to phosphate leasing potentially could make phosphate development in open areas technically or economically infeasible. Mineral resources do not recognize lease boundaries, and often times a phosphate resource will cross two or more lease areas. If the resource is found to be trending into an adjacent lease area, the prospector often will seek a “fringe” or “preference right” lease for the adjacent area to chase the resource. If the full resource originating on an open lease cannot be developed because fringe or adjacent leases are closed, it might not be economically or technically feasible to develop the resource on the open lease or at all. Because the management actions in Alternatives B, C, D, or F do not ensure that such fringe or preference right leases would be available in the future, the alternatives potentially are not “reasonable.”

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**Comment Number:** IDMTSG-14-0212-27

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

D. The Agencies failed to properly define the environmental baseline regarding the impacts of leasable minerals development.

To determine the effects of a proposed action on the environment, an EIS must first disclose the baseline conditions of the affected environment. See 40 C.F.R. § 1502.15. The affected environment includes biological, physical, social and economic elements of the environment. See BLM NEPA Handbook, at 53. Although the Agencies proposed to close large areas to phosphate leases to protect the sage-grouse or its habitat, the Agencies provided little, if any, explanation of impacts that phosphate mining has had on the species in past, particularly the near past. Our understanding is that the impacts on sage-grouse from phosphate mining in Idaho has been limited, particularly within the last decade, where no new mines have been started in high-value sage-grouse habitat or impacted significant amounts of the bird’s habitat. Because the Agencies failed to provide the environmental baseline information regarding past impacts of phosphate mining, the Agencies’ analysis is flawed.

In the same vein, the Agencies’ justifications for closing the areas to phosphate leases despite the lack of information showing significant prior impacts from such activities cannot withstand scrutiny. The error was arbitrary and capricious because the Agencies failed to withstand scrutiny. The error was arbitrary and capricious because the Agencies failed to articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made, show a relationship between the information and the decision, and demonstrate that it did not act on the basis of speculation or surmise. See,

e.g., 16 U.S.C. §§ 1533(b)(8), (3).

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### **Summary**

The DEIS needs a better explanation on how valid existing rights are defined and how they will be protected, including fringe or preference right leases. The alternatives need to follow the NTT report recommendations more closely, as well as reflect current USFWS policy recommendations.

The BLM needs to clarify the location of non-leased Known Phosphate Areas in relation to GRSG habitat. The plan is potentially more restrictive to phosphate leasing than a listing under the ESA and did not properly define the environmental baseline for leasable minerals. Without prohibiting new phosphate mining in GRSG habitat, the LUPA does not protect GRSG from the potential impacts of selenium being released to the environment and poisoning wildlife, including GRSG, through transport in air and water and subsequent bioaccumulation. The EIS fails to explain or discuss the authority that the BLM has to close public lands to leasable mineral prospecting and leasing under the LUPA process under Alternatives B, C and D.

The reliance upon vague RDFs under Alternative D is a failure of the BLM to adopt best science that calls for specific restrictions based on observed GRSG response to surface disturbances.

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### **Response**

[NOTE TO BLM: The BLM should examine the existing discussion of valid existing rights that will survive the proposed LUPA and should expand that discussion if it seems insufficient.]

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/DEIS that best addressed the issues and concerns identified by the affected public. The DLUPA/DEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. BLM agrees that it cannot impose an NSO on an existing lease. A definition of valid and existing rights has been added to the Glossary in the FEIS.

[NOTE TO BLM: Multiple changes were recommended to the FEIS by Porter- see separate tracking sheet.]

[NOTE TO BLM: Have minerals program elaborate on where the phosphate leases are relative to the management designations for the various Alternatives. Makela- is there an adequate baseline description for leaseable minerals? Also, BLM look into the issue of restrictions in proposed plan relative to restrictions under an ESA listing for minerals development.]

[NOTE TO BLM: determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.]

[NOTE TO BLM: Add to GLOSSARY- Valid Existing Rights]

[NOTE TO BLM: Discuss how the NTT recommendations and USFWS policy were included in the alternatives development.]

Selenium bioaccumulation is not identified by the US Fish and Wildlife Service or the NTT Report as a major threat to GRSG and is not part of the conservation strategy being applied by the BLM. No change to the EIS

has resulted from this comment.

[NOTE TO BLM: BLM to examine its jurisdiction to prioritize GRSG conservation over laws relating to KPLAs and to describe that result in the comment response, along with any appropriate changes to the EIS.]  
 [NOTE TO BLM: BLM's preferred alternative may be changed in the FEIS, to keep all lands in KPLAs open to future non-energy solid mineral leasing, but to close areas in PPMA and PMMA outside of KPLAs. An exception would be made when additional lands are needed to recover ore on the lease (fringe acreage leasing, lease modifications).]

The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Wording from NNT report has been added to the discussion of RDFs in the FEIS.

## **Section 15.2 - Best available information baseline data**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

**Comment Number:** IDMTSG-14-0182-6

**Organization1:**SBS Associates LLC

**Commenter1:**Suzanne Budge

### **Comment Excerpt Text:**

It is important to note that the current oil and gas development in the Payette area is unlike the unconventional (shale) development in states such as Wyoming and Colorado which were the subject of the study upon which the NTT Report is based. To date it has involved vertical drilling into conventional sands in a lacustrine basin, without the heavy truck traffic generated by horizontal drilling and multi-stage hydraulic fracturing. However, the DEIS does not take into account this difference, and to the extent its conclusions about fluid mineral development in Idaho are based on literature developed in other states, they are misplaced and arbitrary.

### ***Summary***

The oil and gas conditions in the Payette area are different than those studied in the NTT report and should not be used as baseline data. The impacts described by Johnson et al 2011 are overstated and should be replaced by information from Coates et al 2013.

### ***Response***

The reasonably foreseeable development scenario for oil and gas assumes a conventional oil and gas field. The current development occurring in the Payette area of Idaho is not within sage grouse habitat. BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of GRSG habitat would not be subject to stipulations developed in this EIS.

*[NOTE TO BLM: Review section on 4-8 for best available science for basis of decisions. Have a biologist help determine.]*

**Section 15.3 - Impact Analysis***Total Number of Submissions: 3**Total Number of Comments: 5*

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**Comment Number:** IDMTSG-14-0131-14**Organization1:**J.R. Simplot Company**Commenter1:**Alan L. Prouty**Comment Excerpt Text:**

This statement of “consequences” is wholly deficient and fails to disclose the following:

? Minerals can only be developed where they exist; the development will only occur where it is economically possible to do so. The development of any mineral resource is very capital intensive and entails significant financial risk. If a resource cannot be economically developed, the resource simply will not be developed. The draft LUPA/EIS needs to disclose the millions of tons of minerals (such as phosphate) that will not be available for development as a consequence of the Alternatives.

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**Comment Number:** IDMTSG-14-0180-41**Organization1:****Commenter1:**C.L. Butch Otter**Comment Excerpt Text:**

BLM states that Alternative E does not provide assurance that oil and gas development would only occur in IHZ if it would not cause a decline in sage-grouse populations. However, this assurance is provided through the Implementation Commission, as discussed in detail above. The Implementation Commission will review development projects and make recommendations to the Governor, who in turn will make recommendations to BLM, as to whether certain projects would activate a hard or soft trigger.

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**Comment Number:** IDMTSG-14-0180-43**Organization1:****Commenter1:**C.L. Butch Otter**Comment Excerpt Text:**

Further, without providing any evidence to support it, BLM concludes that Impacts with respect to geo-thermal energy are the same as Alternative A. Again, impacts here would be the same as other types of energy development. It is unclear why BLM reached this determination and why, if Alternative E treats all types of development the same, why geothermal impacts would be the same as Alternative A, while oil and gas development impacts would be reduced relative to Alternative A. What distinction has BLM found in the state’s treatment of these types of infrastructure development? There should be none and thus, BLM’s conclusion that impacts from geothermal energy would be the same as Alternative A, with no supporting analysis is incorrect.

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**Comment Number:** IDMTSG-14-0212-29**Organization1:**Soda Springs Plant**Commenter1:**Randy Vranes**Comment Excerpt Text:**

## Alternative B and C

Alternative B states that “10,429,290 acres, or 33 percent of the federal nonenergy solid leasable mineral estate decision area (including all federal nonenergy solid leasable mineral estate in PPMA), would be closed to prospecting and leasing.” Draft LUPA/EIS p. 4-203. However, merely restating the amount of acres that would be closed for minerals leasing does not constitute an analysis of how the closures would impact leasable minerals in the planning area. BLM must explain in detail the significant impacts that such proposed closures would have on leasable minerals.

Alternative C provides a similarly inadequate description of the impacts on leasable minerals and suffers the same flaws. See Draft LUPA/EIS p. 4-204 to -205.

## 2. Alternative D

The Agencies’ analysis of the impacts to leasable minerals development is inadequate. There is no analysis of the impacts that mitigation requirements, application of the Agencies’ restrictions and design features, and limitations of surface disturbance could have on leasable minerals development. The Agencies must analyze and disclose the potential effects that these management actions could have on leasable minerals.

**Comment Number:** IDMTSG-14-0212-30

**Organization1:** Soda Springs Plant

**Commenter1:** Randy Vranes

**Comment Excerpt Text:**

Alternative F

Alternative F states that the impacts from nonenergy leasable minerals would be similar to the impacts described in Alternative B, implying that the restrictions that could impact leasable minerals are the same as in Alternative B, which is not the case. See Draft LUPA/EIS p. 4-207. For example, Alternative F would implement a three percent disturbance cap that includes fire impacts and Alternative B’s disturbance cap would not consider fire in the determination. Because the management actions and restrictions that could impact leasable minerals differ between Alternatives B and F, the Agencies must provide an analysis of how Alternative F would impact leasable minerals development, not just assume that the impacts will be the same as Alternative B.

### *Summary*

The impact analysis in the DEIS of management actions on leasable mineral development is insufficient.

### *Response*

The acres of unleased KPLA land unavailable for development by alternative has been corrected in the Ch. 4 tables in the FEIS. The section describing the impacts from leasable minerals management for Alt E has been revised. The impacts of non-energy leasable minerals management actions to socio-economics have been included in the FEIS and the impacts with respect to disturbance caps have been analyzed in more detail.

[NOTE TO BLM: Tables of acres of unleased KPLA land unavailable for development by alternative in Ch. 4



need to be corrected.]

[NOTE TO BLM: Impacts from leasable minerals management in alt E needs to be revised.]

[NOTE TO BLM: Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Also, references to section 4.11.2 should be corrected and should refer to section 4.12.2.]

[NOTE TO BLM: Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question.]

#### **Section 15.4 - Cumulative impact analysis**

*Total Number of Submissions: 2*

*Total Number of Comments: 6*

**Comment Number:** IDMTSG-14-0131-13

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

#### **Comment Excerpt Text:**

A very significant shortcoming of the draft LUPA/DEIS is that it fails to analyze the cumulative effects of the draft LUPA/DEIS for other parts of the Western Phosphate Field. The draft LUPA/DEIS for Utah contains similar alternatives resulting in over 26,000 acres of KPLA being off-limits for phosphate development. The cumulative effect of the selection of any of these alternatives for these state plans could result in two-thirds (67%) of the known phosphate leasing areas being unavailable for development. Such a prohibition will severely restrict the ability to access phosphate needed to make nutrients essential for American agriculture. Furthermore, the Draft LUPA/EIS needs to discuss the effects of Alternatives on the KPLA and the consequences of eliminating or greatly restricting access to the KPLA, an area that already has been set aside by the federal government for competitive phosphate leasing.

**Comment Number:** IDMTSG-14-0131-20

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

#### **Comment Excerpt Text:**

No consideration is given as to the consequences of removing the Idaho (unleased) KPLA phosphate from its intended use of developing nutrients for American agriculture. This effective withdrawal has implications for local economies and for national food cost and security.

**Comment Number:** IDMTSG-14-0131-30

**Organization1:**J.R. Simplot Company

**Commenter1:**Alan L. Prouty

#### **Comment Excerpt Text:**

? The consequences of the loss of these minerals needs to be discussed including: (a) where additional phosphate will come from to make fertilizer for American agriculture, (b) the significance of the loss of fertilizer to nutrient availability in America; (c) potential impacts to fertilizer and food costs; and (d) implications for food security for the nation as a whole.

**Comment Number:** IDMTSG-14-0212-15

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

In fact, mining companies can bring valuable resources and knowledge to sage-grouse conservation. P4 Productions has developed conservation or mitigation plans for sage-grouse or other upland birds as part of its development of restoration plans for mine projects or future mine projects. The company also owns or controls private ranching properties that contain sage- grouse habitat. Working in partnership with the mining companies to conserve non-federal lands or federal lease lands through voluntary agreements can offer direct, immediate benefits to sage- grouse. If the Agencies close all federal nonenergy leasable mineral estate lands to prospecting or leasing, the Agencies potentially will be missing valuable opportunities to provide a net benefit to sage-grouse conservation. The opportunity cost would be particularly stark with respect to conservation on private lands. If P4 Production is no longer able to develop phosphate on BLM lands, there might no longer be an incentive for the company to pursue or implement sage-grouse conservation strategies on its private lands and the species would lose the benefit of those potential actions.

**Comment Number:** IDMTSG-14-0212-31

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

Draft LUPA/EIS p. 4-314.

NEPA requires more than this. The Agencies did not attempt to quantify the extent to which the reasonably foreseeable future actions may affect nonenergy leasable minerals or to describe with any particularity the nature of those impacts, beyond the statement that Alternative C would result in the largest closure area. The various projects identified in table of reasonable foreseeable actions, Table 4-75, are not specifically mentioned again, nor is there any discussion of the various acreages of vegetation that may be impacted by such projects. Additionally, there is no discussion in the Draft LUPA/EIS of the combined impacts resulting from the sage-grouse conservation measures provided in the alternatives with the reasonably foreseeable nonenergy leasable minerals projects. The Agencies must discuss how the proposed conservation measures will impact the environment by altering existing management of past, present, or foreseeable activities on or uses of the public lands. The Agencies' analysis of the cumulative impacts of the proposed LUP amendment and leaseable minerals development (or other uses of the public lands) was insufficient and therefore violated NEPA. See *Te-Moak Tribe*, 608 F.3d at 606. NEPA requires the Agencies to take a hard look at the cumulative impacts of the proposed LUP amendment and other projects; this the Agencies failed to do.

**Comment Number:** IDMTSG-14-0212-5

**Organization1:**Soda Springs Plant

**Commenter1:**Randy Vranes

**Comment Excerpt Text:**

The Agencies should consider the economic and strategic importance of phosphorus in developing sage-grouse conservation measures that could impact phosphate mining. Food production requires application of fertilizers containing phosphorus in order to sustain crop yields. Modern agriculture is dependent on phosphorus derived from phosphate rock. Southeast Idaho's open-pit phosphate mines are a major supplier of

phosphate, producing approximately 15% of the nation's and 4% of the world's phosphate. See <http://www.blm.gov/id/st/en/prog/energyminerals/minerals/phosphate/Phosphate.html>. However, current global phosphate reserves are projected to be depleted in 50-100 years. See Codell et. al., *The Story of Phosphorus: Global food security and food for thought*, 19 *Global Env'tl. Change* 292 (2009) (attached hereto as Attachment 4). While phosphorus demand is projected to increase, the expected global peak in phosphorus production is predicted to occur around 2030. See *id.* The Agencies should take a hard look at the depletion of global phosphate reserves and related food scarcity, and the potential impacts that draconian sage-grouse conservation measures that close areas to or unduly burden phosphate mining might have on phosphate and food supplies.

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### ***Summary***

The DEIS did not adequately analyze cumulative impacts of management actions on leasable mineral development, including impacts to the Western Phosphate Field, the American agriculture industry, and national food security.

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### ***Response***

The BLM and the Forest Service thoroughly explained their consideration and analysis of cumulative effects in the DLUPA/EIS in Section 4.24.20. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

Additional information on the cumulative impacts on the Western Phosphate Field, unleased KPLAs, socio-economic impacts from loss of phosphate resources, reasonably foreseeable actions, and proposed conservation measures have been added to Sections XXX and XXX (minerals and socio-economics cumulative impacts). [NOTE TO BLM: Review cumulative section and add necessary information.]

### **Section 15.5 - Mitigation measures**

*No comments are associated with this issue.*

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### ***Summary***

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## *Response*

### **Section 16 - Livestock Grazing**

*Total Number of Submissions: 2*

*Total Number of Comments: 3*

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**Comment Number:** IDMTSG-14-0157-17

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

#### **Comment Excerpt Text:**

Under the NTT Report, retirement of grazing privileges is also an option. Section 4.6.5. The opinions of the Solicitor (M-37008, as clarified) provide a legal evaluation of when BLM may and may not retire grazing permits and the transitory nature of retirement such that a retired permit is not permanent absent some congressional action and is subject to reconsideration and reversal during subsequent land use planning decisions. Id., Clarification of M-37008, at 6. Alternative B references, and other Alternative references, to retirement of grazing privileges should comport with the Solicitor's opinions.

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**Comment Number:** IDMTSG-14-0157-6

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

#### **Comment Excerpt Text:**

Chapter 4, contains references to retirement of grazing privileges. See, e.g., 4.6.5, p. 4-15. Any effort to retire grazing privileges must comport with the Taylor Grazing Act, the federal courts' rulings on the Taylor Grazing Act, and the Department of the Interior Solicitor's Opinion M-37008. As noted in that M-Opinion, the elimination of grazing may:

- Disrupt the orderly use of the range;
  - Breach the Secretary's duty to adequately safeguard grazing privileges;
  - Be contrary to the protection, administration, regulation, and improvement of public lands in grazing districts;
  - Hamper the government's responsibility to account for grazing receipts; or
  - Impede range improvements as authorized by the Taylor Grazing Act and Federal Land Policy and Management Act ("FLPMA").
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**Comment Number:** IDMTSG-14-0216-3

**Organization1:** Public Lands Council/National Cattlemen's Beef Association

**Commenter1:** Marci L. Schlup

#### **Comment Excerpt Text:**

Put simply, the TGA places limits on the BLM's discretion to devote grazing districts for purposes other than grazing and, in proposing sage-grouse specific management standards and guidelines, the BLM is crossing the bounds of its discretion.

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**Response**

[ NOTE TO BLM: May need to go up to solicitor’s office for review.]

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Further, the BLM may designate lands as “available” or “unavailable” for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to cease livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions.

The Taylor Grazing Act requires that the Secretary “make such rules and regulations ... [and] do any and all things necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range.” (43 USC § 315a).

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Actions taken under land use plans may include making some, or all of the land within grazing districts, unavailable for grazing during the life of the plan as well as imposing grazing use restrictions, limitations or other grazing management related actions intended to achieve such goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A “chiefly-valuable-for-grazing” determination is required only when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district. (See USDI Solicitor Memorandum Clarification of M-37008 (May 13, 2003)). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as “chiefly-valuable-for-grazing” per the Taylor Grazing Act for purposes of establishing grazing districts within the public domain (see, 43 U.S.C. § 315) this does not negate the BLM’s authority or responsibility to manage those lands to achieve resource condition goals and objectives under the principals of multiple use and sustained yield as required by FLPMA and its implementing regulations.

**Section 16.1 - Range of alternatives**

*Total Number of Submissions: 24*

*Total Number of Comments: 64*

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**Comment Number:** IDMTSG-14-0026-5

**Organization1:**Challis Local Working Group

**Commenter1:**

**Comment Excerpt Text:**

LG/RM-2 discussed grazing management measures and habitat objectives under Alternative D. The discussion should include language such as “not meeting one indicator or characteristic does not necessarily mean an area is not providing suitable sage-grouse habitat”. This is important because site potential and capability need to be taken into account and Land Managers need to have the ability to adjust objectives based on principals of adaptive management

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**Comment Number:** IDMTSG-14-0026-6

**Organization1:**Challis Local Working Group

**Commenter1:**

**Comment Excerpt Text:**

Alternative E/LG/RM-2 discusses adaptive regulatory triggers. These triggers should be defined and the subsequent changes to grazing permits should be transparent. (i.e. through an assessment and a grazing decision or through some other mechanism)

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**Comment Number:** IDMTSG-14-0030-4

**Organization1:**

**Commenter1:**Greg Cooper

**Comment Excerpt Text:**

Alternative D allows further declines in rangeland health. Alternative D emphasizes the need for livestock permittees to achieve the Idaho Rangelands Health Standards. This clearly does not work. Currently 61 allotments in Idaho are not meeting rangeland health standards. (DEIS at 3-73) Allotments that are not meeting Rangeland Health Standards should to be closed to grazing until they can meet the standards.

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**Comment Number:** IDMTSG-14-0049-18

**Organization1:**Greater Yellowstone Coalition

**Commenter1:**Barb Cestero

**Comment Excerpt Text:**

The LUPA should incorporate coordinated livestock grazing and sage-grouse habitat objectives in all grazing allotments or permit renewals in priority sage-grouse habitat. Particular emphasis should be placed on how grazing affects sage-grouse nesting and early brood-rearing habitat. The National Technical Team specifically recommends managing livestock grazing to maintain residual cover of herbaceous vegetation to reduce predation during nesting. The BLM and USFS should consider modifying grazing management to meet seasonal sage-grouse habitat requirements though changes in season or timing of use; number of livestock; distribution of livestock use; intensity of use; and type of livestock.<sup>18</sup>

<sup>18</sup> Technical Team Report at 14-15.

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**Comment Number:** IDMTSG-14-0049-20

**Organization1:**Greater Yellowstone Coalition

**Commenter1:**Barb Cestero

**Comment Excerpt Text:**

Another impact of overgrazing is the spread of invasive cheatgrass, a common problem in sagebrush steppe habitats. In order to minimize the spread of cheatgrass, the LUPA should set a livestock forage removal limit to ensure that natural forage is maintained in abundance.

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**Comment Number:** IDMTSG-14-0049-33

**Organization1:**Greater Yellowstone Coalition

**Commenter1:**Barb Cestero

**Comment Excerpt Text:**

Fires have the capacity to harm sage-grouse habitat in a number of ways. First, fires destroy vegetation necessary for sage-grouse survival. Additionally, following a fire, cheatgrass and other invasive species may thrive while sagebrush and native grasses need longer to recover. Livestock grazing after a fire can exacerbate

these impacts. We therefore recommend that livestock not be introduced into a fire-impacted landscape for a minimum of two years after a fire. We urge the federal agencies to review the best available science on an ongoing basis to determine if a longer period is advisable.

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**Comment Number:** IDMTSG-14-0050-1

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The federal government, via the agencies BLM and USFS management, permits privately owned domestic livestock grazing on the majority of the public lands it manages. The negative impacts of domestic livestock grazing are well documented. The BLM and USFS know that domestic livestock grazing is the most widespread land use in the sagebrush landscape but continues denying domestic livestock's negative impact on sage-grouse habitat. Research indicates that the removal of domestic livestock from public land is the recommended strategy to improve ecological conditions and protect public resources (Fleischner, 1994) (Donahue, 1999) (Belsky, Matzke, Uselman, 1999) (Wuerthner, Matteson, 2002). The no domestic livestock grazing alternative must be included and seriously considered in order to avoid violation of NEPA that imposes a duty on Federal agencies to take a "hard look at environmental consequences" of its actions.

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**Comment Number:** IDMTSG-14-0050-5

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The following alternatives must be included and seriously considered in the proposed EIS:

- a) EIS alternatives must include enforceable terms and conditions for domestic livestock grazing in all sage-grouse habitat
  - b) New measures must be implemented immediately, not years or decades from now during domestic livestock grazing permit renewals
  - c) Domestic livestock grazing use must be reduced or removed where there is any conflict with sage-grouse needs
  - d) The agency must include voluntary permanent retirement of domestic livestock grazing allotments as a mitigation measure for negative impacts on sage-grouse habitat.
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**Comment Number:** IDMTSG-14-0056-15

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Comment Excerpt Text:**

Targeted grazing authorizations should not be restricted to the mandatory terms and conditions of an existing grazing permit. (D-FM-6, page 2-125) The vast majority of all grazing permits do not contain the flexibility needed in terms and conditions to implement an effective fuels management strategy.

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**Comment Number:** IDMTSG-14-0056-20

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Comment Excerpt Text:**

- As indicated within the general discussion, priority for completing allotment assessments and implementing

management changes must be given to allotments within areas with declining sage grouse population levels. (E-LG/RM-4, page 2-135 and 2-136) A cause and effect relationship must be established (E-LG/RM-6, page 2-137) prior to implementing any management changes and the changes (D-LG/RM-6, page 2-137) must be tailored to address a specifically identified and confirmed problem.

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**Comment Number:** IDMTSG-14-0056-23

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

• Any selected alternative needs to contain language allowing for off-road travel for administrative use by grazing permit holders. Travel restrictions should not impact the ability of permittees to access and manage allotments.

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**Comment Number:** IDMTSG-14-0056-4

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Other Sections:** 6

**Comment Excerpt Text:**

Given the benefits shown above, any alternative that arbitrarily reduces, eliminates or allows retirement of livestock grazing AUMs is contradictory to the goal of long-term sage grouse conservation. In addition, there is statutory evidence and case law, that the BLM is overstepping its bounds in the DEIS by suggesting that grazing permits may be terminated permanently. The BLM is authorized to decrease or temporarily discontinue grazing through a decision process, but the Taylor Grazing Act and Federal Land Policy Management Act mandate that forage resources on grazing districts, if deemed healthy, are to be made available for livestock grazing. Eliminating grazing on public land will also result in reduced or eliminated grazing on intermingled state land and a subsequent decline in funding available to the endowed institutions of the state.

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**Comment Number:** IDMTSG-14-0102-9

**Organization1:** NRCS

**Commenter1:** Pamela Dugan

**Comment Excerpt Text:**

NRCS encourages inclusion of Management Action 0-LG/RM-3 on page 2-135, "Work cooperatively with other land managers to allow livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat" in the proposed action in the Final EIS. We are interested in working with BLM, USFS, livestock producers, and others on integrated ranch planning to manage grazing and improve sage-grouse habitat across all landownerships. We believe that sage-grouse populations can best be managed and improved at the landscape scale with all parties working together in a coordinated and cooperative manner.

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**Comment Number:** IDMTSG-14-0105-17

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

Page 2-137 D-LG/RM-7: PPMA: Considering retiring an allotment is not an option in Owyhee County. Retiring an allotment impacts more than the permittee. There are major economic and social considerations to be considered.



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**Comment Number:** IDMTSG-14-0105-19

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Vo12, Page 2-190: Alternative D and E - Livestock Grazing

Alternative D predicts a reduction in grazing opportunity due to implementation of management to achieve GRSG objectives. The basis for such prediction is not revealed and is not consistent with the US Fish and Wildlife Services failure to find any conclusion that livestock grazing was a direct contributor to habitat loss.

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**Comment Number:** IDMTSG-14-0151-13

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

BLM rightly fulfilled its legal obligation to consider a no-grazing option. It also included a reduced-grazing alternative that would have reduced grazing by 25%. However, Alternative F was sketchy and unclear because the DEIS did not outline how the reductions in grazing would be accomplished; which allotments would be closed, when, and for how long; how BLM would decide those things; or any other specifics of the plan. Obviously, affected permittees would have wanted explicit answers to all of those concerns and many more. Thus, ultimately, like the no-grazing alternative, it was clearly not meant to be seriously considered by BLM, or it would have been analyzed in much more detailed. In reality, this is not a reduced grazing alternative, because it maintains livestock at levels close to actual use. BLM should have included alternatives that significantly reduced livestock grazing. BLM should have included alternatives that applied specific mandatory measurable use criteria to conserve sage-grouse habitats and populations, along with reductions in livestock numbers. Very importantly, BLM should have considered an alternative that conducted a capability and suitability-type analysis of grazing conflicts with sage-grouse needs, and acted to remove a grazing allocation from lands with a high degree of conflict, and apply mandatory measurable conservative use periods, and avoid breeding period and winter use in sage-grouse habitats in any lands where grazing might continue.

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**Comment Number:** IDMTSG-14-0151-15

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The DEIS is not explicit about its timeframe for allotment NEPA analyses. Given the agencies' frequent and repeated use of the renewal rider, the site-specific planning might not happen for ten, twenty, or more years. Where BLM has recently renewed a permit, it won't come around again for at least ten years, and that is under the best case scenario where BLM actually conducts timely NEPA according to a schedule, something it has never demonstrably achieved. To demonstrate the likelihood and timeliness of any proposed actions to protect sage-grouse, the BLM should have included a spreadsheet of the permit expirations for all allotments in the planning area and the date when BLM planned to undertake analyses. In the meantime, BLM must apply mandatory measurable standards of use, as WWP decried in Scoping comments.

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**Comment Number:** IDMTSG-14-0151-2  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

First and foremost, BLM's DEIS has failed to recognize the serious and detrimental impact of livestock grazing on Greater sage-grouse habitat in the planning area. A good example of the level of recognition that is necessary can be found in the BLM's HiLine DRMP, released in Montana in June 2013. This document recognizes the impact of livestock grazing on naturalness, stating:

Livestock grazing has the potential to impact naturalness, the undeveloped character, and to create conflict with recreation users. Manipulation of vegetation, alteration of soils, and the presence of fecal matter would create unnatural conditions and would impact opportunities for solitude, particularly in areas where livestock congregate. Range facilities, such as fences, water troughs, and tanks have the potential to degrade wilderness characteristics by creating new developments, disturbing visual resources, and influencing wildlife migration, reproduction, and mortality (e.g., sage-grouse/fence collisions).<sup>27</sup>[HiLine Draft Resource Management Plan and Environmental Impact Statement at 671.]

Here, the DEIS fails to recognize the basic realities that livestock grazing is ecologically deleterious, economically inefficient, and socially unnecessary. Instead, the preferred alternative maintains the status quo grazing management throughout the project area without a "hard look" at the reality of grazing impacts, including impacts to native vegetation communities, soil resources, microbiotic crusts, and wildlife habitat quality and quantity

**Comment Number:** IDMTSG-14-0151-20  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The COT Report specifically stated that "Adequate monitoring of grazing strategies and their results, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and sage-grouse response are achieved." COT at 45. Specific language about monitoring of grazing should be included in the DEIS. Mandatory measurable use standards must be applied, and these must be triggers for removal of livestock from the pasture or allotment.

**Comment Number:** IDMTSG-14-0151-49  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

ID DEIS at 1-33 claims that grazing being limited or stopped is outside the scope of the EIS. That is not the case. In fact, BLM includes an alternative it constructed to remove or limit grazing to be reasonable alternatives in Idaho (see Alt C, and Alt F 25% AU reduction based on 3 years average actual use). The Oregon DEIS Preferred Alternative would eliminate grazing on 100,000 acres between Hart Mountain and Steens. Idaho BLM failed to take a hard look at removal of livestock from significant habitat areas for sage-grouse needed to protect sage-grouse habitats and populations

**Comment Number:** IDMTSG-14-0151-51  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM chose to analyze a No Grazing alternative (it appears that BLM interpreted WWP's alternative to mean No Grazing). We described the need for BLM to look at the magnitude of threats that grazing posed so that grazing disturbance could be removed from particular high risk areas. In areas where grazing disturbance continued to be imposed after a fair analysis – we requested agencies consider conservative measurable use standards and triggers for livestock removal from pastures or allotments as standards were met; seasonal avoidance of grazing disturbance to sage-grouse breeding habitats, and other basic conservation measures. We knew BLM would never choose a full No Grazing alternative, All of these components are absent from the DEIS and its analysis.

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**Comment Number:** IDMTSG-14-0151-52

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Thus, BLM cannot both analyze a No Grazing alternative – and at the same time under Planning Criteria claim it cannot address allocations. Further, DEIS at 1-35 states that BLM will consider habitat. These are missing from the DEIS in regards to grazing. A valid rationale and analysis of why there are no clear, measurable use standards and strong action requirements related to grazing disturbance are missing from the DEIS. There are no concrete regulatory controls on livestock grazing disturbance in the DEIS.

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**Comment Number:** IDMTSG-14-0151-6

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The paper “A Blueprint for Sage-grouse Conservation and Recovery (Braun 2006) states “if livestock grazing is permitted on public rangelands, it is to not exceed 25-30% utilization of herbaceous forage each year. Grazing should not be allowed until after 20 June and all livestock should be removed by 1 August with a goal of leaving at least 70% of the herbaceous production each year to form residual cover to benefit sage-grouse nesting the following spring.” The DRMPA/DEIS does not adopt any such meaningful management parameters. WWP's Scoping comments described why, on the very depleted and cheatgrass-vulnerable Idaho lands, a much lower level of 10-15% should be applied to any areas that continue to be grazed.

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**Comment Number:** IDMTSG-14-0151-63

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Old Land Use Plans with 50% utilization are outdated and ineffective at maintaining ecological condition. See Manier et al. 2013. BLM must amend plans to have much more protective measurable use standards, as Terms and Conditions of grazing permits. See WWP Alt, see Braun Blueprint. Given the rate at which cheatgrass is advancing in the Bruneau as Simplot and the hand full of other permittee cattle herds, use and disturbance levels much lower the Blueprint are needed. See Peterson 2006 and mapping, also Great Basin Rapid Ecological Assessment, and cheatgrass layer that extends into Idaho, but is not portrayed in the Idaho DEIS

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**Comment Number:** IDMTSG-14-0151-64

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Further, utilization standards must be applied to the array of native forage species. As described in the Catlin 2013 report on cd, in depleted landscapes, BLM's range monitoring methods result in focus only on some larger grass species.

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**Comment Number:** IDMTSG-14-0151-65

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

It is also necessary for biologists developing measurable use standards to understand that the agency method relies not on total plant height, but plant biomass. So 40% or 50% utilization typically results in a very short residual cover or stubble height (less than 4 inches) on nearly all native species. See Forest Service utilization gauge on cd. This supports WWP's alternative suggestion of 10% utilization, especially on the characteristically depleted sagebrush habitats across much of the species range.

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**Comment Number:** IDMTSG-14-0151-74

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

BLM states under Alt F that it will "reduce authorized grazing by 25% within occupied habitat". What is the current "authorized grazing" in each of the habitat categories? DEIS at 4-65 describes "applying a 25 percent reduction to the three-year average billed use". Does billed use differ from actual use? How have agencies been verifying actual use is accurately reported?

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**Comment Number:** IDMTSG-14-0153-37

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

We applaud the grazing response to drought measures from Alternative D, which requires adjusting grazing management to provide adequate food and cover for sage grouse during drought. But greater specificity is needed here regarding how stocking rates will be adjusted.

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**Comment Number:** IDMTSG-14-0153-48

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

In addition to these standards, for sage grouse Priority and General Habitats there should be a decision procedure and actions described below, depending on habitat conditions.

1. Assess which lands meet the Connelly et al. (2000) guidelines both in riparian areas and upland areas in Table 3. Include the conservation community and grazers in this assessment.

2. For those not meeting these guidelines, determine that the allotment does not meet rangeland health standards. To meet these standards, the sagebrush community must meet or exceed the height and percent canopy cover percents for sagebrush, native grasses, and forbs in Table 3 (Connelly et al. 2000).
3. Change grazing use as necessary so that upland and riparian areas have a positive 2 or better Grazing Response Index (GRI) score for allotments not meeting standards.
4. For allotments that meet standards, insure grazing practices produce a "0" or plus net GRI score.
5. In sage grouse nesting areas, do not allow grazing until after the 20th of June (Braun 2006).
6. During permit renewal, inventory the amount of forage produced in the allotment, assess the allotment ecological conditions, and document past grazing use. As a part of permit renewal, conduct a range capacity analysis to assess the stocking rate for the allotment. Stocking levels for allotments that meet standards should lead to less than 25% utilization (Braun 2006) and for allotments not meeting standards, less than 15% utilization.
7. For allotments not meeting the rangeland health standards, prohibit grazing during a severe or worse droughts as defined by the national drought monitor.
8. For allotments that meet the standards, reduce grazing use prior to a drought to utilization levels less than 10-15% utilization for forage expected during the drought.
9. In sage grouse habitats, produce an annual end-of-season report for each allotment. This report should note the planned grazing use for the season, note the grazing use that occurred, report the results of any monitoring, document precipitation/drought information, describe any projects completed, and note successes or problems encountered. These should include conservation community and grazer information and be posted on the web.

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**Comment Number:** IDMTSG-14-0153-49

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Furthermore, we recommend that BLM should include a provision to retire livestock grazing allotments on a willing-permittee basis when they come up for renewal under all alternatives, as is included under all alternatives in the BLM's South Dakota RMP Draft EIS. The requirement that surrendered allotments become part of a grass bank is bad policy for sage grouse conservation, as grass banks will almost always be grazed. Allowing retired allotments to be purchased and taken out of service is a far preferable outcome for grouse.

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**Comment Number:** IDMTSG-14-0153-50

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

Placing salt blocks in upland areas is not an effective means of drawing cattle use away from riparian areas.

Bryant (1982:784) found that salt placement and alternate water sources did not influence cattle preference for riparian habitats, and came to the following conclusion: “These cattle used the salt when convenient but did not alter behavior patterns to obtain it.” Thus, the BLM should not rely on the placement of salt blocks as a means to draw livestock away from riparian habitats.

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**Comment Number:** IDMTSG-14-0157-15

**Organization1:**Y-3 II Ranch

**Commenter1:**Christopher Clark

**Comment Excerpt Text:**

The FEIS should explain why, with the vast array of regulatory mechanisms for both BLM and Forest Service lands and the ability of the agencies to adapt use to existing habitat conditions, an assumption would be made that these mechanisms are inadequate so that a listing of the species would result.

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**Comment Number:** IDMTSG-14-0166-6

**Organization1:**Center for Biological Diversity

**Commenter1:**Randi Spivak

**Comment Excerpt Text:**

Alternative D also proposes to “conduct” land health assessments “where possible” at the watershed or meaningful landscape-scale beginning in the PPMA. This language is vague, as it does not provide a timeline or scale of implementation, or any assurance that it will actually occur. However, land health assessments are critical to understanding where grazing has degraded sage-grouse habitats and what management strategies are necessary to restore the habitat. Thus Alternative D provides an inadequate land health assessment process.

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**Comment Number:** IDMTSG-14-0169-20

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The plan should limit grazing utilization to 25 percent annually on uplands, meadows, flood plains and riparian habitat.**

Decades of livestock grazing have altered plant communities and soil and reduced productivity in sagebrush steppe (Knick et al. 2003; West 1983). Impacts attributable to historic or heavy grazing in sage-grouse habitat have not been remedied because plant communities are still not given rest from grazing, even under ecologically oriented grazing schemes (Connelly et al. 2004: 7-30 – 7-31, citing others). Furthermore, the water developments have increased the area that can be grazed, increasing the distribution and often the intensity of grazing, so that even where livestock numbers have been reduced, they still exert a significant influence on those habitats (Connelly et al. 2004: 7-33). The BLM has also identified continued problems associated with “historic overgrazing” (e.g., NW Colorado: 512) and many areas still do not exhibit habitat characteristics preferred by sage-grouse.

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**Comment Number:** IDMTSG-14-0169-21

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Limiting grazing is recommended to support rangeland restoration (Van Poolen and Lacey 1979, defining light utilization as 20-40 percent utilization of annual forage production by weight; Holecheck et al. 1999, defining light-moderate utilization as 30-35 percent utilization). Holechek et al. (2010: 290), citing Gregg et al. (1994) and Sveum et al. (1998), noted that grazing must be kept at conservative levels (25 to 35 percent use) "for high nesting success by sage-grouse." Braun (2006, unpublished) similarly recommended limiting grazing use to 25-30 percent utilization.

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**Comment Number:** IDMTSG-14-0169-23

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The plan should require that livestock grazing maintain = 18 cm grass height in sage-grouse nesting and brood-rearing habitat.**

It is unclear if the preferred alternative would require that livestock grazing maintain a minimum grass height in sage-grouse nesting and brood-rearing habitats (see Table 1). The loss and degradation of nesting and brood-rearing habitats, which leads to reduced nesting success and increased chick mortality, appears to be a primary cause of declining sage-grouse populations rangewide (see Aldridge and Boyce 2007; Holloran et al. 2005, review of the literature). The final Idaho/SW Montana plan should explicitly require that livestock grazing maintain = 18 cm grass height in sage-grouse nesting and brood-rearing that are critical to sage-grouse reproduction.

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**Comment Number:** IDMTSG-14-0169-29

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 6

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The BLM should reconsider whether sage-grouse habitat is “chiefly valuable” for livestock grazing.**

Most grazing on BLM lands occurs within grazing districts established by the Taylor Grazing Act of 1934 (43 U.S.C. § 315). The act required the Secretary of Interior to determine that lands within grazing districts were “chiefly valuable” for livestock grazing (43 U.S.C. § 315). However, the Secretary can also separately conclude that any lands within grazing districts are “more valuable or suitable for any other use than for [grazing]” (43 U.S.C. § 315f). To meet the purpose and need of the National Greater Sage-Grouse Planning Strategy (76 Fed. Reg. 77009) and the draft Idaho/SW Montana plan (ES-4), the Secretary should, as part of the current planning process, reconsider whether sage-grouse habitat, or a subset of extant habitat (e.g., priority habitat), in grazing districts is still “chiefly valuable” for grazing as opposed to other priorities, such as sage-grouse conservation. The Secretary can adjust boundaries of grazing districts to exclude grazing where it may continue to harm the species.

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**Comment Number:** IDMTSG-14-0169-30

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The plan should facilitate voluntary grazing permit**

**retirement in sage-grouse range.**

The preferred alternative would facilitate voluntary grazing permit retirement in sage-grouse habitat, although grazing allotments offered for retirement could be converted to forage reserves for grazing use during fire rehabilitation or restoration efforts elsewhere, “when such actions are determined to result in a net benefit to [sage-grouse] habitat...” (vol 2, 2-137, Table 2-18, D-LG/RM-7). Permitting grazing use on closed allotments would likely reduce its value to sage-grouse. The preferred alternative should simply close allotments offered for retirement.

**Comment Number:** IDMTSG-14-0169-31

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Two other alternatives in the draft plan, Alternative B (NTT report) and Alternative F (conservation organizations) would also allow for voluntary grazing permit retirement, but only in priority habitat (vol 2, 2-137, Table 2-18, D-LG/RM-7, F-LG/RM-7). It is inexplicable why the conservation alternative would limit grazing permit retirement to priority habitat. The Sage-Grouse Recovery Alternative, the basis for Alternative F, does not limit permit retirement to priority habitat, and neither should Alternative F.

**Comment Number:** IDMTSG-14-0169-32

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 3

**Comment Excerpt Text:**

The voluntary grazing permit retirement provisions in Alternatives B and F also require that land managers “[a]nalyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals” (vol 2, 2-137, Table 2-18, D-LG/RM-7, F-LG/RM-7). While this provision was included in the NTT report and could rightly be included in Alternative B, it was not included in the Sage-Grouse Recovery Alternative. (It is interesting that the stipulation is also not included in the preferred alternative). We request that this stipulation be removed from Alternative F and not be added to the preferred alternative. Alternatively, if this provision is included in either alternative, we request that planners also be required to analyze the beneficial impacts of eliminating livestock grazing in sage-grouse habitat on sage-grouse ecology; native vegetation, including species composition and structure; biological crusts and soil retention; restoration and resiliency of riparian and upland habitats; plant and animal abundance and diversity; water infiltration, and water quality and quantity; and climate change

**Comment Number:** IDMTSG-14-0169-45

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

For range management, sage-grouse habitat objectives should be based on, in priority order, potential natural community within the applicable Ecological Site Description, Connelly et al. (2000: 977, Table 3), or other objectives that have been demonstrated to be associated with increasing sage-grouse populations. Utilization levels should not exceed 25 percent annually on uplands, meadows, flood plains and riparian habitat (Holecheck et al. 2010 and others). Habitat objectives should be applied to all sage-grouse habitat areas.

**Comment Number:** IDMTSG-14-0169-46



**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Management plans should include three specific conservation measures:

1. Grazing should maintain = 18 cm grass height in nesting and brood-rearing-rearing habitat (Connelly et al. 2000; Braun et al. 2005).
2. Livestock grazing should be restricted where cheatgrass (*Bromus tectorum*) occurs in sagebrush steppe to avoid contributing further to its incursion on the landscape (Reisner et al. 2013).
3. Grazing permit retirement should be prioritized in sage-grouse habitat.

**Comment Number:** IDMTSG-14-0178-1

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Most of the alternatives in the Draft would result in reduced grazing. Reducing livestock numbers is not effective as a mitigation strategy, and would in fact be detrimental to sage grouse habitat and, ultimately, sage grouse numbers. Grazing should be used to reduce the risk of catastrophic wildfire, improve forage, remove invasive species and provide open space. Stability in grazing management allows ranches to maintain intact and prevents urbanization and fragmentation of sage grouse habitat.

**Comment Number:** IDMTSG-14-0178-10

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

[This comment refers to Alternative D] We are particularly concerned with the use of standards that will be prescribed as a result of Table 2-8, in particular, the 7” stubble height. Annual variations, landscape variations, the technical intricacies of measuring stubble height, and other limitations would make this standard a counterproductive way to address nesting cover. The LUPA/DEIS does not identify when residual cover measurements should be taken, nor do they identify that different standards apply at different times. The Connelly reference for 7 inches is to be used post hatch, not at nest-initiation. Consequently, these measurements would need to occur at the end of the growing season, allowing regrowth from fall. Research indicates that residual heights of 3.5-3.9 inches are adequate prior to nesting (Hausleitner, 2005) Therefore, if measurements are taken of residual height in the fall or just prior to nesting this standard should be applied instead of the 7 inch standard. The difference and the time of the monitoring is critical to accurately determining the health of the range in relation to sage grouse needs.

**Comment Number:** IDMTSG-14-0178-11

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Our concerns related to, what we believe to be, the arbitrary reduction of grazing on BLM/FS lands as described above are carried into Alternative D. This co-preferred alternative assumes “moderate decline in permitted grazing,” (2-190). However, the structure of the LUPA/DEIS makes it very difficult to conduct a detailed assessment of what will precipitate or justify those predetermined grazing cuts.

**Comment Number:** IDMTSG-14-0178-12

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

[This comment refers to Alternative D] Though Table 2-8 provides useful guidelines in the conservation of the species, it is essential that it is applied appropriately as intended by the author. Both reality and sound science show that only by use of the continued proper grazing management tool can the goals of this table be met. These habitat characteristics are listed in table form, yet the alternative is silent on ensuring that any conservation measures, allocations or prescriptions (Management Actions), to be imposed for any particular use will be predicated upon existing vegetation and be within the ecological potential of the site. That is, BLM should not impose grazing restrictions based on herbaceous cover needed for nesting when there is not any existing sagebrush within the area in question; or BLM cannot mandate a particular residual grass cover height if the existing grasses do not have the potential to grow to the prescribed residual height and/or the prescribed grass heights are not within the ecological potential of the area in question. Arbitrarily mandating specific Required Design Features (RDF's) or Best Management Practices (BMP's) at a land use planning level is unacceptable. These items should only be considered as a "tool box" to be used at the activity plan level and then only used after an impact assessment has been made. This will avoid indiscriminant and unnecessary restrictions on land uses.

**Comment Number:** IDMTSG-14-0178-2

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

We cannot agree with the generalized statement on 2-21 that "there are currently no science-based studies that demonstrate that increased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution." We are troubled that this attitude, that grazing use is a negative impact and that no evidence to the contrary exists, seems to pervade the Draft. Particularly in regards to fuels management and invasive species control, flexibility in managing livestock numbers can, and should, be utilized as an invaluable tool. Authorized grazing on public lands has decreased steadily over the past several years, which has also coincided with increased fire prevalence in Idaho and down trending sage grouse populations. It is unrealistic to state that there is not room for increasing grazing given these facts. Furthermore, there are multiple studies which indicate the benefits of livestock grazing. Where livestock grazing has been reduced, arbitrarily in many circumstances, it is inaccurate for this LUPA/DEIS to imply that increased grazing would not benefit sage grouse nor its habitat. Please see below and refer to Attachment 1 for a detailed list of scientific studies that show the benefits of grazing in sage grouse habitat.

The following points and references further delineate the benefit of grazing on public lands.

- The western ecosystem evolved with large-herbivore grazing, and losing public lands grazing would severely damage ecological balance (Burkhardt, 1995).
- Improving range science and management practices are bettering the condition of the range (CAST, 1996). Ranching on both public and private land "has been found to support biodiversity that is of conservation concern" (Knight, 2007). Areas with flourishing and diverse plant and wildlife populations are often found in their present state because of, and not despite, the practice of grazing (NRCS, 2004).
- Grazing improves greater sage-grouse habitat by increasing the quality and accessibility of forbs for sage grouse (Neel 1980, Derner et al.1994, Evans 1986). Grazing stimulates plant and root growth and allows sunlight to get through to the growth points. Hoof movements soften the hardened earth so that seeds can germinate and grow and water can penetrate (Savory, 2010).
- Livestock grazing can reduce and modify fuel loads in a way that decreases the potential spread and extent of wildfires (Diamond et al. 2009). Ranchers are often first responders to wildfire, and grazing greatly reduces

the risk of catastrophic wildfire (Davies, 2010). (See details below)

- Grazing can also be used to control invasive weeds (Olson and Lacey 1994, Walker et al.1994). (See details below)
- Grazing with appropriate range improvements can be utilized in some areas to improve greater sage-grouse habitat to mitigate for the disturbance caused by other multiple-use activities, such as mineral development.
- Ranchers' water improvements provide habitat where none existed before (Marty, 2006).
- Grazing makes productive use of a renewable, otherwise unusable resource—grasses and shrubs out on the range—turning them into a high quality source of protein and fiber for a growing population. This is particularly significant given the fact that thousands of acres of open space are lost in the United States each day (USDA Forest Service, 2006).
- Reduced grazing on federal lands will result in greater grazing pressure on private lands which typically provide the best sage grouse habitat. The net effect of reducing livestock on federal lands is negative for sage grouse.

It should not be overlooked that, only through continued grazing use, ranchers and land managers have the ability to manage range conditions that sage grouse thrive in. According to the Natural Resources Conservation Service (NRCS), grazing “has been responsible for retaining expansive tracts of sagebrush-dominated rangeland from conversion to cropland” and can “stimulate growth of grasses and forbs, and thus livestock can be used to manipulate the plant community toward a desired condition.”

**Comment Number:** IDMTSG-14-0178-9

**Organization:** Idaho Cattle Association

**Commenter:** Karen Williams

**Other Sections:** 6

**Comment Excerpt Text:**

Alternative C “focuses on the complete removal of livestock grazing from all occupied sage grouse habitat...” (ES-15, 2-64) while Alternative F “focuses on restrictions...” (ES-16). For the reasons described above in the “Benefits of Livestock Grazing” section, these alternatives will prove to be disastrous to both the environment and the economy of the planning area.

Given the benefits shown above, any alternative that arbitrarily reduces, eliminates or allows retirement of livestock grazing AUMs is contradictory to the goal of long-term sage grouse conservation. In addition, there is statutory evidence and case law, that the BLM is overstepping its bounds in the LUPA/DEIS by suggesting that grazing permits may be terminated permanently. The BLM is authorized to decrease or temporarily discontinue grazing through a decision process, but the Taylor Grazing Act and Federal Land Policy Management Act (FLPMA) mandate that forage resources on grazing districts, if deemed healthy, are to be made available for livestock grazing.

**Comment Number:** IDMTSG-14-0179-13

**Organization:** Idaho Conservation League

**Commenter:** John Robison

**Comment Excerpt Text:**

it is critical for the BLM, Forest Service and State to better describe the regulatory mechanism for monitoring range conditions including forbs, hiding cover, riparian conditions and upland conditions. In addition, the condition of nesting and brood rearing habitats needs to be monitored. Waiting until a sage-grouse population is in decline over a broad area would appear to be too late to start reviewing range conditions and grazing practices. It is better to make several small course corrections over time than to abruptly attempt to change course. If a trigger is tripped and grazing is determined to be a primary cause, it is also unclear whether

grazing would suspended until conditions improve, or just slightly altered until there is an upward trend and an undetermined timeline for meeting objectives.

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**Comment Number:** IDMTSG-14-0180-29

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

There are several similarities and consistencies between Alternative D and Alternative E for grazing. However, the most important distinction between the two alternatives is that Alternative D does not provide certainty of implementation. Instead, Alternative D and the measures pulled from Alternative B merely provide best management practice suggestions, with no mechanism to ensure that they will be implemented. Further discussion of these similarities and differences can be found in comments submitted by the Idaho Department of Agriculture.

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**Comment Number:** IDMTSG-14-0186-12

**Organization1:**Intermountain Range Consultants

**Commenter1:**Bob Schweigert

**Comment Excerpt Text:**

Page 2-21 [91]. The DEIS states that “There are currently no science-based studies that demonstrate that increased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution.” While this is true in terms of increases beyond Permitted Use, the document also cites Davies et al 2010, who noted that moderately grazed areas did help reduce the threat (severity, etc.) of wildfire over areas that were not grazed. Further, it is equally true that there are currently no science-based studies that demonstrate that decreased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution.

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**Comment Number:** IDMTSG-14-0186-23

**Organization1:**Intermountain Range Consultants

**Commenter1:**Bob Schweigert

**Comment Excerpt Text:**

Page 2-137 [207]. D-LG/RM-7. I do not believe the law, including the TGA, provide for “retiring an allotment.” To the extent that this notion is “adopted from Idaho State Plan, p 4.64), such “adoption” is irrelevant to federal law and regulation.

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**Comment Number:** IDMTSG-14-0201-3

**Organization1:**Wild Earth Guardians

**Commenter1:**

**Comment Excerpt Text:**

Livestock grazing should be managed to leave behind sufficient grass at least 7 inches high--to provide adequate hiding cover in sage grouse nesting areas, and to prevent the degradation of springs and watercourse habitats needed by sage grouse to raise their chicks;

**Comment Number:** IDMTSG-14-0206-30

**Organization1:**The Nature Conservancy

**Commenter1:**William Whelan

**Comment Excerpt Text:**

Not every failure to meet sage grouse objectives on an allotment necessarily will lead to a change in grazing management. Two situations stand out. First, some areas lack the ecological potential to meet the objectives. These areas have passed an ecological threshold – typically conversion to annual grasslands – that makes it impractical to restore a vegetation community composed of sagebrush and native grasses and forbs. In these areas, other resource management objectives should guide decisions on grazing management. Second, current grazing is not always a causal contributor to the failure to meet the habitat objectives. Current grazing should not be blamed where it does not contribute to the failure to meet habitat objectives

**Comment Number:** IDMTSG-14-0215-3

**Organization1:**Prairie Falcon Audubon

**Commenter1:**Julie Randell

**Comment Excerpt Text:**

Alternatives should include enforceable terms and conditions for livestock grazing in all sage-grouse habitat;

- New measures to be implemented immediately, not years or decades from now during permit renewals.
- Grazing use removed where there is conflict with sage-grouse needs.
- Permanent retirement of grazing allotments as a mitigation measure for negative impacts on sage-grouse habitat

**Comment Number:** IDMTSG-14-0216-1

**Organization1:**Public Lands Council/National Cattlemen's Beef Association

**Commenter1:**Marci L. Schlup

**Comment Excerpt Text:**

In the RMPA/EIS, the BLM describes the purpose and need as follows: “This effort responds to the USFWS’s 2010 Finding which identified inadequacy of regulatory mechanisms as a significant threat.” RMPA/EIS at 1-11. “Changes in management of GRSG habitats are necessary to avoid the continued decline of populations that are anticipated across the species’ range.” RMPA/EIS at 1-11. Put most simply in the federal register notice of intent, the core purpose of the RMPAs is to “avoid a potential listing under the Endangered Species Act.” 76 FR 77009. As applied to livestock grazing and range management, the BLM’s statement of the purpose and need is inaccurate and misleading because the FWS never found, nor has the BLM found, that existing regulatory mechanisms applicable to livestock grazing and range management pose a threat to sage grouse habitat or populations, much less that changes in such regulatory mechanisms are necessary to avoid a listing decision.

**Comment Number:** IDMTSG-14-0228-3

**Organization1:**WHE/AWHPC

**Commenter1:**Suzanne Roy

**Other Sections:** 30

**Comment Excerpt Text:**

Alternative D & E, the BLM's preferred alternatives, and Alternative E, created by the state of Idaho, allow BLM discretion in determining wild horse and grazing levels and set the stage for the reduction of AMLs or even zeroing out of HMAs. These alternatives do not address the major threats to sage grouse, specifically the massive livestock grazing that is occurring on 100% of PPH and 97% of PGH. Indeed, Alternative D envisions no change in areas open to livestock grazing, and Alternative E would actually increase the area available for livestock grazing in the planning area! This despite the fact that at least 1.9 million acres of livestock grazing allotments in in PGH and PPH are not meeting rangeland health standards.

These alternatives should be revised to include a clear description of the BLM's legal mandate to manage wild horses and burros as natural components of the public lands and a specification that grazing/AUM reductions should be borne by discretionary livestock grazing and not by wild horse and burros, which the BLM is mandated to protect.

Alternative F, which would reduce wild horse AMLs by 25% in the occupied habitat areas is not justified given the minimal overlap of wild horses with such habitat (just 3% in PPH and 1% in PGH) and the small number of wild horses (617/7,404 AUMS) vs. the massive number of livestock (2.2 million AUMs/183,000 cows [year round equivalent]).

**Comment Number:** IDMTSG-14-0242-24

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

Grazing

The COT objective is to conduct grazing management in a manner consistent with local ecological conditions that maintains or restores healthy sagebrush shrub and native perennial grass and forb communities and conserves the essential habitat components for sage-grouse (e.g., shrub cover, nesting cover). Additionally, the COT recommends restoration of areas which do not currently meet this standard. Both Alternative D and Alternative E provide measures that currently meet the COT objectives for grazing management.

**Comment Number:** IDMTSG-14-0242-26

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

Range Management Structures

The COT objective is to avoid or reduce the impact of range management structures on sage-grouse. Both Alternative D and Alternative E propose to implement conservation measures that meet the COT objective

**Comment Number:** IDMTSG-14-0242-27

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:**

Fences

The COT objective is to minimize the impact offences on GRSG populations. Both Alternative D and Alternative E propose to implement conservation measures that meet the COT objective

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**Comment Number:** IDMTSG-14-0311-1

**Organization1:** Sagebrush Habitat Conservation Fund

**Commenter1:** Michael Brennan

**Comment Excerpt Text:**

That cooperation will be greatly enhanced and promoted if the following language is adopted as part of the selected alternative in the Record of Decision for this SEIS for Greater sage-grouse:

"Where grazing privileges in Greater Sage-grouse habitat are lost, relinquished, or canceled, or are associated with base properties that are sold without the prior transfer of such privileges, the AUMS making up such privileges shall not be reissued for grazing use but shall instead be held for watershed protection and wildlife habitat purposes."

The Fund recommends and requests that this language be incorporated into the final SEIS for greater sage-grouse for Idaho and Southwest Montana.

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**Comment Number:** IDMTSG-14-0325-14

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

LIVESTOCK GRAZING [This comment corresponds to the headings in Table 2-17 and Table 2-18]

C-LG/RM-1 proposes that no grazing be allowed in occupied GRSG habitat. It has not been conclusively shown that removing grazing results in stabilization of or increase in GRSG populations. It has been shown that certain grazing practices can have a net-positive effect on GRSG habitat. Further, it would be onerous if not impossible to determine what habitat is occupied and what is not.

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**Comment Number:** IDMTSG-14-0325-15

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

F-LG/RM-1 proposes a 25% reduction in grazing. It has not been conclusively show that removing grazing results in stabilization of or increase in GRSG populations. It has been shown that certain grazing practices can have a net-positive effect on GRSG habitat (USGS).

C-LG/RM-1 and F-LG/RM-1 should not be considered for inclusion in any LUPA.

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**Comment Number:** IDMTSG-14-0325-18

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

### Range Improvements.

Alternatives B-F require that range improvements conserve, enhance and restore GRSG habitat. Most range improvements are not intended to benefit GRSG or GRSG habitat. They are intended to provide a grazing function, such as cattle containment, supplemental feed distribution or water supply. None of these Alternatives contain adequate standards to clearly determine if a proposed improvement fulfills these requirements. Without clear and quantifiable standards, it will be essentially impossible to demonstrate compliance.

It has not been demonstrated that rangeland improvements constitute a significant threat to GRSG or its habitat. Rangeland improvements have not resulted insignificant habitat loss.

Inclusion of these management actions will provide no significant benefit while severely limiting or eliminating compatible land uses.

### *Summary*

Multiple commenters requested that the alternatives require closure of voluntarily relinquished allotments. Commenters questioned why changes to grazing management are needed when livestock grazing is not listed as a primary threat to GRSG. More than one commenter noted that grazing should only be restricted where it can be shown that grazing is directly related to the failure to meet GRSG habitat objectives. Additionally, commenters stated that the DEIS failed to consider increased grazing and question the rationale behind this decision. Some commenters also requested additional consideration of reduced grazing levels and utilization levels, as well as temporary or permanent closure of all or some GRSG habitat to grazing.

Several commenters requested that the LUPA/EIS provide specifics regarding habitat assessments schedules and application of standards, and use of ecological site descriptions, require immediate application of certain terms and condition to permits, and impose grazing restrictions for priority or general habitat

### *Response*

The ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. See response in section 4.3 NEPA Range of Alternatives of this report. The DEIS analyzed a range of alternatives including no grazing and a 25 percent reduction in grazing. Reduction in AUMs under Alternative F would be specified in site specific decisions at the permit renewal level. Language in the FEIS for Alternative F reduction has been clarified [BLM and Forest Service- need to review the language in Alt F mgmt. actions related to the 25% reduction and review related analysis. Determine if revision needed to table 4-5].

Livestock grazing is identified by USFWS as a threat to GRSG in the March 23, 2010 Federal Register Notice, and therefore it is addressed in this LUPA. Existing regulatory mechanisms, including the fundamentals for rangeland health, would continue to provide the basis for managing grazing in GRSG habitat. However, the preferred alternative would provide additional consistency in application of BLM rangeland health standards and guidelines relative to GRSG habitat, and would provide additional guidance for prioritizing land health assessments and review of grazing permits to ensure that grazing management is compatible with attainment of sage-grouse habitat objectives within the planning area. In addition, RDFs and best management practices would be adopted to reduce effects of range improvements and livestock trailing across public lands. Grazing use would be modified when it is identified as the cause for not meeting Sage Grouse objectives. The intent of the land use plan amendment is to change management under all resource programs, where necessary, to benefit Sage Grouse habitat. Standards and Guidelines assessments result in a determination of causal factors for non-achievement of any applicable standard, including standards for wildlife habitat Where livestock management is determined to be a causal factor for non-achievement of a standard, management must be



modified to conform with applicable guidelines.

The BLM is required to follow the the grazing regulations, including the decision process at 43 CFR 4160, when modifying permit or leases. Therefore, modifications to terms and conditions of permits and leases would be applied as needed during the permit renewal process.

As stated in the preferred alternative [mgmt. action #] habitat objectives would be adjusted based on site potential. Site specific requirements would be specified in NEPA for permit renewal. Language in the preferred alt. has been modified to clarify (see section X.X.X).

## **Section 16.2 - Best available information baseline data**

*Total Number of Submissions: 13*

*Total Number of Comments: 42*

**Comment Number:** IDMTSG-14-0050-2

**Organization1:**

**Commenter1:**Kathleen Gregg

### **Comment Excerpt Text:**

Decreasing or eliminating the authorized levels of privately owned domestic livestock grazing and limiting seasons of use will:

1. Prevent and limit future increases in ecological departure
2. Reduce the existing direct impacts from domestic livestock on sage-grouse and sagegrouse habitat
3. Allow the removal of fences to decrease sage-grouse/fence collision risks and mortality, and to decrease predation
4. Help reduce wildfire risks by reducing spread and establishment of invasive weeds
5. Allow recovery of meadows, and riparian areas on those allotments that failed to meet rangeland health standards
6. Allow recruitment of sage-brush in domestic livestock impacted areas
7. Ensure recovery of aspen groves
8. Protect pinyon-juniper communities

Domestic livestock grazing has at least the following major impacts and:

- Significantly Alters Plant and Animal Communities (Wagner 1978, Jones 1981, Mosconi & Hutto 1982, Szaro et al. 1985, Quinn & Wal-Genbach 1990, as cited in Fleischner, 1994) (Belsky, Matzke, Uselman, 1999) (Donahue, 1999) (Wuerthner, Matteson, 2002)
- Decreases Biodiversity (Fleischner, 1994) (Wilcove, Rothstein, Dubow, Phillips, Losos, 1998) (Belsky, Matzke, Uselman, 1999) (Wuerthner, Matteson, 2002)
- Leads to Elimination of Native Predators (Donahue, 1999) (Wuerthner, Matteson, 2002) (GAO, 2005)
- Leads to Introduction of Invasive Plants and Diseases (Mackie 1978, Longhurst et al. 1983, Menke, Bradford 1992, as cited in Fleischner, 1994) (Wilcove, Rothstein, Dubow, Phillips, Losos, 1998) (Donahue, 1999)
- Leads to Soil Compaction and Accelerated Erosion (Fleischner, 1994) (Belsky, Matzke, Uselman, 1999) (Donahue, 1999) (Wuerthner, Matteson, 2002)
- Leads to Hydrologic Disruption and Contamination (Fleischner, 1994) (Belsky, Matzke, Uselman, 1999) (Wuerthner, Matteson, 2002)

- Leads to Habitat Destruction (Fleischner, 1994) (Wilcove, Rothstein, Dubow, Phillips, Losos, 1998) (Belsky, Matzke, Uselman, 1999) (Donahue, 1999) (Wuerthner, Matteson, 2002)

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**Comment Number:** IDMTSG-14-0050-3

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

In addition, the Appendix "K" "Livestock Grazing (Table K-1) data does not provide any date(s) that the rangeland health categories were assigned. This health category must be current or it is valueless and could possibly be considered purposeful deception by the BLM and USFS to the public and the decision makers. This omission error must be corrected and accurate, current data supplied and dated in order to avoid a violation of the NEPA law.

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**Comment Number:** IDMTSG-14-0105-16

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Vol2, Page 2-90-91: Tables 2-14,2-15, & 2-16. Habitat Characteristics

The habitat descriptions do not address the potential for the presence of most desired insect populations that benefit brood rearing within brood rearing habitat. Information is now available showing that grazed areas are significantly more productive of such insects. One characteristic of habitat value should be the potential for increased desirable insect species at a given site (do grazing practices encourage population of preferred insects).

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**Comment Number:** IDMTSG-14-0105-22

**Organization1:**Owyhee County

**Commenter1:**Brook Russell

**Comment Excerpt Text:**

Pages 3-63 to 3-66 3.7.1 Conditions within the Planning Area Emergency Stabilization and Rehab ( ESR) Management actions by Alternative E. Table 2-18

This discusses Intensive livestock grazing as controlling cheatgrass competition. It states that "a sufficient number of livestock cannot be concentrated on a small enough area to reduce the cheatgrass seed. In addition, this type of grazing can be detrimental to remaining perennial grasses". It should be noted that if grazing were applied early enough, even late winter in some of the affected areas, that cheatgrass would not mature to seed level, or at least would be reduced. The perennial grasses are slower to emerge and would not be affected by the intensive grazing.

Contact herbicides such as Glyphosate and pre-emergence herbicides such as imazapic and sulfomenturon methyl are listed as being highly effective in controlling invasive annual grasses. This is true, in small areas, but when dealing with cheatgrass invasion on a landscape level, these herbicides are not cost-effective.

Pre-emergence herbicides are exactly that, they inhibit sprouting of the seeds in the ground. If you want to have the perennial grasses expand, there must be also seed in the ground to sprout and grow. Perennial

grasses that are there and rooted will not be involved, but there will be no new seeding from the plants. This was tried several years ago on Highway 78 by the Cove Recreation Area of Strike Dam. A good kill resulted, but even now there is very little grass growing and this area is susceptible to the wind and dust storms that frequent this area. The only way that pre-emergence herbicides will work is to seed with perennial grasses after the initial treatment. This has been tried several years ago on Highway 78 by the Cove Recreation Area of Strike Dam. The Air Force has had great success rate applying the herbicide imazapic at their Training Range on Saylor Creek. This particular herbicide, not only inhibits cheat grass, but encourages growth of the native grasses and Sage Brush. Again, it is not cost effective, but has good results with favorable moisture conditions. Targeted or intensive grazing is very cost effective and if the timing is correct, may help control the cheatgrass. This is ongoing research by the University of Idaho Rangeland Center. See prospectus, "Grouse and Grazing: How does spring livestock grazing influence sage-grouse populations?" December 2012. Cheat

grass is a primary threat to habitat. To not consider grazing as a viable, cost-effective management tool has not been studied enough. USDA/ARS in Nevada where the precipitation is equal or less has had significant results in reductions of cheat grass through grazing in late season.

**Comment Number:** IDMTSG-14-0130-17

**Organization1:** Simplot Livestock Co.

**Commenter1:** Chuck Jones

**Comment Excerpt Text:**

There is no published research that supports restricting or closing grazing, in areas adjacent to burns, in order to compensate for loss of habitat attributable to wildfire. (D-ESR- 5, page 2-134).

**Comment Number:** IDMTSG-14-0151-11

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Without information on existing grazing in the planning area, it is more difficult to tell whether the DEIS is really making substantive changes to benefit sage-grouse. Nowhere does the DEIS provide a thorough disclosure of existing grazing management, as required by NEPA. Specifically, failing to indicate actual recent livestock use on the cattle allotments makes the preferred alternative unclear. The DEIS should have included actual use for each allotment in the chart that lists authorized AUMs in Appendix N. Because the DEIS lacks sufficient and accurate baseline information, it lacks a barometer with which to measure the proposed actions in sage-grouse habitats.

Nowhere does the DEIS disclose the seasonality of grazing within the planning area, which prevents the reader from understanding how spring or spring-fall grazing regimes could affect sage-grouse in the planning area. It also does not provide trailing routes, pasture rotation plans, etc. It does not overlay grazing use that occurs by allotment on top of sage-grouse breeding habitats (lek, nesting, early brood rearing period), or on top of sage-grouse winter habitats.

**Comment Number:** IDMTSG-14-0151-14

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM failed to conduct a Capability and Suitability analysis to properly identify and resolve conflicts with continued livestock use. BLM failed to conduct a risk analysis to determine the risk of cheatgrass or other weed advances and irreversible habitat-altering invasions with continued livestock use, as well as with its unspecified number and kind of treatments, seedings and fuelbreaks. Similarly, BLM failed to address passive restoration and precautionary active management in any substantive way at all.

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**Comment Number:** IDMTSG-14-0151-26

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

If monitoring and habitat assessments and changes only occur as part and parcel of site-specific grazing decisions (as the DEIS repeatedly implies), the chance to “adapt” to changing conditions will be limited. In light of the agency’s own acknowledgment/assumptions about climate change affecting the habitat availability for GRSG, it would have been a reasonable alternative to include some across-the-board adaptations (lowered livestock authorizations, for example) in the DEIS.

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**Comment Number:** IDMTSG-14-0151-68

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM references using the HAF to incorporate into adaptive management. But what specific actions will be taken? What thresholds of habitat degradation will prompt specific and effective change and conservation?

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**Comment Number:** IDMTSG-14-0151-86

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:****Livestock Weight**

The BLM must clarify the weight of livestock the DEIS is using for an AUM’s or HM’s forage consumption. The NV DEIS is based on the claim that an AUM is **800 lbs.** of air-dried material per AUM. Current range analyses use, at a minimum, 1000 lbs. per AUM. This really is based on a 1980s management mindset. Plus, forage impacts of large calves must also be taken into account. The agencies must specify what forage consumption ID BLM AUMs and Forest HMs are currently being based. What forage consumption is stocking based on under all DEIS Alts.? What weight was the current allocation in the LUPs to be amended based on? If it was 800 lbs., lands will be significantly over-stocked as 1000 lbs. per AUM or more is the current agency allocation assumption, due to breeding of larger sized animals, hormones, supplements, etc.

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**Comment Number:** IDMTSG-14-0153-60

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

The failure to recognize the key role of livestock grazing in cheatgrass-wildfire dynamics (see DEIS at 4-10,

4-120) is a key ‘hard look’ problem with the Draft EIS. Livestock grazing also leads to cheatgrass invasion, as overgrazing eliminates native bunchgrasses and degrades biological soil crusts, both of which represent the ecosystem’s natural defenses against this invasive weed (Reisner et al. 2013, Attachment 18). Cheatgrass invasions, spread by livestock overgrazing, increase fire frequency to unnatural levels (D’Antonio and Vitousek 1992). By itself, livestock grazing doubles to triples the spread of cheatgrass, and fire alone increases by two to six times the spread of cheatgrass; but for any fire that occurs in an area that is grazed by domestic livestock the spread of cheatgrass is multiplied, to 10 to 20 times the rate in an ungrazed natural system in the absence of fire (Chambers et al. 2007). Once established, cheatgrass accelerates fire in sagebrush habitats to unnaturally frequent levels (Balch et al. 2013), wiping out the sagebrush that sage grouse depend on for their survival, and laying the groundwork for a cheatgrass monoculture where wildlife habitat values are completely destroyed. Thus, livestock grazing plays a key role in the spread of cheatgrass, both pre-fire in the sagebrush understory, and post-fire leading to conversion to annual grasslands. BLM states,

The cheatgrass fire cycle causes GRS habitat loss and degradation on an annual basis. Currently, there are no management actions that can effectively alter this trend.

DEIS at 4-11. This statement is erroneous, and is directly contradicted by the finding of Yeo (2005), who demonstrated that cessation of livestock grazing leads to recovery of grass cover in sagebrush ecosystems, and restoration of rangeland health. BLM’s ‘hard look’ failure in this instance leads to the result that the appropriate management actions (removal of livestock grazing entirely from cheatgrass-infested ranges, or at the very least removal of livestock from allotments that have burned for a minimum of three years) are not applied in either of the Preferred Alternatives.

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**Comment Number:** IDMTSG-14-0153-9

**Organization 1:** Wild Earth Guardians

**Commenter 1:** Erik Molvar

**Comment Excerpt Text:**

The federal agencies must pursuant to NFMA reach a determination regarding the science that is most relevant, reliable, and accurate regarding the amount of forage that needs to remain to provide sage grouse hiding cover. Connelly et al. (2000) recommended leaving residual grass cover at least 18 cm in height, available during the nesting season. This finding was empirically confirmed by Hagen et al. (2007). Gregg et al. (2012) found that forb components are critical for early brood rearing, and recommended that land managers establish standards for these. We are concerned that the BLM’s emphasis on grazing to reduce cheatgrass in some alternatives will collaterally reduce nesting cover below this critical threshold. Herman-Brunson et al. (2009) found that sage grouse nest survival decreased when residual grass cover was < 16 cm in height. According to Kaczor (2008: 26) grass height is positively correlated with nest success, and this researcher recommended, “Land managers should attempt to leave or maintain maximum grass heights [greater than or equal to] 26 cm, the inflection point for 50% nest success.” See Attachment 8, and see Kaczor et al. (2011), Attachment 9. Heath et al (1997) also found that near Farson, Wyoming, nests with taller grass heights were more successful than those with shorter heights. The agencies should implement a standard within the plan to address a measurable stubble height that must remain throughout the nesting season in grouse nesting habitat. We recommend at minimum using the 7.1-inch residual stubble height standard as recommended by Connelly et al. (2000). Attachment 10. The Forest Service should evaluate this standard and other residual stubble height standards for nesting and other habitats to determine which approach best represents the best science.

In addition, Braun (2006) recommended a maximum 25% forage utilization standard for livestock. Please review the scientific literature and make a determination regarding what percentage of available forage should

be dedicated to forage utilization for domestic livestock

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**Comment Number:** IDMTSG-14-0157-16

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Alternative B would allow livestock grazing on 10.9 million acres in Sage-grouse habitat, at least in theory. However, there are a number of restrictive provisions that undermine access to habitat, especially Preliminary Priority Management Areas ("PPMAs"). Alternative B should make crystal clear that the NTT Report's recommendation of no more than 3 percent anthropogenic disturbance does not apply to livestock grazing. Although this appears to be the case in the NTT Report itself, that report could have been more clearly written. The 3 percent cap appears to apply to "discrete anthropogenic disturbances." NTT Report at 7. Disturbances are later defined as either discrete, and covered by the 3 percent cap, or diffuse and apparently not covered by the cap. Livestock grazing is considered a diffuse disturbance. Id. at 8. However, the DEIS did not clearly state that the NTT Report's 3 percent cap is inapplicable to livestock grazing. This omission should be clearly corrected in the FEIS.

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**Comment Number:** IDMTSG-14-0157-3

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

DEIS Chapter 3, Affected Environment, discusses livestock grazing in Section 3.8. The FEIS should explain why current laws, regulations, and management are insufficient to address the need for Sage-grouse conservation without undertaking land use plan amendments of the nature proposed by the DEIS. As noted in Section 3.8, BLM must meet or ensure progress toward BLM's Standards and Guidelines for Livestock Grazing Administration that are currently required by BLM grazing regulations. The Fundamentals of Rangeland Health are found at 43 C.F.R. § 4180.1 and establish baseline requirements for the physical function and biological health of water quality and plant and animal populations or communities on the public rangelands.

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**Comment Number:** IDMTSG-14-0157-4

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

Specifically to the issue of ranching and Sage-grouse, scientists from the U.S. Department of Agriculture, the Service, and the University of Wyoming have studied effective ecosystem conservation of sagebrush plant communities. See Kirk W. Davies, et al., *Saving the Sagebrush Sea: An Ecosystem Conservation Plan for Big Sagebrush Plant Communities*, 144 Biological Conservation 2573-2584 (Nov. 2011), available at [www.sciencedirect.com/science/article/pii/S0006320711002692](http://www.sciencedirect.com/science/article/pii/S0006320711002692). The scientists recognized that livestock grazing is "nearly ubiquitous" across the sagebrush ecosystem but that its impacts vary considerably by management. Id. at 2575. The scientists also determined that moderate levels of grazing and periods of rest and/or growing season deferment do not negatively impact sagebrush plant communities and can serve to decrease the risk, size, and severity of wildfires. Id. The scientists concluded that the sagebrush ecosystem can be conserved so as to protect sagebrush-obligate species such as the Sage-grouse, sustain livestock production, maintain

ecosystem functions, and decrease the risk of catastrophic wildfires. Like the paper published in the Rangeland Ecology and Management periodical, this study concludes that well-managed livestock grazing has either a limited negative impact or beneficial impacts to sagebrush communities. !d. at 2579. Reducing incentives for ranchers to sell their base ranch property "is critical to successfully protecting remaining sagebrush communities." Id.

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**Comment Number:** IDMTSG-14-0157-5

**Organization1:**Y-3 II Ranch

**Commenter1:**Christopher Clark

**Comment Excerpt Text:**

none of the proposals within the various action alternatives adequately acknowledges that the No Action Alternative would protect Sage-grouse habitat through limitations to areas open to grazing or available animal unit months ("AUMs"), modification of grazing strategies, or changes to seasons of use, as described in the nature and types of effects that could occur under the various action alternatives. See Section 4.2.2. Y -3 II notes that the Idaho DEIS does cite to scholarly articles for the benefits of livestock grazing regarding control of noxious weed invasion, fire prevention and moderation, and prevention of habitat fragmentation. See Section 4.2.3, page 4-50. But this analysis should be expanded and included in the action alternatives.

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**Comment Number:** IDMTSG-14-0168-24

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

2-21

"There are currently no science-based studies that demonstrate that increased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution."

Comment

Please delete the statement. The same sentence occurs in the Nevada — NE California Sage-Grouse EIS. The top down, one-size-fits-all EIS template presents a less than knowledgeable view of the scientific process. To write a science-based study demonstrating that increased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution would require the researcher to study a specific number of acres in an area for a long period of time, preferably an area with few if any livestock, then increase the livestock for a long time and show positive GRSG results. That study would arguably only apply to that piece of land.

There are numerous BLM and US Forest Service studies as well as academic studies that demonstrate that allowing livestock grazing on public lands can enhance or restore native vegetation by reducing cheatgrass, which will directly enhance and restore GRSG habitat and maintain and increase GRSG abundance and distribution. Two examples include Pellant, Mike. 1996. Cheatgrass: The Invader That Won the West, Bureau of Land Management, Idaho State Office, 3380 Americana Terrace, Boise, Idaho 83706) and Field Guide for Managing Cheatgrass in the Southwest, United States Department of Agriculture Forest Service Southwestern Region TP-R3-16-4 December 2012).

Also see "Targeted Grazing: A Natural Approach to Vegetation Management and Landscape Enhancement."

(Launchbaugh 2006)

There are numerous research papers including Davies (2011) that state that though "appropriately managed grazing is critical to protecting the sagebrush ecosystem, livestock grazing per se is not a stressor threatening the sustainability of the ecosystem. Thus, cessation of livestock grazing will not conserve the sagebrush ecosystem."

**Comment Number:** IDMTSG-14-0168-28

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

3-64-3-65

"Intensive livestock grazing is often suggested for controlling cheatgrass competition. Although targeted grazing may have some applications for fuels management, it is not effective in reducing cheatgrass competition (Hempy-Mayer and Pyke 2008). During the short time when cheatgrass is highly palatable in the spring, a sufficient number of livestock cannot be concentrated on a small enough area to reduce the cheatgrass seed significantly or reduce cheatgrass seed lying on the soil surface. In addition, this type of grazing can be detrimental to remaining perennial grasses, opening the site up for further cheatgrass expansion in the future"

Comment:

As cited above, both BLM and US Forest Service have scientific publications detailing how livestock grazing successfully controls cheatgrass. For the EIS authors to ignore their own agency publications in favor Hempy et al does not meet the IQA requirements nor does it meet NEPA and CEQ guidelines for best available science.

**Comment Number:** IDMTSG-14-0169-10

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Grazing management was identified as a threat to sage-grouse by three expert panels and in recent reviews (Connelly et al. 2011b: 555-556, Tables 24.1, 24.2). Federal government scientists have suggested that "livestock grazing across the public lands of western landscapes has impacted and will continue to impact the quality of those habitats and their ability to support source populations of sagebrush bird species" (Rich et al. 2005: 592). In their study on sage-grouse in eastern Oregon, Call and Maser (1985: 3) made the following basic assumption: "[w]here there are conflicts between sage grouse and livestock on public lands, it may be essential to give priority to sage-grouse if they are to continue to exist on these areas."

**Comment Number:** IDMTSG-14-0169-11

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Livestock grazing appears to spread cheatgrass through multiple effects (Chambers 2008) and grazing is probably not effective to control cheatgrass in preparation for restoring sagebrush steppe (Hempy-Mayer and Pyke 2008). Other information suggests that there are simply not enough livestock available to graze at the preferred locations, at the preferred intensity, at the preferred times during the year, to control cheatgrass at a



landscape-level (McAdoo et al., undated, factsheet). The number of livestock and grazing intensity required to control cheatgrass would also probably have additional negative effects on native vegetation, soil, and other resources in sagebrush steppe that could outweigh any potential benefits from cheatgrass control. The removal of herbaceous perennials by grazing may increase water and nitrate availability to cheatgrass, and less perennial herbaceous cover may increase cheatgrass invasion (Chambers et al. 2007). The removal of cheatgrass by grazing may also increase cheatgrass seed production the following year (Chambers et al. 2007). Cheatgrass invasibility is lowest on sites with relatively high cover of perennial herbaceous species (Chambers et al. 2007).

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**Comment Number:** IDMTSG-14-0169-13

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 26.2

**Comment Excerpt Text:**

Cheatgrass incursion in sagebrush steppe began in the 1850s with the introduction of domestic livestock, which trampled the biological soil crust that occupied the interspaces between native vegetation (Mack 1981) and facilitated the species' spread. Intact, lichen-dominated biological soil crusts can significantly inhibit germination and root penetration of cheatgrass (Deines et al. 2007), while the presence of cheatgrass can negatively affect biological soil crust richness and cover (Ponzetti et al. 2007). Moss-dominated biological soil crusts may also effect germination of annual grasses, including cheatgrass (Serpe et al. 2006). The diversity, cover and resiliency of biological crusts are positively correlated to low abundance of cheatgrass, low level of soil disturbance and high moss cover (Ponzetti et al. 2007). Shinneman et al. (2008) discovered that herbaceous and biological soil crust cover and species richness and diversity were generally greater on ungrazed than grazed areas in semi-arid shrubsteppe in western Colorado. Reisner et al. (2013) found that livestock contribute to the spread of cheatgrass by trampling the soil crust.

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**Comment Number:** IDMTSG-14-0169-14

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

The recent proclamation by Davies et al. (2011: 3) that “livestock grazing per se is not a stressor threatening the sustainability of the [sagebrush] ecosystem” failed to consider the role of livestock grazing in altering the outcome of competitive inter actions between bunchgrasses and cheatgrass, or the role of disturbance in succession and community assembly in sagebrush steppe (see Reisner 2010).

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**Comment Number:** IDMTSG-14-0169-15

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Developing and implementing grazing systems that are positive or neutral for sage-grouse is complex (Vavra 2005) (and may be impossible). Kuipers (2004) found (weak evidence) that nesting habitat selected by sage-grouse hens, nest success and brood-rearing habitat were associated with greater canopy cover, residual grass, and forb availability, respectively, on sites that were not grazed, or only lightly grazed in spring in Wyoming. Woodward (2006) (c.f. Adams et al. 2004) confirmed some of these findings and noted that reduced grazing/light grazing and/or deferred grazing in sage-grouse nesting habitat in spring lessened impacts on shrubsteppe vegetation and reduced conflicts with sage-grouse. Aldridge et al. (2008) recommended altering grazing practices in sagebrush steppe during times of drought to conserve herbaceous vegetation for sage-grouse.

**Comment Number:** IDMTSG-14-0169-16

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Some references recommend implementing high intensity, short-duration (rotation) grazing systems to conserve prairie grouse (e.g., Lupis et al. 2006). Notwithstanding the fact that sagebrush-steppe in the Great Basin region did not evolve with herbivory by large, hooved mammals (Mack and Thompson 1982), Holechek et al. (1999) reviewed the literature and found that forage production generally did not differ between rotation grazing systems and continuous or season-long grazing. Further, Wolfe et al. (2007) noted that high intensity, short-duration livestock grazing recommended to conserve prairie grouse frequently requires more fencing, which can be negative for sage-grouse

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**Comment Number:** IDMTSG-14-0169-17

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Decades of research by range professionals provide direction to recover depleted bunchgrass communities, restore production and provide cover for sage-grouse and other wildlife species in\ upland and riparian habitats. Galt et al. (2000) and Holecheck et al. (2010) recommend 25 percent utilization to improve productivity and land health compared to higher utilization levels. To maintain adequate cover in riparian areas, U.S. Forest Service researchers determined that 24-30 percent utilization across the riparian zone will maintain 6” residual height (Clary and Webster 1989). These authors also indicated that, for riparian areas in degraded condition, as much as 15 years rest may be needed for recovery (Clary and Webster 1989).

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**Comment Number:** IDMTSG-14-0169-19

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Range scientists have determined that stocking rate rather than grazing system is the primary factor affecting rangeland production (Briske et al. 2008; Holechek et al. 1998; Van Poollen and Lacey 1979), yet agencies continue to place emphasis on water developments and increased fencing rather than addressing current forage capacity and landscape constraints. For example, cattle heavily graze riparian areas before moving on to adjacent uplands to seek forage (Pinchak et al. 1991). Deferred rotation grazing resulted in higher use of meadows and there was no correlation of upland presence of cattle with upland water developments (Gillen et al. 1984).

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**Comment Number:** IDMTSG-14-0169-22

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

While definitions of light grazing use vary, numerous references have settled on a general 25 percent harvest coefficient for allocating forage for livestock (Holechek et al. 2010: 157, citing Troxel and White 1989; Galt et al. 2000; Lacey et al. 1994; Johnson et al. 1996; White and McGinty 1997; NRCS 1997). Although this rate is more conservative than others prescribed for light grazing, it allows both forage species and livestock to maximize their productivity, allows for error in forage production estimates, accounts for the potential effects of drought, and supports multiple use values (Holechek et al. 2010). Holechek et al. (2010: 157) also noted that, because most ranchers have difficulty monitoring and measuring annual grazing utilization (and

the BLM doesn't regularly monitor and collect utilization information), use of grazing coefficients higher than 25 percent "invariably leads to land degradation...when drought occurs because of rancher reluctance [to reduce livestock numbers]." Limiting livestock grazing to 25 percent utilization would also support other sage-grouse habitat objectives, such as maintaining a minimum stubble height (see Holechek et al. 2010: 164). A case study of the Antelope Springs Allotment in southern Idaho demonstrates that ranching operations can be successful and improve sage-grouse habitat using a 20 percent utilization standard (Stuebner, Times-News, 12/29/13).

**Comment Number:** IDMTSG-14-0169-26

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

**[This comment refers specifically to Alternative D] The plan should restrict livestock grazing where cheatgrass occurs in sagebrush steppe to avoid contributing further to its incursion on the landscape.**

We commend planners for recognizing that livestock grazing is an ineffective tool for controlling cheatgrass in sagebrush steppe (vol 2, 3-64 – 3-65). The Oregon, Nevada/NE California and Utah sub-regional draft sage-grouse plans fail to recognize the futility of managing cheatgrass with livestock. Each would apply early or late season grazing to suppress cheatgrass, potentially to the detriment of sage-grouse (e.g., removal of residual grasses that are important to sage-grouse nesting success).

**Comment Number:** IDMTSG-14-0169-27

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

New research, cited in the draft Idaho/SW Montana plan, also recommends restricting livestock grazing, as appropriate, to avoid contributing further to its incursion on the landscape. Reisner et al. (2013) found that, even after controlling for other factors that may contribute to the spread of cheatgrass, there was a strong correlation between grazing effects and cheatgrass incursion. "If the goal is to conserve and restore resistance of [big sagebrush] systems, managers should consider maintaining or restoring: (i) high bunchgrass cover and structure characterized by spatially dispersed bunchgrasses and small gaps between them; (ii) a diverse assemblage of bunchgrass species to maximize competitive interactions with *B. tectorum* in time and space; and (iii) biological soil crusts to limit *B. tectorum* establishment. Passive restoration by reducing cumulative cattle grazing may be one of the most effective means of achieving these three goals" (Reisner et al. 2013: 1).

**Comment Number:** IDMTSG-14-0169-28

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 26.2

**Comment Excerpt Text:**

Although Strand and Launchbaugh (2013) is a useful review, planners should beware of its limitations. It fails to acknowledge that sagebrush systems in the Intermountain West evolved with little herbivory by large, hooved mammals and that grazing fundamentally affects ecosystem processes in sagebrush steppe. It does not acknowledge the role of biological soil crust in impeding cheatgrass incursion or the negative effects of grazing on soil crust. The review suggests that livestock removal and trampling of understory vegetation and plant litter (including in early spring) can help reduce fire fuel loads, but this could be deleterious to sage-grouse. As the draft Idaho/SW Montana plan acknowledged, "[r]esidual cover, especially grass and litter, has often been noted as essential for GRSG for concealment during nesting and brood-rearing" (vol 2,

4-8, citing Sveum et al. 1998; Kirol et al. 2012). Grazing during the dormant season, which is also recommended by Braun (2006, unpublished)

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**Comment Number:** IDMTSG-14-0169-3

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

[**This comment refers specifically to Alternative D**] Livestock grazing is considered the single most important influence on sagebrush habitats and fire regimes throughout the Intermountain West in the past 140 years (Knick et al. 2005: 68). Grazing remains the most widespread use of sagebrush steppe and almost all sagebrush habitat is managed for grazing (Connelly et al. 2004; Knick et al. 2003; Knick et al. 2011).<sup>1</sup> Livestock grazing disturbs the soil, removes native vegetation, and spreads invasive species in sagebrush steppe (Knick et al. 2005). Cattle or sheep grazing in sage-grouse nesting and brood-rearing habitat can negatively affect habitat quality; nutrition for gravid hens; clutch size; nesting success; and/or chick survival (Connelly and Braun 1997; Beck and Mitchell 2000; Barnett and Crawford 1994; Coggins 1998; Aldridge and Brigham 2003). Livestock may directly compete with sage-grouse for grasses, forbs and shrub species; trample vegetation and sage-grouse nests; disturb individual birds and cause nest abandonment (Valentine 1990; Pederson et al. 2003; Call and Maser 1985; Holloran and Anderson 2005; Coates 2007). The potential conflict between livestock grazing and sage-grouse intensifies near riparian and mesic habitats due to the importance of these areas to sage-grouse, particularly during brood-rearing and in summer. Heavy cattle grazing near springs, seeps, and riparian areas can remove grasses used for cover by grouse (Klebenow 1982). According to Call and Maser (1985:17), “rapid removal of forbs by livestock on spring or summer ranges may have a substantial adverse impact on young grouse, especially where forbs are already scarce.” Manier et al. (2013) also reviewed effects of grazing on sage-grouse habitat.

<sup>1</sup> One expert contended that the “livestock industry has had [a] more negative impact on sage-grouse than any other single factor” and “[i]t’s rare to find any place that hasn’t been grazed” Hudak (2007: 28-29).

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**Comment Number:** IDMTSG-14-0169-4

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Grazing infrastructure, such as water developments and fences, also fragment and degrade sage-grouse habitat (Connelly et al. 2004; Braun 1998; Call and Maser 1985; Knick et al. 2003). Fatal collisions with fences were “relatively common and widespread” in sage-grouse breeding habitat in southern Idaho (Stevens 2011), corroborating other evidence that fences may pose a significant risk to low flying sage-grouse (e.g., Danvir 2002, unpublished report). Fences (like other high structures) may serve as perches for raptors and other avian predators of sage-grouse nests, chicks and adults (Connelly et al. 2011b). Fence densities exceed 2 km/km<sup>2</sup> in many areas occupied by sage grouse (Knick et al. 2011).

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**Comment Number:** IDMTSG-14-0169-47

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Other intermediate and long-term adjustments may be required where grazing management is determined to be not compatible with or making progress toward achieving sage-grouse habitat objectives (vol 2, 2-137, Table 2-18, D-LG/RM-6) (no mention of Connelly et al. 2011, as in alternatives B, F).

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**Comment Number:** IDMTSG-14-0169-5

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Sagebrush steppe in the Great Basin region did not evolve with significant grazing pressure by large ungulates (Mack and Thompson 1982). Excessive grazing by domestic livestock during the late 1800s and early 1900s had significant impacts on sagebrush steppe and those effects persist today (Knick et al. 2003). Grazing (in addition to other factors) is implicated in the encroachment of conifers in sagebrush steppe, including western juniper (*Juniperus occidentalis*) (Knick et al. 2011, citing Miller and Rose 1999; Kerr and Salvo 2007, unpublished report). Decades of livestock grazing have altered plant communities and soil and reduced productivity in sagebrush steppe (Knick et al. 2003). Cattle grazed at “conservative” levels in sagebrush steppe in the northern Great Basin initially selected bunchgrasses in interspaces between sagebrush plants (France et al. 2008). The removal of native species from interspaces by cattle, in conjunction with other factors, appears to facilitate invasion by cheatgrass (*Bromus tectorum*) into these areas (Reisner et al. 2013; Reisner 2010). The spread of cheatgrass and other invasive plants into degraded rangelands has accelerated the natural fire cycle and threatens to convert vast areas of sagebrush habitat into annual grasslands (Wisdom et al. 2005c; Miller et al. 2011).

**Comment Number:** IDMTSG-14-0169-6

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Beck and Mitchell (2000) reviewed literature for positive and negative direct and indirect effects of livestock grazing on sage-grouse. Their review found more negative than positive impacts from grazing. (Beck and Mitchell 2000: 994, Table 1). However, of greater importance is the scope of the reported positive and negative impacts on sage-grouse and sagebrush habitats. While positive impacts are generally limited to specific areas and circumstances (e.g., light grazing regenerates upland meadow), negative impacts often affect much larger areas, reducing their value to sagegrouse.

**Comment Number:** IDMTSG-14-0169-8

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Connelly et al. (2007), citing Coggins (1998) and Beck and Mitchell (2000), stated that “[t]he large number of documented negative impacts of livestock grazing in sagebrush shrub steppe appears to neutralize or outweigh any positive effects.” Jones (2000) found that 11 of 16 analyses of the effects of livestock grazing in arid ecosystems revealed significant negative effects on a range of ecological components from livestock grazing, including reduced grass and shrub cover, and reduced total vegetation biomass.

**Comment Number:** IDMTSG-14-0169-9

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Comment Excerpt Text:**

Beck and Mitchell (2000) concluded that livestock grazing appears to most affect productivity of sage grouse populations. Moynahan et al. (2007) also noted that condition of greater sage-grouse nesting habitat, an important factor in sage-grouse productivity, is likely affected by livestock grazing, among other influences. Holloran et al. (2005: 648) documented the importance of herbaceous cover, including residual grass, to

sage-grouse nesting success and concluded that “annual grazing in nesting habitat, regardless of the timing, could negatively impact the following year’s nesting success [by reducing residual vegetation].” Aldridge and Boyce (2007: 522), citing Manier and Hobbs (2006), suggested that removing cattle or reducing livestock intensity may result in increased shrub cover and/or plant diversity in shrubsteppe. They also suggested that eliminating water impoundments (such as earthen livestock watering holes) may allow water to recharge former mesic sites in sagebrush steppe, which would benefit sage-grouse (Aldridge and Boyce 2007: 523).

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**Comment Number:** IDMTSG-14-0170-1

**Organization1:**

**Commenter1:** Marybeth Devlin

**Comment Excerpt Text:**

there has been academic research in time-controlled grazing. The study demonstrated the success of Holistic Management in protecting sagebrush for the Sage-Grouse.

First, here is the link to a synopsis of the study.

- <http://www.deseretlandandlivestock.com/Sagebrush%20sage%20grouse%20and%20ranching%20a%20holistic%20approach.pdf>

Below is the link to the full study-report.

- <http://oregonstate.edu/dept/eoarc/sites/default/files/publication/613.pdf>

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**Comment Number:** IDMTSG-14-0178-3

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Other Sections:** 12.2

**Comment Excerpt Text:**

Livestock grazing is a key tool to reducing the threat of catastrophic wildfires and should be recognized in the draft for the benefits it provides. Peer-reviewed studies have clearly demonstrated that grazing livestock reduces the threat of catastrophic wildfire by controlling the fuel load and increasing productivity of grasses that are less fire prone (Davies 2011). According to a newly released study entitled, “Livestock Grazing Effects on Fuel Loads for Wildland Fire in Sagebrush Dominated Ecosystems.” (2014 – Journal of Rangeland Applications, in press), grazing provides assistance in fuels management in the following ways:

- A window of opportunity may exist for targeted grazing to reduce annual grasses before perennial grasses initiate bolting or during dormancy.
- Livestock grazing can reduce the standing crop of perennial and annual grasses to levels that can reduce fuel loads, fire ignition potential and spread.
- Grazing after perennial grasses produce seed and enter a dormant state can reduce the residual biomass left on the site and thereby decrease the fire hazard the following spring and summer.
- Grazing can reduce the continuity of fuels, including the amount of herbaceous biomass between shrubs, in sagebrush ecosystems.

As stated above, ranchers are often the first responders to wildfires (Davies, 2010). Recently, several Rangeland Fire Protection Associations (RFPAs) have been established to enable ranchers’ ability to safely respond to wildfire alongside BLM and to enhance their capabilities of limiting the spread of wildfires before they grown to catastrophic and unmanageable sizes. For the 2013 fire season, four established RFPAs covered 3,622,000 acres and comprised 168 ranchers and other private citizens who are RFPA members. Additional RFPAs are in the process of developing and will further increase this proactive step to reduce the size of

wildfires in sage grouse habitat. Alternative E identifies, RFPAs are a critical and innovative component to preventing and controlling the spread of wildfires. Their existence can only bring positive impacts on the rangeland and on sage grouse. RFPAs are almost entirely made up of ranchers who also graze on public lands. With reduced or eliminated livestock grazing on the range comes the reduced or eliminated presence of ranchers on the range. The effectiveness of the RFPAs, which have proven to be extremely effectual in initial attack of wildfires, correlates directly with the continuance of livestock grazing on public lands. If grazing is reduced as a result of implementation of this LUP/EIS, ranchers will not be around to operate the RFPAs and ensure their continuation, to immediately respond to fire starts, nor to coordinate fire suppression efforts with the agencies. Please refer to attachments 4 and 5 for published new stories regarding RFPAs and the value that rancher provide in protecting sage grouse habitat from wildfire.

**Comment Number:** IDMTSG-14-0179-14

**Organization1:** Idaho Conservation League

**Commenter1:** John Robison

**Comment Excerpt Text:**

reviewing the recommended distance for fences (E-LG/RM-41:Idaho-CHZ and IHZ on p. 2-152) and other structures (E-LG/RM-42: Idaho-CHZ and IHZ, p. 2-152) based on any more recent recommendations in the scientific literature.

**Comment Number:** IDMTSG-14-0186-26

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-152-53 [222-23]. D-LG/RM-43, as well as the Idaho State Plan (E-LG/RM-47 at page 2-154 [224]). There exists no rational basis in the science to restrict livestock water developments to lower-quality sage-grouse habitat or to restrict improved livestock distribution into areas that have not had significant prior grazing use. There is no nexus between the mere presence, or mere increased presence, of livestock within a given area and negative impacts upon sage-grouse. In fact, increased presence of livestock may improve the vigor and condition of areas that have become decadent due to lack of livestock use in the past. Further, Davies et al 2010 (relied upon by the DEIS) showed that moderate livestock grazing decreases the risk of wildfire in sagebrush steppe, and that wildfires that do occur in moderately grazed sagebrush rangelands have decreased severity, continuity, and size of the burn as compared to ungrazed rangelands. Those researchers also concluded that moderately grazed rangelands probably increase the efficiency of fire-fighting efforts. Weber et al( \_\_\_ ) (not cited by the DEIS, but should have been), in another recent study conducted in southeast Idaho, found similar results.

**Comment Number:** IDMTSG-14-0325-17

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

It should be recognized that GRSG often use watering and salting areas as leks, as opposed to salt/supplement and water troughs being placed in pre-established GRSG leks.

## **Summary**

Multiple commenters asserted and presented citations supporting their position that grazing has the potential to benefits GRSG by controlling cheatgrass and reducing wildfire risk. Other commenters presented citations supporting the position that grazing damages GRSG habitat and increases cheatgrass risk. Several commenters requested more detailed information about current grazing management and habitat conditions in the planning area. Other commenters noted the importance of ranching in the local economy, and also that ongoing collaboration between private ranchers and federal agencies has helped preserve GRSG habitat and should be acknowledged in the EIS.

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## **Response**

Before beginning the LUPA/EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The BLM and the Forest Service also used the most recent and best information available that was relevant to a land-use planning-level analysis (refer to response in section 4.4, NEPA Baseline data- Best Available Science for additional information). *[NOTE TO BLM- review text in section 4.4 response once complete to ensure consistency]* Section 3.X, livestock grazing discusses the current level of grazing in the planning area and management systems in place. Impacts of current and historic grazing on other resource and resource uses are discussed under the appropriate resource and resource use headings (i.e. Section 3.X, Sage grouse Habitat). Section 4.2.2 in the DEIS provides an overview of the ecological impacts of livestock grazing. The DEIS analyzed the effects of no grazing and reduced grazing on components of sage-grouse habitat, including changes in wildfire risk and cheatgrass incursion.

See changes to Section 3.X, fire management, for additional discussion of cheat grass-wildfire dynamics.

*[NOTE TO BLM/EMPSi-Review the text in Ch 3 veg related to fire/livestock.]*

Discussion of socioeconomic impacts of current grazing operations in the planning area is discussed in Section 3.X, Socioeconomics.

Additional language has been added to the FEIS (section X.X.X) recognizing the role of Rural Fire Protection Districts and other collaboration efforts *[ Note- need to add language to FEIS]*

## **Section 16.3 - Impact Analysis**

*Total Number of Submissions: 6*

*Total Number of Comments: 11*

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**Comment Number:** IDMTSG-14-0026-14

**Organization1:**Challis Local Working Group

**Commenter1:**

### **Comment Excerpt Text:**

We would like the EIS to acknowledge the impacts of grazing management changes on livestock operations. It would be good to look at options like grass banks and AUM buy outs by third parties if grazing becomes unviable on an allotment.

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**Comment Number:** IDMTSG-14-0031-1



**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

This region's sage grouse production is in good shape due to decades of cooperation between ranchers and the BLM. The EIS must adequately acknowledge this condition.

Issue:

The EIS should include an analysis of the importance of this public-private partnership to the sage grouse. Please explore things the FS and BLM can do to strengthen this partnership by keeping ranches economically viable.

**Comment Number:** IDMTSG-14-0102-4

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

The adverse social and economic impacts associated with Alternatives C and F could also result in unintended adverse effects on sage-grouse and its habitat. Private lands with livestock operations dependent upon public land grazing are usually located in moister, more productive valley bottoms. Valley bottoms are often used by sage-grouse as brood-rearing habitat. Adverse effects could occur due to increased livestock utilization of these areas and other private and state lands in response to a reduction in AUMs or season of use on federal lands. NRCS Field Office staff report that they are already observing increased livestock utilization of private lands in Owyhee County in response to recent changes in grazing permits there.

**Comment Number:** IDMTSG-14-0102-5

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

In addition, producers may convert these valley bottoms or their other private land to introduced perennial forage species in an attempt to provide enough livestock feed to continue in business. Others will choose to go out of business and sell their land, potentially for development. Either way, valuable sage-grouse habitat could be lost.

**Comment Number:** IDMTSG-14-0102-7

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Other Sections:** 22.3

**Comment Excerpt Text:**

Further, it is unnecessary to impose severe restrictions like those in Alternatives C and F on livestock grazing use of public lands because appropriate livestock management is compatible with providing sage-grouse habitat. As the U.S. Fish and Wildlife Service (USFWS) stated in their Greater Sage-grouse Conservation Objectives: Final Report, the loss and fragmentation of sagebrush habitats is a primary cause of the decline of sage-grouse populations. NRCS believes maintaining managed livestock grazing as the prevailing land use in sagebrush habitats is the best way to ensure the persistence of large, intact sagebrush habitats for sage-grouse and other species. The USFWS agreed with NRCS in the Conference Report for the Natural Resources Conservation Service Sage-grouse Initiative, which states: " ... a unique opportunity exists to focus NRCS resources to benefit sage-grouse, improve ranch sustainability, and maintain livestock grazing as the prevailing land use to ensure the persistence of large and intact range lands. There is a significant link between

conditions required to support sustainable ranching operations and habitat characteristics that support healthy sage-grouse populations."

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**Comment Number:** IDMTSG-14-0157-18

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The NTT Report and Alternative B would also impose limitations on water developments which could have an adverse effect on a rancher's ability to move livestock that would otherwise improve Sage-grouse habitat. This imposition should be clarified and recognized for its possible detrimental impacts. The Alternative B does recognize that riparian area management would limit permitted use.

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**Comment Number:** IDMTSG-14-0168-41

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-50

Ultimately, the effects of removing grazing in GRSG habitats on a landscape scale are unknown, and it is unclear whether complete removal would improve GRSG habitat or increase population levels."

Comment:

This statement contradicts with dozens of other statements in the EIS and with scientific literature produced by both the BLM and Forest Service about the benefits of managed livestock grazing to both reduce cheatgrass and improve sage-grouse habitat. There are numerous research papers including Davies (2011) that state that though "appropriately managed grazing is critical to protecting the sagebrush ecosystem, livestock grazing per se is not a stressor threatening the sustainability of the ecosystem. Thus, cessation of livestock grazing will not conserve the sagebrush ecosystem."

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**Comment Number:** IDMTSG-14-0178-22

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

In instances where alternate forage is available, Torell et al. (2010) note, ranchers are likely to "use deeded lands and meadows more intensively as grazing alternatives to public lands... Unfortunately, these same acreages are often prime habitat for sage grouse, and adjusting seasons of use and stocking levels on deeded rangelands and meadows could be counterproductive."

Additionally, eliminating grazing on public land will also result in reduced or eliminated grazing on intermingled state land and a subsequent decline in funding available to the endowed institutions of the state.

Without public lands grazing, grazing use of significant portions of state and private lands would necessarily cease, and the cattle industry would be dramatically downsized, threatening infrastructure and the entire market structure.

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**Comment Number:** IDMTSG-14-0178-23

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

In a newly released paper studying the effects of long-term rest compared to grazing under current practices, conclusive evidence was demonstrated that removing grazing from the land provides no benefit to the rangeland (Davies, et al 2014). It finds that:

- Long-term rest causes an accumulation of fine fuels that increases wildfire risk and potential severity and subsequently the cost of fire suppression efforts and the likelihood of conversion to exotic annual grasslands.
- The loss of a forage base with long-term rest may result in livestock producers increasing grazing pressure on other land, converting sagebrush rangelands to introduced grasslands and irrigated forage to off-set forage loss, or if ranching is no longer profitable, selling their private lands for development.

**Comment Number:** IDMTSG-14-0178-24

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 22.3

**Comment Excerpt Text:**

Considering that NEPA requires the agencies to weigh the socio-economic impacts of their decisions, it is abundantly clear, and this new study verifies it, that removing, or significantly reducing livestock grazing has a net negative impact on the species, the ecological balance and on the economy, not to mention the livelihoods of countless ranching families. Why then would the agency consider implementing any alternative that arbitrarily reduces grazing, thereby causing devastating impacts to the livelihoods of ranchers and the viability of local communities' economies, while offering no measurable benefit to the ecology of the land and its species?

**Comment Number:** IDMTSG-14-0178-7

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

[This comment is in reference to Alternative A] The BLM & USFS should have more fully analyzed the effectiveness of current rangeland health standards and guidelines before developing alternatives, and should have used that analysis for considering appropriate changes to their LUPA/DEISs with respect to livestock grazing and range management. We believe this type of review would have provided further justification for Alternative E's use of existing Idaho Rangeland Health Standards (IRHS)

***Summary***

Some comments detailed beneficial impacts of grazing, and the adverse impacts of grazing restrictions on to livestock operations, Rangeland Fire Protection Associations, and the local economy. One commenter notes that limitations on water developments can have impacts on grazing management and need to be clarified and analyzed in greater detail.

***Response***

Impacts to livestock grazing from current livestock grazing management are addressed in section 4.9.4 of the DEIS. Impacts to the socioeconomic aspect of livestock grazing are discussed in Section 4.19 of the DEIS. While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS's impact analysis relevant to grazing and indirect socioeconomic impacts and was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions (see changes in section 4.19). Impacts to Rangeland Fire Protection Associations are discussed in section 4.X, fire management. BMPs for livestock developments including water have been revised in the FEIS and related impacts on livestock grazing management have been clarified.

#### **Section 16.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

#### **Section 16.5 - Mitigation measures**

*No comments are associated with this issue.*

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#### **Summary**

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#### **Response**

#### **Section 17 - Locatable Minerals**

*No comments are associated with this issue.*

#### **Section 17.1 - Range of alternatives**

*No comments are associated with this issue.*

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#### **Summary**

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#### **Response**

#### **Section 17.2 - Best available information baseline data**

*No comments are associated with this issue.*

### Section 17.3 - Impact Analysis

*No comments are associated with this issue.*

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#### Summary

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas. The current approach in the EIS does not meet FLPMA requirements for finding ways to remain flexible in balancing conservation and resource uses.

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#### Response

The facts that sage brush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts are not sufficient methods of protecting GRSG and sage brush habitat. Additionally, this concept was considered within the range of alternatives- Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment. *[NOTE TO BLM: Consider whether inserting text to this effect into the EIS is appropriate.]*

Note to EMPSi - check all comments under Issue 17 - any related to phosphate should be moved to [nonenergy] leasable minerals

### Section 17.4 - Cumulative impact analysis

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0159-14

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

#### **Comment Excerpt Text:**

A discussion of the range-wide withdrawal for the GRSG is important, as the purpose and need of each DEIS is aimed at shoring up a perceived inadequacy under the ESA and focused on avoiding a range-wide listing for the GRSG. Accordingly, it is important to gain a better understanding of the total number of acres proposed for withdrawal by the Agencies in order to determine whether there is a possibility of avoiding the listing – an essential element of the

Purpose and Need of this LUPA process - because the boundaries for purposes of the ESA are not confined by state borders. See *Defenders of Wildlife et al. v. Salazar*, 729 F.Supp 1207 (D.

Montana 2010) (rejecting a USFWS proposal to delist gray wolf populations in Idaho and Montana.)

Here, the Agencies are considering major withdrawals in the States of Idaho, Nevada, and Utah in separate DEIS documents. However, there is no review or analysis of the cumulative withdrawals throughout these three states. In fact, not only has BLM failed to consider the total withdrawals in all three plans, but has likewise failed to consider the cumulative effects of these withdrawals in all 11 Western states in sage grouse habitat.

## **Summary**

The DLUPA/DEIS fails to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range.

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## **Response**

Additional information on the cumulative effect of withdrawals across GRSG range has been added to Section XXX (locatables cumulative effects section) of the EIS. *[NOTE TO BLM: Could include roll-up of withdrawals from plans for incorporation into EIS]*

### **Section 17.5 - Mitigation Measures**

*No comments are associated with this issue.*

### **Section 18 - National Trails**

*No comments are associated with this issue.*

### **Section 18.1 - Range of Alternatives**

*No comments are associated with this issue.*

### **Section 18.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

### **Section 18.3 - Impact Analysis**

*No comments are associated with this issue.*

### **Section 18.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

### **Section 18.5 - Mitigation Measures**

*No comments are associated with this issue.*

### **Section 19 - Paleontological Resources**

*No comments are associated with this issue.*

### **Section 19.1 - Range of Alternatives**

*No comments are associated with this issue.*

### **Section 19.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

**Section 19.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 19.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 19.5 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 20 - Recreation**

*No comments are associated with this issue.*

**Section 20.1 - Range of alternatives**

*Total Number of Submissions: 2*

*Total Number of Comments: 3*

**Comment Number:** IDMTSG-14-0013-1

**Organization1:**BlueRibbon Coalition, Inc.

**Commenter1:**Don Amador

**Other Sections:** 24.1

**Comment Excerpt Text:**

Between March 1 and May 15, prohibit OHV events from using routes that pass through an active lek. Impose a time of day restriction (after 10 a.m.) for routes that pass within ¼ mile of an active lek. Consider a reroute around the active lek site as preferable to a seasonal restriction or closure on said route.

**Comment Number:** IDMTSG-14-0013-2

**Organization1:**BlueRibbon Coalition, Inc.

**Commenter1:**Don Amador

**Comment Excerpt Text:**

Adopt a defensible standard OHV sound regulation for grouse mitigation. Consider Idaho's OHV Sound Law – A muffler and Forest Service approved spark arrestor. Your muffler must be at or below 96dB at the half-meter test, SAE J1287. IC 67-7125

**Comment Number:** IDMTSG-14-0050-21

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

Although I realize that the BLM and USFS do not control hunting of sage grouse on federal land, an alternative must be proposed in conjunction with state laws to activate a moratorium on all sage grouse hunting until which time the species has returned to a healthy and self-sustaining population. It is absurd that our government should "manage" any wildlife in order to increase wildlife populations so that they can later be hunted by an insignificant segment of the public but even more absurd in any wildlife population that is being considered under the endangered species listing. The below paragraph is taken from the online BLM

website and states that there is no evidence that hunting of the sage grouse “poses a significant threat to the species”. How ridiculous that anyone would be as reckless and irresponsible as to say that killing of a threatened species does not hurt the population! An immediate moratorium to stop all sage grouse hunting must be included as an alternative within the proposed EIS.

“Does hunting Greater Sage-Grouse pose a threat to the species?”

In its March 2010 warranted but precluded finding on listing the Greater Sage-Grouse under the Endangered Species Act, the U.S. Fish and Wildlife Service (FWS) specifically looked at the threats to the species posed by hunting. The FWS found that “In the United States, sage-grouse hunting is regulated by State wildlife agencies and hunting regulations are reevaluated yearly. . . . We have no evidence suggesting that gun and bow sport hunting has been a primary cause of range-wide declines of the greater sage-grouse in the past, or that it currently is at a level that poses a significant threat to the species.”

[http://www.blm.gov/wo/st/en/prog/more/sagegrouse/frequently\\_asked\\_questions.print.html#hunting](http://www.blm.gov/wo/st/en/prog/more/sagegrouse/frequently_asked_questions.print.html#hunting)

### ***Summary***

In the EIS/LUPA, the BLM/FS should incorporate additional management actions (e.g. SRP/SUP stipulations, OHV noise regulations, seasonal restrictions on OHV events near leks, and rerouting of OHV events away from leks, and hunting) to limit the potential for impacts on Sage-Grouse from recreation activities. Any management actions limiting recreation activities in sage-grouse habitat should be based on the best available science with proven habitat conservation results.

### ***Response***

The EIS considers an adequate range of alternatives to protect GRSG, including varying levels of restriction on recreational activities and special recreation permits/special use permits (insert correct management actions and table number). During subsequent implementation-level travel management planning, new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including speed. New travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions during subsequent implementation level travel management planning. 43 CFR 8340 requires all OHVs to comply with state laws including noise and spark arrester requirements.

Contemporary hunting seasons in the Idaho and Southwest Montana Sub-region are very conservative with respect to their length and bag limits. GRSG hunting and its effects are described in more detail in Sections XX and XX of the FEIS.

### **Section 20.2 - Best available information baseline data**

*No comments are associated with this issue.*

### **Section 20.3 - Impact Analysis**

*No comments are associated with this issue.*

### **Section 20.4 - Cumulative impact analysis**

*No comments are associated with this issue.*



**Section 20.5 - Mitigation measures**

*No comments are associated with this issue.*

**Section 21 - Saleable Minerals**

*No comments are associated with this issue.*

**Section 21.1 - Range of alternatives**

*No comments are associated with this issue.*

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**Summary**

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**Response**

**Section 21.2 - Best available information baseline data**

*No comments are associated with this issue.*

**Section 21.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 21.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

**Section 21.5 - Mitigation measures**

*No comments are associated with this issue.*

**Section 22 - Socioeconomics and Environmental Justice**

*No comments are associated with this issue.*

**Section 22.1 - Range of Alternatives**

*No comments are associated with this issue.*

**Section 22.2 - Best available information baseline data**

*No comments are associated with this issue.*

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## Summary

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### Response

#### Section 22.3 - Impact Analysis

Total Number of Submissions: 22

Total Number of Comments: 39

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**Comment Number:** IDMTSG-14-0008-2

**Organization1:**

**Commenter1:** Stephen Bauchman

**Comment Excerpt Text:**

Furthermore the adoption of the alternatives, other than perhaps E, do not meet the requirements of NEPA (40 CFR 1500-1508) that requires a consideration of the impact on the 'human environment' as the result of any action. The socio-economic analysis within the EIS provides only a macro analysis. With the adoption of Alternative D {B, C, F} there will be a reduction in grazing permits as well as other multiple uses [mining & recreation] within the Intermountain MA/CZ. The impact on the social, cultural, and economic environment of the communities will be significant, and require further analysis than included therein.

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**Comment Number:** IDMTSG-14-0008-4

**Organization1:**

**Commenter1:** Stephen Bauchman

**Comment Excerpt Text:**

While the EIS addresses Macro Social and Economic Impacts it doesn't meet NEPA requirements with regards to considering Micro Social Economic Impacts. Specifically ““The council on Environmental Quality's (CEQ's) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508) point-out that the "human environment" is to be "interpreted comprehensively" to include "the natural and physical environment and the relationship of people with that environment" (40 CFR 1508.14). Agencies need to assess not only so-called, "direct" effects, but also "aesthetic, historic, cultural, economic, social, or health" effects, "whether direct, indirect, or cumulative" (40 CFR 1508.8). Furthermore, the Act stipulates “... when an EIS is prepared "and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment" (40 CFR 1508.14). The EIS's are thus intended to provide a kind of full-disclosure procedure for federal decision-makers, who are then expected to consider the negative as well as the positive implications of potential courses of action, and the unintended as well as the intended consequences, before they proceed.”

The main economic basis in Custer County is mining and then agriculture/ranching. A reduction or major modification to livestock grazing permits would impact the viability of the ranches within the area. While there has been some transition from family owned ranches to corporate/investor owned, local business is heavily dependent on the ranching community and the associated grazing permits. Any implementation of a Sage Grouse Management Plan that would have major changes in the grazing would severely impact the historical cultural economic affect on the community.

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**Comment Number:** IDMTSG-14-0016-1

**Organization1:**

**Commenter1:** Nancy Brackett

**Comment Excerpt Text:**

If grazing permits are reduced as a result of this effort, the negative economic impact to rural communities would be significant. The final EIS should acknowledge the human circumstances and the consequences to the economy.

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**Comment Number:** IDMTSG-14-0031-11

**Organization1:** Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

The evaluation does not adequately consider that humans are part of the environment and the impact on the human environment of the proposed regulations and restrictions.

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**Comment Number:** IDMTSG-14-0052-1

**Organization1:** Guerry, Inc

**Commenter1:** Michael A. Guerry

**Comment Excerpt Text:**

The involved agencies must consider not only the environmental consequences in their analysis, but also the impacts to the human environment and economy, including grazing, mining, oil and gas, and other multiple use industries. If grazing permits are reduced, as a result of this effort, the negative economic impact to rural communities would be significant, and it is important that the final EIS acknowledge this

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**Comment Number:** IDMTSG-14-0056-1

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

As are many other western states ranchers, our operation is dependent on public land grazing in order to sustain a viable year around livestock operation. My ranch is made up of BLM and USFS permits in addition to private and state lands. Most of my private holdings are wet meadows that are heavily used by sage grouse broods during the summer months. I have participated in NRCS Sage Grouse Initiative Projects to enhance those meadows specifically for sage grouse. If I were to lose even a portion of my federal AUMs my ranching operation would no longer be viable, and I would have to consider all options, which would include selling my private meadows for development. The DEIS fails to take this into consideration when analysis impacts of the analysis.

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**Comment Number:** IDMTSG-14-0056-2

**Organization1:** Helmick Ranch

**Commenter1:** Neil Helmick

**Comment Excerpt Text:**

Although improper livestock grazing is considered as only a secondary threat, all alternatives with the exception of alternative E propose significant reductions and increased regulation to all grazing within the planning area. These changes would have a dramatic impact on our own operation, as well as other operators

in our industry, which will have a direct impact upon the communities that depend upon our business and on our industry as a whole

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**Comment Number:** IDMTSG-14-0070-1

**Organization1:**J Lazy S Angus Ranch

**Commenter1:**Jay Smith

**Comment Excerpt Text:**

If our grazing permits are reduced as a result of this effort, the negative economic impact to rural communities would be significant and it is important that the final EIS acknowledge this.

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**Comment Number:** IDMTSG-14-0070-2

**Organization1:**J Lazy S Angus Ranch

**Commenter1:**Jay Smith

**Comment Excerpt Text:**

It is important that these agencies consider not only the environmental consequences in their analysis, but also the impacts to human environment and economy, including grazing, mining, oil and gas and other multiple-use industries.

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**Comment Number:** IDMTSG-14-0102-3

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Comment Excerpt Text:**

NRCS is concerned with ensuring the health and welfare of the agricultural community impacted by the DEIS. We concur with the analysis of the impacts of Alternatives C and F on livestock grazing in 4.6.6, 4.6.9, and 4.16.7. We appreciate the inclusion and detailed analysis of Social and Economic Conditions in Chapters 3 and 4 and urge the BLM and U.S. Forest Service (USFS) to give the effects on social and economic conditions equal consideration as those on natural resources in the Final EIS.

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**Comment Number:** IDMTSG-14-0102-7

**Organization1:**NRCS

**Commenter1:**Pamela Dugan

**Other Sections:** 16.3

**Comment Excerpt Text:**

Further, it is unnecessary to impose severe restrictions like those in Alternatives C and F on livestock grazing use of public lands because appropriate livestock management is compatible with providing sage-grouse habitat. As the U.S. Fish and Wildlife Service (USFWS) stated in their Greater Sage-grouse Conservation Objectives: Final Report, the loss and fragmentation of sagebrush habitats is a primary cause of the decline of sage-grouse populations. NRCS believes maintaining managed livestock grazing as the prevailing land use in sagebrush habitats is the best way to ensure the persistence of large, intact sagebrush habitats for sage-grouse and other species. The USFWS agreed with NRCS in the Conference Report for the Natural Resources Conservation Service Sage-grouse Initiative, which states: " ... a unique opportunity exists to focus NRCS resources to benefit sage-grouse, improve ranch sustainability, and maintain livestock grazing as the prevailing land use to ensure the persistence of large and intact range lands. There is a significant link between conditions required to support sustainable ranching operations and habitat characteristics that support healthy sage-grouse populations."

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**Comment Number:** IDMTSG-14-0105-11

**Organization1:**Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

[Vol2]Page 1-35 Bullet addressing social and economic impacts will use IMPLAN, RIMSII, JEDI. From further reading in the document, we don't believe the direct economic and social impacts to the individuals, communities, and county are adequately addressed. There will be significant impacts to the local individuals, communities, and county if certain management actions in the Alternatives are implemented.

**Comment Number:** IDMTSG-14-0131-15

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

Besides the effects to American agriculture and national food security, the Draft LUMA/EIS is significantly deficient in describing the potential losses to local economies. The Alternatives will reduce future phosphate development in Southeastern Idaho. The jobs and economic benefits from mineral development are important to the local business community and an important source of tax revenues to federal, state and local governments. For example, in Southeast Idaho the wages and salaries paid to employees of Idaho Mining Association operating member companies was nearly \$140 million in 2006 dollars (Idaho Economics 2007). Total secondary impacts upon total personal income in Southeast Idaho were calculated to be \$250,000,000 for 2006. These mining and mineral processing operations are often a significant part of the local tax base; in 2006 22.5 percent of the total property taxes paid in Caribou County were from mining and mineral processing operations.

The draft LUMA/EIS needs to discuss the specific economic consequences of prohibiting or greatly restricting access to this strategic mineral.

**Comment Number:** IDMTSG-14-0131-29

**Organization1:** J.R. Simplot Company

**Commenter1:** Alan L. Prouty

**Comment Excerpt Text:**

The Draft LUPA/EIS fails to discuss how the effective withdrawal of thousands of acres of phosphate minerals will affect fertilizer supply and prices along with potential consequences on national food security. As discussed in these comments, the importance of phosphate to national security was recognized over 100 years ago as thousands of acres of phosphate deposits were reserved by the federal government. The cumulative effect of such restricted access needs to be examined as there are alternatives in the Utah Greater Sage-Grouse LUPA/EIS that also eliminate access to phosphate deposits. The LUPA/EIS must discuss the consequences of the cumulative loss of such resources, the effects on food production and costs, and losses to local economies including tax revenue because of the prevention of mineral development.

**Comment Number:** IDMTSG-14-0148-2

**Organization1:** Western Counties Alliance

**Commenter1:** Kenneth Brown

**Comment Excerpt Text:**

The LUP focuses its portrayal of the socio-economic impacts on the entire planning area but does not adequately review the effects of the proposed land use restrictions on specific areas, including individual counties. Thus, the LUP undermines the true impact of its application to the social structure of local communities and to the economy of the western economy.

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**Comment Number:** IDMTSG-14-0151-89  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

*Socioeconomics*

Under Alt D, grazing would be maintained at current levels to “maintain the economic benefits to permittees and communities”. BLM has not fairly assessed the limited economic values of public land ranching in many areas, the increasing number of hobby ranchers that use public lands ranching as a tax write off, and the full cumulative effects of the ecological degradation caused by grazing. This ranges from loss of sustainable perennial water flows to recreational uses to public lands mitigation adverse effects of climate change

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**Comment Number:** IDMTSG-14-0151-9  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

In accordance with its multiple use mission, the BLM must consider land uses other than grazing in its calculation of the economic and social values of each alternative, including administrative costs and environmental impacts to water, wildlife, plants, recreation, potential species loss, intrinsic land value, and beauty

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**Comment Number:** IDMTSG-14-0159-9  
**Organization1:** American Exploration and Minind Association  
**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

The significant economic engine that is metal, non-metallic and all mining throughout the range of the GRSG in Idaho, Utah and Nevada is described and attached hereto as Exhibit 8 for each state. The economic calculus for the proposed LUPA must be accounted for not only across the tri-State area but in all of the Agency plans in the GRSG range in the context of the Statement of Purpose and Need, if the conservation measures proposed are aimed at avoiding the ESA listing of the GRSG range-wide.

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**Comment Number:** IDMTSG-14-0160-1  
**Organization1:** Avian Power Line Interaction Committee  
**Commenter1:** Sherry Ligouri

**Comment Excerpt Text:**

Despite substantial costs incurred for siting lines and scheduling construction to avoid sage-grouse and their habitats, these efforts are typically not considered when analyzing project impacts and determining required mitigation, resulting in significant costs to customers for which there is not mitigation “credit”. BLM should consider these ratepayer concerns in the socioeconomics section of the LUP

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**Comment Number:** IDMTSG-14-0168-30

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

3-1 78

"County Land Use Plans"

Comment:

Though the EIS authors list the County Land Use Plans they do not use them in the analysis. The information in the Plans needs to be added to all chapters of the EIS, especially Chapters 3 and 4

**Comment Number:** IDMTSG-14-0168-31

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

Table 3-64

"Unemployment"

Comment

The unemployment in Idaho has gone from an average of 3% to an average of 8.7% in the past 5 years! This fact needs to be carried through Chapter 4 and the full extent of the increases in unemployment from implementation of each action alternative need to be thoroughly discussed.

**Comment Number:** IDMTSG-14-0168-32

**Organization1:**Custer County Commissioners

**Commenter1:**Wayne F. Butts

**Comment Excerpt Text:**

Page 3-191

"The proportion of employment associated with mining industries varied by county, from zero percent in 12 of the counties up to 30.4 percent of total employment in Custer County and 22.7 percent of total employment in Caribou County. The average annual earnings per mining-related job in the Socioeconomic Study Area are higher than non-mining jobs."

Comment:

Discuss the detailed economic effects of mineral withdrawals, NSO and CSU restrictions, etc to Custer County employment as well as all other counties in the planning area. Include lost revenue from geology studies, claim staking, plan of operation studies, and mining. Include the lost opportunity taxes; fire, school and hospital revenues; equipment sales, maintenance and rentals and all other factors in Chapter 4. Include the true current situation and impacts to locatable, saleable and fluid minerals, as well as renewable and nonrenewable energy resources not already listed.

For every acre of land proposed for withdrawal, NSO, CSU, and other restrictions the EIS needs to itemize all costs to society. The EIS needs to determine mineral potential and discuss it in Chapter 3 and detail all consequences in Chapter 4, as required by NEPA and CEQ guidelines.

**Comment Number:** IDMTSG-14-0168-33

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

The federal government set up the system of livestock grazing as a combination of private and federal lands. The federal government requires private land be appurtenant to federal lands in order to obtain a federal grazing permit.

The EIS does not recognize that oil and gas development occurs across multiple jurisdictional boundaries (public lands, split-estate, and fee simple lands) and does not fit neatly into lands managed only by the BLM. The result is that the EIS has ignored an enormous amount of oil and gas development activity on private lands due to the nature of their development (projects with a federal nexus, etc.) that are clearly subject to management policies contained in each of the action alternatives. As such, the alternatives are either silent on or severely underestimate the resulting impacts which directly impact communities in Idaho and SW Montana.

Chapter 4 needs to be rewritten to recognize the federal — private land interactions.

**Comment Number:** IDMTSG-14-0168-40

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-50 "If management under Alternative C were to reduce ranchers' ability to keep ranches maintained or profitable, they may be sold and developed, causing loss of habitat (Wilkins et al. 2003).

Comment:

This needs to be carried into the economic impact portion of the EIS.

**Comment Number:** IDMTSG-14-0168-42

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-51

"Mineral entry withdrawal would be recommended for all ACECs, including all PPMAs, under this alternative, protecting all occupied or potentially occupied GRSG habitat and increasing the level of protection to all associated GRSG populations and sub-populations."

Comment:

Mineral entry withdrawals are normally permanent. The impacts of these withdrawals need to be analyzed for each alternative. Include the revenue to BLM that would be lost due to location and maintenance fees on claims (\$66 million in revenues to BLM in 2012); revenues and jobs lost to geologists and surveyors that locate, stake and file said claims (over \$100 million per year); revenues and jobs lost to those employed to perform exploration drilling on mining claims (over \$1 billion per year); jobs lost by people who manufacture, sell and maintain drill rigs used in mining (over \$2 billion year); jobs lost to people who write plans of operation; jobs lost to federal employees that record mining claims or review plans of operation; jobs lost to companies that would otherwise mine the minerals (this can be estimated from the mineral assessment data), jobs lost to BLM and state employees that inspect mines, and so forth. The direct and indirect losses to service industries, local and state government, fire stations, hospitals, schools and so forth needs to be



assessed. Also include the national security risks associated with said withdrawals. Once the mining know-how and exploration and mining equipment are gone, they cannot be retrieved without significant time and costs to society. The entire mining cycle in the US needs to be analyzed and the true impacts need to be revealed.

The same needs to be done for fluid minerals, saleable minerals, etc.

**Comment Number:** IDMTSG-14-0168-43

**Organization1:** Custer County Commissioners

**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-225

"Potential non-market values associated with ... livestock grazing....BLM did not attempt to quantify these values"

Comment:

BLM either needs to assess all non-market values or no non-market values. To assess the perceived nonmarket values of some items but not others does not meet NEPAs requirements for a balanced analysis.

**Comment Number:** IDMTSG-14-0178-19

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

4. Economic Impacts

In our estimation, the LUPA/DEIS seriously undermines the value of a grazing permit to the local and state economy. It also underestimates the socio-economic impacts of grazing permit reductions. The agencies must consider not only the environmental consequences in their analysis, but also the impacts to the human environment and economy, including grazing, mining, oil and gas and other multiple-use industries. If grazing permits are reduced as a result of this effort, the negative economic impact to rural communities would be significant and it is important that the final EIS acknowledge this.

**Comment Number:** IDMTSG-14-0178-20

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

The LUPA/DEIS bases its economic review of the value of grazing permits based on “billed AUMs as a baseline, estimated as a multi-year average share of active AUMs...” (4-221). This analysis entirely fails to consider the value of a ranch to the local economy and the trickledown effect that a lost AUM causes to an entire rural community.

In Idaho, where well over half of the land is federally-owned, countless rural communities rely on public lands grazing for their tax base, commerce, and jobs. Few other industries in western rural communities are as stabilizing and longstanding. Ranchers provide seasonal and year-round jobs, bring steady, reliable business to local supply stores and other services, and provide a tax base for rural communities that have little other economic activity. In a study of one western rural community, for example, a 25% reduction in federal

grazing led to a 7.3% decrease in sales and a 6.4% loss of jobs (Rimbey et al., 2001)

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**Comment Number:** IDMTSG-14-0178-21

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Use of the IMPLAN model may have resulted in an underestimation of the socio-economic impacts of the alternatives in the DEIS. In counties that are at capacity for grazing, removing grazing from federal lands will result in a reduction of AUMs for the entire year. As described by Torell (2010), “If the ranch is dependent seasonally on federal forage, a reduction in federal AUMs may create forage imbalances and produce a greater reduction in grazing capacity than just the loss of the federal AUMs.”

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**Comment Number:** IDMTSG-14-0178-24

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 16.3

**Comment Excerpt Text:**

Considering that NEPA requires the agencies to weigh the socio-economic impacts of their decisions, it is abundantly clear, and this new study verifies it, that removing, or significantly reducing livestock grazing has a net negative impact on the species, the ecological balance and on the economy, not to mention the livelihoods of countless ranching families. Why then would the agency consider implementing any alternative that arbitrarily reduces grazing, thereby causing devastating impacts to the livelihoods of ranchers and the viability of local communities’ economies, while offering no measurable benefit to the ecology of the land and its species?

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**Comment Number:** IDMTSG-14-0180-5

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

Further, BLM’s economic analysis is inadequate and fails to provide meaningful public evaluation.

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**Comment Number:** IDMTSG-14-0181-3

**Organization1:**Idaho Mining Association

**Commenter1:**Jack Lyman

**Comment Excerpt Text:**

the Agencies failed to fully consider the significant economic contributions that the phosphate mining industry provides to Idaho Approximately two-thirds of \$1.1 billion in gross state product, \$557 million in compensation, and \$107 million in taxes result from the phosphate mining industry in southeastern Idaho. See Attachment 1. The Draft LUPA/EIS does not discuss fully these economic benefits or the impacts to the local or state economy of the proposed phosphate lease area closures.

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**Comment Number:** IDMTSG-14-0183-18

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

IPC's typical construction costs for overhead distribution lines range from \$80,000 per mile to \$150,000 per mile, and typical costs for underground distribution lines of comparable service range from \$500,000 to \$1.5 million per mile for an all-conduit system (which is IPC's standard). Underground lines also require aboveground facilities for terminating, switching, and transforming equipment. Pulling and splicing vaults may be located aboveground or belowground and are placed along the line as well.

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**Comment Number:** IDMTSG-14-0183-39

**Organization1:** Idaho Power

**Commenter1:** Brett Dumas

**Comment Excerpt Text:**

cost is a major concern as electric utilities have mandates to serve customers with high quality, reliable electric service at the lowest cost possible. Idaho Power's typical construction costs for overhead distribution lines range from \$80,000 per mile to \$150,000 per mile and typical costs for underground distribution lines of comparable service ranges from \$500,000 thousand to \$1.5 million per mile for an all conduit system (which is Idaho Power's standard). These costs would be charged to customers. Consequently, the PUCs would have to make a ruling concerning such costs. Underground lines also require aboveground facilities for terminating, switching, and transforming equipment. The BLM should take into account all environmental, economical, and social impacts of undergrounding powerlines as a seemingly simple proposed mitigation measure in the LUPA/DEIS.

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**Comment Number:** IDMTSG-14-0210-11

**Organization1:** NorthWestern Energy

**Commenter1:** Mary Gail Sullivan

**Comment Excerpt Text:**

Socioeconomics

NorthWestern Energy is concerned that the BLM's socioeconomic analysis in the DEIS is inadequate. Based on the current demand for energy, especially renewable energy such as wind in the western United States, the benefits of transmission lines outweigh impacts associated with the construction, operation and maintenance of properly sited and mitigated lines. NorthWestern Energy recommends that the BLM revise the socioeconomics section of the DEIS to include a discussion of the benefits of enhancing the reliability and redundancy of high-voltage transmission in the west.

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**Comment Number:** IDMTSG-14-0228-6

**Organization1:** WHE/AWHPC

**Commenter1:** Suzanne Roy

**Comment Excerpt Text:**

7. Social impacts of proposed alternatives must be considered.

NEPA requires federal agencies to consider environmental effects that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. Thus the BLM must consider both legal and social factors and impacts, in making land use decisions, such as setting and maintenance of AML and grazing allocations. This was highlighted in a 1982 National Academy of Sciences/National Research Council report on the BLM's wild horse and burro program:

“Attitudes and values that influence and direct public priorities regarding the size, distribution, and condition of horse herds, as well as their accessibility to public viewing and study, must be an important factor in the determination of what constitutes excess numbers of animals in any area . . . [A]n otherwise satisfactory population level may be controversial or unacceptable if the strategy for achieving it is not appropriately responsive to public attitudes and values. . . .

Biologically, the area may be able to support 500 cattle and 500 horses, and may be carrying them. But if the weight of public opinion calls for 1,000 horses, the area can be said in this context to have an excess of 500 cattle. For these reasons, the term excess has both biological and social components. In the above example, biological excess constitutes any number of animals, regardless of which class above 1,000. Social excess depends on management policies, legal issues, and prevailing public preference..”

The importance of social considerations was reaffirmed in the NAS report of 2013. (Attachment 4).

The prevailing public preference for protecting wild horses and burros in any sage grouse conservation plans can be seen by the more than 7400 public comments that have been submitted on this LUP/EIS, along with recent polls that show 72% of Americans support protecting wild horses and burros on public lands, while just 29% want public lands used for livestock grazing. (Attachment 5).

These social impacts must be analyzed when considering any alternatives that could result in a reduction of wild horse and burro population numbers.

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**Comment Number:** IDMTSG-14-0228-7

**Organization1:** WHE/AWHPC

**Commenter1:** Suzanne Roy

**Comment Excerpt Text:**

8. Economic Impacts

The LUP/EIS considers the economic impacts of livestock grazing on the economy, but omits an analysis of the costs of public lands livestock grazing to the public. The final LUP/EIS should include a full analysis of the costs to the American taxpayer incurred due to 1) below-market grazing rates that do not cover administrative costs; 2) indirect costs for environmental mitigation/restoration, etc.; 3) costs of the removal of wild horses and burros on livestock grazing allotments within HMAs; 4) costs of the government’s predator management program as they relate to public lands ranchers. Attachment 6, Congressional Research Service Report, addresses some of these costs and is incorporated herein by reference.

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**Comment Number:** IDMTSG-14-0255-1

**Organization1:**

**Commenter1:** David Ellason

**Comment Excerpt Text:**

If I were to lose even a portion of the AUMs that I use on BLM/FS, my operation would no longer be viable. BLM/FS must study the impacts of the unintended consequences to sage-grouse from reduced livestock grazing on public lands.

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**Comment Number:** IDMTSG-14-0263-1

**Organization1:**

**Commenter1:**Glenda Gammett

**Comment Excerpt Text:**

The agencies, in choosing the final alternative, must consider all, the economic impacts as well as the environmental impacts. Not only is the ranching industry impacted, mining, oil and gas, hunting, tourism, and other multiple industries are impacted. If one of the radical alternatives is selected that drastically reduces or eliminates grazing it will impact everyone economically as the livestock industry loses their grazing capabilities and cattle numbers are reduced. The dollars generated by ranchers also generate a lot of income throughout the communities. Also, beef and all the by products of beef will be reduced thus creating higher prices for consumers for food and a lot of other products.

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***Summary***

The socioeconomic analysis in the DEIS is overall broad and does not provide sufficient analysis of impacts to individuals, local communities or counties. The DEIS should also expand analysis of the restrictive management actions on planning area operators, communities and services including but not limited to grazing operators and mining.

Finally, the analysis methodology is inadequate to provide a comprehensive analysis of direct, indirect, and cumulative analysis of the socioeconomic impacts on the planning area communities.

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***Response***

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM provide input on why county level analysis was not completed]

Impacts were considered on numerous resources, resource uses, and socioeconomic conditions, which included [list noted issues]. See Section 4.22 of the Draft EIS.

The DLUPA/EIS describes the methodology and assumptions used for conducting the impact analysis (see

Section 4.22.2 of the Draft EIS). The methodology and assumptions provide an adequate starting point for discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.24, the DLUPA/EIS identified methodologies used and made reference to the scientific and other sources relied upon for conclusions in the analysis. Based on these methodologies and assumptions, the DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

[Add language on budget issues as appropriate: As a landscape level planning effort, none of the alternatives prescribe project specific analysis on BLM or USFWS managed lands. Furthermore, the agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies budgets as appropriated annually through the federal budget process. As a consequence, agencies' costs and differences in differences in program costs across alternatives have not been quantified. Information has been presented in several resource impacts sections on the types of costs that might be associated with various sage-grouse conservation measures]

#### **Section 22.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

#### **Section 22.5 - Mitigation Measures**

*No comments are associated with this issue.*

#### **Section 23 - Soil**

*No comments are associated with this issue.*

#### **Section 23.1 - Range of Alternatives**

*No comments are associated with this issue.*

#### **Section 23.2 - Best available information baseline data**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0151-92

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

#### **Comment Excerpt Text:**

DEIS 6-1 to 6-30 contains no specific Literature on microbiotic crusts and the impacts of grazing disturbance on them.

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#### ***Summary***

One commentor notes that the DEIS lacks references to support discussion of macrobiotic crusts.

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#### ***Response***

[BLM/Forest Service- review soils section to determine if references needed to support disucssion]

### **Section 23.3 - Impact Analysis**

*No comments are associated with this issue.*

### **Section 23.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

### **Section 23.5 - Mitigation Measures**

*No comments are associated with this issue.*

### **Section 24 - Travel Management**

*No comments are associated with this issue.*

### **Section 24.1 - Range of alternatives**

*Total Number of Submissions: 8*

*Total Number of Comments: 11*

**Comment Number:** IDMTSG-14-0013-1

**Organization1:**BlueRibbon Coalition, Inc.

**Commenter1:**Don Amador

**Other Sections:** 20.1

**Comment Excerpt Text:**

Between March 1 and May 15, prohibit OHV events from using routes that pass through an active lek. Impose a time of day restriction (after 10 a.m.) for routes that pass within ¼ mile of an active lek. Consider a reroute around the active lek site as preferable to a seasonal restriction or closure on said route.

**Comment Number:** IDMTSG-14-0032-1

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

We ask that all BLM and Forest Service actions include proper recognition of the agreement behind the 3-State OHV and National Route Designation decisions which allow continued use of the existing networks of motorized roads and trails without massive motorized closures.

**Comment Number:** IDMTSG-14-0049-14

**Organization1:**Greater Yellowstone Coalition

**Commenter1:**Barb Cestero

**Comment Excerpt Text:**

On federal lands in the planning area, there are currently close to 14,000 miles of roads in preliminary priority habitat for sage-grouse and another 4,400 miles in preliminary general habitat. DEIS at 3-85. We propose that the LUPA prohibit the construction of new roads in areas specially designated for sage-grouse and

additionally provide for closing and reclaiming roads as opportunities arise.

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**Comment Number:** IDMTSG-14-0049-15

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

At a minimum, we propose that all recreational travel should be limited to existing roads and trails in all areas specially designated for sage-grouse protection. For BLM lands where a LWC designation is used to protect sage-grouse habitat, motorized recreation should be prohibited and existing roads and trails closed to OHV use.

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**Comment Number:** IDMTSG-14-0049-16

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

To further lessen the impacts of motorized recreation on sage grouse, the Forest Service and BLM should also consider additional seasonal restrictions in areas with active leks (for example, seasonal closures of trails otherwise open). Roads and trails not designated for motorized recreation within designated areas should be obliterated and restored to native vegetation to improve sage-grouse habitat. Further research into the impacts of recreational use on sage-grouse is warranted.

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**Comment Number:** IDMTSG-14-0049-30

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

In general sage-grouse habitat, the LUPA should recommend restoring and reclaiming closed or unused roads and trails. Even if these roads are no longer used, roads and trails may be avoided by sage-grouse as they are more vulnerable to predation in these open spaces. Additionally, cross-country OHV travel may impact sage-grouse by disturbing leks, nesting sites, and through direct mortality. We request that all OHV travel in sage-grouse habitat is restricted to designated trails. Additionally, because illegal user-created trails off of designated trails is a reasonably foreseeable impact, we request that no trails are designated within three miles of known existing or active leks.

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**Comment Number:** IDMTSG-14-0105-18

**Organization1:** Owyhee County

**Commenter1:** Brook Russell

**Comment Excerpt Text:**

Vol 2, Page 2-158 & Page 2-66: Alternative D and E-Travel Management

Both alternatives rely on a blanket restriction on motorized use to existing roads and trails until travel management planning is completed. However, access for administrative use and, in the case of permittees, access to accomplish necessary and/or required maintenance is not exempted in the interim period. Furthermore, at least some existing travel management plans have not recognized and adequately provided for administrative/management access.



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**Comment Number:** IDMTSG-14-0125-3

**Organization1:**

**Commenter1:** Thom Seal

**Comment Excerpt Text:**

We strongly disagree with the any other Proposed Alternative. Do not limit motorized travel for ranchers to access their grazing allotment to inspect vegetation and salt their livestock, as well as for miners to access their claims, and for exploration of valuable mineral deposits. These roads are also important for off road recreation vehicles (ORV). Many of these roads lead to old pioneer grave sites. Also a lot of our people have their loved ones ashes buried in these remote sites only accessed by these roads and trails. This is part of the Custom and Culture of the western US. The roads for the most part existed before the creation of BLM/USFS and therefore fall under RS2477 and are under the Counties jurisdiction and control.

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**Comment Number:** IDMTSG-14-0143-1

**Organization1:** Twin Falls Highway District

**Commenter1:** Scott Allen

**Comment Excerpt Text:**

[specifically referring to Twin Falls Highway District roads]. In order to maintain roadways, both asphalt and gravel surfaced, we need to access our various material sources. Some of these sources, along with the access roads, are located within habitat areas. What is proposed for continued access to our material sources to allow TFHD to provide perpetual maintenance and operation of our roadways?

2. The roadways within our system, which are located within habitat areas, are used by sportsman, ranchers, private land owners and recreationalists. It should be noted that these roads are also used by governmental agencies, such as BLM, Forest Service, Fish & Game, etc...for access to public lands necessary to complete their own studies and maintenance.

Are the TFHD roads providing service to the aforementioned people and agencies going to be closed, seasonally or permanently, or will they remain on an open basis annually? This decision has a tremendous impact on our annual maintenance planning and budgetary allocations.

3. Part of our normal roadway system maintenance is to maintain cross-drains under our roads. If roadways are to be closed seasonally this would prohibit TFHD from maintaining the roads and drain systems on an as needed basis. If the roads are closed seasonally how do you propose that TFHD maintains the aforementioned drains?

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**Comment Number:** IDMTSG-14-0153-52

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

BLM should also apply a maximum road and motorized trail density, no more than 0.7 linear miles per square mile within 2 miles of leks within Priority and General Habitats (after Holloran 2005).

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**Comment Number:** IDMTSG-14-0178-27

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

**Comment Excerpt Text:**

The final LUP/EIS needs to contain language allowing for off-road travel for administrative use by grazing permit holders. Travel restrictions should not impact the ability of permittees to access and manage allotments.

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***Summary***

The Draft EIS/LUPA failed to consider a full suite of travel management-related management actions that would protect sage grouse habitat while allowing for continued administrative access, particularly for existing livestock grazing permittees. Commenters proposed that management actions should be included in the proposed plan to prohibit and reclaim/restore roads in GRSG habitat, limit motorized events, close PPHP to OHV use, apply additional seasonal travel restrictions, and apply a maximum route density within proximity of leks in PPH and PGH. Commenters also requested that proposed management actions preserve motorized access on existing routes per the 3-State OHV and National Route Designation decisions and maintain administrative access in grazing allotments.

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***Response***

Section 1.4 of the Draft EIS describes how the Idaho Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this draft LUPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

During subsequent implementation-level travel management planning new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including noise levels and speed. The route designation process will be completed as subsequent implementation level planning using current Travel Management policies and will include public and local agency involvement. Addressing these issues at the implementation level allows the BLM and Forest Service to take new information into account as it becomes available.

Needs for administrative access to valid existing rights, grandfathered uses, or permitted activities would taken into consideration during site-specific NEPA analysis. Restrictions applied to recreational OHV use may not apply to permitted administrative uses.

The BLM and Forest Service have not added a restriction that would limit road densities to less than 0.09 km per km squared (Wisdom et al. 2011) in GRSG habitat because the threshold established by Wisdom used coarse road data. When taking into consideration actual road density information, use of this threshold is not appropriate. The BLM and Forest Service have included surface disturbance thresholds, which would restrict the density of disturbance tied to new and existing roads in GRSG habitat.

**Section 24.2 - Best available information baseline data**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

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**Comment Number:** IDMTSG-14-0064-1

**Organization1:**Idaho Recreation Council

**Commenter1:**Sandra Mitchell

**Comment Excerpt Text:**

Every other alternative (except Alternative A – no action) reflects a significant reduction in motorized recreation opportunity. Such a drastic change lacks scientific basis.

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**Comment Number:** IDMTSG-14-0153-57

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

BLM lists three categories of management for off-road vehicle use: open, limited and closed DEIS at 3-83. However, there is no baseline information regarding the acreage of lands designated open to cross-country travel within Priority or General Habitats. This baseline information is critical to assessing the scope of the problem posed by off-road vehicle use to sage grouse.

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***Summary***

Chapter 3 of the Draft EIS/LUPA does not depict the number of acres designated as open to cross-country motorized travel.

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***Response***

*[NOTE TO BLM: Add current CTTM area designation acres to Chapter 3.]*

**Section 24.3 - Impact Analysis**

*Total Number of Submissions: 3*

*Total Number of Comments: 6*

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**Comment Number:** IDMTSG-14-0031-3

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

The preparation of the document must work hard to avoid “confirmation bias. Confirmation bias is a tendency to favor information that confirms an individual’s or group think preconceptions or hypotheses regardless of whether the information is true ([http://en.wikipedia.org/wiki/Confirmation\\_bias](http://en.wikipedia.org/wiki/Confirmation_bias) ). Only studies with negative motorized conclusions have been cited. The evaluation should have included a broad screening of issues, information, data, opinions, and needs so that it is not based on confirmation bias and meets NEPA procedural requirements.

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**Comment Number:** IDMTSG-14-0031-4

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

The evaluation and disclosure to the public must include the analysis and a comparison of the magnitude of OHV impacts to naturally occurring impacts for all resource areas used to assess impacts based on site-specific data.

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**Comment Number:** IDMTSG-14-0031-6

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

Any plan amendment should include adequate site-specific analysis on anticipated impacts of motorized and non-motorized recreational activities, which often have little to no impact on wildlife. The impacts of motorized and mountain bike routes that are primarily used for recreation should not be "lumped in" with highways and other high-speed access roads.

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**Comment Number:** IDMTSG-14-0032-2

**Organization1:**Capital Trail Vehicle Association (CTVA)

**Commenter1:**

**Comment Excerpt Text:**

We request that all motorized routes currently in use be adequately evaluated by a site specific analysis demonstrating with scientific evidence the claimed impact on sage grouse.

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**Comment Number:** IDMTSG-14-0183-25

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 2-41, Table 2-3, Travel and Transportation

Alternatives D and E would be the same as Alternative B which would “Designate all occupied habitat as limited to existing roads and trails until travel management planning is completed. At that time, all occupied habitat would be limited to designated routes.”

The BLM’s travel management planning process would not start until after this NEPA process is complete. Given the BLMs current work load and time spent on recent RMP amendments and Travel Management Plans (TMP), it is unlikely that the BLM will have completed TMPs in the near future. Existing authorization holders will likely need to create new access to existing facilities (e.g., reroute around a land slide or to avoid another sensitive biological or cultural resource) and create new access to new facilities. The ban on new roads until a TMP is completed will prevent projects that meet all of the other criteria from moving forward.

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**Comment Number:** IDMTSG-14-0183-35

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 4-16, 3rd para.

Road densities have been directly correlated with GRSG persistence. Compared with occupied GRSG range, extirpated range was 60 percent closer to highways and had 25 percent higher road densities (Manier et al. 2013 citing Wisdom et al. 2011). Within the GRSG range, 95 percent of the mapped sagebrush habitats are within 1.6 miles (2.5 kilometers) of a mapped road; density of secondary roads exceeds 3.1 miles per 247 acres (5 kilometers per square kilometer) in some regions (Knick et al. 2011).

Wisdom et al. (2011) conducted a correlative study where cause and effect cannot be determined. Various anthropogenic factors are likely to co-occur (autocorrelated) and individual contributions of these factors could not be isolated. Therefore, correlations between road densities and GRSG persistence should be interpreted with due caution.

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### ***Summary***

For various reasons, commenters assert that the Draft EIS/LUPA does not adequately analyze the impacts of proposed management actions on travel management. For example, commenters contend that the analysis is not based on sound science or is narrowly focused and biasedly uses studies that only demonstrate the negative effects from OHV use; does not adequately describe the magnitude of OHV vs. “naturally occurring” impacts across alternatives; and does not distinguish between motorized and non-motorized impacts. Commenters further request the BLM/FS consider conducting site-specific studies to support proposed management and assert that there would be indirect effects (e.g. ban on new road construction) incurred by existing ROW authorization holders by deferring travel management planning.

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### ***Response***

As described in Section 4.6 of this comment report, the LUPA/FEIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. Further, as described in Section 4.4. of this comment report, the BLM used the most recent and best available information that was relevant to a land-use planning-level analysis.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

The mechanism being used to determine landscape level travel area designations (open/limited/closed) is 43 CFR 8340 which regulates OHV travel on public lands. BLM does not have a similar regulation for non-motorized travel. Non-motorized travel can be regulated through supplementary rules. Supplemental rules and site specific route designations will be addressed at the implementation level in the future.

New construction related to power line access would be exempted under 43 CFR 8340.05 (3).

While multiple studies on OHV use have been cited, BLM is using the BLM Travel Management Manual and Handbook (M-1626 & H-83421) to address travel planning in the EIS and will continue to use the same policy for future implementation and planning.

### **Section 24.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

## **Section 24.5 - Mitigation measures**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

**Comment Number:** IDMTSG-14-0013-3

**Organization1:**BlueRibbon Coalition, Inc.

**Commenter1:**Don Amador

### **Comment Excerpt Text:**

Prescription: Adopt and promote an invasive species related prevention/education program based on the tenets at - <http://playcleango.org/>

### ***Summary***

The LUPA/EIS should adopt additional travel-related mitigation measures to educate the public and prevent the spread of invasive species from travel-related sources through mitigation measures such as those described at [playcleango.org](http://playcleango.org).

### ***Response***

Appendix C of the DEIS/LUPA includes required design features and best management practices, including those that are based on the best available science to prevent the spread and effects of non-native plant species. See RDF # 290.

NCT note: ID and NV should use the same response as it is the same issue statement.

1. BLM reviewed the measures provided by commenters on [playcleango.org](http://playcleango.org)
2. they were found to be the same as (similar as?) those already provided in Appendix XX.
3. Review of the impact analysis confirmed that the outcomes from the suggested mitigation measures would be the same as those described in the EIS (see section XX).
4. Conclusion (e.g., no changes needed).

## **Section 25 - Tribal Interest**

*No comments are associated with this issue.*

### **Section 25.1 - Consultation requirements**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

**Comment Number:** IDMTSG-14-0236-2

**Organization1:**Shoshone-Bannock Tribes

**Commenter1:**Cleve Davis

### **Comment Excerpt Text:**

consider designating the following areas as ACECs for GRSG, tangible and intangible cultural resources, other special status species, and geological values. Please consider the following areas for ACEC designation:

Big Chili, Monida Pass, Medicine Lodge/Bannock Pass, Big Desert/Craters, Browns Bench/Salmon Falls Creek, Donkey Hills, and Bear Lake Plateau. As designation and management of ACECs is a major issue, we think it would be best to discuss this further through technical consultation between staff [Shoshone-Bannock Tribes]

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### **Summary**

The BLM should consider additional areas for ACEC designation and should consult with the Shoshone-Bannock Tribes about these designations.

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### **Response**

The BLM and Forest Service recognize their responsibility to ensure that meaningful consultation and coordination concerning GRSG planning is conducted with federally recognized tribes, including the Shoshone-Bannock Tribes, to consider tribal treaty rights and trust resources. *[BLM-FS-include relevant legal citations. Note consultation efforts to date]*

### **Section 25.2 - Trust Assets**

*No comments are associated with this issue.*

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### **Summary**

### **Response**

### **Section 25.3 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

### **Section 25.4 - Impact Analysis**

*Total Number of Submissions: 1*

*Total Number of Comments: 2*

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**Comment Number:** IDMTSG-14-0236-1

**Organization1:** Shoshone-Bannock Tribes

**Commenter1:** Cleve Davis

### **Comment Excerpt Text:**

Oil and gas leasing has high potential to destroy and fragment important GRSG, especially in the Bear Lake Plateau, Idaho and region between Lima to Dillion, Montana. This has been well demonstrated in areas with Oil and Gas reserves. Therefore, the first bullet on page 2-12 should be stricken from “Management Common to All Action Alternatives (Alternatives B, through F)” as this action is in direct contradiction to the purpose and need for the LEIS and would contribute to further losses of opportunities for Tribal members to exercise

off-reservation rights to hunt, fish, and gather.

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**Comment Number:** IDMTSG-14-0236-3

**Organization1:** Shoshone-Bannock Tribes

**Commenter1:** Cleve Davis

**Comment Excerpt Text:**

Unless the BLM and FS take drastic measures to conserve the GRSG habitat there will be high likelihood of extinction. This would have a direct impact upon subsistence activities and uses of the GRSG by the Shoshone-Bannock Tribes. Considering this, we support Alternative C, but only if the management allow us opportunities to freely access the public domain, exercise our off-reservation Treaty rights, and continue our traditional customs and practices. Therefore, the LEIS and Record of Decision must acknowledge and honor the rights, customs, and practices of the Shoshone-Bannock Tribes. We also feel that the other alternatives would result in continued loss of subsistence opportunities through the degradation and fragmentation of sagebrush habitat by management actions associated with the alternatives.

---

***Summary***

The BLM must ensure tribes, in particular the Shoshone-Bannock Tribe, maintain opportunities to access the public domain, exercise off-reservation treaty rights, and continue their traditional customs and practices.

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***Response***

The BLM, Forest Service recognize their responsibility to consider potential impacts to Tribal resources.

Article 4 of the Fort Bridger Treaty, signed in 1868, retains the Eastern Band Shoshone and Bannock Tribes' rights to hunt, fish, gather natural resources, and provide other associative right necessary to effectuate these rights. Other treaties ensure similar rights for other tribes.

**Section 25.5 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 25.6 - Mitigation Measures**

*No comments are associated with this issue.*

**Section 26 - Vegetation Sagebrush**

*No comments are associated with this issue.*

**Section 26.1 - Range of alternatives**

*Total Number of Submissions: 6*

*Total Number of Comments: 12*

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**Comment Number:** IDMTSG-14-0049-34

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero



**Comment Excerpt Text:**

Additionally, we strongly encourage the agencies to use sagebrush “treatments,” including prescribed fire and herbicides, sparingly. There is very little data that points to the benefits of these so-called treatments, and the short-term impacts appear inarguably detrimental to sagegrouse.

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**Comment Number:** IDMTSG-14-0100-2

**Organization1:**

**Commenter1:**Justin Naderman

**Comment Excerpt Text:**

Restoration of sagebrush steppe to provide seasonal sage grouse habitat is wanting in all alternatives. There is a high probability that sage grouse will be listed unless there is a commitment to restore ‘X’ number of acres of sagebrush steppe per year that will meet all the seasonal needs of sage grouse.

All of the alternatives emphasize control of invasive species through various treatments – mechanical, chemical, and grazing management. However, this is what the agencies have been doing without success. Control of invasive species should be considered just one step in the restoration process and not the only or final step.

Most of the invasive species have been dominant on the landscape for an extended period of time. Consequently, the soil seed bank of the invasive species so overwhelms the soil seed banks of desirable native plant species that they cannot become established after the invasive species control.

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**Comment Number:** IDMTSG-14-0151-21

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

Any removal of juniper or pinyon pine should be limited to areas where removal has a demonstrated benefit to sage-grouse and then only applied to trees with an 8 inch or less dbh/younger age class trees. Trees should be felled by hand and left in place to retain snow and moisture on-site thus shortening the fire season, and to provide safe sites for grass and for seedlings.

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**Comment Number:** IDMTSG-14-0151-38

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

While science increasingly shows the significant value of passive restoration, the DEIS remains stuck in an outdated range worldview. It fails to seriously examine passive restoration needs of sagebrush ecosystems.

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**Comment Number:** IDMTSG-14-0153-36

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

**Comment Excerpt Text:**

We strongly urge the federal agencies to prohibit vegetation treatments in Priority Habitats except where they are consistent with maintaining optimal sage grouse habitat (NTT 2011). There is a growing scientific consensus that burns and mechanical treatments are deleterious to sage grouse. The agencies also need to

assess non-native seedings and restore them to native vegetation if this is the most optimal option for sage grouse habitat, as has been proposed under the Northwest Colorado RMP Amendment Preferred Alternative. BLM and the Forest Service should also adopt a requirement for grazing exclosures and long-term monitoring following vegetation treatments. It is important to rest burned areas from livestock grazing for 3 full seasons following disturbance

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**Comment Number:** IDMTSG-14-0153-42

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

BLM asserts that junipers have been expanding into sagebrush habitats as a result of fire suppression over the past century. This is a somewhat dubious claim, given that sagebrush also is eliminated by natural fire, and is contradicted by the management priority of suppressing natural fires in sagebrush habitat. Although natural fire may well have modified distribution of both sagebrush and juniper in presettlement times, such fires were infrequent (as noted elsewhere in these comments). In addition, BLM's presumed management strategy of mechanical removal of junipers, while perhaps beneficial to sage grouse if done in a non-invasive way (i.e., removal of the entire tree from the site), has no natural counterpart under reference conditions. Instead of focusing exclusively on fire as a mediator of juniper spread, BLM should also examine the effects of radical increases in ungulate grazing that have occurred with the onset of large-scale ranching in this area, which could potentially confer competitive advantage on junipers through the removal of both grasses (cattle) and sagebrush (sheep).

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**Comment Number:** IDMTSG-14-0153-43

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We encourage BLM to engage in juniper removal treatments that minimize habitat disturbance to the understory, and to pair juniper removal with a scaling back of livestock grazing

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**Comment Number:** IDMTSG-14-0153-67

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Other Sections:** 7.7

**Comment Excerpt Text:**

Minimizing the use of herbicides inside sage grouse habitats, and using them as a last resort, is also a good approach for sage grouse Priority Habitats. We are concerned that aerial applications of herbicides and pesticides are reasonably foreseeable in the planning area. Insects are an important food source for sage grouse; this is particularly true during the early brood-rearing phase. Insecticide application could not only sicken or kill grouse directly, but it could also deprive them of an important food source. Aerial herbicide and pesticide applications should be precluded within one mile of sage grouse habitats to avoid inadvertent poisoning of sage grouse. Although the use of Plateau in heavily cheatgrass-infested areas might be allowed in cases where sage grouse are not using the treated habitats, aerial spraying of herbicides and insecticides over or within one mile of sage grouse habitats should not be allowed. Hand spraying might be accomplished by deliberately driving grouse off by teams on foot prior to treatment, and by treating from backpack units rather than aerial or truck/ATV application

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**Comment Number:** IDMTSG-14-0242-22

**Organization1:** U.S. Fish and Wildlife Services

**Commenter1:** Dennis Mackey

**Comment Excerpt Text:****Non-native/Invasive Plant Species**

The COT objective is to maintain and restore healthy, native sagebrush communities. Both Alternatives D and E propose to implement similar conservation measures to address this objective. We need additional clarity for both Alternative D and E as to site-specific actions to meet the COT objective. Both preferred alternatives have appropriately identified the need to work more extensively at a local scale to coordinate and implement actions that will result in improved wildfire and invasive species management strategies. As discussed above for fire, inclusion of commitments to implement conservation projects identified in the step-down assessments will be needed to increase our certainty that actions, necessary for GRSG conservation, will occur. The subsequent incursion of invasive nonnative plant species after fire events is extremely difficult to manage. However, as described above for fire, the State has developed a comprehensive strategy including legislative changes and funding that will directly address fire and the potential subsequent invasion of annual grass species

**Comment Number:** IDMTSG-14-0242-23

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:****Sagebrush Removal**

The COT objective is to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions. Appropriate regulatory and incentive-based mechanisms will be needed to encourage the maintenance of sagebrush. Alternative D proposes conservation measures that directly addresses this and meets the COT objectives. Alternative E does not propose conservation measures that directly address this threat and is currently inconsistent with the COT

**Comment Number:** IDMTSG-14-0242-25

**Organization1:**U.S. Fish and Wildlife Services

**Commenter1:**Dennis Mackey

**Comment Excerpt Text:****Pinyon-Juniper Expansion**

The COT objective is to remove pinyon-juniper from areas of sagebrush that are most likely to support sage-grouse (post removal) at a rate that is at least equal to the rate of pinyon-juniper incursion. Both Alternative D and Alternative E are similar in addressing this threat. We recommend the selected alternative identify a rate at which treatments should be implemented to meet the COT objective. Additionally, removal of pinyon-juniper trees encroaching within 1000 meters of a lek should be the highest priority.

**Comment Number:** IDMTSG-14-0325-9

**Organization1:**

**Commenter1:**William J. Mulder

**Other Sections:** 26.5

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] Integrated Invasive Species. Loss of habitat due to invasive species was identified as a primary threat to GRSG by FWS. The only "action" proposed by Alternatives B, C, D and F is to mention GRSG habitat (D-IIS-1), to monitor and treat areas

"associated with existing range improvements" (B-IIS-4) and to regulate project construction (in D-IIS-5).

Other than these, management of integrated invasive species is essentially no different than BLM's existing policy which has been detrimentally ineffective for various reasons. Further, BLM's efforts at integrated invasive species eradication have been opposed by groups closely associated with Alternatives C and F.

Given the relative importance of this threat as identified by FWS, NTT and USGS, BLM should commit to a program that actively plans, funds, executes and monitors large-scale integrated invasive species infestation eradication projects in a measurable timeframe. Alternatives A, B, C, D and F fail to do this.

### ***Summary***

Commenters recommended that the preferred alternative include:

- Specific vegetation treatment acreage objectives
- Passive sagebrush restoration
- Limitations on vegetation treatments in sagebrush areas. To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions.
- Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment.
- Restore non-native seedings to increase GRSG habitat
- Apply additional restrictions for herbicide application in GRSG habitat
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe.
- Include specific objectives to measure success in invasive species eradication

### ***Response***

As described in Section 4.3, the ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

Some of the recommended components were addressed in the DEIS and additional info will be included in the FEIS as detailed below.

- Specific vegetation treatment acreage objectives [need National Policy team input- to decide how treatment objectives will be incorporated]
- Passive sagebrush restoration: In the DEIS Alternative C and management changes that allow progress towards standards and guidelines allow for passive sagebrush restoration. In some areas passive restoration may not be sufficient to improve GRSG habitat and active restoration may be necessary (Davies et al. 2011) (see pp 4-54 DEIS [- check page]).
- Limiting vegetation treatments in sagebrush areas is covered under Alternative D ([provide pg reference]. To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions. [include info from FEIS specific to meeting COT report objectives if appropriate])
- Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment: Priorities for PJ removal are addressed in the DEIS ([check that preferred alt includes removal within 1000m of leks per COT report objectives, if not explain rational])
- Restore non-native seedings when beneficial to GRSG habitat: Alternative C in the DEIS supports restoration of native vegetation to areas that have been seeded with non-native species when beneficial to GRSG [site mgmt. action]. The preferred alternative provides direction for restoring non-native seedings. [provide mgmt. action number and check language to refine if needed in mgmt. action]

- Apply additional restrictions for herbicide application in GRSG habitat: Herbicide/Pesticide BMPs are covered under the Veg treatment PEIS (BLM 2007x). The IDMT GRSG EIS tiers to the analysis in this document.
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe. Include specific objectives to measure success: This EIS is intended to provide treatment methods, priority and objectives and the conditions under which these treatment objectives would occur. Specifics regarding treatment effectiveness, funding and implementation would be covered in site specific management actions. BLM and Forest Service would follow agency specific monitoring requirements.

## **Section 26.2 - Best available information baseline data**

*Total Number of Submissions: 13*

*Total Number of Comments: 24*

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**Comment Number:** IDMTSG-14-0046-8

**Organization1:**

**Commenter1:** Jim Gerber

### **Comment Excerpt Text:**

Succession should be discussed to show the progression sagebrush goes through from the seedling stage to old overmature stage, and how that progression affects sage grouse.

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**Comment Number:** IDMTSG-14-0046-9

**Organization1:**

**Commenter1:** Jim Gerber

### **Comment Excerpt Text:**

There is no information on the different stages of vegetation in the AE (ie, seedling, immature, mature and overmature stages), and how many acres there are of each. How are the agencies going to measure the rate of increase or decrease in the acres of each age class over time if you don't even know how many acres there are to begin with?

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**Comment Number:** IDMTSG-14-0053-5

**Organization1:** Hagenbarth Livestock

**Commenter1:** Jim Hagenbarth

### **Comment Excerpt Text:**

There have been recommendations made that when sagebrush canopy cover exceeds certain percentages it be treated back to a 15% canopy cover in nesting habitat and 80% of nesting habitat be maintained between 15-25% canopy cover. This is not reasonable in our area. You need to get back to an early seral condition in order for the grasses and forbs to build root mass and vigor allowing them to compete longer with sagebrush when it returns to site potential. To short circuit this process will only lead to unsustainable sagebrush ecosystems that will eventually lose their grass and forb components and possibly end up as perennial grasslands. We as managers are obligated to manage to enhance the sustained productivity of the sagebrush rangelands. Any alternative should have that goal and not limit the tools necessary to accomplish this task.

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**Comment Number:** IDMTSG-14-0053-6

**Organization1:**Hagenbarth Livestock

**Commenter1:**Jim Hagenbarth

**Comment Excerpt Text:**

Most of the research driving habitat guidelines developed through WAWFA and the NTT were done on arid Wyoming Big Sagebrush and shorter sagebrush habitats. These sagebrush habitats recover from disturbance much slower than sagebrush in mesic sites with good soils. The WAWFA and NTT authors admit they reviewed little research about the management of Mountain Big Sage on mesic sites for long term sustainability. In the Upper Snake there are thousands of acres of superb nesting habitat on mesic Mountain Big Sage sites that is important. These sites have some of the most robust sagebrush growth and productive GRSG habitats in Idaho. Some of this area is on Sheep Station land north of Dubois and scientists have compiled years of research on treatment and grazing of Mountain Big Sage stands in a mesic setting. A research paper is currently being peer reviewed that indicates Mountain Big Sage habitat in this setting returns to climax condition on average in 18.33 years after treatment with prescribed fire. In 1989, 1991, and 1993 we used prescribed fire to manage Mountain Big Sagebrush stands on a 5500 acre BLM allotment. When an EA was done for permit renewal in 2013, the areas treated carried sagebrush canopy covers of 44%, 25% and 18% after being burned 24, 22 and 20 years previously. After managing over 20,000 acres of mountain big sagebrush habitat in the Spencer, Kilgore, Shotgun areas for over 40 years using fire and herbicide treatments repeatedly, our habitat is native, intact and productive as GRSG habitat meeting the WAWFA guidelines for sagebrush cover and exceeding the guidelines for native grasses and forbs. We need to manage these stands to keep them sustainable and prevent fuel loading. Prescriptive management regulations in the LUP/EIS need to give the agencies and lessees the adaptive management to manage site specific sagebrush habitats.

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**Comment Number:** IDMTSG-14-0053-7

**Organization1:**Hagenbarth Livestock

**Commenter1:**Jim Hagenbarth

**Comment Excerpt Text:**

Range renovation must not be included under the disturbance cap or in a no non mitigated disturbance scenario as proposed in Alternative D. On the lower elevations of the GRSG habitat that we manage, there are healthy stands of other brushes that are sprouters (antelope bitterbrush, chokecherry, shiny leaf ceanothus, and snowberry) and increase when burned. Some habitats in areas along the Red Road are carrying total brush canopy covers over 50% and need to be treated. Under this scenario herbicide would be the best choice. We have been using herbicide because the liability of fire is too great, we can control these sprouters better (including Three Tip sagebrush), we have absolute control of what is treated, and with heavy fuel loads fires get hot and can do more damage to the native seed bank. We see minimal impact on forbs in two or three years after herbicide treatment. Terrain and lava flows prohibit mechanical treatment.

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**Comment Number:** IDMTSG-14-0056-12

**Organization1:**Helmick Ranch

**Commenter1:**Neil Helmick

**Comment Excerpt Text:**

Extreme caution must be exercised with any proposal designed to convert non-native perennial grasslands (especially those within lower elevation Wyoming big sagebrush sites) to a sagebrush dominated habitat with native understory. (D-VG-24, page 2-111) Under current technology, confidence in any conversion attempt is lacking and may lead to undesired conditions for multiple species, not just sage grouse

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**Comment Number:** IDMTSG-14-0063-1

**Organization1:**Idaho Native Plant Society

**Commenter1:**LaMar N. Orton

**Comment Excerpt Text:**

The INPS is sponsoring a Rare Plant Conference on February 26 and 27. This conference will bring together many professional botanists and lay plant enthusiasts to discuss the status of rare plants within Idaho. The result of the conference will be an updated rare plant list. We ask that your agencies review the new list and revise your list of Special Status Species accordingly.

**Comment Number:** IDMTSG-14-0100-3

**Organization1:**

**Commenter1:**Justin Naderman

**Comment Excerpt Text:**

Anyone familiar with the sagebrush steppe across southern Idaho can point to the numerous restoration attempts that have failed for one or more reasons. Many associated with the management of sagebrush steppe across southern Idaho can also tell you about the few projects that were successful. Unfortunately, probably no one can explain why the few projects were successful. Agency's record the kind of equipment used and who the contractor was but fail to document pre-existing conditions, soil types, seedbed condition, seed placement, etc. Some will argue that restoration of sagebrush steppe across southern Idaho is prone to failure. If this argument is accepted, sage grouse will become listed sometime in the future.

The key to understanding the factors that will consistently result in successful restoration of sagebrush steppe (big sagebrush species and native perennial forbs and grasses) across southern Idaho is conducting basic plant/seed physiology and agronomy research. Forget about the kind of equipment used and focus on the seedbed preparation and seed placement. Study seedling growth and development under different seedbed preparations, seed placements, moisture regimes, and soil types. Document the soil moisture conditions before and changes in moisture after seeding. Document soil seed banks before seeding and seedling reestablishment after seeding. We cannot continue to spend millions of dollars throwing seed out there in hopes that the next time will be more successful. Start with the necessary documentation and research to ensure future seeding is consistently successful.

**Comment Number:** IDMTSG-14-0151-46

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

This omits reference to . This is despite livestock grazing being a primary causal agent of flammable invasive species expansion in unburned sagebrush habitats, as well as burned habitats that receive minimal rest from weed-promoting grazing disturbance post-fire. Harmful facilities and infrastructure must be considered a threat. Intensive areas of livestock disturbance must be consider disturbance. Whisenant 1991, Billings 1994, Connelly et al. 2004, USFWS WBP Finding, Reisner et al. 2013, Manier et al. 2013.

**Comment Number:** IDMTSG-14-0151-56

**Organization1:**Western Watersheds Project

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The DEIS relies on the outdated Vegetation Treatment EIS from 1991, and the Final Veg Treatments on BLM Lands in 17 Western States (Weed EIS). BLM ignores the fact that it has no integrated weed prevention measures currently in place, or a NEPA-compliant plan to address the direct, indirect and cumulative impacts of a massive treatment scheme that underlies these EISs.

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**Comment Number:** IDMTSG-14-0151-93

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

BLM signed MOUs saying that it would use the very important scientific work on sagebrush communities that came out of the interior Columbia Basin Ecosystem project. This has been ignored.

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**Comment Number:** IDMTSG-14-0151-95

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Table 3-6 provides only the most general of sagebrush veg communities “within PPH and PGH” on BLM and Forest lands. Sage: Low, mixed, tall; Perennial grass; Annual Grass; Conifer encroachment; Crested Wheatgrass. This identifies ¼ million acres of crested wheatgrass, but that appears to be much less than the land areas acknowledged as seedings, and much less cwg than we have observed across this region. Please explain.

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**Comment Number:** IDMTSG-14-0151-98

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

We are mystified at the basis for the information used to derive Table 3-4 “Habitat Conditions, Trends, and Primary Threats ...”. While quite high percentages of sagebrush cover are shown to be present in the Upper Snake and areas outside SW Idaho, SW Idaho has very low cover. Is this because the Jarbidge was lumped in with SW Idaho? What inputs were used in this, and all other “modeled” vegetation?

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**Comment Number:** IDMTSG-14-0153-56

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

We are concerned that the federal agencies are not fulfilling NEPA’s baseline information requirements with regard to the analysis of alternatives. Specifically, there is no baseline information presented on the spatial extent of cheatgrass infestations in the planning area (See DEIS at 3-27), despite the fact that this has been identified as a major threat to sage grouse persistence. There also is no baseline information on the spatial extent of non-native grasses such as crested wheatgrass, which also are deleterious to sage grouse. DEIS at 3-28. It would seem that GIS data should be available based on the widespread digitization of LANDSAT, LANDFIRE, and other remote sensing. This information should be included in the EIS to inform impact analyses under the various alternatives

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**Comment Number:** IDMTSG-14-0168-35

**Organization1:** Custer County Commissioners



**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-9

"70 percent of an area should be in 10 to 30 percent sagebrush canopy cover to meet GRSG sagebrush habitat objectives. "

Comment:

The 70 percent figure comes directly from the NTT Report. The NTT presents no scientific data that a one-size-fits-all goal of 70% sagebrush cover is scientifically defensible, achievable, would result in stable sage grouse populations, would not result in irreparable harm to other species, and would not negatively affect local economies.

**Comment Number:** IDMTSG-14-0169-13

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Other Sections:** 16.2

**Comment Excerpt Text:**

Cheatgrass incursion in sagebrush steppe began in the 1850s with the introduction of domestic livestock, which trampled the biological soil crust that occupied the interspaces between native vegetation (Mack 1981) and facilitated the species' spread. Intact, lichen-dominated biological soil crusts can significantly inhibit germination and root penetration of cheatgrass (Deines et al. 2007), while the presence of cheatgrass can negatively affect biological soil crust richness and cover (Ponzetti et al. 2007). Moss-dominated biological soil crusts may also effect germination of annual grasses, including cheatgrass (Serpe et al. 2006). The diversity, cover and resiliency of biological crusts are positively correlated to low abundance of cheatgrass, low level of soil disturbance and high moss cover (Ponzetti et al. 2007). Shinneman et al. (2008) discovered that herbaceous and biological soil crust cover and species richness and diversity were generally greater on ungrazed than grazed areas in semi-arid shrubsteppe in western Colorado. Reisner et al. (2013) found that livestock contribute to the spread of cheatgrass by trampling the soil crust.

**Comment Number:** IDMTSG-14-0169-18

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Native bunchgrasses in sagebrush steppe, such as bluebunch wheatgrass and Idaho fescue, also require rest after being grazed during the growing season. Hormay and Talbot (1961) designed rest-rotation grazing to allow recovery after each grazing session, allowing sensitive native bunchgrasses to recover their vigor. Other BLM and USFS researchers have provided guidance for recovery of native bunchgrasses that may require multiple years of rest to restore vigor (Anderson 1991; Mueggler 1975). Anderson and Inouye (2001) working in sagebrush steppe in southern Idaho determined that native perennial grasses were recovering after 45 years of livestock exclusion and the increasing trend of these native grasses was inversely correlated to non-native invasive species such as cheatgrass.

**Comment Number:** IDMTSG-14-0169-24

**Organization1:** Defenders of Wildlife

**Commenter1:** Mark Salvo

**Comment Excerpt Text:**

Tall, dense, vegetational cover may provide scent, visual and physical barriers to predation on nesting

sage-grouse hens, sage-grouse nests and chicks, and may enhance nest success (Gregg et al. 1994; Herman-Brunson et al. 2009). Holloran et al. (2005) also found that taller, thicker residual grass cover in dense sagebrush with moderate-high canopy cover (up to 40 percent) appears to increase the probability of sage-grouse nest success. Their research indicated that herbaceous cover and height were more important than shrub cover or height to nest success (Holloran et al. 2005; see also Rebholz 2007). Rebholz (2007) similarly found that increased grass cover improved the likelihood of nest success. Hagen et al. (2007) conducted a quantitative meta-analysis of existing research on greater sage-grouse nesting and brood-rearing habitat and confirmed that female sage-grouse typically select nesting sites with greater sagebrush cover and grass height compared to random locations, and that brood areas usually had less sagebrush, taller grasses, and greater forb and grass cover than at random sites.

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**Comment Number:** IDMTSG-14-0169-28

**Organization1:**Defenders of Wildlife

**Commenter1:**Mark Salvo

**Other Sections:** 16.2

**Comment Excerpt Text:**

Although Strand and Launchbaugh (2013) is a useful review, planners should beware of its limitations. It fails to acknowledge that sagebrush systems in the Intermountain West evolved with little herbivory by large, hooved mammals and that grazing fundamentally affects ecosystem processes in sagebrush steppe. It does not acknowledge the role of biological soil crust in impeding cheatgrass incursion or the negative effects of grazing on soil crust. The review suggests that livestock removal and trampling of understory vegetation and plant litter (including in early spring) can help reduce fire fuel loads, but this could be deleterious to sage-grouse. As the draft Idaho/SW Montana plan acknowledged, “[r]esidual cover, especially grass and litter, has often been noted as essential for GRSB for concealment during nesting and brood-rearing” (vol 2, 4-8, citing Sveum et al. 1998; Kirol et al. 2012). Grazing during the dormant season, which is also recommended by Braun (2006, unpublished)

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**Comment Number:** IDMTSG-14-0178-4

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Other Sections:** 12.2

**Comment Excerpt Text:**

Control of invasive species has a direct correlation with controlling wildfires. For the reasons mentioned above, grazing can be used as a tool to reduce many of the invasive species which also serve as fine fuel loads for fires. Peer-reviewed studies have proven that when rangeland is burned, it is much less prone to invasion by annual invasive weeds like cheat grass if it has been grazed (Davies, 2009). Due to reduced fuel loads and cooler burn temperatures, grazed rangeland is more likely to reestablish native bunch grass communities, while burned ground that has not been grazed is more likely to establish cheat grass communities. In light of these findings, appropriate grazing should be recognized in the RMPA as a primary tool in the prevention of wildfire and reduction of invasive weeds—two of the primary threats to sage grouse habitat. Diamond et al. (2009) found that targeted grazing may be a critical tool for breaking the exotic annual grass-fire cycle by decreasing the probability of fire disturbance.

Additionally, Diamond et al. (2009) found that, on areas already invaded by exotic annual grasses, strategic grazing could reduce fuel loads and continuity enough to prevent a flame front from carrying across the treated areas, even under peak fire conditions. Ample research, including that of Olson and Lacey (1994) and Walker et al. (1994), has found livestock grazing to be an effective tool for the control of invasive plant communities.

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**Comment Number:** IDMTSG-14-0178-5

**Organization1:**Idaho Cattle Association

**Commenter1:**Karen Williams

**Comment Excerpt Text:**

Encroachment of another species, pinion juniper, also poses a primary threat to sage grouse. Conifer encroachment is detrimental to sagebrush obligate wildlife because of the loss of sagebrush, fragmentation of sagebrush habitats, potential decreases in herbaceous forage, and increased predation (Connelly et al., 2000; Miller et al., 2005). The trees use significantly more water and out-compete bunchgrasses, forbs and sagebrush as they grow. This reduces forage for sage grouse as well as for livestock. To combat this, ranchers have partnered with NRCS to remove early-phase invading conifers. They have contributed to the treatment 200,000 acres of lands range-wide in core habitats. Again, refer to Attachment 2 for just one of many examples of these efforts. The LUPA/DEIS should focus on encouraging more such public/private partnerships for juniper removal.

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**Comment Number:** IDMTSG-14-0183-36

**Organization1:**Idaho Power

**Commenter1:**Brett Dumas

**Comment Excerpt Text:**

Pg. 4-69, 5th para.

Depending on the species and the size of a burn, sagebrush can reestablish itself within five years of a burn, but a return to a full pre-burn community cover can take 15 to 30 years (Manier et al. 2013, pp. 133-134).

According to Bukowski and Baker (2013), historical fire rotations were estimated at 171-343 years for Wyoming sagebrush (*Artemisia tridentata tridentata*) and 132-217 years for mountain big sagebrush (*Artemisia tridentata vaseyana*). The authors conclude that historical sagebrush landscapes were complex, often dominated by large expanses of mature sagebrush that varied in density, but with finer-scale sagebrush mosaics, recently burned areas, and significant areas of sagebrush with trees. These landscapes fluctuated over decades to centuries at both local and landscape scales. Given this information, it is unlikely that sagebrush can return to a full pre-burn community cover 15 to 30 years after a burn

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**Comment Number:** IDMTSG-14-0222-1

**Organization1:**

**Commenter1:**Shane and Laci Stanford

**Comment Excerpt Text:**

I ask what is being done to control Juniper encroachment on existing sagebrush environments?

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**Comment Number:** IDMTSG-14-0232-1

**Organization1:**

**Commenter1:**Katie Fite

**Comment Excerpt Text:**

The BLM ID SG EIS bases its current habitat analysis on what is referred to in a Footnote in Table 3-4 as info coming from the Idaho Governor's Sage Grouse Task Force in 2012. EIS Table 3-4 Col. 1, "Existing condition based on **modeled vegetation**" has a footnote showing the info came from the ID Gov Task Force.

I assume this is the source of the info?

<http://cloud.insideidaho.org/webapps/search/search.aspx?searchterm=sage%20grouse>

Does this information specifically identify all areas of crested wheat/Siberian wheat seedings undertaken by BLM? This includes forage seedings, as well as post-fire ESR seedings. If not, where can we obtain this information? Who do we contact in BLM if we have questions about vegetation info used, and how it was categorized? For example, in looking at page 3-13 of the EIS "Existing condition of modeled vegetation in east central Idaho", it shows 97% of the mountain big sage, and 92% of the Wyoming big sage in East-central ID have 10-30% canopy cover. How was this arrived at? Given that there are large areas of rabbitbrush or other veg types? Is it ONLY the undisturbed vegetation shown here. And if that is the case, how much land area that should naturally be occupied by these vegetation types does not fit the 10-30% mold?

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### **Summary**

The DEIS fails to provide adequate baseline information related to sagebrush vegetation. Commenters questioned the source of BLM data and requested the FEIS utilize additional baseline data on cheatgrass extent and evaluate effectiveness of continuing programs against weeds and juniper encroachment. Commenters provided additional literature to consider. Commenters also advocated an adaptive approach to vegetation management based on site-specific habitats.

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### **Response**

As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

Adaptive management would be incorporated into vegetation treatment and restoration programs under Alternatives D and E. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

[BLM: provide direction if any change to analysis is necessary. Notes during cmt response mtg: Clarify use of 70% cover from NTT; update EIS with new rare plant list.]

Change to make: Footnote in Table 3-4 change source to – ID team input and EIS vegetation model. Cite the VDDT appendix.

The BLM and Forest Service has clarified the vegetation modeling and data sources in Chapter 3. [Insert details regarding location and changes made]

### **Section 26.3 - Impact Analysis**

*Total Number of Submissions: 2*

*Total Number of Comments: 3*

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**Comment Number:** IDMTSG-14-0322-1

**Organization1:**Stevenson Intermountain Seed, Inc.

**Commenter1:**Ronald M. Stevenson

### **Comment Excerpt Text:**

The major problem of the deficiency is that the draft EIS does not contain an adequate presentation and analysis concerning the critical importance that improving or restoring destroyed good sage-grouse habitat will have in reversing the current trend of diminishing sage-grouse numbers.

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**Comment Number:** IDMTSG-14-0325-7

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

VEGETATION [This comment corresponds to the headings in Table 2-17 and Table 2-18]

Habitat Restoration.

C-VG-10 is shortsighted as this would eliminate livestock water sources, eliminate options to move livestock water area away from viable springs/seeps, and possibly dry-up water sources for livestock, GRSG and other wildlife.

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**Comment Number:** IDMTSG-14-0325-8

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] C-VG-11 is shortsighted in trying to eliminate crested wheatgrass. Crested Wheatgrass and other nonnatives may have potential to restabilize areas where native seed is unlikely to survive or is unavailable; it may out-compete invasives; and it is also beneficial as a preferential alternative forage source for cattle and wildlife, leaving native grasses and forbs more available for GRSG.

"Active restoration of cheatgrass infestation areas" promoted by C-VG-11 is a desirable action. As it may relate to all VG Alternatives, the prejudice toward eliminating or prohibiting annual grasses is misdirected. Mosaic open areas comprised of [non-invasive] annual or other non-native grasses can be a valuable management option. As mentioned above, these areas are likely to be grazed preferentially by livestock and wildlife, removing pressure for the more dispersed native forbs and grasses. These areas could also serve as valuable fire breaks and access areas without disruption of sagebrush stands.

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***Summary***

Commenters express concern about unintended or undesirable impacts of vegetation management programs to control weeds or restore sagebrush habitat. The DEIS inadequately analyzes impacts from vegetation restoration

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***Response***

As described in Section 4.6, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives.

Contiguous blocks: Site-specific calculations will be conducted at the implementation level.

PJ: Clarification will be provided in Section XX.

**Section 26.4 - Cumulative impact analysis**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0180-45

**Organization1:**

**Commenter1:**C.L. Butch Otter

**Comment Excerpt Text:**

BLM's analysis of cumulative effects is lacking for vegetation. BLM assumes because Alternative E's CHZ is smaller than BLM's PPMA that cumulative effects would be greater than other alternatives. However, even though Alternative E's CHZ is smaller than BLM's PPMA, it doesn't mean the rest of the zones are any less protected. 73% of the male population resides in CHZ and 22% are in IHZ. Alternative E allows BLM to prioritize its resources. In spite of the PPMA designation, BLM may not be able to commit adequate resources to respond to threats within all of PPMA.

***Summary***

BLM's cumulative impacts analysis for vegetation failed to consider the impacts of limited resources on sage-grouse protection.

***Response***

Funding and availability of resources is outside the scope of this EIS.

**Section 26.5 - Mitigation measures**

*Total Number of Submissions: 3*

*Total Number of Comments: 7*

**Comment Number:** IDMTSG-14-0159-27

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

Restoration efforts include reseedling, sagebrush seedlings, invasive annual grass expansion prevention, reseedling on State owned lands by federal contractors, and conifer removal on state owned lands by federal contractors. A reseedling strategy must be completed within one year of signing the Record of Decision and implementation of restoration to offset wildfire losses in CHZ and IHZ since 2011 must be completed within 2 years of signing the Record of Decision. Offset models of wildfire losses in CHZ and IHZ should be completed 3 years after signing the Record of Decision. A sagebrush seedlings strategy should be completed within one year of the Record of Decision. Planting should be completed in CHZ within two years of signing the Record of Decision and within 3 years for IHZ

**Comment Number:** IDMTSG-14-0159-28

**Organization1:**American Exploration and Minind Association

**Commenter1:**Laura Skaer

**Comment Excerpt Text:**

For invasive annual grass prevention, modeling and strategy should be completed within 1 year of signing the Record of Decision. Techniques to prevent further spread in CHZ and IHZ should be implemented within 2 years of signing the record of decision. Offset of annual grass spread in CHZ and IHZ should occur within 3

years of signing the Record of Decision. A Memorandum of Understanding (MOU) for reseeded on state-owned lands should be signed within 1 year of the Record of Decision. State lands should be reseeded within one year of a wildfire. An MOU for conifer removal should be signed within 1 year of the Record of Decision. Conifer removal on state lands should occur within the timeframe of federal projects.

These measures will be permanent, in contrast to BLM's existing temporary IMs for fire management. No other Alternatives in the LUPA/DEIS include a time frame for implementation.

change.<sup>29</sup> Additionally, several researchers have shown that loss of winter or breeding habitats resulted in decreased GRSG populations.<sup>30</sup> Both population and habitat triggers are tripped at 20% loss within a conservation area.

**Comment Number:** IDMTSG-14-0159-29

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Restoration efforts include reseeded, sagebrush seedlings, invasive annual grass expansion prevention, reseeded on State owned lands by federal contractors, and conifer removal on state owned lands by federal contractors. A reseeded strategy must be completed within one year of signing the Record of Decision and implementation of restoration to offset wildfire losses in CHZ and IHZ since 2011 must be completed within 2 years of signing the Record of Decision. Offset models of wildfire losses in CHZ and IHZ should be completed 3 years after signing the Record of Decision. A sagebrush seedlings strategy should be completed within one year of the Record of Decision. Planting should be completed in CHZ within two years of signing the Record of Decision and within 3 years for IHZ.

**Comment Number:** IDMTSG-14-0159-30

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

For invasive annual grass prevention, modeling and strategy should be completed within 1 year of signing the Record of Decision. Techniques to prevent further spread in CHZ and IHZ should be implemented within 2 years of signing the record of decision. Offset of annual grass spread in CHZ and IHZ should occur within 3 years of signing the Record of Decision. A Memorandum of Understanding (MOU) for reseeded on state-owned lands should be signed within 1 year of the Record of Decision. State lands should be reseeded within one year of a wildfire. An MOU for conifer removal should be signed within 1 year of the Record of Decision. Conifer removal on state lands should occur within the timeframe of federal projects.

These measures will be permanent, in contrast to BLM's existing temporary IMs for fire management. No other Alternatives in the LUPA/DEIS include a time frame for implementation.

**Comment Number:** IDMTSG-14-0159-35

**Organization1:** American Exploration and Minind Association

**Commenter1:** Laura Skaer

**Comment Excerpt Text:**

Alternative D's mitigation strategy is "no net unmitigated loss" which means at best, a 1:1 ratio of acres. However, Alternative D essentially excludes infrastructure in its most restrictive management zone, so the opportunity for mitigation is essentially illusory. The Governor's Alternative approaches this issue more practically, with a general exclusion in CHZ but with a limited exemption process that reflects the valid existing rights of potential permit applications

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**Comment Number:** IDMTSG-14-0322-2

**Organization1:** Stevenson Intermountain Seed, Inc.

**Commenter1:** Ronald M. Stevenson

**Comment Excerpt Text:**

Also missing is a plan of action with goals and objectives that will provide the methods, practices, and resources to accomplish the goals and objectives needed in the effort to improve or restore important sage-grouse habitat.

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**Comment Number:** IDMTSG-14-0325-9

**Organization1:**

**Commenter1:** William J. Mulder

**Other Sections:** 26.1

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] Integrated Invasive Species. Loss of habitat due to invasive species was identified as a primary threat to GRSG by FWS. The only "action" proposed by Alternatives B, C, D and F is to mention GRSG habitat (D-IIS-1), to monitor and treat areas "associated with existing range improvements" (B-IIS-4) and to regulate project construction (in D-IIS-5).

Other than these, management of integrated invasive species is essentially no different than BLM's existing policy which has been detrimentally ineffective for various reasons. Further, BLM's efforts at integrated invasive species eradication have been opposed by groups closely associated with Alternatives C and F.

Given the relative importance of this threat as identified by FWS, NTT and USGS, BLM should commit to a program that actively plans, funds, executes and monitors large-scale integrated invasive species infestation eradication projects in a measureable timeframe. Alternatives A, B, C, D and F fail to do this.

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***Summary***

Commenters requested detailed plans of action and clarification on mitigation and monitoring, including timing of re-seeding and restoration after fire.

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***Response***

Mitigation has been further defined as a Regional Mitigation Framework and is detailed in Appendix X. The



Framework is incorporated in the [insert Proposed Plan/Proposed Plan Amendment] and was developed to achieve a net conservation gain to the species by implementing conservation actions. Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can help achieve the greatest conservation benefit for greater sage-grouse and its habitats.

If impacts to greater sage-grouse or its habitat from authorized land uses remain after applying avoidance and minimization measures, then compensatory mitigation projects will be used to fully offset impacts to achieve conservation benefits. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

Specific mitigation strategies, based on the Framework, will be developed by regional teams within one year of the issuance of the Record of Decision and be consistent with the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ regulations at 40 CFR 1508.20.

Mitigation measures for specific projects are implementation level decisions and will be included in site-specific analysis which is outside the scope of this EIS.

## **Section 27 - Vegetation Riparian**

*No comments are associated with this issue.*

### **Section 27.1 - Range of Alternatives**

*Total Number of Submissions: 2*

*Total Number of Comments: 3*

**Comment Number:** IDMTSG-14-0050-4

**Organization1:**

**Commenter1:**Kathleen Gregg

#### **Comment Excerpt Text:**

If the BLM and USFS truly want to restore riparian and meadow areas to benefit wildlife it needs to permanently remove the domestic livestock from those areas. It would seem much more likely that the ongoing degradation of riparian areas and meadows by domestic livestock is a limiting factor for sage-grouse because those areas are important brood-rearing habitat.

**Comment Number:** IDMTSG-14-0153-10

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

#### **Comment Excerpt Text:**

36 C.F.R § 219.8(a)(3). The plan must establish widths for riparian management zones, to which the management outlined in the quoted section above will apply

**Comment Number:** IDMTSG-14-0153-44

**Organization1:**Wild Earth Guardians

**Commenter1:**Erik Molvar

#### **Comment Excerpt Text:**

While not necessarily associated with livestock grazing, in some areas, tamarisk and Russian olive are increasing in riparian areas; we are concerned that this will also degrade brood-rearing habitats through sage grouse avoidance of trees and creation of raptor perching and nesting habitat. What is the relationship between tamarisk and Russian olive invasion and livestock overgrazing in riparian habitats, and what does

BLM propose to do to address the spread of these invasive trees?

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**Summary**

Commenters suggested management approaches for riparian vegetation, including removal of invasive tamarisk, limitations on or removal of livestock grazing, and maintenance of sage-grouse habitat objectives.

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**Response**

As described in Section 4.3, the ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.  
[BLM: provide direction if any change to analysis is necessary.]

**Section 27.2 - Best Available Info Baseline Data**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

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**Comment Number:** IDMTSG-14-0151-80

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Functioning condition of riparian/wetlands does not indicate ‘stability’, as PFC areas erode and headcut all the time. It does not represent sustainable use on often very limited and desertifying meadow/spring seep riparian areas. Why are there no meadow grazing, trampling standards here? Or sources of weeds/ Potential sources of West Nile, and other threats?

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**Comment Number:** IDMTSG-14-0153-45

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

**Comment Excerpt Text:**

There appear to be deficiencies in BLM’s riparian and wetland surveys across the planning area, and the DEIS does not present summary statistics for acreage of sage grouse habitat that is not meeting Properly Functioning Condition criteria. Please address this deficiency in baseline information, as riparian areas are crucial to sage grouse as brood-rearing habitats, and present this information in full in the FEIS

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**Summary**

Commenter requests baseline data related to Proper Functioning Condition of riparian areas in sage-grouse habitat. Commenter questions whether PFC protects stability of riparian habitat for sage-grouse.

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

**Response**

Comprehensive PFC data is not available on a sub-regional level but is displayed when available. Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse. Modifications to PFC methods are outside the scope of this planning effort.

**Section 27.3 - Impact Analysis**

*No comments are associated with this issue.*

**Section 27.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

**Section 27.5 - Mitigation Measures**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

**Comment Number:** IDMTSG-14-0186-25

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Page 2-141 [211]. D-LG/RM-16. As stated elsewhere herein, there exists an inherent discrepancy between riparian and lentic condition that is better for sage-grouse, and “proper functioning condition” of the riparian/lentic resource. Specifically, some forbs (a specific example being dandelion) are highly preferred by sage-grouse, but are non-native species. The presence of these non-natives on a riparian/lentic area usually is used to justify an assessment by the agencies of less-than proper functioning condition. Likewise, moist or wet meadows in “proper functioning condition” are often – almost always – composed of deep-rooted perennial, sod-forming, grasses that preclude or severely curtail the presence of forbs. The agencies cannot simultaneously manage the same spot on the landscape for both. The FEIS/LUPA must rectify this discrepancy

**Comment Number:** IDMTSG-14-0191-1

**Organization1:** The University of Montana-Western

**Commenter1:** Jack Kirkley

**Comment Excerpt Text:**

Reduce first year mortality by focusing the chosen alternative on the improvement/protection of riparian habitat, leaving an abundance of woody and herbaceous vegetation standing tall enough to provide optimal cover for nesting and brood-rearing. This will mean excluding cattle from these riparian strips for most of the growing season.... particularly late in the season, when vegetation must be allowed to remain tall and dense. These riparian strips need to be kept intact through the nesting and brood-rearing months. Once the young grouse have dispersed from the cover of the riparian zone, then short duration cattle grazing could occur in these zones, as long as the vegetation has a sufficient period of time for recovery before the end of the growing season. In some regions, cattle grazing in riparian zones may simply be incompatible with

maintaining the proper vegetative condition for grouse nesting and brood-rearing. So, cattle exclusion should be an option on a site-specific basis.

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### **Summary**

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

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### **Response**

Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse.

Under the proposed plan, adaptive management would be incorporated into vegetation treatment and restoration programs, including riparian management. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

*[BLM: provide direction if any change to analysis is necessary.]*

### **Section 28 - Visual Resources**

*No comments are associated with this issue.*

### **Section 28.1 - Range of Alternatives**

*No comments are associated with this issue.*

### **Section 28.2 - Best Available Info Baseline Data**

*No comments are associated with this issue.*

### **Section 28.3 - Impact Analysis**

*No comments are associated with this issue.*

### **Section 28.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

### **Section 28.5 - Mitigation Measures**

*No comments are associated with this issue.*

### **Section 29 - Water**

*No comments are associated with this issue.*

### **Section 29.1 - Range of alternatives**

*No comments are associated with this issue.*

### **Section 29.2 - Best available information baseline data**

*No comments are associated with this issue.*

### **Section 29.3 - Impact Analysis**

*Total Number of Submissions: 2*

*Total Number of Comments: 2*

**Comment Number:** IDMTSG-14-0151-7

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

#### **Comment Excerpt Text:**

Eroding soil and manure throughout watersheds end up in streams as increased sediment load, excessive nutrients, and pathogen contamination. Various grazing management strategies have not been found to reduce such watershed degradation.<sup>63</sup> The Final RMP/EIS needs to discuss the impacts of each of the alternatives on the soil and watershed conditions within the planning area and to provide appropriate mitigation measures under each alternative. A list of impaired waters and the sources of contamination within the watersheds of these public lands would be an appropriate place to begin taking a “hard look” at potential grazing effects from the public lands

**Comment Number:** IDMTSG-14-0178-18

**Organization1:** Idaho Cattle Association

**Commenter1:** Karen Williams

#### **Comment Excerpt Text:**

• [This comment refers to Alternative D] Water Developments (2-66, 4-104) –Restricting water developments or even removing existing developments, as prescribed by Alternative D would have a net negative impact on the species and on the agencies’ ability to manage the range.

#### ***Summary***

The EIS fails to address impacts on the soil and watershed conditions resulting from grazing-sourced manure, soil erosion and pathogen contamination under each alternative and to provide appropriate mitigation measures. Such an analysis should include a list of impaired waters and the sources of contamination for those waters. The EIS also fails to address the negative impact on GRSG of restricting or removing water developments under Alternative D.

#### ***Response***

*NOTE TO BLM: BLM should review impact discussions under soil and water resources under each alternative and consider mentioning any appropriate beneficial impacts on soils and watersheds that would result from grazing restrictions.*

*NOTE TO BLM: BLM should review impacts on GRSG from grazing under Alternative D and consider whether it is appropriate to identify adverse impacts on GRSG through the restriction or removal of grazing-related water developments.*

[NOTE TO BLM: Discuss with biologists the impacts of the removal of water development on Sage Grouse.]  
303d listed streams are discussed in Section 3.16.2.

#### **Section 29.4 - Cumulative impact analysis**

*No comments are associated with this issue.*

#### **Section 29.5 - Mitigation measures**

*No comments are associated with this issue.*

#### **Section 30 - Wild Horse and Burros**

*Total Number of Submissions: 4*

*Total Number of Comments: 6*

**Comment Number:** IDMTSG-14-0050-11

**Organization1:**

**Commenter1:**Kathleen Gregg

#### **Comment Excerpt Text:**

Alternatives described would allow the BLM/USFS too much capricious discretion in forage allocations to private domestic livestock and wild horses and wild burros. In some alternatives, reductions in forage allocations would be borne equally by domestic livestock and wild horses and wild burros, despite the fact that domestic livestock vastly outnumber wild horses and wild burros in terms of: 1) land impacted (66% of BLM land used for domestic livestock vs. 12% of BLM land used for wild horses and wild burros); 2) forage allocated within wild horse and wild burro Herd Management Areas (82+% for private domestic livestock vs. 18% for federally-protected wild horses and wild burros); and 3) population numbers (domestic livestock outnumber wild horses and wild burros by at least 50-1 on BLM land).

**Comment Number:** IDMTSG-14-0057-11

**Organization1:**

**Commenter1:**Eileen Hennessy

#### **Comment Excerpt Text:**

The genetic impacts of the proposed plan must be thoroughly examined including scientific data to justify the erroneous claim that any removal and upheaval would not negatively affect the genetic diversity of the mustangs and that any wild horses/burros allowed, by some miracle, to remain would be adequate for the genetic viability and future survival of a self-sustaining population. The agency must also analyze and disclose all critical genetic data on each of the wild horse and burro herds with all genetic reports provided and the impacts on the genetic health of each herd and its individual members in the planning areas who may be affected by the proposed GSPGS must be analyzed and all genetic information must be included in the final EIS.

**Comment Number:** IDMTSG-14-0057-8

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

Full disclosure of all forage allocations, AUMs and a complete list of livestock grazing allotments within federally designated wild horse/burro areas is necessary including the proportion of each allotment situated within all federally designated wild horse/burro habitat, and livestock forage allocations within each allotment in the HMAs/HAs for the purpose of allowing for an accurate analogy and credible examination. The final EIS must include orders prohibiting reductions of current AUMs of forage for protected wild horses and burros. The EIS alternatives must include AUMs for wild horses/burros to ensure self-sustaining genetically viable populations of wild equines. There must be allowance for increasing AUMs for wild horses/burros when reliable scientific data concludes that the genetic viability of a current population is threatened.

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**Comment Number:** IDMTSG-14-0198-1

**Organization1:**AWHP

**Commenter1:**

**Comment Excerpt Text:**

In some alternatives, reductions in forage allocations would be borne equally by livestock and wild horses, despite the fact that livestock vastly outnumber wild horses in terms of: 1) land impacted (66% of BLM land nationally used for livestock vs. 12% of BLM land used for wild horses); 2) forage allocated within wild horse Herd Management Areas (82+% for private livestock vs. 18% for federally-protected wild horses); 3) population numbers (livestock outnumber wild horses by at least 50-1 on BLM land); and 4) presence in critical sage grouse habitat (just 8-11% for wild horses vs. extensive presence by livestock).

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**Comment Number:** IDMTSG-14-0228-3

**Organization1:**WHE/AWHPC

**Commenter1:**Suzanne Roy

**Other Sections:** 16.1

**Comment Excerpt Text:**

Alternative D & E, the BLM's preferred alternatives, and Alternative E, created by the state of Idaho, allow BLM discretion in determining wild horse and grazing levels and set the stage for the reduction of AMLs or even zeroing out of HMAs. These alternatives do not address the major threats to sage grouse, specifically the massive livestock grazing that is occurring on 100% of PPH and 97% of PGH. Indeed, Alternative D envisions no change in areas open to livestock grazing, and Alternative E would actually increase the area available for livestock grazing in the planning area! This despite the fact that at least 1.9 million acres of livestock grazing allotments in in PGH and PPH are not meeting rangeland health standards.

These alternatives should be revised to include a clear description of the BLM's legal mandate to manage wild horses and burros as natural components of the public lands and a specification that grazing/AUM reductions should be borne by discretionary livestock grazing and not by wild horse and burros, which the BLM is mandated to protect.

Alternative F, which would reduce wild horse AMLs by 25% in the occupied habitat areas is not justified given the minimal overlap of wild horses with such habitat (just 3% in PPH and 1% in PGH) and the small number of wild horses (617/7,404 AUMS) vs. the massive number of livestock (2.2 million AUMs/183,000 cows [year round equivalent]).

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**Comment Number:** IDMTSG-14-0228-5

**Organization1:** WHE/AWHPC

**Commenter1:** Suzanne Roy

**Comment Excerpt Text:**

National Academy of Sciences review of and recommendations for the BLM Wild Horse and Burro Program must be considered.

When creating a final agency action all available pertinent data must be evaluated. Currently the management practices employed by the BLM wild horse and burro program have received severe criticism in the National Academy of Sciences (NAS) report released in June of 2013. (Attachment 4). It is notable that the BLM itself commissioned the study, set the scope of review and paid for it with over \$1 million in tax dollars. More than nine months after its release, the BLM is still “reviewing” its contents. The public and Congress’ expectation is that changes will be made within the program based on the findings that indicate a severe deficit in the data used to manage wild horses. Any alternative adopted must allow provisions for increasing habitat (repatriation of HA) and increasing AUMs/AML where genetic threat is shown to be encroaching.

As the adoption of any alternative for management of GRSG must clearly protect and preserve wild horses and burros. Any lack of clear direction is negligent fiscally as it is known that significant changes to managing wild horses and burros are imminent. Deficits in data that support current AMLs must be rectified. Any plan to manage GSG must consider all possible scenarios.

Presently, the LUP/EIS does address overall wild horse and burro management strategy, but omits entirely any mention, let alone consideration of the NAS report. This must be rectified in the final LUP/EIS, and any designated alternatives must allow for the full implementation of the NAS’ recommendations.

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***Summary***

Commenters stated that livestock and wild horses were inappropriately grouped together in management actions. Some commenters were also concerned with the 25% proposed reduction of AML under Alternative F and the basis for reduction; they requested reevaluation of reduction based on the fact that wild horse habitat overlaps a minimal percentage of GRSG habitat.

Some commenters also stated that the proposed management should provide flexibility to increase AML/AUM and/or open HAs if data becomes available demonstrating that genetic viability of wild horses and burros is threatened.

Commenters also stated that the preferred alternative would give the BLM too much discretion to reduce AMLs or zero out HMAs which would violate the BLM’s legal mandate to protect WHB.

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***Response***

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sagegrouse planning process in full compliance with the NEPA. See Section 4.3, NEPA Range of Alternatives, in this report for an expanded explanation on what constitutes a reasonable range of alternatives. *[NOTE TO BLM-check final response in section 4.3 for consistency]*



The BLM protects, manages, and controls wild horses in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended), the purpose of which is to "manage wild horses and burros within herd management areas (HMAs) designated for their long-term maintenance, in a manner designed to achieve and maintain a thriving natural ecological balance (TNEB) and multiple use relationships." The FLPMA directs the BLM to manage wild horses and burros as one of numerous multiple uses including mining, recreation, domestic grazing, and fish and wildlife. It also required a current inventory of wild horses and burros. Additional guidance is found in 43 CFR 4700, Protection, Management, and Control of Wild Free-roaming Horses and Burros.

Adjusting AML does fall within the legal mandate of the BLM to protect WHB and other resources. Through the BLMs program of monitoring and analysis of data, AMLs have been established and will continue to be adjusted based on the analysis of data. AMLs can be adjusted based on the limitations and capability of the range, including the four habitat components (forage, water, cover, and space), while managing for healthy populations of WHBs in balance with other uses and resources (including sage grouse). An explanation of the relationship between AMLs and AUMs has been included in the FEIS in section X.X.X.

Should the 25% reduction be carried forward in the preferred alternative, genetic viability would be considered in the adjustment of AMLs. Increasing AMLs and/or opening HAs is outside the purpose and need for this project.

### **Section 30.1 - Best available information baseline data**

*Total Number of Submissions: 2*

*Total Number of Comments: 3*

**Comment Number:** IDMTSG-14-0050-7

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The plan and the proposed Environmental Impact Statement (EIS) do not adequately protect wild horses and burros in accordance with federal laws and regulations. The information included in these documents is outdated and incomplete. The EIS does not adequately reflect the Bureau of Land Management (BLM) and Forest Service (USFS) MANDATE to protect wild horses and burros vs. its DISCRETION to authorize domestic livestock grazing.

**Comment Number:** IDMTSG-14-0057-10

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

Clearly defined maps must be provided that will differentiate between all of the different Herd Management Areas (HMAs) and Herd Areas (HAs) to allow for the restoration of HAs as a feasible alternative. Also factual data on the exact populations -- not guesstimates -- of wild horses within each and a listing of every designated area and data on the difference in AUM allocation of wild horses/burros vs. livestock must be included in the final EIS for the purpose of creating a plan for sage grouse whose protection is not at the expense of federally protected wild equines.

**Comment Number:** IDMTSG-14-0057-2

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

the EIS arbitrarily and wrongly attempts to categorize livestock AND wild horses together under the description of livestock

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***Summary***

Commenters requested documentation of critical genetic data on each of the wild horse and burro herds in the planning area. This will provide BLM basis for identifying which HMAs would not be feasible to place AML reductions on while maintaining genetically viable herds. Commentors also requested exact population data for all wild horse populations in HMAs and HAs and clearly defined maps of HMAs and HAs. Finally, commenters stated that any land policy changes resulting from the sage grouse plan must be in conformance with the National Academy of Sciences 2013 recommendations for reform of the federal wild horse management program.

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***Response***

The prerequisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The baseline data provided in Chapter 3 and various appendixes in the Draft LUPA/DEIS is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the Draft LUPA/DEIS. A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data (see response to section 4.4 in this report for more details). *[NOTE TO BLM-check final language in section 4.4 response for consistency]*

Much of the data in the DLUPA/DEIS is presented in qualitative and map form, and is sufficient to support the gross scale analyses required for land use planning. The DEIS includes maps of HMAs and HAs. Population data is included in Table 3.X of the DEIS. These maps and tables have been reviewed for accuracy prior to inclusion in the FEIS.

Genetic documentation of WHB is an ongoing implementation level process used to monitor the genetic health of BLM's wild horse and burro populations (see IM 2009-061).

The NAS report has been considered in the development of the FEIS and actions appropriate the the land management planning level included as appropriate. Findings of the NAS would also be considered under separate site-specific NEPA actions.

**Section 30.2 - Impact Analysis**

*Total Number of Submissions: 6*

*Total Number of Comments: 9*

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**Comment Number:** IDMTSG-14-0039-3

**Organization1:**DreamCatcher Wild Horse and Burro Sanctuary

**Commenter1:**Barbara Clarke

**Comment Excerpt Text:**

Finally, the EIS fails to consider the significant differences in range impacts caused by livestock vs. wild horses.

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**Comment Number:** IDMTSG-14-0050-10

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

In some sections the EIS wrongly lumps federally protected wild horses and wild burros together with privately owned domestic livestock.

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**Comment Number:** IDMTSG-14-0050-13

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

The proposed EIS fails to consider wild horses as required under the law “as an integral part of the natural system of the public lands” (WFRHBA, 1971). Wild horses and burros contribute to the biological diversity, and are unique in possessing less efficient post-gastric digestive systems that contribute to higher material passage rates (Feldhamer, Thompson, Chapman, 2003). Horses also tend to utilize more abundant, but poorer nutritional quality plant species (Feldhamer, Thompson, Chapman, 2003). Horse droppings pass most seeds intact, which facilitates seed dispersal, and cycles nutrient rich material that builds soil moisture retention resulting in an increase in native plant diversity near horse trails (Downer, 2007) (Ostermann- Kelm, Atwill, Rubin, Hendrickson, Boyce, 2009). Competition between wild horses and burros and other native or domestic species has not been substantiated (Feldhamer, Thompson, Chapman, 2003). Wild horses utilize a broader range of plant species in their diet and are one of the least-selective grazers in the western states (Beever, 2003). Approximately 80% of their diet is composed of shrub and grasslands with less than 1% comprised of riparian vegetation (Berger, 1986). Wild horses use the land and resources at different intensities throughout the year, allowing for a natural rest and rotation of foraging pressures (Downer, 2007). Also, wild horses tend to use relatively few trails to travel to and from grazing, resting and water sources minimizing trampling and riparian damage near waterways (Beever, 2003) (Ganskopp, Vavra, 1986). These wild horse and burros “natural systems of the public lands” adaptations minimize impacts to their environment and illustrate sustainable integration within the ecosystem and assist in rebuilding and maintaining health of the sage grouse habitat.

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**Comment Number:** IDMTSG-14-0050-6

**Organization1:**

**Commenter1:**Kathleen Gregg

**Comment Excerpt Text:**

Also omitted from the alternative(s) evaluation is the impact of private domestic livestock grazing as opposed to impacts from wild horse and burro use. There are extreme differences in the impacts generated by these users of public land and both the Center for Biological Diversity and Western Watersheds (WWP) have done extensive papers showing the impact of domestic livestock production to public land management. Wild horses, wild burros and other wildlife have minimal impact to the land when not impeded by allotment fencing, cattle guards and large turnouts of domestic livestock. To treat both of these uses as “grazing” is irresponsible to the purpose of the assessment to create an equitable management plan that is compatible with other provisions of the law and to protect the sage grouse.

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**Comment Number:** IDMTSG-14-0057-1

**Organization1:**

**Commenter1:**Eileen Hennessy

**Comment Excerpt Text:**

The EIS is riddled with inaccuracies, misquotes and contradictions such as where the document states that “Under all alternatives, no direct change would occur to areas allocated as HMAs/WHBTs for wild horses and burros”, then the report proceeds to summarize how every single alternative WOULD restrict wild horse and burro usage in their own federally designated habitats. Which is it? The negative impacts (that seem likely according to BLM doublespeak) to federally protected wild horses and burros is not seriously examined

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**Comment Number:** IDMTSG-14-0196-1

**Organization1:**

**Commenter1:**Janet Lynch

**Comment Excerpt Text:**

Specifically, the plan and EIS fail to adequately analyze impacts to wild horses, and none of the alternatives analyzed adequately protects wild horses and burros. The plan and EIS fail to distinguish federally-protected wild horses and burros from livestock, despite the fact that the latter have a far greater impact on greater sage grouse habitat than do the former.

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**Comment Number:** IDMTSG-14-0198-2

**Organization1:**AWHP

**Commenter1:**

**Comment Excerpt Text:**

the EIS fails to consider the significant differences in range impacts caused by livestock vs. wild horses.

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**Comment Number:** IDMTSG-14-0228-1

**Organization1:**WHE/AWHPC

**Commenter1:**Suzanne Roy

**Comment Excerpt Text:**

1. Livestock vs. wild horses

The LUP/EIS fails to quantify the relative impacts of wild horses vs. livestock in the GRSG mapped occupied habitat areas. The LUP/EIS n Volume 2, Section 4.4 under most alternatives states that reduction in wild horse Allowable Management Levels (AMLS) could occur if GRSG objectives are not achieved.

However, the data presented in the LUP/EIS do not support the contention that wild horses are a threat to sage grouse in this planning region. In fact, wild horses were not identified as a major threat to sage grouse in Idaho by the Independent Scientific Panel referenced in Chapter 3, pdf p. 286.

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**Comment Number:** IDMTSG-14-0228-4

**Organization1:**WHE/AWHPC

**Commenter1:**Suzanne Roy

**Comment Excerpt Text:**

Not only was the relative impact of wild horses vs. livestock on sage grouse habitat, in terms of acreage and AUMs, omitted, but also omitted was an evaluation of the rangeland impact of private livestock grazing as opposed to impacts from wild horse and burros. There are extreme differences in the impacts generated by these users of public land. These differences were clearly delineated in the National Marine Fisheries

Service's biological opinion regarding impacts of wild horses in the Murderers Creek Wild Horse Territory in Oregon. (Attachment 3) Additionally, both the Center for Biological Diversity and Western Watersheds have written extensive reports showing the impact of livestock production (and its cost) to public land management.

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### **Summary**

Commenters stated that the analysis on GRSG from wild horses and burros are not distinguished from livestock which inaccurately increases the threat.

Commenters identified contradictions in the document such as where the document states that "Under all alternatives, no direct change would occur to areas allocated as HMAs/WHBTs for wild horses and burros", then the report proceeds to summarize how every single alternative would restrict wild horse and burro usage in their own federally designated habitats.

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### **Response**

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives for a land use planning effort (see detailed response in section 4.6, NEPA Impacts Analysis). *[NOTE TO BLM- check final response in section 4.6 to ensure consistency]*

The USFWS identified grazing as a threat in the NTT and COT report but did not specifically delineate between livestock and WHB grazing. However, within the DEIS, the BLM and Forest Service did analyze impacts on WHB and domestic livestock grazing separately and also analyzed the impacts on GRSG from WHB and domestic livestock grazing separately. Impacts on GRSG from WHB and domestic livestock grazing are identified in Section 4.X of the DLUPA/DEIS. Impacts on WHB from GSRG management strategies are identified in Section 4.X of the DLUPA/DEIS. BLM appropriately analyzed the impacts to WHB from actions not related to changes in AML.

Text in the WHB impact section has been reviewed and relationship between allocation and management actions clarified in the FEIS.

*[NOTE TO BLM- insert the recommended text below in the FEIS: Under all alternatives, with the exception of Alternative XX, management actions for wild horses and burros would not result in direct changes to HMA status, to AMLs within designated HMAs, or acreage designated as HMAs. Impacts under all alternatives, with the exception of Alternative XX, would be limited to any future changes that may result in AML and/or acreage adjustment as well as reconsideration of HMA status that are based on achievement of GRSG habitat objectives for improving habitat conditions, as described in further detail below.*

*Under Alternative XX, in contrast, AMLs would be directly reduced by 25 percent for all HMAs within PPMAs. This would result in a reduction of the established AMLs for all HMAs that are located entirely or partially within mapped occupied GRSG habitat. As a result of AML reduction under Alternative XX, costs of wild horse and burro management would increase, due to a need for additional horse gathers for removal and/or population growth suppression (PGS) treatments.]*

### **Section 30.3 - Cumulative impact analysis**

*No comments are associated with this issue.*

### **Section 30.4 - Mitigation measures**

*No comments are associated with this issue.*

## **Section 31 - Wilderness Areas/Wilderness Study Areas**

*No comments are associated with this issue.*

### **Summary**

### **Response**

#### **Section 31.1 - Range of Alternatives**

*Total Number of Submissions: 3*

*Total Number of Comments: 4*

**Comment Number:** IDMTSG-14-0049-4

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Other Sections:** 8.1

**Comment Excerpt Text:**

We also request that all preliminary priority habitat on USFS lands in the Caribou-Targhee National Forest be under special designation for sage-grouse, totaling 148, 646 acres.

We believe these special designations could include a combination of ACEC designation, Lands with Wilderness Characteristics (“LWCs”) designation<sup>5</sup>, or zoological areas on USFS lands, providing that regardless of the special management designation chosen, sage-grouse and sagegrouse habitat conservation are a priority for the lands under designation.<sup>6</sup>

**Comment Number:** IDMTSG-14-0049-6

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

**Comment Excerpt Text:**

The DEIS states that Alternative F would designate 17 or 18 new ACECs that would include a total of 7,383,660 acres on BLM land, including 3,460 acres in restoration habitat. DEIS Table 2-2 at 2-27. According to Appendix H, this includes ACEC designation for all preliminary priority habitat. DEIS Appendix H at H-4. We support the designation under this Alternative F with the caveat that some of these lands should be designated LWC instead of ACEC (see Footnote 3 below).

**Comment Number:** IDMTSG-14-0154-3

**Organization1:** The Wilderness Society

**Commenter1:** Brad Brooks

**Comment Excerpt Text:**

BLM should identify lands with overlapping conservation values for protective designation, including considering whether and how protecting lands with wilderness characteristics would contribute to protecting and recovering sage-grouse in the planning area, and incorporate an analysis of these benefits into developing and selecting a proposed plan. BLM should complete LWC inventories as part of this planning process in accordance with Manual 6310, or at the very least identify potential LWCs across the planning area and include all of those areas in its analysis and management decisions for this EIS.

**Comment Number:** IDMTSG-14-0157-13

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

One of the planning criteria developed by BLM for the Idaho DEIS is compliance with BLM's Manuals 6310 and 6320 regarding Lands with Wilderness Characteristics. Secretary Salazar's Secretarial Order No. 3310, Section 5( d), requires land use planning decisions to take wilderness characteristics into consideration and to manage lands with those characteristics in a manner that protects those characteristics as part of BLM's planning process. However, Secretarial Order No. 3310 may not, under the Department of the Interior, Environment, and Related Agencies Appropriations Act of 2014, be implemented, administered, or enforced in any manner. Id., § 124. The law does not affect the Secretary's authorities under Sections 201 and 202 of FLPMA that call for inventorying of wilderness characteristics and general land use planning and the DEIS recognizes its limited role in inventorying these lands. Section 3.20. Y -3 II remains attentive to these issues since some of our Idaho allotments appear to be designated as lands with wilderness characteristics. See Figure 3-16. Section 4.13.3 seems to state that these lands would be closed to motorized travel. This idea of road closures on these lands is repeated in Sections 4-13.4-.9. To the extent that these lands with wilderness characteristics are incorporated into the actual management plans pursuant to any chosen alternative, any resulting road closures will be inconsistent with the statutory prohibition on the implementation of Order No. 3310.

***Summary***

All lands with wilderness characteristics that overlap with Greater Sage-Grouse habitat represent good opportunities for Greater Sage-Grouse conservation and should be analyzed to see how managing those lands to protect wilderness characteristics would coincide with Greater Sage-Grouse conservation. The BLM should consider lands with wilderness protection as an alternative to ACEC protection for some areas. The BLM should complete Lands with Wilderness Characteristics inventories and the DEIS should consider potential Lands with Wilderness Characteristics in the scope of this process.

***Response***

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, "In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness

characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document regarding lands with wilderness characteristics will not be completed.

As described in Section 8 of this comment report, Alternative C considers ACEC designation for Greater Sage Grouse habitat and species protection.

### **Section 31.2 - Best Available Info Baseline Data**

*Total Number of Submissions: 4*

*Total Number of Comments: 4*

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**Comment Number:** IDMTSG-14-0049-5

**Organization1:** Greater Yellowstone Coalition

**Commenter1:** Barb Cestero

#### **Comment Excerpt Text:**

In response to the upcoming Upper Snake Resource Management Plan revision process, GYC hired an intern to inventory lands in the field office for LWCs. As a result of that inventory, we have delivered a report to the Upper Snake Field Office staff recommending that 13 units be designated as LWCs, totaling 131,612 acres. See Attachment 3 for a copy of the Introduction and Maps delineating those recommendations pulled from that report. We maintain that these lands should be designated as LWCs and ask that staff compiling this sage-grouse EIS/LUPA process work with the Upper Snake staff to obtain a full copy of that report if desired

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**Comment Number:** IDMTSG-14-0153-53

**Organization1:** Wild Earth Guardians

**Commenter1:** Erik Molvar

#### **Comment Excerpt Text:**

The designation of new Lands with Wilderness Characteristics (“LWCs”) under BLM inventories in Idaho and Montana represents significant new information that must be addressed here. BLM does not disclose the acreage or location of Lands with Wilderness Character that overlap with sage grouse Priority or General Habitats (See DEIS at 3-127 through 133), but apparently as much as 385,600 acres of lands with wilderness characteristics fall within potential Priority Habitats (DEIS at 4-219), although the figures disagree throughout the analysis (see DEIS at 3-161, 162). This failure to clearly present acreage of LWCs in the planning are and within potential Priority Habitat constitutes a failure to live up to NEPA’s baseline information requirements.

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**Comment Number:** IDMTSG-14-0157-14

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

#### **Comment Excerpt Text:**

Additionally, lands with wilderness characteristics are subject to continuation of existing uses including grazing in a manner and to a degree in which the same were being conducted in 1976 at the time of the passage of FLPMA. If the FEIS and Record of Decision call for management under any alternative so as to exclude grazing, even by road closures, the issue once again arises as to whether that form of management is consistent with the Tenth Circuit's decision in *Public Lands Council v. Babbitt*, 167 F.3d 1287 (10th Cir. 1999), *affirmed on other grounds*, 529 U.S. 728 (2000). The court criticized BLM's grazing regulations that would have allowed the placement of grazing districts into non-use status for the entire duration of a grazing permit absent designation of the lands as wilderness study areas through the FLPMA Section 603( c) process. The FEIS should explain how BLM is in compliance with the 2014 Interior appropriations act prohibitions on



funding and implementing Secretarial Order No. 3310. Any alternative that may be selected by BLM must not manage lands with wilderness characteristics as de facto wilderness, including road closures.

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**Comment Number:** IDMTSG-14-0234-1

**Organization1:** Western Watersheds Project

**Commenter1:** Katie Fite

**Comment Excerpt Text:**

The letter on ACEC maps telling a reader which Alt. the ACEC maps go with is missing in the ID SG EIS Figures 2-46 and 2-47. So a reader cannot tell what Alternatives the mapping goes with.

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***Summary***

The BLM should work with Upper Snake staff to ensure lands with wilderness characteristics inventories and management are consistent between this EIS/LUPA and the Upper Snake RMP.

The BLM must provide a map of the lands with wilderness characteristics and where it overlaps with priority habitat.

The FEIS should explain how the BLM will comply with the 2014 appropriations bill for the Department of the Interior, Environment and Related Agencies and with Secretary Salazar's Secretarial Order No. 3310.

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***Response***

*BLM Upper Snake Field Office continues to evaluate lands with wilderness characteristics within the planning area. Decisions related to lands with wilderness characteristics will be addressed in the Upper Snake EIS/LUP.*

*Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, "In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics." Therefore, analysis in this planning document related to lands with wilderness characteristics will not be completed.*

*The BLM is not making decisions on lands with wilderness characteristics in this planning effort. Doing so is outside the purpose and need and scope of this EIS.*

*[NOTE TO BLM: Consider including a map displaying the overlap of lands with wilderness characteristics and priority habitat should be included in the EIS.]*

NCT note: Consider using similar language to section 8 of this document. Language relevant to ACEC issues may be applicable to LWC and may help clarify why LWC is out of scope.

It does not seem that the response fully addresses the issue statement. Answer to Secretary Salazar's Secretarial Order No. 3310? Possibly use some of the language developed by NVCA in section 31.0 of this document.

**Section 31.3 - Impact Analysis***Total Number of Submissions: 2**Total Number of Comments: 2***Comment Number:** IDMTSG-14-0154-2**Organization1:**The Wilderness Society**Commenter1:**Brad Brooks**Comment Excerpt Text:**

The Draft EIS states that, “Currently no Field Offices have taken their lands with wilderness characteristics through a complete planning process to determine how they will be managed” (Draft EIS, p. 3-161. However, the Draft EIS goes on to state that there are about 452,000 acres of lands with wilderness characteristics in the planning area. Ibid. We expect there is substantially more acreage at issue that will eventually be inventoried and analyzed through future land use planning; however, deferring inventory and management decisions at this time will preclude the agency from capitalizing on this opportunity to strategically protect lands with multiple conservation values. We recommend BLM conduct a GIS-based roadless analysis to determine potential lands with wilderness characteristics to inform this EIS, if full LWC inventories are not completed as part of this planning process.

**Comment Number:** IDMTSG-14-0168-38**Organization1:**Custer County Commissioners**Commenter1:**Wayne F. Butts**Comment Excerpt Text:**

4-16

"Within the GRSR range, 95 percent of the mapped sagebrush habitats are within 1.6 miles (2.5 kilometers) of a mapped road; density of secondary roads exceeds 3.1 miles per 247 acres (5 kilometers per square kilometer) in some regions (Knick et al. 2011). "

Comment:

We are very glad that both the Nevada — NE California and the Idaho — SW Montana EISs used the same template to point this out. Since this is the case that means that at least 95 % of mapped sage-grouse habitat is ineligible for wilderness classification, WSA status, inventoried roadless classification, etc according to the statement above. The portions of the EIS that contradict this need to be re-written accordingly. Federal agencies and environmental extremist groups cannot have it both ways. The lands either have roads or don't. As written the EIS contradicts itself.

Table 4-70 needs to be explained in light of the above statement. The acres of "lands with wilderness characteristics" does not correlate with Knicks.

***Summary***

If the BLM does not complete lands with wilderness characteristics inventories, the BLM should use GIS to inventory roadless areas and consider those as potential lands with wilderness characteristics for planning purposes.

***Response***

No decisions related to the management of lands with wilderness characteristics will be made at this part of the planning effort . Decision related to the management of lands with wilderness characteristics are out of the scope of this plan amendment process.

NCT note: It seems like this response could be combined with section 31.2 of this document. Responses are nearly identical and basically already included in the summary.

#### **Section 31.4 - Cumulative Impact Analysis**

*No comments are associated with this issue.*

#### **Section 31.5 - Mitigation Measures**

*No comments are associated with this issue.*

#### **Section 32 - Other**

*No comments are associated with this issue.*

#### **Section 32.1 - Other Sub 1**

*Total Number of Submissions: 5*

*Total Number of Comments: 6*

**Comment Number:** IDMTSG-14-0088-3

**Organization1:**Madison County Board of Commissioners

**Commenter1:**David Schulz

#### **Comment Excerpt Text:**

Conduct studies that include raptors and predators as factors in sage grouse efforts. Those affected by listing cannot be held solely responsible for issues beyond their ability to control.

**Comment Number:** IDMTSG-14-0148-3

**Organization1:**Western Counties Alliance

**Commenter1:**Kenneth Brown

#### **Comment Excerpt Text:**

C. Predator Control

Although the LUP accurately states that the BLM and USFS do not have management or control authority over predators, we are concerned about the very real threat that the overabundance of predators have on sage grouse. Because the LUP is proposing to alter land use activities to protect the species, it must be stated in the selected final alternative that before land use is limited, adequate measures must be undertaken to limit predator populations. Regardless of the amount of perceived suitable habitat for sage grouse, if predator populations are above sustainable and natural levels, they will have a big impact on the survival of the sage grouse species. It cannot be overlooked that the decline of sage grouse closely mirrors both the decline in grazing numbers on public lands and the decline in predator control efforts.

**Comment Number:** IDMTSG-14-0157-11

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

The DEIS' discussion of predation is similarly inadequate. The Service's warranted but precluded finding states that predation may be limiting Sage-grouse populations in nearby northeastern Nevada where Y-3 II also operates. 75 Fed. Reg. at 13973. The Service notes that landscape fragmentation, habitat degradation and human populations have the potential to increase predator populations including increased suitability for ravens among other species that attack Sage-grouse. Idaho identified predation as a threat to Sage-grouse in 2006. See Table 1-2. Like the discussion of West Nile Virus, the Service concludes that definitive data are lacking to link Sage-grouse population trends with predator abundance. As with West Nile Virus, BLM has a duty to obtain this information or explain why it is either unavailable or too expensive to obtain. There is vast anecdotal information available as indicated by comments from ranchers across the West about the increase in predation on Sage-grouse and other species.

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**Comment Number:** IDMTSG-14-0157-12

**Organization1:** Y-3 II Ranch

**Commenter1:** Christopher Clark

**Comment Excerpt Text:**

the Service's warranted but precluded finding raises concerns about anthropogenic causes of the species' decline including transmission corridors, wind energy structures, and other tall structures as providing perching points for avian predators and yet a full discussion and disclosure of the impact of those predators on Sage-grouse is not provided in the DEIS. If predators are not a significant threat to the species as concluded by the Service, then why is BLM analyzing the effects of anthropogenic structures that would lead to predation of Sage-grouse? The FEIS should not dodge the predator issue simply by the notion that predator control is primarily a state-regulated action and therefore outside the scope of the plan amendments. See Section 2.3.1. The absence of detailed analysis of the impact of predators and disease in the current environment and their effects on the alternatives results is a major omission of the DEIS, especially since disease and predation are among the five specific ESA factors that could lead to a listing.

---

**Comment Number:** IDMTSG-14-0186-11

**Organization1:** Intermountain Range Consultants

**Commenter1:** Bob Schweigert

**Comment Excerpt Text:**

Predation needs to be considered as part of the habitat, especially since common raven population indices have increased by 400% between 1968 and 2009 (Breeding Bird Survey 2011). To pretend that a four-fold increase in predator density will not have appreciable impacts upon a prey species, regardless of the quality of habitat, is to practice "Walt Disney" biology.

---

**Comment Number:** IDMTSG-14-0325-4

**Organization1:**

**Commenter1:** William J. Mulder

**Comment Excerpt Text:**

[This comment corresponds to the headings in Table 2-17 and Table 2-18] FWS has not determined that

disease or predation are primary threats to GRSG (D-OBJ-13)

---

### **Summary**

Some commenters state that the BLM does not adequately address the threat of predation or fully analyze the direct, indirect, and cumulative impacts of predation on GRSG populations; Predation was identified as a threat by the state of Idaho. Others question the inclusion of analysis of impacts of anthropogenic structures on predators of GRSG, given that the USFWS did not identify predation as a primary threat to GRSG.

---

### **Response**

As stated in Section 2.3.1 in the DRMPA/DEIS, predator removal is outside the scope of LUPA. The BLM and the Forest Service have updated the description of the threat of predation in Section 3.2.1 and addressed the potential effects of predation on GRSG populations in the Section 4.x.

The BLM and the Forest Service have authority to manage the habitat and have provided an updated analysis in Section 4.x of the FEIS to describe how the numerous management actions across the range of alternatives could affect the habitat and indirectly the effects of predation. Altering the sagebrush habitat of the greater sage-grouse can create an influx of predators into an area and lead to a population decline. Roads, fences, power lines, and other infrastructure as well as the development of trails and other disturbances may improve access for potential predators near GRSG habitat and increase risks to the species.

### **Section 32.2 - Other Sub 2**

*Total Number of Submissions: 1*

*Total Number of Comments: 1*

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**Comment Number:** IDMTSG-14-0168-37

**Organization:** Custer County Commissioners

**Commenter:** Wayne F. Butts

### **Comment Excerpt Text:**

Most of the data used in the noise studies cited by the EIS is from the NTT Report. It is not in compliance with the Information Quality Act of 2001 and should not be cited. The data are not public and the authors relied on speculation to support their claims. The underlying data used by the cited noise studies are not public, and therefore, the results are not reproducible. No data were reported from: 1) objectively-measured noise generated during various phases of drilling activities, 2) noise generated during production, 3) road noise, or 4) the occurrence of these over a 24 hour period. No data were reported on the environmental parameters under which any data were collected, or the ambient sound levels in the study area based upon professional standards (which include wind). Instead, the authors cited "unpublished data" and speculation about the accuracy of their playback noise levels, in support of their claims (emphasis in bold below): "We played drilling noise and road noise on leks at 70 dB(F) sound pressure level (unweighted decibels) measured 16 m directly in front of the speakers (Fig. 1 & Supporting Information). This is similar to noise levels measured approximately 400 m from drilling rigs and main access roads in Pinedale, Wyoming (JIB and G.L.P., unpublished data).

"To minimize disturbance, we took propagation measurements during the day. Daytime ambient noise levels are typically 5-10 dBA higher than those in the early morning (J.L.B and G.L.P., unpublished data) and are likely higher than those heard by birds at a lek."

"For leks treated with drilling noise, recordings from 3 drilling sites were spliced into a 13-minute mp3 file

that played on continuous repeat. On leks treated with road noise we randomly interspersed mp3 recordings of 56 semi trailers and 6 I light trucks with 170 30-second silent files to simulate average levels of traffic on an access road (Holloran 2005). Noise playback on experimental leks continued throughout April in 2006, from mid February or early March through late April in 2007, and from late February through late April in 2008. We played back noise on leks 24 hours a day because noise from deep natural-gas drilling and vehicular traffic is present at all times."

There was no data presented in the cited studies that the playback sound was an accurate rendition of actual frequencies and sound pressure levels from oil and gas operations as measured at set-back distances required by the BLM, or that it occurred at the same levels 24 hours a day. Instead, the authors relied upon "unpublished data" or speculation. The BLM cannot rely upon data that are not publicly available (unverifiable data), or speculation, as the basis for its decision making.

The EIS did not accurately portray the methods and results of the studies by Patricelli et al. (2010) and Blickley et al. (in preparation). As an initial matter, Patricelli et al. (2010) is an unpublished, 16-page powerpoint presentation, it is not a scientific paper or report.

Recordings of operations and traffic noise were played back at the edges of leks at sound pressure levels in excess of what they would be on the majority of lands managed by the BLM where oil and gas operations occur. While a 0.25 mile buffer has been the minimum set back distance required by the BLM, most oil and gas operations are found at far greater distances from leks (Wyoming Oil and Gas Conservation Commission well data and Wyoming Game and Fish lek count and location data). Thus, the reported effects on sage grouse were biased in the cited studies to achieve a negative response by sage grouse rather than measure responses from sound pressure levels as they would occur at the required set back distances.

Blickley et al. (in press) maximized projected sound from recordings at the edges of leks, which were as high as the noise levels occurring within 200m of a busy freeway (as measured across an open field with traffic loads of greater than 50,000 cars per day, or 55-70 decibels as shown in Figure 2 of Reijnen et al. 1995). Below, is a relevant excerpt from Blickley et al. (in press):

"Drilling-noise recordings were broadcast on experimental leks at an equivalent sound level (Leq) of 71.4±1.7 dBF (unweighted decibels) SPL re 20 Pa (56.1±0.5 dBA [A-weighted decibels]) as measured at 16 meters; on road-noise leks, where the amplitude of the noise varied with the simulated passing of vehicles, noise was broadcast at an Lmax (maximum RMS amplitude) of 67.6±2.0 dBF SPL (51.7±0.8 dBA)."

The fact that authors broadcast such high levels of noise in such close proximity to leks biased the results, an error of omission by the authors and the EIS that cites them and proposed regulations based upon their recommendations.

The EIS and the NTT Report where much of the information came from cannot have it both ways, claiming a negative effect on sage grouse populations but admitting that there was "low statistical support for a cumulative effect of noise over time" in the study by Blickley et al. (in press). As noted above, there are no data showing a long-term cumulative decline in the sage grouse population in the Pinedale Planning Area.

Deficiencies in Blickley et al.'s equipment, as documented by Dr. Ramey, are detailed below.

Microphone:

According to the manufacturer (<http://en-us.sennheiser.com/k6-microphone-system>), "the ME 62 [microphone used by Blickley et al.] is an omni-directional microphone head suitable for K6 and K6P powering modules. It can be used for reporting, discussions and interviews. The ME 62 is particularly suitable for good reproduction of 'room' ambience and 'spaced omni' stereo recording. Matt black, anodized, scratch-

resistant finish."

Recorder:

The Marantz model PMD670 used by Blickley et al. does not offer high-resolution (88.2 or 96 KS/s) sampling rates, its metering characteristics are unknown, and it is limited to 16/48 recording and thus is not considered a high-resolution recorder. It retails online for \$700.

Playback speakers:

The speakers used in the study were standard outdoor speakers camouflaged as rocks and designed for background music playing in home, hotel, and amusement park applications. They were not designed for accurately reproducing industrial sounds. The specifications for the speakers may be found on the manufacturers website:

<http://www.ticcorp.com/specifications/tfs14.pdf>. The speakers were powered by 12 volt car batteries rather than 120 volt AC power and a car stereo amplifier of unknown make and model was used to boost the output. Packed into each simulated rock speaker housing was a 10" woofer with an injection molded cone, a 5.5" midrange cone, and 2" soft dome tweeter. The size and quality of the speakers, and the small speaker housing, severely limits the physical capability of the system to accurately reproduce either low or high frequency sound produced by oil and gas operations or traffic.

As a result of substandard equipment and lack of expertise in sound recording and reproduction, Blickley et al. (in press) resorted to placing their speakers at the edge of leaks and to playing their systems at high levels in order to elicit a behavioral response. This is a biased approach to obtain a preferred result. The BLM cannot rely on biased research in its decision-making.

The recommended noise levels are not based upon any standardized, repeatable data collection, or accepted methods of sound measurement.

The methods used by Blickley et al. (in press), and reported results did not contain any credible, professional analysis of local ambient sound levels or oil and gas noise (e.g. the type, duration, frequencies, sound pressure levels, and power of sound produced by different oil and gas drilling or production operations; equipment being recorded); or employ the use of professionally accepted standards, such as International Organization for Standardization (ISO) standards for quantifying industrial and traffic noise (<http://www.iso.org/iso/home/standards.htm>). The standards not followed by the cited studies include, but are not limited to: ISO 1996-1:2003 Acoustics -- Description, measurement and assessment of environmental noise -- Part I: Basic quantities and assessment procedures; ISO 9613-2:1996 Acoustics Attenuation of sound during propagation outdoors -- Part 2: General method of calculation; ISO 4871:1996 Acoustics -- Declaration and verification of noise emission values of machinery and equipment; ISO 532:1975 Acoustics -- Method for calculating loudness level; ISO 7196:1995. Acoustics -- Frequency-weighting characteristic for infrasound measurements; ISO 8297:1994 Acoustics -- Determination of sound power levels of multisource industrial plants for evaluation of sound pressure levels in the environment -- Engineering method; and IEC 61672-1:2002(E) Electroacoustics, Sound level meters -- Part I: Specifications).

Blickley et al. did not employ any sound propagation models in their study to quantify the confounding effect of temperature, relative humidity, topography, ground cover and surface porosity, wind direction, the direction noise was generated from, the geographic extent of the noise, its duration, frequency of occurrence, or permanence, (Attenborough 2007). Nor did they provide any correlation of their playbacks compared to the industrial and traffic sources they had attempted to duplicate. Furthermore, no graphic equalizer was used which would have allowed for the adjustment of sound pressures in different frequency ranges (at standardized 1/3 octave band frequencies), and no measurement of sound pressure levels was taken in front of playback speakers, which together would have allowed for the accurate reproduction of the sound at the same frequencies and sound pressure levels as the original noise. Therefore, BLM cannot base regulations upon no data and results based upon arbitrary methods that are not compliant with accepted professional

standards in the noise control industry (i.e. Bies and Hansen 2009; ISO).

Noise limits recommended in the EIS, base on the NTT Report, are biased downward.

What is being proposed for noise thresholds is an "impossible to achieve" standard found in an idyllic wilderness setting, on quiet days when the wind does not blow, the leaves do not rustle, birds do not sing, humans are completely absent, streams are not close by, and no aircraft fly overhead. While this may be appropriate for management of anthropogenic sound in the wilderness areas of some national parks (Lynch et al. 2011), it is not appropriate and would be impossible to achieve on most of the BLM lands in the West that are administered for multiple uses.

There are no data to justify the minimum sound levels used as a basis in Blickley et al.'s (in press) recommendations, or the supposed "disruptive activities" that an increase of I OdbA above these would cause. There are no data to show that the minimum levels recommended in the NTT based alternatives in the EIS occur for extended periods of time in any of the sage-grouse core areas, including the Pinedale Planning Area.

The EIS, based on the NTT Report, or cited studies, did not present the results of other studies of noise generated by the oil and gas industry (especially in the Pinedale Planning Area), even though those studies and data were available at the time the EIS was being prepared (i.e., Harvey 2009).

The cited studies were biased in a way to find a measurable impact, the speakers were increased from two to four during the course of the study, and the sound pressures measured in front of the speakers, and effect on sage grouse, were made without regard to the increased sound gradient created by their close distance (i.e. due to the physics of sound attenuation over distances, also known as a the inverse square law, where sound decreases four times for every doubling of distance from its source) as compared to leks at the required BLM setback distances of 0.25 or 0.6 miles.

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### ***Summary***

Commentor states that noise studies cited in the DEIS are not public and therefore the results are not reproducible; alternative data should be utilized.

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### ***Response***

Bilcley et al's research on noise and GRSG as since been published :

Bicklet J.L, D. Blackwood, and G.L. Patricelli. 2012. Experimental evidence for the effects of chronic anthropogenic noise on abundance of greater sage-grouse at leks. Conservation Biology Vol 26. No 3. 461-471

This literature has been added to the noise section in the FEIS.

[Change to FEIS- add citation and daat from this study in noise section. Consider addition of other data to support claims]

### **Section 32.3 - Other Sub 3**

*Total Number of Submissions: 2*

*Total Number of Comments: 4*



**Comment Number:** IDMTSG-14-0151-42  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

There is not a current baseline of the degree and severity of cheatgrass, medusahead, bulbous bluegrass and other flammable invasive weed infestations at present in areas of plant understories. Peterson 2006 cheatgrass mapping work has long been available to BLM.

**Comment Number:** IDMTSG-14-0151-53  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

It also lacks accountability for the agencies themselves, for the massive treatment and fuelbreak schemes that are proposed or contemplated. There is no acreage limit, no review of past projects to understand the weedy species that have been planted, the weeds that have resulted, the impacts to sensitive and important species habitats and populations, and other important information.

**Comment Number:** IDMTSG-14-0151-57  
**Organization1:** Western Watersheds Project  
**Commenter1:** Katie Fite

**Comment Excerpt Text:**

Since agencies are clearly planning vast and sprawling treatments, a new and current analysis of all the direct indirect and cumulative adverse effects of herbicide use and drift, on land, air, water, sagebrush habitats, wild lands recreation, and public health must be provided

The PER Report that accompanied the Weed EIS was not a valid Plan. There has been no full and integrated analysis of the cumulative adverse direct, indirect and cumulative impacts of the battery of highly disturbing cutting, chaining, logging, roller-beating, mowing, chopping, chipping, road building, etc. involved with the PER's radical treatment regime – and all of their direct, indirect and cumulative adverse impacts to soils, water quality and quantity, local climate, desertification processes, watershed integrity, sagebrush vegetation, forested vegetation, riparian area springs, seeps, streams and meadows, cultural sites, and recreational uses and enjoyment of the public lands. Nor any analysis of effects on sensitive species, including sage-grouse.

In fact, if BLM would have conducted NEPA on the PER, it may have found what is now being shown in Hess and Beck et al. 2010 and 2012, Jones et al. Review 2013. The series of large-scale vegetation manipulation treatments and “tools in the toolbox” of the PER (many of which BLM in Idaho would use in treatments of trees and sage under the uncertain “GOAs” and BMPs of the DEIS) were harmful, produced cheatgrass, did not result in claimed beneficial outcomes, and were highly risky. Not to mention these are often extremely expensive.

**Comment Number:** IDMTSG-14-0168-36  
**Organization1:** Custer County Commissioners  
**Commenter1:** Wayne F. Butts

**Comment Excerpt Text:**

4-11

"The cheatgrass fire cycle causes GRSG habitat loss and degradation on an annual basis. Currently, due to the

extent of the threat, there are no management actions that can effectively alter this trend, and fires are estimated to reduce GRSG habitat within the Great Basin by 58 percent in the next 30 years (Miller et al. 2011)."

Comment:

Delete the above sentences. This one-size fits all sentence is also in the Nevada — NW California Sage-Grouse EIS. This is the crux of the problem and it is unacceptable for the agencies to ignore it. The highlighted portions of the sentence are untrue, as explained below.

Insert: Fire is a primary threat to GRSG populations and habitat where increasing exotic annual grasses, primarily cheatgrass, are resulting in sagebrush loss and degradation (USFWS 201 Oa, p. 13,932). Under all actions proposed in the EIS, including the No Action Alternative, the BLM and US Forest Service will take immediate, aggressive actions to reverse the cheatgrass fire cycle with existing known tools listed below as well as develop new science and management tools to eradicate cheatgrass. In the alternative, the agencies will dispose of the land and allow private landowners to manage it. Private landowners know the value of proper vegetative management and have the financial incentives to return the land to productive use.

The BLM and US Forest Service understand that restricting mining, grazing, oil and gas and other energy development, roads, etc. will not truly help the sage-grouse. Instead, provide incentives to these industries to create the economic engines to drive habitat restoration and reverse the cheatgrass fire cycle.

Incorporate the following information throughout the EIS:

Cheatgrass can be controlled mechanically, biologically, chemically or by applying fire under controlled conditions. The best results come from a combination of some or all of these techniques. The key to eradicating cheatgrass is diligence — once you begin the process you must be persistent and continue follow-up treatments for up to four or five years (or however long it might take because cheatgrass seeds may survive in soils this long).

#### Mechanical Treatments

Hand pulling — during spring and fall; repeat when new plants appear; effective in small areas only.

Disking/tilling (live plants) — spring and fall before the seed heads turn purple; repeat when new plants appear; use disk, rototiller, spike-tooth harrow, etc.

Disking/tilling (seeds) — once in late spring before seeding with desirable species in the fall; bury seeds at least three inches deep to prevent germination.

Mowing — not recommended as a long-term control technique as seed may be produced by mown plants.

#### Biological Treatments

Livestock grazing — graze, very heavily, twice early in spring (approximately three weeks apart) when the grass is green but prior to seed formation; repeat for at least two years.

#### Chemical Treatments

A few chemical formulations exist, such as Plateau or Roundup, that may control or even eradicate cheatgrass. No one herbicide will control all weed species. Combinations of herbicides may be required for control. For more assistance with chemical cheatgrass control, contact your county weed office or your local University Extension office.

Controlled Burning Treatment — late spring and summer; controlled burning has associated risks which should be addressed in a prescribed burn plan. If not done correctly, prescribed burns may escape control and become wildfires, produce smoke that impairs visibility on highways or impacts individuals with respiratory problems, and may cause damage to desirable vegetation. Consultation with a prescribed fire/controlled burn specialist is recommended when developing a prescribed burn plan.

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## ***Summary***

Issue 1: Commenters request analysis of past vegetation treatment programs and recommend scientific literature on effects of vegetation treatments.

Issue 2: One commenter requests baseline data on cheatgrass in planning area.

Issue 3: Partnerships with private landowners to control cheatgrass should be considered in the FEIS.

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## ***Response***

Response 1: As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

As a result of these actions, the BLM and Forest Service gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in detail in the DLUPA/DEIS. The BLM and Forest Service utilized the available data to provide an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives. [Insert any changes that were made to the EIS as a result of comment received. If no changes necessary, reference the section in the EIS that contain the relevant information].

Analysis of proposed weed treatment methods tiers off of analysis in the Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) [BLM 2007x]

Response 2: Potential occurrence of cheatgrass has been modeled (section 3.3.5). Acre of cheatgrass potential in GRSG habitat are shown in the DEIS based on Manier et al. 2013 (see Ttable 3-15, Acres of Cheatgrass Potential within GRSG) [Can incorporate concept of limited info regarding cheatgrass mapping] Information presented is appropriate for the planning level actions and analysis. Further analysis will occur on a site-specific basis at the implementation level.

Response 3: Cooperation with all landowners would be undertaken as feasible and is included in the range of alternatives.

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## Section 3 - Edits Total

Number of Submissions: 27

Total Number of Comments: 62

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## Section 4 – NEPA

Total Number of Submissions: 2

Total Number of Comments: 2

[NOTE: Section 4 has not been updated with final responses]

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### Summary

The FEIS needs to identify an Environmentally Preferred Alternative, evaluate the plan according to the USFWS's Evaluation Criteria for Conservation Plans, and provide a summary comparison of the population effects under each alternative.

---

### Response

1. FEIS will identify an Environmentally Preferred Alternative per CEQ regulations.
2. NOTE TO BLM: Is there a requirement to evaluate the plan (assuming Proposed Plan) to the USFWS's Eval Criteria? Is this something that may be done as part of the agreement with USFWS? If not, should include rationale for why not.
3. May already be included in the Summary of Impacts table at the end of chapter 2. If so, include reference to this for the reader.

## Section 4.1 - Public Notification

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

BLM needs to publish the statistics for people that provided comment letters on the Draft EIS, as well as the comments, their responses, and changes made to the document in the FEIS.

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### Response

Index of parties, comments, and responses will be provided in the FEIS. Changes made to the EIS will be noted [NOTE TO BLM: how did you want to show the changes? Grey highlight, strike out, etc.?]

## Section 4.2 - Cooperating Agency Relationships

Total Number of Submissions: 5

Total Number of Comments: 5

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## Summary

See note to BLM in response.

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## Response

NOTE TO BLM: In reviewing the comments, the theme among all of them is "BLM should work with cooperating agencies, recognize the work done with other groups, and notify the military when doing burns" which I would suggest are not something that would result in changes to the FEIS or actions; therefore, I would recommend not including this summary. I would suggest that if the information is not already in the FEIS, then you could provide further clarification of the role of cooperating agencies, additional discussions or work with other groups, or information of the follow up actions that would occur with cooperating agencies. If all of this information is already in the document, then the entire summary/response could be eliminated.

## Section 4.3 - Range of Alternatives

Total Number of Submissions: 29

Total Number of Comments: 80

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## Summary

1. The alternatives fail to meet NEPA adequacy because:

- a. they (individually or collectively) do not meet the purpose and need for the action
- b. alternatives were all largely the same, and that the BLM needed to provide more distinction (range) between them
- c. BLM needs to consider the alternatives presented by Cooperating Agencies and Environmental Organizations, including the County alternatives, the Conservation Groups' alternative, and alternatives for the listing of the species or not listing the species.
- d. Commenters felt there was no methodology or scientific backing for establishing the disturbance cap in the alternatives, and that the BLM/FS needed to demonstrate more range in the disturbance cap amounts presented in the alternatives.
- e. specifically that Alternative D needed to include the Ecological Site Descriptions to provide adequate understanding of the current management
- f. and the BLM and Forest Service failed to adequately define the No Action Alternative.

2. Commenters also suggested that BLM and Forest Service did not provide adequate rationale for the need of the project.

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## Response

1. a. In accordance with NEPA , the BLM and FS have discretion to establish the purpose and need for action (40 CFR 1502.13). CEQ regulations direct that an EIS "...shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR 1502.13). Also, under the CEQ regulations, the BLM and the Forest Service are required to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act [NEPA]." (40 CFR 1501.2(c)). The breadth or narrowness of the purpose and need statement has a substantial influence on the scope of the subsequent analysis. The purpose and need statement provides a framework for issue identification and will inform the rationale for alternative selection. The range of alternatives developed are intended to meet the purpose and need and address the issue;

thereby, providing a basis for eventual selection of an alternative in a decision (BLM NEPA handbook and Forest Service Handbook 1909.15 – National Environmental Policy Act Handbook Chapter 10 – Environmental Analysis).

As stated in the DLUPA/EIS, the BLM and the Forest Service prepared the Idaho LUP amendment with an associated EIS to be applied to lands with greater sage-grouse habitat. This effort responds to the FWS's March 2010 'warranted, but precluded' Endangered Species Act listing petition decision, and that existing regulatory mechanisms in BLM and the Forest Service land use plans was inadequate to protect the species and its habitat. The range of alternatives, including the preferred alternative and its components (such as the disturbance caps), focus on areas affected by threats to greater sage-grouse habitat identified by the FWS in the March 2010 listing decision. Formulated by the planning team, the preferred alternative represents those goals, objectives, and actions determined to be most effective at resolving planning issues, balancing resource use at this stage of the process, and meet the stated purpose and need for action. While collaboration is critical in developing and evaluating alternatives, the final designation of a preferred alternative remains the exclusive responsibility of the BLM and Forest Service. See Section 1.2 and Section 2.7, Considerations for Selecting a Preferred Alternative for further details.

b. The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, four alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A).

As described in Section 2.3 of the Draft EIS, the Idaho GRSG RMPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the RMPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this draft RMPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

Public input received during the scoping process was considered to ensure that all issues and concerns would be addressed, as appropriate, in developing the alternatives. The planning team developed planning issues to be addressed in the RMPA, based on broad concerns or controversies related to conditions, trends, needs, and existing and potential uses of planning area lands and resources.

Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping, and to maintain or increase GRSG abundance and distribution in the planning area. While the goal is the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMPA with the potential for different long-range outcomes and conditions.

The relative emphasis given to particular resources and resource uses differs as well, including allowable uses, restoration measures, and specific direction pertaining to individual resource programs. When resources or resource uses are mandated by law or are not tied to planning issues, there are typically few or no distinctions between alternatives. Meaningful differences among the four alternatives are described in Table 2-2, Comparative Summary of Alternatives, in Section 2.8, Summary Comparison of Alternatives, of the Draft EIS.

c. Based on this alternative development process, the BLM considered input from cooperating agencies, environmental

organizations, and the public. As described in 2.4.2. Alternative B, the BLM used the GRSG conservation measures in A Report on National Greater Sage-Grouse Conservation Measures (NTT 2011) were used to form BLM management direction under Alternative B, which is consistent with the direction provided in BLM Washington Office Instruction Memorandum 2012-044 (the BLM must consider all applicable conservation measures developed by the NTT in at least one alternative in the land use planning process).

During scoping for the Idaho GRSG RMPA/EIS, individuals and conservation groups submitted management direction recommendations for protection and conservation of GRSG and their habitat, including the Sage-grouse Recovery Alternative and proposed disturbance cap. The recommendations, in conjunction with resource allocation opportunities and internal sub-regional BLM input, were reviewed in order to develop BLM management direction for GRSG under Alternative C.

Alternative D incorporates adjustments to the NTT report (NTT 2011) to provide a balanced level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses, and was developed in full cooperation with the Cooperating Agencies taking note of the agencies' concerns with socioeconomic issues.

Section 2.6, Alternatives Considered but not Analyzed in Detail, of the Draft EIS, the XXX Alternative was analyzed but not considered in detail in the DEIS primarily because it is contained within the existing range of alternatives.

The BLM and Forest Service considered the State of Idaho's Sage-Grouse Conservation Plan in its cumulative effects analysis (Draft EIS Chapter 5, Cumulative Effects, Section 5.4, Special Status Species).

Whether the Greater Sage-grouse is determined for listing by the USFWS is outside the jurisdiction of the BLM and beyond the scope of this EIS. As noted in the Purpose and Need, the BLM was to consider regulatory mechanisms that would protect the species and its habitat. As such, the BLM did not develop alternatives should the USFWS choose to list or not list the Greater Sage-grouse.

d. In determining the disturbance cap level for each alternative, the BLM utilized the recommendations and input specific to each alternative. For example, for Alternative B, the BLM utilized the cap levels recommended in the NTT Report. Conservation measures included in Alternative B focus primarily on GRSG PPH and include a 3-percent disturbance cap in PPH. PPH areas have the highest conservation value to maintaining or increasing GRSG populations.

For Alternative C, conservation measures were mostly focused on ADH (PPH, PGH, and linkage/connectivity habitat). These areas have been identified by CPW in coordination with respective BLM offices, and include a 3-percent cap on disturbance in ADH. This disturbance cap number for Alternatives B and C were incorporated as-is from the NTT Report and conservation group alternatives; the BLM did not modify the caps in the alternatives.

For Alternative D, the BLM intended to protect those areas that were most important for sage-grouse within PPH; in other words, the alternative would protect the best of the best habitat. The BLM utilized information from the Wyoming Core Strategy to support consideration of the five-percent disturbance cap, with the goal to represent the reasonable edge of the range of alternatives with a higher percentage.

While the caps would set a particular level of disturbance, the implementation of the disturbance caps would occur after the RMPA is approved in the Record of Decision. The BLM inventoried the habitat with the best available info at the time of the DEIS, but would also do additional in-depth analysis & inventory within management zones at the implementation stage.

2. While FWS has responsibility for threatened and endangered species, the BLM and the Forest Service manage a significant portion of sage-grouse habitat. Thus, although it is the FWS's responsibility to administer the Endangered Species Act, management of wildlife habitat is within the BLM and the Forest Service's multiple-use mandate and is properly a resource to be managed for in their planning decisions.

## Section 4.4 - Best Available Info Baseline Data

Total Number of Submissions: 4

Total Number of Comments: 5

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### Summary

The EIS fails to meet NEPA adequacy for baseline data because the scale of baseline data used is too broad, the EIS failed to include the State and Transition models as part of the baseline information, and the No Action management actions, as presented, do not explain the regulatory mechanisms that are currently available to preserve sage grouse habitat.

---

### Response

The CEQ regulations require an environmental impact statement to "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The description shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues" (40 CFR 1502.15). Additionally, the [name of particular amendment] is a programmatic NEPA effort to conserve greater sage-grouse and its habitat across a broad geographic area. As such, the BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions. The BLM and the Forest Service complied with these regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in [Chapter XX] and various appendices including [cite appendix(ces)] in the [name of particular amendment] is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS. For example, [use relevant example for the particular issue...here's one provided: listing every water quality-impaired stream within the planning area by name would not provide useful information at this broad-scale analysis, particularly where the proposed plan alternatives did not vary the level of riparian protections to provide reduced levels for non-impaired streams. The riparian protections within each alternative were applied to all streams, whether or not they were water quality-impaired. However, understanding the miles of impaired BLM streams, as presented in the DLUPA/EIS at Section 3.5.7, is useful in establishing a baseline by which the BLM may analyze the relative effects of each alternative's broad-based approach.]

As specific actions come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. Site-specific concerns and more detailed environmental descriptions will be addressed when project-level reviews are tiered to the analysis in this EIS (40 CFR 1502.20, 40 CFR 1508.28). In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for any site-specific actions.

## Section 4.5 - GIS Data and Analysis

Total Number of Submissions: 8

Total Number of Comments: 13

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### Summary

Commenters noted several issues with the GIS data and analysis conducted in the Draft EIS:

- The maps and data layers do not provide enough detail to address "local ecological site variability". The data are too

course and do not provide assurances to more localized decision making; some habitat type areas are inaccurately identified in the maps.

- BLM used old data layers to develop maps; BLM should use the newer data layers.

--the BLM needs to be consistent in their edge-mapping across state boundaries when there are different data sets used.

NOTE TO BLM: some comments relate to specific changes for the maps presented in the DEIS, and for the data layers to be made available for download from the BLM website.

---

## Response

Before beginning the Idaho Sage grouse EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The data needed to support broad-scale analysis of the planning area are substantially different than the data needed to support site-specific analysis of projects. The LUPA/EIS data and information is presented in map and table form and is sufficient to support the broad scale analyses required for land use planning.

Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service and [list state agencies, including state wildlife agency]. Considerations included but were not limited to [list the types of data or GIS layers that were gathered/used. A few examples: threatened and endangered species and their habitats, water quality- limited (303d) streams, deer and elk herd management areas, invasive plants, and uses on State lands]. It is not the responsibility of the BLM or FS to modify, change, update, or revise the specific modeling protocol and analysis developed by other agencies or groups. The Draft EIS notes that the BLM and FS would incorporate any refinements or updates if or when the data were made available. [NOTE TO BLM: If any updates or new layers have become available, can note them here.]

The BLM and the Forest Service described the current conditions and trends in the affected environment broadly, across a range of conditions, appropriate to program-level land use planning actions. The BLM and the Forest Service complied with the regulations in describing the affected environment. The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The affected environment provided in [Chapter XX] and various appendices including [cite appendix(ces)] in the [name of particular amendment] is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the DLUPA/EIS.

As a result of these actions, the data gathered by the BLM and the Forest Service is of the appropriate scale and provided an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives.

A land use planning-level decision is broad in scope. The BLM and the Forest Service realize that more data could always be gathered, the baseline data provides the necessary basis to make informed land use plan-level decisions. Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The BLM and the Forest Service will conduct subsequent project-specific NEPA analyses for projects proposed for implementation under the land use plan, which may include but are not limited to fuels treatment, habitat restoration, [etc.; list others as applicable]. The subsequent NEPA analyses for project-specific actions will tier to the land-use planning analysis and evaluate project impacts at the appropriate site-specific level (40 CFR 1502.20, 40 CFR 1508.28). As required by NEPA, the public will have the opportunity to participate in the NEPA process for site-specific actions.

Of the suggested studies and references put forth by the commenters, the BLM reviewed them to determine if they presented new information that would need to be incorporated into the FEIS, or if the references provided the same information as already used or described in the Draft EIS. Adjustments to mapping can be found in Appendix B,

"Mapping Adjustments."

## Section 4.6 - Indirect Impacts

Total Number of Submissions: 4

Total Number of Comments: 5

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### Summary

BLM's overall impact analysis is deficient in the following areas:

1. lack of discussion for where, when, and how BLM will have sufficient funding to implement the actions;
2. the analysis does not distinguish between the effects of each alternative;
3. did not fully analyze the No Action alternative by not acknowledging the existing laws and actions already in place that would manage the habitat;

---

### Response

1. As a landscape level planning effort, none of the alternatives prescribe project-level or site-specific activities on BLM or USFS managed lands. Furthermore, the agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies' budgets as appropriated annually through the Federal budget process. As a consequence, agencies' costs and differences in program costs across alternatives have not been quantified. Information has been presented in several resource impact sections on the types of costs that might be associated with various sage-grouse conservation measures. [NOTE TO BLM- above language from Josh Sidon, Lauren may want to use across all subregions.]
2. Direct the reader to the Effects Summary table in ch 2. Determine whether revisions to the table would be necessary to distinguish more between the effects.
3. Check for the No Action alternative to see if there already is a statement for how existing management/actions would impact the habitat. This may be to direct the reader to a specific section in Ch 4 or several sections.

## Section 4.7 - Cumulative Impacts

Total Number of Submissions: 6

Total Number of Comments: 7

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### Summary

The EIS cumulative impacts analysis is inadequate because it does not adequately identify the reasonably foreseeable future actions, present a comprehensive listing of the effects across ALL subregions, nor analyze how the alternatives' actions would affect actions and decisions in neighboring states/jurisdictions.

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### Response

Can direct reader to cumulative impacts; note that the cums impacts are updated based on work done between Draft & Final; see if there is anything specific you can add to clarify how actions in neighboring jurisdictions/states were addressed in the cums.



Regional call on whether to roll up effects totals into a region wide estimate as suggested by commenter.

## Section 4.8 – Residual Effects – Unavoidable Impacts

*No comments are associated with this issue.*

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## Section 4.9 - Mitigation Measures

Total Number of Submissions: 13

Total Number of Comments: 18

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### Summary

1. The BLM needs to include a monitoring, mitigation, and adaptive management plan/framework in the FEIS that will include specific criteria for determining sage grouse conservation success and how the disturbance percentages will be calculated.

2. BLM needs to clarify the relationship between the disturbance thresholds and the monitoring framework.

3. The BLM needs to release the mitigation strategy for public review.

---

### Response

The BLM and the Forest Service complied with the NEPA by including a discussion of measures that may mitigate adverse environmental impacts of the alternatives in the DLUPA/EIS. See 40 CFR 1502.14(f), 1502.16(h). Potential forms of mitigation include: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (5) compensating for the impact by replacing or providing substitute resources or environments. 40 CFR 1508.20. Taking certain actions [or not taking action, depending on position of issue statement], such as [cite to any specific examples included with comments], is only one of many potential forms of mitigation. The BLM and the Forest Service must include mitigation measures in an EIS pursuant to the NEPA; yet the BLM and the Forest Service have full discretion in selecting which mitigation measures are most appropriate, including which forms of mitigation are inappropriate.

[Cite specifics relevant to the sub-regional for where the alternatives have incorporated mitigation measures designed to avoid or reduce impacts within the management actions and supporting information in the appendices. If there are many, then note that the impacts presented in Chapter 4, therefore, are considered unavoidable and would result from implementing the management actions and mitigations. Cite a few examples of the actions that include specific mitigation measures as part of the alternative(s). Sample: “Action BIO-1: Implement the standard operating procedures (SOPs) contained in Appendix O (Biological Standard Operating Procedures) and Appendix P (Standard Operating Procedures for Oil and Gas) for all project work would help to mitigate effects as a result of oil and gas activities on biological resources.”]

A monitoring framework was developed by a Disturbance and Monitoring Team that focuses on the implementation and effectiveness of the conservation measures in the planning documents. The BLM and the Forest Service worked with WAFWA to define a standardized process for data sharing and definitions of priority areas of conservation boundaries. Monitoring methods and indicators were derived from the best available science. Corporate data-sets will be established

so that data can easily be “rolled up” for reporting monitoring results across the range of greater sage-grouse, as defined by Schroeder et al. (2004); by populations and subpopulations as defined by Connelly et al. (2004); by LUP area; by the seven (WAFWA) Greater Sage-grouse Management Zones (Stiver et al. 2006), and by Priority Areas for Conservation (PACs) as defined in the greater sage-grouse Conservation Objectives Team (COT) Report (U.S. Fish and Wildlife Service 2013). [If needed, based on specifics of comments and/or summary statement, include statement to the effect that broad- and mid-scale monitoring will be conducted as funding allows.]

[Refer to the Monitoring Framework in the appendix.] To accomplish effective monitoring, the BLM and the Forest Service will analyze the monitoring data to characterize the relationship among disturbance, implementation actions, and habitat condition at the appropriate and applicable geographic scale or boundary. When available from WAFWA and/or state wildlife agencies, effectiveness monitoring can be supplemented with population trend information, taking into consideration the lag effect response of populations to habitat changes.

## Section 5 – FLPMA

Total Number of Submissions: 7

Total Number of Comments: 12

[NOTE: Section 5 has not been updated with final responses]

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### Summary

The DLUPA/EIS has failed to comply with the multiple-use mandates found in the BLM’s FLPMA and the Forest Service’s Multiple Use Sustained Yield Act because it has put protecting greater sage-grouse and sage-grouse habitat above legal requirements for balanced management.

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### Response

NOTE TO BLM: this is the full national response and has been reviewed by SOL:

The BLM’s FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses to which public lands can be put. The BLM’s multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The FLPMA also directs the United States (US) Department of the Interior, Bureau of Land Management (BLM) to develop and periodically revise or amend its Resource Management Plans (RMPs), which guide management of BLM-administered lands, and provides an arena for making decisions regarding how public lands would be managed and used.

Consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (MUSYA), the Forest Service manages National Forest System land to sustain the multiple use of its renewable resources in perpetuity while maintaining the long-term health and productivity of the land. Resources are managed through a combination of approaches and concepts for the benefit of human communities and natural resources. Land management plans guide sustainable, integrated resource management of the resources within the plan area in the context of the broader landscape, giving due consideration to the relative values of the various resources in particular areas. The Forest Service is required by statute to have a national planning rule: the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, requires the Secretary of Agriculture to issue regulations under the principles of the Multiple-Use Sustained-Yield Act of 1960 for the development and revision of land management plans.

The [name of particular amendment] is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve greater sage-grouse and to respond to the potential of its being listed (see Section I.XX, Purpose and Need). Both, the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated appropriate regulatory mechanisms to conserve, enhance, and restore greater sage-grouse habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. For example, [insert one or more examples of the range of actions considered, include references to sections/table where they can be found].

Additionally, the BLM and the Forest Service developed the [name LUPA/EIS] with involvement from cooperating agencies, including [name various agencies, including the state wildlife agency, state's governor's office, other fed agencies, any local agencies/governments] to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

## Section 5.1 - Inventories

*No comments are associated with this issue.*

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## Section 5.2 - Consistency with other state, county, or local plans

Total Number of Submissions: 8

Total Number of Comments: 14

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### Summary

The BLM's actions considered in the alternatives conflict with local and state agency plans and policies; furthermore, the BLM did not review all of the county and state plans to ensure that conservation measures are as consistent as possible with other planning jurisdictions.

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### Response

The BLM land use plans and amendments must be consistent with officially approved or adopted resource-related plans of Indian tribes, other Federal agencies, and State and local governments to the extent that these resource-related plans comport with FLPMA and other Federal laws and regulations (see 43 CFR 1610). The BLM has worked closely with State and local governments during preparation of the Draft LUPA/EIS. The Draft LUPA/EIS lists the cooperating agencies actively involved in the planning process in Section 6.XX. The BLM works to find a balance among uses and needs as reflected in these local government plans and has done so in the preparation of the LUPA/EIS; a list of these plans can be found in Chapter I, Section I.XX, Relationship to Other Policies, Plans, and Programs. While the BLM is not obligated to seek consistency, the agency is required to describe the inconsistencies between the proposed action and the other plans, policies, and/or controls within the EIS. This information has been updated in the FEIS. [NOTE TO BLM: Might need to add this sentence (regarding obligations) to Section I.7, Relationship to Other Policies, Plans, and Programs, of the FEIS. Also need to ensure that the FEIS describes any such inconsistencies.]

The BLM coordinates with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the State of Idaho has clear jurisdiction, such as wildlife populations, the BLM has worked closely with

that State agency. In cases where a county or agency has expertise, such as local county socioeconomic information, the BLM has worked closely with the group to incorporate the information into the EIS.

NOTE TO BLM: plans, policies that commenters felt needed to be reviewed for consistency:

Gooding conservation district sage grouse conservation plan  
National Academy of Sciences 2013 recommendations for the WHB program  
State of MT sage-grouse management strategy  
Custer County plans  
Owyhee County plans

## Section 5.4 - Planning Regs 43 CFR 1600

Total Number of Submissions: 2

Total Number of Comments: 2

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### Summary

The BLM did not provide an explanation for how and why they defined the planning area as they did.

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### Response

[NOTE TO BLM: This is from a national response.]

The framework for the scope of analysis for the project is based upon the BLM and the Forest Service Planning and NEPA manual and handbooks definitions of the planning, decision, and analysis areas. Specifically, Forest Service Manual 1900-Planning Chapter, Zero Code defines the Area of Analysis as “The geographic area within which ecosystems, their components, or their processes are evaluated during analysis and development of one or more plans, plan amendments, or plan revisions. This area may vary in size depending on the relevant planning issue. For a plan, an area of analysis may be larger than a plan area. For development of a plan amendment, an area of analysis may be smaller than the plan area and include multiple ownerships.”

For this environmental impact statement, decision areas are those public lands and mineral estates within the planning area that are encompassed by all designated habitat (ADH) (which includes preliminary priority habitat [PPH], preliminary general habitat [PGH], and linkage/connectivity habitat).

Planning Area. The geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM’s jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for a RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices and/or states, as necessary.

Plan areas. National Forest System lands covered by land use plans. (36 CFR 219.16)

[If not included in DEIS already, make a notation that the FEIS will be updated to note definitions of planning, decision, and analysis areas to clarify these terms.]

## Section 6 - Other Laws

Total Number of Submissions: 11

Total Number of Comments: 15

[NOTE: Section 6 has not been updated with final responses]

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### Summary

The BLM has failed to document how the EIS and/or actions considered in the EIS comply with other laws, including all Onshore Orders regulating oil and gas development, the Energy Policy Act of 2005 and Energy Policy and Conservation Act of 2000, the Taylor Grazing Act, the Mining and Minerals Policy Act, the Information Quality Act, the Wild Horse and Burro Act, other multiple use mandates (e.g., Multiple-Use Sustained Yield Act of 1960, Forest and Rangeland Renewable Resources Planning Act of 1974, National Forest Management Act of 1976), and compliance with other federal agency regulations (e.g., XXX).

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### Response

[NOTE TO BLM: This response may need to go up the chain for review.]

As noted under Section 5 of this Report, the Draft LUPA/EIS is consistent with the BLM's FLPMA and the Forest Service's Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (MUSYA). The Idaho Greater Sage-Grouse Land Use Plan Amendment is a targeted amendment specifically addressing goals, objectives, and conservation measures to conserve greater sage-grouse and to respond to the potential of it being listed (see DEIS Section 1.2, Purpose of and Need for the Land Use Plan Amendments). Both the Forest Service's and BLM's planning processes allow for analysis and consideration of a range of alternatives in the DLUPA/EIS that identified and incorporated appropriate regulatory mechanisms to conserve, enhance, and restore greater sage-grouse habitat and to eliminate, reduce, or minimize threats to this habitat to ensure that a balanced management approach was recommended. The DLUPA/EIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights.

Additionally, the BLM and the Forest Service developed the Idaho Greater Sage-Grouse Draft Land Use Plan Amendment/DEIS with involvement from cooperating agencies (see DEIS Section 6.3, Cooperating Agencies), including [ID state wildlife agency, counties, etc.] to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

The Draft EIS Section 2.5, Management Common to All Alternatives (pages 39 and 40), states that all alternatives would comply with state and federal laws, regulations, policies, and standards, and implement actions originating from laws, regulations, and policies. Actions in the Proposed LUPA have been reviewed and found to be consistent and within the bounds of all required laws, regulations, and policies.

## Section 7 - Sage Grouse

*No comments are associated with this issue.*

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### Section 7.1 - NTT report/findings

Total Number of Submissions: 11

Total Number of Comments: 32

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## Summary

Commenters contended that the NTT report is not based on the best available science, contains technical and methodological errors, is not based on local conditions, and has not undergone adequate peer review. Commenters questioned why the NTT report was used when the IM requiring its use has expired.

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## Response

A National Technical Team (NTT) was formed as an independent, science-based team to ensure that the best information about how to manage the greater sage-grouse is reviewed, evaluated, and provided to the BLM and the Forest Service in the planning process. The group produced a report in December 2011 that identified science-based management considerations to promote sustainable greater sage-grouse populations. The NTT report (NTT 2011) used the best current scientific knowledge to guide the BLM planning efforts through management considerations to ameliorate threats, focused primarily on priority greater sage-grouse habitats on public lands. The NTT report cited 122 references including published papers from the formal scientific literature such as Journal of Wildlife Management, Conservation Biology, Biological Conservation, Wildlife Biology, BioScience and others, as well as graduate theses and dissertations, conservation strategies, FWS 2010 finding, and others representing the best available science. The NTT report was intended to be used at a programmatic scale and may not reflect local conditions.

The BLM used the NTT report per BLM IM 2012-044 to construct an alternative that would meet the purpose and need. This report was not the only source of information for developing a range of alternatives (see Section 7.5, Range of Alternatives).

[NOTE TO BLM- Clarify in FEIS the policy requirements for Administrative Procedure Act (APA), NEPA relative to IM, and NTT and clarify the NTT process and FACA in the FEIS.]

BLM is implementing IM 2012-044 through the Greater Sage-grouse planning effort. When an IM expires without being superseded, it can still be applicable and provide guidance to the BLM. The fact that IM 2012-044 expired does not mean the BLM has no authority to continue to analyze the conservation measures identified in the NTT Report. The BLM is appropriately considering and evaluating the measures in the NTT Report, in addition to any other relevant science, through the Greater Sage-grouse planning process.

{Note: Suggest asking for National justification of why the NTT was an appropriate source}

## Section 7.2 – BER

Total Number of Submissions: 1

Total Number of Comments: 2

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## Summary

The BER contains outdated baseline literature and should be updated with suggested literature.

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## Response

[NOTE TO BLM: The BLM is reviewing suggested literature and will include where necessary.]

A baseline environmental report, titled Summary of Science, Activities, Programs, and Policies That Influence the Rangeland Conservation of Greater Sage-grouse (*Centrocercus urophasianus*) (referred to as the BER), was released on June 3, 2013, by the U.S. Geological Survey. The peer-reviewed report summarizes the current scientific understanding about the various impacts to greater sage-grouse populations and habitats and addresses the location, magnitude, and extent of each threat. The data for this report were gathered from BLM, Forest Service, and other sources and were the best available at the range-wide scale at the time collected. The report provides a framework for considering potential implications and management options, and demonstrates a regional context and perspective needed for local planning and decision-making.

The BLM reviewed the literature sources provided by commenters to determine if there were new or updated sources that should be considered in the EIS. BLM's findings of this review were... [insert the results from the literature review. While it doesn't directly address the BER report being updated, it's addressing the point that BLM did make the effort to consider new or updated info in the EIS in addition to the BER report.]

While there was consistent direction provided in alternative develop, such as BLM WO IM 2012-044, variation across sub-regionals was needed to accommodate the local issues and specific state and Forest Service requirements. Alternative D was developed by the BLM in coordination with the Forest Service and local FWS. This alternative includes modifications to the conservation measures identified in the NTT report and is designed to address local ecological site variability. This alternative also emphasizes balancing resources and resource use among competing human interests, land uses, and the conservation of greater sage-grouse habitat. Alternative E was developed from recommendations by the State of Idaho's greater sage-grouse task force and would apply to all BLM-administered and National Forest System lands located in the state. See Section 2.1.2 regarding alternative development and explanation of components of each alternative. {Note: Suggest including more justification of the BER in response}

## Section 7.3 – COT

Total Number of Submissions: 9

Total Number of Comments: 17

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## Summary

Commenters had two distinct views regarding the COT report. One group considered the report overly biased and not representative of the best available information. The other group suggested the DEIS was not fully consistent with the COT report habitat mapping and therefore requires revision to address those deficiencies.

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## Response

In March 2012, the FWS initiated a collaborative approach to develop range-wide conservation objectives for the greater sage-grouse to inform the 2015 decision about the need to list the species and to inform the collective conservation efforts of the many partners working to conserve the species. In March 2013, this team released the Conservation Objectives Team (COT) report based upon the best scientific and commercial data available at the time that identifies key areas for greater sage-grouse conservation, key threats in those areas, and the extent to which they need to be reduced for the species to be conserved. The report serves as guidance to Federal land management agencies, State greater sage-grouse teams, and others in focusing efforts to achieve effective conservation for this species.

Table 2-20 demonstrates how the BLM and Forest Service management actions under each alternative address the threats to the populations in the Idaho and southwestern Montana sub-region. In Idaho, Core and Important Habitat Zones under Alternative E were used to derive the PACs in the COT. The BLM and Forest Service have continued to work with the USFWS and State agencies to develop a proposed plan.

[NOTE TO BLM: Clarify in the FEIS the validity of NTT, COT, and BER as relative to the established standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders. Ensure the FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS). Clarify MZs and population monitoring efforts in the FEIS.]

## Section 7.4 - Policy Guidance

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The BLM and Forest Service should include additional information to improve consistency with USFWS's Policy for Evaluation of Conservation Efforts.

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### Response

The BLM and Forest Service are working closely with the USFWS to ensure certainty of implementation and effectiveness to the extent possible. However, certain management actions, such as restoration activities, are contingent on funding availability and thus some uncertainty remains.

## Section 7.5 - Range of Alternatives

Total Number of Submissions: 28

Total Number of Comments: 90

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### Summary

Commenters proposed revisions or requested additional details and clarifications to the alternatives related to GRSG.

Topics of concern included:

- The size of lek buffers
- Level of predator control
- Need for and size of disturbance cap
- Restrictions on wind energy development
- Noise restrictions
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring
- Need for an improved definition of no net unmitigated loss
- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality
- Lack of active habitat restoration



- Habitat monitoring

Commenters were concerned about greater sage-grouse habitat mapping, including suggesting clarifications or revisions to the habitat map and concerns about using the map for site-scale projects.

Commenters were also concerned that Manual 6840 was not used as the baseline policy governing present GRSG conservation in the No Action alternative.

## Response

As noted above in the response in Section 4.3, Range of Alternatives, Section 2.1 of the Draft EIS describes how the Idaho and southwestern Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA and worked closely with the State with assistance from the USFWS.

Meaningful differences among the six alternatives are described in Table 2-2, Comparative Summary of Alternatives by Acres Allotted, and in Section 2.6, Detailed Description of Alternatives, of the Draft EIS. [Specify where changes have been made to the FEIS regarding each of the bullets below]. Refer to tab 32 regarding predator control. All of these issues have been addressed in new management actions prepared for the proposed plan and analyzed in Chapter 4 (and reference relevant appendices regarding AM and monitoring, etc.).

Regarding the following issues:

The size of lek buffers -lek buffers will be revised in final plan/FEIS reflecting additional review of best science.

- Level of predator control
- Need for and size of disturbance cap- Additional specificity regarding the disturbance cap has been further explained in the FEIS.
- Restrictions on wind energy development
- Noise restrictions. Noise and seasonal stipulations for both construction and long-term implementation of land use activities has been included in the final EIS. [NOTE TO BLM (from Makela)- Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.]
- Livestock grazing management changes
- Inadequate description of adaptive management and monitoring. The BLM and FS believe the management actions described in the Proposed Plan will adequately address sage-grouse conservation needs without the need for additional large scale designations.
- Need for an improved definition of no net unmitigated loss- Additional specificity regarding the no net habitat loss objectives has been further explained in the FEIS.
- Leasable mineral restrictions
- Juniper removal
- Existing and new fencing as they relate to sage-grouse strikes and mortality. The BLM and FS used the latest science in developing management actions relatives to fences that adequately address collision risk. No change has been made to the document regarding this issue in the FEIS.
- Lack of active habitat restoration- Site specific projects are not identified in the broad scale plan, but there are a number of restoration actions described in Table 2-18 Vegetation/Restoration section in the DEIS and in the Proposed Plan.
- Habitat monitoring- The BLM and FS, in coordination with the state, have clarified monitoring and mapping expectations in the FEIS.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives. The Proposed Plan will contain a mechanism that allows for evaluation of circumstances on case by case basis at the site specific scale that would be addressed via subsequent project level NEPA analysis.

Manual 6840 is referenced in Chapter 1, Section 1.x, Planning Criteria, and provides general guidance for special status species, but it does not provide language relative to specific conservation actions for specific species. [BLM- ensure Manual 6840 is discussed in Alternative A and also relevant FS policy].

[NOTE TO BLM: Ensure Proposed Plan has appropriate provisions/clarity for actions in General management areas. Needs additional discussion.]

## Section 7.6 - Best Available Info Baseline Data

Total Number of Submissions: 38

Total Number of Comments: 97

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### Summary

Commenters suggested new or additional literature for the BLM and Forest Service to consider in the DLUPA/EIS related to:

- Determination of GRSG population size and trends – inaccuracy of past counts; insufficient data to determine trend.
- Effects of livestock grazing, predation, drought, noise, and anthropogenic development
- Appropriate lek buffers and disturbance cap to incorporate
- Mitigation
- Hunting– outside scope but managed via the Idaho and Montana state plans
- GRSG habitat requirements
- Accuracy of the habitat mapping
- Infrastructure
- West Nile virus

### Response

As described in Section 4.4 of this comment report, The BLM and the Forest Service used the most recent and best information available that was relevant to a land-use planning-level analysis including the Baseline Environmental Report (BER; Manier et al. 2013), NTT report (NTT 2011), and COT report (USFWS 2013). Additionally, the BLM and the Forest Service consulted with, collected, and incorporated data from other agencies and sources, including but not limited to the U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, scientific literature, field and district office data. Considerations included but were not limited to [list the types of data or GIS layers that were gathered/used.].

Of the suggested studies and references put forth by the commenters, the BLM and Forest Service reviewed them to determine if they presented new information that would need to be incorporated into the FEIS, were references already included in the draft EIS, or if the references provided the same information as already used or described in the Draft EIS. The BLM determined that several of these references contained new or relevant information regarding xxx resources and the analysis was clarified and references cited in Sections XXX of the FEIS. In some cases, the additional literature was essentially the same as existing sources and was not incorporated.

A description of the habitat mapping process for each alternative is presented in Section 2.6, Detailed Description of Alternatives.

## Section 7.7 - Impact Analysis

Total Number of Submissions: 22

Total Number of Comments: 70

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### Summary

The BLM and Forest Service should conduct additional, more comprehensive analysis of the impacts on greater sage-grouse to provide more substantiated conclusions.

Commenters provided suggestions on how to improve or modify the impact analysis for greater sage-grouse in several topic areas including:

- Hunting
- Predation
- Anthropogenic disturbance, disturbance caps, and lek buffers
- Expanding on beneficial effects on GRSG from range improvements
- Greater sage-grouse population size and trend
- Livestock grazing, fences, and trailing
- Noise as related to low-level military overflights
- Success of habitat improvement projects
- Prescribed fire
- Herbicides
- West Nile virus
- More detailed analysis of Alternative A
- Climate change
- Need to identify areas for restoration
- Coal suitability

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas.

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## Response

The LUPA/FEIS provides an updated and expanded discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As described in Chapter 2.3.2, coal was not an issue for analysis. As required by 40 CFR 1502.16, the LUPA/FEIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources should the proposal be implemented. The LUPA/FEIS provided sufficiently detailed information to aid in determining whether to proceed with the proposed plan in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. Therefore, effects on GRSG population levels are not required to be quantified as part of the impact analysis. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM: Eventually need to fill this in:] Impacts from XX on greater sage-grouse were considered in Section 4.x of the Draft EIS. Include discussion of what changes were made and where. If no change made, describe why the impact analysis is adequate for that topic. Some template text:

While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS’s impact analysis relevant to [speak to the specific topic or theme of the issue statement, e.g., anticipated fluid mineral development of the planning area] was found to need additional information and support for the

conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions. Specifically, [insert a summary of the information that was updated and include a citation for where the reader could find it in the FEIS.]

The facts that sagebrush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts are not sufficient methods of protecting GRSG and sage brush habitat. Additionally, this concept was considered within the range of alternatives- Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment. [NOTE TO BLM: Consider whether inserting text to this effect into the EIS is appropriate.]

## Section 7.8 - Cumulative Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 3

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### Summary

The BLM and Forest Service need to provide additional analysis regarding the cumulative effects of livestock grazing and land treatments. In addition, the agencies should predict greater sage-grouse population changes based on expected cumulative actions.

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### Response

As described in Section 4.7 of this comment report, the BLM and Forest Service analyzed cumulative effects to GRSG in the DLUPA/EIS in Section 4.16 of the EIS. The BLM and Forest Service expanded and quantified cumulative impacts for the proposed LUPA/FEIS. Section 7.7 of this comment report describes how land treatments and domestic livestock were addressed in the Environmental Consequences section of the DEIS. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

The BLM and Forest Service have complied with the requirements of 40 CFR 1508.7 and prepared a cumulative impact analysis to the extent possible based on the broad nature and scope of the proposed management options under consideration at the land use planning level. Therefore, effects on GRSG population levels are not required to be quantified as part of the cumulative impact analysis.

The BLM and Forest Service added quantitative analysis to Section 4.16 related to XXX topics. [Note to BLM/FS: insert description of any revisions made]

## Section 7.9 - Mitigation Measures

Total Number of Submissions: 12

Total Number of Comments: 34

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### Summary

The BLM and Forest Service mitigation strategy is inadequate or needs clarifications. Topics of concern include:

- Certainty that mitigation will be implemented
  - Lack of scientific evidence that mitigation and habitat restoration results in greater sage-grouse population increases
  - Adequacy of the monitoring program
  - Effectiveness of compensatory mitigation
  - How mitigation proposals will be evaluated
  - Siting of mitigation actions
  - Durability of mitigation investments
  - Consideration of using mitigation banks
  - Creation of a mitigation program
  - Framework behind exceptions and associated mitigation, e.g., science behind allowing exceptions; offsetting losses and prove mitigation is successful
  - Need for mitigation given the restrictive management in the alternatives
  - Link between compensatory mitigation and adaptive management
- 

### Response

The Mitigation, Monitoring, and Adaptive Management strategies are described more fully in **Section XX** of this comment report and included in Chapter 2 and **Appendices X, X, and X** of the DEIS. Refer to BLM Mitigation Manual.

## Section 8 – ACECs

*No comments are associated with this issue.*

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### Section 8.1 - Range of Alternatives

Total Number of Submissions: 9

Total Number of Comments: 10

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### Summary

Issue 1: In the Draft EIS/LUPA, the BLM/FS did not accurately or consistently represent the number of ACECs being proposed under each alternative, particularly Alternative C.

Issue 2: Alternatives in the Draft EIS/LUPA do not provide an adequate range of management actions for ACECs by only considering new ACECs under two of the action alternatives (C and F).

Issue 3: Whether ACECs or another administrative designation, the BLM/FS should ensure any administrative designation established for the protection of sage-grouse habitat will provide adequate non-discretionary protections.

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## Response

Response 1: The FEIS has been revised to ensure consistent representation of proposed ACECs under Alternatives C and F.

[NOTE TO BLM: Review EIS/LUPA for consistent representation of proposed ACECs under Alternatives C and F.]

Responses 2 and 3: As noted in section 4.3, NEPA Range of Alternatives, of this report, the alternatives, including the management actions for the fire ACEC program, meet the purpose and need for the EIS. Alternatives within the EIS have established that not all protective management for the Greater Sage Grouse is limited to ACEC designation. Only Alternatives C and F proposed to establish ACECs for the protection and management of the Greater Sage Grouse. While the other alternatives do not propose such designations, they still contain similarly specific management prescriptions to manage and protect the Greater Sage Grouse and its habitat that would be equivalent to protections afforded via an ACEC or other designations.

## Section 10 - Climate Change

### Section 10.4 - Cumulative Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 5

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## Summary

The EIS does not adequately address the cumulative effects of climate change on sage-grouse or sage-grouse habitat, including the cumulative effects of livestock grazing on vegetation communities and the likelihood of a changing climate to result in an increase in invasive weeds.

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## Response

Assessing the impacts of grazing on climate change is outside the scope of this document, except as it pertains to reducing impacts on GRS and GRS habitat within the planning area and in consideration of valid existing rights and the BLM's multiple use mandate under the Federal Land Policy and Management Act. The PRMP/FEIS does disclose the potential effects associated with global climate change on the Greater Sage-grouse in Section XX. However, pursuant to 40 CFR 1500.1(b), information must be "of high quality" in order to be considered in the analysis. As explained in Section xx of the EIS, it is speculative to attempt to predict the specific nature or magnitude of such changes.

NOTE TO BLM: Based on the NEPA and CEQ guidance for cumulative impacts analysis, determine if the DEIS analysis is adequate or not. If not, make necessary corrections and note what was modified here. Include direction to reader where to find revised analysis (e.g., "See Section 5.XXX for additional information.").

The BLM will review. Follow up needed with Bryce.

## Section 12 - Fire and Fuels

### Section 12.1 - Range of Alternatives

Total Number of Submissions: 11

Total Number of Comments: 15

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#### Summary

The BLM and the Forest Service should examine the location and size of proposed fuel breaks in further detail as fuel breaks in large areas of intact sagebrush limit fire and related habitat destruction. Specifically, one commenter requests use of green-strips, including non-native species, for fuel breaks. Use of prescriptive fire as a management tool should be further examined.

Timelines for long-term fire management measures should be established in the FEIS. One commenter recommends that measures be implemented one year after the ROD. Implementation details of fire control measures should be specified. The BLM/Forest Service should acknowledge the importance of flexibility in fire management plans in the FEIS and allow for on-the-ground decision making for effective fire-management. Alternative language should be revised for clarity.

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#### Response

Fuel breaks are site-specific - see Oregon response. Use of prescribed fire varies by alternative. [needs more subregional input].

### Section 12.2 - Best available information baseline data

Total Number of Submissions: 4

Total Number of Comments: 5

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#### Summary

The FEIS should include citations indicating that implementation of fuel breaks in sagebrush systems reduces the rate of spread of fire. In addition, citations should be provided to support the use of prescribed fire to improve GRSG habitat. The BLM and Forest Service should recognize livestock grazing as an effective fire management tool due to its role in controlling invasive plants and decreasing fuel loads.

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#### Response

The EIS affected environment section provides the appropriate information for the scope and scale of the project (see section 4.4, NEPA Baseline Information of this report). However, upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 3 have been updated and revised to include clarifications or new information. Section 3.XX, [insert section name], in the FEIS has been revised to update information regarding fuel breaks and Section 3.XX, [insert section name], has been updated to clarify the relationship between livestock grazing and fire.

## Section 12.3 - Impact Analysis

Total Number of Submissions: 6

Total Number of Comments: 7

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### Summary

The DEIS does not contain sufficient analysis of indirect impacts of reduced grazing on fuel loads and related wildfire risk. Additionally, the analysis of impacts of fire suppression activities should be reexamined. It is particularly important that this analysis is clarified as lack of sufficient regulatory mechanisms for wildland fire was cited as a primary threat to GRSG in the FWS listing decision.

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### Response

The impact analysis provides the appropriate information for the scope and scale of the project (see section 4.6, NEPA Impact Analysis, of this report). Upon BLM and Forest Service reviews and public comment suggestions, some sections in Chapter 4 have been updated and revised to include clarifications to the text. Section 4.XX, [insert section name], in the FEIS has been revised to clarify the impacts of reduced grazing on fuel loads. [BLM/Forest Service- need to add review impacts in Ch 4 for consistency with this language added to chapter 3 for relation between grazing and fire. Review impacts analysis to make sure that impacts analysis has sufficient info on impacts of reduced grazing on fuel loads]

In addition, impacts analysis discussion has been modified to clarify the impacts of different suppression measures proposed by Alternative. [BLM/Forest Service- need to review and modify discussion of impacts of fire suppression measures (i.e. specific conservation measures under B vs. approach under E)]

## Section 13 - Fish and Wildlife

### Section 13.1 - ESA Consultation

Total Number of Submissions: 3

Total Number of Comments: 3

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### Summary

The BLM fails to address avoiding the potential to list the GRSG under the Endangered Species Act (ESA) and that the bird does not meet the criteria to be listed under the ESA.

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### Response

As stated in Chapter 1, Section 1.1, Background in the DRMP, this plan amendment effort is the result of the July 2011, BLM National Greater Sage-Grouse Planning Strategy (BLM 2011). The Strategy responds to the March 2010, US Fish and Wildlife Service (USFWS) 12-Month Finding for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (75 Federal Register [FR] 13910, March 23, 2010) (2010 Finding). In the 2010 Finding, the USFWS concluded that GRSG was “warranted, but precluded” for listing as a threatened or endangered species.



## Section 14 - Lands and Realty

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The BLM should prohibit the construction of new permanent infrastructure within lands specially designated for sage-grouse protection, because studies show GRSG avoid areas with development.

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### Response

The alternatives consider a range of alternatives regarding ROW avoidance and exclusion. Table 2-3 identifies existing ROW avoidance and exclusion areas in the lands and realty section.

## Section 14.1 - Range of Alternatives

Total Number of Submissions: 11

Total Number of Comments: 20

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### Summary

Commenters requested clarification regarding: types of exclusions, valid existing rights, aboveground fiber optic lines, and disposal under current land use plans.

Commenters also suggested additions to the range of alternatives considered and provided information on the feasibility of the alternatives (e.g., co-location, perch diverters, and burying lines).

Commenters noted that the document has contradicting management actions regarding geothermal development between lands and minerals sections.

Commenters noted that Alternative E did not adequately address the purpose and need.

Need to include:

Comment #14-0049-8: reclaim areas that have been developed for powerlines that are no longer in use.

Comment #14-0153-41: Comment stated that BLM did not evaluate the NTT recommendation that all electrical distribution lines be buried within Core Areas.

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### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the management opportunities presented in

the Analysis of the Management Situation (AMS) and the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the DLUPA/EIS represented a full spectrum of options including a no action alternative (Alternative A).

Proposed avoidance and exclusion area designations vary by alternative, as explained on page 2-33 in Table 2-3. Under Alternative D, all new ROWs, unless specifically excluded, would be avoided, whenever possible, see LR-3 (ex. wind facilities, etc). Required design features that would apply to specific types of facilities in greater sage-grouse habitat are located in Appendix C.

The EIS/LUP includes an alternative that allows for placement of fiber optic lines on existing infrastructure (Alternative D Action LR-6 and LR-7 in Table 2-18).

Under Alternative D Table 2-18, LR-9, new power lines outside of existing ROWs, would be buried, where feasible. Reclamation of lands, once facilities are removed, are part of standard BMPs, Appendix C. Amendments to existing facilities that are otherwise excluded may be allowed under Alternative D, LR-6. Under Alternative D, lands currently identified for retention within priority greater sage-grouse habitat would be retained unless disposal of those lands would increase the extent or provide for connectivity of priority habitat (LR -19 and LR-21), Alternatives A through F propose retention of all utility corridors (Table 2-18).

Lands and Minerals management actions did contradict on the topic of geothermal development (D-LR-3, page 2-162 and D-MLM-1, page 2-180) and the FEIS will correct this contradiction.

The first of the assumptions under Lands and Realty Assumptions, Page 4-158, is that BLM and the Forest Service will protect valid existing rights, as long as those ROWs comply with the terms and conditions of their ROW grant. The agencies will consider all safety concerns into all decisions to authorize a pipeline, including burying a transmission line.

## Section 14.2 - Best available information baseline data

Total Number of Submissions: 5

Total Number of Comments: 9

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### Summary

Commenters raised concerns with the baseline assumption (as noted in Ellis 1984 and Connelly et al. 2000) that power lines and other vertical structures increase perching opportunities for raptors and increase the potential for GRSG to abandon leks).

Commenters suggested that the BLM and the FS should have considered several additional references in their analysis, related to the relationship between GRSG and transmission lines. For example, commenters noted the DEIS did not include studies that found underground powerlines have more environmental impacts than overhead powerline placement.

Commenters questioned the data in Table 3-36, which includes the acreage of transmission lines within greater sage-grouse habitat.

Need to include:

Comment #14-0049-25 requested the LUPA include a minimum four-mile buffer from active leks for new powerlines or similar ROW developments.

Comment #14-0049-31 request to include that infrastructure would be co-located when possible.

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## Response

Many reports have been prepared for the development of management recommendations, strategies, and regulatory guidelines. The National Technical Team report (NTT 2011), Conservations Objectives Team (COT; FWS 2013), and the Summary of Science, Activities, Programs and Policies that Influence the Rangeland Conservation of Greater Sage-Grouse (also referred to as the Baseline Environmental Report [BER]; Manier et al. 2013) are the most widely used reports that have been incorporated in BLM and Forest Service EISs that address the effects of implementing greater sage-grouse conservation measures on lands they manage. Additionally, the BLM and the Forest Service developed the Idaho Draft Environment Impact Statement/Land Use Plan Amendment with involvement from cooperating agencies, including Idaho Department of Fish and Game to ensure that a balanced multiple-use management strategy to address the protection of greater sage-grouse while allowing for utilization of renewable and nonrenewable resources on the public lands.

Management actions included in the Draft EIS/LUPA for the underground placement of powerlines are intended to reduce the potential for long-term impacts on GRSG habitat and species viability. Literature referenced in the FEIS demonstrates that overhead powerlines provide perching opportunities for ravens and other avian predators.

BLM and the Forest Service has reviewed scientific literature provided by commenters regarding the effects of powerlines on greater sage-grouse, buffers, perch diverters, and overhead versus burying lines, and the DEIS has been revised, as appropriate.

Transmission acreages came from the peer-reviewed Baseline Environmental Report (Manier et al. 2013).

## Section 14.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 5

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### Summary

Commenters stated that the BLM/FS should have concluded that because of Alternative E's adaptive trigger strategy the impacts from wind energy would be reduced compared to Alternative A.

Commenters stated that the agencies should carefully evaluate the impacts of stipulating co-location of electrical powerlines.

Commenters requested information on the impact of transmission lines on a landscape level would be more appropriate to reference in relation to sage-grouse persistence in the landscape and that information from Walker et al. 2007 has been used selectively in regards to transmission infrastructure.

Include:

Comment #14-183-38: Request that BLM re-consider and evaluate the stipulation that electrical powerlines must be co-located

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### Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of

resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

Impacts from lands and realty to wind energy were discussed in DEIS/LUPA Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as required design features. This is clarified in the FEIS (see section).

Management actions included in the Draft EIS/LUPA for the co-location of new infrastructure in existing ROWs are intended to reduce the amount of surface disturbance in GRSG habitat and concentrate new development in habitat areas already affected by anthropogenic activities. The BLM and FS recognize that co-location is not feasible in all circumstances, particularly for new powerlines. Under all alternatives, the BLM and FS would continue to review proposed infrastructure projects on a case-by-case basis. Such a review would include preparation of the appropriate NEPA documentation and coordination with the responsible federal, state, and local permitting agencies.

## Section 15 - Leasable Minerals

[NOTE: Section 15 has not been updated with final responses]

### Section 15.1 - Range of alternatives

Total Number of Submissions: 6

Total Number of Comments: 14

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#### Summary

The DEIS needs a better explanation on how valid existing rights are defined and how they will be protected, including fringe or preference right leases. The alternatives need to follow the NTT report recommendations more closely, as well as reflect current USFWS policy recommendations.

The BLM needs to clarify the location of non-leased Known Phosphate Areas in relation to GRSG habitat. The plan is potentially more restrictive to phosphate leasing than a listing under the ESA and did not properly define the environmental baseline for leasable minerals. Without prohibiting new phosphate mining in GRSG habitat, the LUPA does not protect GRSG from the potential impacts of selenium being released to the environment and poisoning wildlife, including GRSG, through transport in air and water and subsequent bioaccumulation. The EIS fails to explain or discuss the authority that the BLM has to close public lands to leasable mineral prospecting and leasing under the LUPA process under Alternatives B, C and D.

The reliance upon vague RDFs under Alternative D is a failure of the BLM to adopt best science that calls for specific restrictions based on observed GRSG response to surface disturbances.

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## Response

[NOTE TO BLM: The BLM should examine the existing discussion of valid existing rights that will survive the proposed LUPA and should expand that discussion if it seems insufficient.]

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM and the Forest Service consider reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands and greater sage-grouse in the planning area, the BLM and the Forest Service fully considered the planning issues and criteria developed during the scoping process to determine a reasonable range of alternatives. As a result, six alternatives were analyzed in detail in the DLUPA/DEIS that best addressed the issues and concerns identified by the affected public. The DLUPA/DEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. BLM agrees that it cannot impose an NSO on an existing lease. A definition of valid and existing rights has been added to the Glossary in the FEIS.

[NOTE TO BLM: Multiple changes were recommended to the FEIS by Porter- see separate tracking sheet.]

[NOTE TO BLM: Have minerals program elaborate on where the phosphate leases are relative to the management designations for the various Alternatives. Makela- is there an adequate baseline description for leaseable minerals? Also, BLM look into the issue of restrictions in proposed plan relative to restriction under an ESA listing for minerals development.]

[NOTE TO BLM: determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.]

[NOTE TO BLM: Add to GLOSSARY- Valid Existing Rights]

[NOTE TO BLM: Discuss how the NTT recommendations and USFWS policy were included in the alternatives development.]

Selenium bioaccumulation is not identified by the US Fish and Wildlife Service or the NTT Report as a major threat to GRSG and is not part of the conservation strategy being applied by the BLM. No change to the EIS has resulted from this comment.

[NOTE TO BLM: BLM to examine its jurisdiction to prioritize GRSG conservation over laws relating to KPLAs and to describe that result in the comment response, along with any appropriate changes to the EIS.]

[NOTE TO BLM: BLM's preferred alternative may be changed in the FEIS, to keep all lands in KPLAs open to future non-energy solid mineral leasing, but to close areas in PPMA and PMMA outside of KPLAs. An exception would be made when additional lands are needed to recover ore on the lease (fringe acreage leasing, lease modifications).]

The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Wording from NNT report has been added to the discussion of RDFs in the FEIS.

## Section 15.2 - Best available information baseline data

Total Number of Submissions: 1

Total Number of Comments: 1

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## Summary

The oil and gas conditions in the Payette area are different than those studied in the NTT report and should not be used

as baseline data. The impacts described by Johnson et al 2011 are overstated and should be replaced by information from Coates et al 2013.

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## Response

The reasonably foreseeable development scenario for oil and gas assumes a conventional oil and gas field. The current development occurring in the Payette area of Idaho is not within sage grouse habitat. BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of GRS habitat would not be subject to stipulations developed in this EIS.

[NOTE TO BLM: Review section on 4-8 for best available science for basis of decisions. Have a biologist help determine.]

## Section 15.3 - Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 5

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## Summary

The impact analysis in the DEIS of management actions on leasable mineral development is insufficient.

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## Response

The acres of unleased KPLA land unavailable for development by alternative has been corrected in the Ch. 4 tables in the FEIS. The section describing the impacts from leasable minerals management for Alt E has been revised. The impacts of non-energy leasable minerals management actions to socio-economics have been included in the FEIS and the impacts with respect to disturbance caps have been analyzed in more detail.

[NOTE TO BLM: Tables of acres of unleased KPLA land unavailable for development by alternative in Ch. 4 need to be corrected.]

[NOTE TO BLM: Impacts from leasable minerals management in alt E needs to be revised.]

[NOTE TO BLM: Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Also, references to section 4.11.2 should be corrected and should refer to section 4.12.2.]

[NOTE TO BLM: Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question.]

## Section 15.4 - Cumulative impact analysis

Total Number of Submissions: 2

Total Number of Comments: 6

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## Summary

The DEIS did not adequately analyze cumulative impacts of management actions on leasable mineral development, including impacts to the Western Phosphate Field, the American agriculture industry, and national food security.

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## Response

The BLM and the Forest Service thoroughly explained their consideration and analysis of cumulative effects in the DLUPA/EIS in Section 4.24.20. The DLUPA/EIS considered the present effects of past actions, to the extent that they are relevant, and present and reasonably foreseeable (not highly speculative) Federal and non-Federal actions, taking into account the relationship between the proposed alternatives and these reasonably foreseeable actions. This discussion summarizes CEQ guidance from June 24, 2005, stating that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. Information on the current conditions is more comprehensive and more accurate for establishing a useful starting point for cumulative effects analysis. The CEQ interpretation was accepted by the Ninth in *NW Env'tl. Advoc. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1141 (9th Cir. 2006). The BLM and the Forest Service explicitly described their assumptions regarding proposed projects and other reasonably foreseeable future actions. On Forest Service-administered lands, reasonably foreseeable actions are those that would occur under their current land use plans from a broad-scale perspective.

Additional information on the cumulative impacts on the Western Phosphate Field, unleased KPLAs, socio-economic impacts from loss of phosphate resources, reasonably foreseeable actions, and proposed conservation measures have been added to Sections XXX and XXX (minerals and socio-economics cumulative impacts). [NOTE TO BLM: Review cumulative section and add necessary information.]

## Section 16 - Livestock Grazing

Total Number of Submissions: 2  
Total Number of Comments: 3

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## Summary

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## Response

[NOTE TO BLM: May need to go up to solicitor's office for review.]

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Further, the BLM may designate lands as "available" or "unavailable" for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to cease livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions. The Taylor Grazing Act requires that the Secretary "make such rules and regulations ... [and] do any and all things necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range." (43 USC § 315a).

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative

scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Actions taken under land use plans may include making some, or all of the land within grazing districts, unavailable for grazing during the life of the plan as well as imposing grazing use restrictions, limitations or other grazing management related actions intended to achieve such goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A “chiefly-valuable-for-grazing” determination is required only when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district. (See USDI Solicitor Memorandum Clarification of M-37008 (May 13, 2003)). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as “chiefly-valuable-for-grazing” per the Taylor Grazing Act for purposes of establishing grazing districts within the public domain (see, 43 U.S.C. § 315) this does not negate the BLM’s authority or responsibility to manage those lands to achieve resource condition goals and objectives under the principals of multiple use and sustained yield as required by FLPMA and its implementing regulations.

## Section 16.1 - Range of alternatives

Total Number of Submissions: 24

Total Number of Comments: 64

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### Summary

Multiple commenters requested that the alternatives require closure of voluntarily relinquished allotments. Commenters questioned why changes to grazing management are needed when livestock grazing is not listed as a primary threat to GRSG. More than one commenter noted that grazing should only be restricted where it can be shown that grazing is directly related to the failure to meet GRSG habitat objectives. Additionally, commenters stated that the DEIS failed to consider increased grazing and question the rationale behind this decision. Some commenters also requested additional consideration of reduced grazing levels and utilization levels, as well as temporary or permanent closure of all or some GRSG habitat to grazing.

Several commenters requested that the LUPA/EIS provide specifics regarding habitat assessments schedules and application of standards, and use of ecological site descriptions, require immediate application of certain terms and condition to permits, and impose grazing restrictions for priority or general habitat.

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### Response

The ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. See response in section 4.3 NEPA Range of Alternatives of this report. The DEIS analyzed a range of alternatives including no grazing and a 25 percent reduction in grazing. Reduction in AUMs under Alternative F would be specified in site specific decisions at the permit renewal level. Language in the FEIS for Alternative F reduction has been clarified.

[BLM and Forest Service- need to review the language in Alt F mgmt. actions related to the 25% reduction and review related analysis. Determine if revision needed to table 4-5].

Livestock grazing is identified by USFWS as a threat to GRSG in the March 23, 2010 Federal Register Notice, and therefore it is addressed in this LUPA. Existing regulatory mechanisms, including the fundamentals for rangeland health, would continue to provide the basis for managing grazing in GRSG habitat. However, the preferred alternative would provide additional consistency in application of BLM rangeland health standards and guidelines relative to GRSG habitat, and would provide additional guidance for prioritizing land health assessments and review of grazing permits to ensure



that grazing management is compatible with attainment of sage-grouse habitat objectives within the planning area. In addition, RDFs and best management practices would be adopted to reduce effects of range improvements and livestock trailing across public lands. Grazing use would be modified when it is identified as the cause for not meeting Sage Grouse objectives. The intent of the land use plan amendment is to change management under all resource programs, where necessary, to benefit Sage Grouse habitat. Standards and Guidelines assessments result in a determination of causal factors for non-achievement of any applicable standard, including standards for wildlife habitat. Where livestock management is determined to be a causal factor for non-achievement of a standard, management must be modified to conform with applicable guidelines.

The BLM is required to follow the grazing regulations, including the decision process at 43 CFR 4160, when modifying permit or leases. Therefore, modifications to terms and conditions of permits and leases would be applied as needed during the permit renewal process.

As stated in the preferred alternative [mgmt. action #] habitat objectives would be adjusted based on site potential. Site specific requirements would be specified in NEPA for permit renewal. Language in the preferred alt. has been modified to clarify (see section X.X.X).

## Section 16.2 - Best available information baseline data

Total Number of Submissions: 13

Total Number of Comments: 42

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### Summary

Multiple commenters asserted and presented citations supporting their position that grazing has the potential to benefits GRSG by controlling cheatgrass and reducing wildfire risk. Other commenters presented citations supporting the position that grazing damages GRSG habitat and increases cheatgrass risk.

Several commenters requested more detailed information about current grazing management and habitat conditions in the planning area.

Other commenters noted the importance of ranching in the local economy, and also that ongoing collaboration between private ranchers and federal agencies has helped preserve GRSG habitat and should be acknowledged in the EIS.

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### Response

Before beginning the LUPA/EIS and throughout the planning effort, the BLM and the Forest Service considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land-use plan level. The BLM and the Forest Service also used the most recent and best information available that was relevant to a land-use planning-level analysis (refer to response in section 4.4, NEPA Baseline data- Best Available Science for additional information). [NOTE TO BLM- review text in section 4.4 response once complete to ensure consistency]

Section 3.X, livestock grazing discusses the current level of grazing in the planning area and management systems in place. Impacts of current and historic grazing on other resource and resource uses are discussed under the appropriate resource and resource use headings (i.e. Section 3.X, Sage grouse Habitat). Section 4.2.2 in the DEIS provides an overview of the ecological impacts of livestock grazing. The DEIS analyzed the effects of no grazing and reduced grazing on components of sage-grouse habitat, including changes in wildfire risk and cheatgrass incursion.

See changes to Section 3.X, fire management, for additional discussion of cheat grass-wildfire dynamics. [NOTE TO BLM/EMPSi-Review the text in Ch 3 veg related to fire/livestock.]

Discussion of socioeconomic impacts of current grazing operations in the planning area is discussed in **Section 3.X**, Socioeconomics.

Additional language has been added to the FEIS (**section X.X.X**) recognizing the role of Rural Fire Protection Districts and other collaboration efforts [**Note- need to add language to FEIS**]

## Section 16.3 - Impact Analysis

Total Number of Submissions: 6

Total Number of Comments: 11

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### Summary

Some comments detailed beneficial impacts of grazing, and the adverse impacts of grazing restrictions on to livestock operations, Rangeland Fire Protection Associations, and the local economy.

One commenter notes that limitations on water developments can have impacts on grazing management and need to be clarified and analyzed in greater detail.

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### Response

Impacts to livestock grazing from current livestock grazing management are addressed in section 4.9.4 of the DEIS. Impacts to the socioeconomic aspect of livestock grazing are discussed in Section 4.19 of the DEIS.

While a land use planning-level action is broad in scope and, therefore, does not require site specific impact analysis, a thorough review of the EIS's impact analysis relevant to grazing and indirect socioeconomic impacts and was found to need additional information and support for the conclusions/findings. The BLM and the Forest Service have updated this information in the Proposed Land Use Plan Amendment/FEIS to provide the necessary information to make informed land use plan-level decisions (see changes in section 4.19). Impacts to Rangeland Fire Protection Associations are discussed in **section 4.X**, fire management. BMPs for livestock developments including water have been revised in the FEIS and related impacts on livestock grazing management have been clarified.

## Section 17 - Locatable Minerals

[**NOTE: Section 17 has not been updated with final responses**]

### Section 17.3 - Impact Analysis

*No comments are associated with this issue.*

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## Summary

The EIS fails to provide justification as to why “withdrawal from mineral entry” is necessary to protect GRSG and its habitat when the same objective can be achieved through avoidance, minimization of impacts, and mitigation of impacts within the designated areas. The current approach in the EIS does not meet FLPMA requirements for finding ways to remain flexible in balancing conservation and resource uses.

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## Response

The facts that sage brush takes decades to re-establish and that disturbance from light and noise affect GRSG mean that avoidance, minimization of impacts and mitigation of impacts are not sufficient methods of protecting GRSG and sage brush habitat. Additionally, this concept was considered within the range of alternatives- Alternative D does not withdraw lands from mineral entry. No change to the EIS has resulted from this comment. [NOTE TO BLM: Consider whether inserting text to this effect into the EIS is appropriate.]

Note to EMPSi - check all comments under Issue 17 - any related to phosphate should be moved to [nonenergy] leasable minerals

## Section 17.4 - Cumulative impact analysis

Total Number of Submissions: 1

Total Number of Comments: 1

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## Summary

The DLUPA/DEIS fails to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range.

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## Response

Additional information on the cumulative effect of withdrawals across GRSG range has been added to Section XXX (locatables cumulative effects section) of the EIS. [NOTE TO BLM: Could include roll-up of withdrawals from plans for incorporation into EIS]

## Section 20 - Recreation

### Section 20.1 - Range of alternatives

Total Number of Submissions: 2

Total Number of Comments: 3

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## Summary

In the EIS/LUPA, the BLM/FS should incorporate additional management actions (e.g. SRP/SUP stipulations, OHV noise regulations, seasonal restrictions on OHV events near leks, and rerouting of OHV events away from leks, and hunting)

to limit the potential for impacts on Sage-Grouse from recreation activities. Any management actions limiting recreation activities in sage-grouse habitat should be based on the best available science with proven habitat conservation results.

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## Response

The EIS considers an adequate range of alternatives to protect GRSG, including varying levels of restriction on recreational activities and special recreation permits/special use permits (insert correct management actions and table number). During subsequent implementation-level travel management planning, new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including speed. New travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions during subsequent implementation level travel management planning. 43 CFR 8340 requires all OHVs to comply with state laws including noise and spark arrester requirements.

Contemporary hunting seasons in the Idaho and Southwest Montana Sub-region are very conservative with respect to their length and bag limits. GRSG hunting and its effects are described in more detail in Sections XX and XX of the FEIS.

## Section 22 - Socioeconomics and Environmental Justice

### Section 22.3 - Impact Analysis

Total Number of Submissions: 22

Total Number of Comments: 39

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## Summary

The socioeconomic analysis in the DEIS is overly broad and does not provide sufficient analysis of impacts to individuals, local communities or counties. The DEIS should also expand analysis of the restrictive management actions on planning area operators, communities and services including but not limited to grazing operators and mining.

Finally, the analysis methodology is inadequate to provide a comprehensive analysis of direct, indirect, and cumulative analysis of the socioeconomic impacts on the planning area communities.

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## Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.16, the DLUPA/EIS provides a discussion of the environmental impacts of the alternatives including the proposed action, any adverse environmental effects that cannot be avoided should the alternatives be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions

(BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29; Forest Service Handbook 1909.12 – Land Management Planning). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM and the Forest Service will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

[BLM provide input on why county level analysis was not completed]

Impacts were considered on numerous resources, resource uses, and socioeconomic conditions, which included [list noted issues]. See Section 4.22 of the Draft EIS.

The DLUPA/EIS describes the methodology and assumptions used for conducting the impact analysis (see Section 4.22.2 of the Draft EIS). The methodology and assumptions provide an adequate starting point for discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. As required by 40 CFR 1502.24, the DLUPA/EIS identified methodologies used and made reference to the scientific and other sources relied upon for conclusions in the analysis. Based on these methodologies and assumptions, the DLUPA/EIS provided sufficiently detailed information to aid in determining whether to proceed with the preferred alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1.

[Add language on budget issues as appropriate: As a landscape level planning effort, none of the alternatives prescribe project specific analysis on BLM or USFWS managed lands. Furthermore, the agencies' selection of an alternative does not authorize funding to any specific project or activity nor does it directly tie into the agencies budgets as appropriated annually through the federal budget process. As a consequence, agencies' costs and differences in differences in program costs across alternatives have not been quantified. Information has been presented in several resource impacts sections on the types of costs that might be associated with various sage-grouse conservation measures]

## Section 23 - Soil

### Section 23.2 - Best available information baseline data

Total Number of Submissions: 1

Total Number of Comments: 1

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#### Summary

One commentor notes that the DEIS lacks references to support discussion of macrobiotic crusts.

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#### Response

[BLM/Forest Service- review soils section to determine if references needed to support discussion]

## Section 24 - Travel Management

## Section 24.1 - Range of alternatives

Total Number of Submissions: 8

Total Number of Comments: 11

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### Summary

The Draft EIS/LUPA failed to consider a full suite of travel management-related management actions that would protect sage grouse habitat while allowing for continued administrative access, particularly for existing livestock grazing permittees. Commenters proposed that management actions should be included in the proposed plan to prohibit and reclaim/restore roads in GRSG habitat, limit motorized events, close PPHP to OHV use, apply additional seasonal travel restrictions, and apply a maximum route density within proximity of leks in PPH and PGH. Commenters also requested that proposed management actions preserve motorized access on existing routes per the 3-State OHV and National Route Designation decisions and maintain administrative access in grazing allotments.

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### Response

Section 1.4 of the Draft EIS describes how the Idaho Montana GRSG LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR 1500 in the development of alternatives for this draft LUPA/EIS, including seeking public input and analyzing reasonable alternatives. The alternatives include management options for the planning area that would modify or amend decisions made in the field office RMPs, as amended, to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives. Since this is a plan amendment to address GRSG conservation, many decisions from the field office RMPs are acceptable and reasonable. In these instances, there was no need to develop alternative management prescriptions.

During subsequent implementation-level travel management planning new travel management plans would evaluate vehicle routes and determine the need for permanent or seasonal road closures, and mode of travel (e.g. motorcycle, ATV, and UTV) restrictions, including noise levels and speed. The route designation process will be completed as subsequent implementation level planning using current Travel Management policies and will include public and local agency involvement. Addressing these issues at the implementation level allows the BLM and Forest Service to take new information into account as it becomes available.

Needs for administrative access to valid existing rights, grandfathered uses, or permitted activities would taken into consideration during site-specific NEPA analysis. Restrictions applied to recreational OHV use may not apply to permitted administrative uses.

The BLM and Forest Service have not added a restriction that would limit road densities to less than 0.09 km per km squared (Wisdom et al. 2011) in GRSG habitat because the threshold established by Wisdom used coarse road data. When taking into consideration actual road density information, use of this threshold is not appropriate. The BLM and Forest Service have included surface disturbance thresholds, which would restrict the density of disturbance tied to new and existing roads in GRSG habitat.

## Section 24.2 - Best available information baseline data

Total Number of Submissions: 2

Total Number of Comments: 2

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## Summary

Chapter 3 of the Draft EIS/LUPA does not depict the number of acres designated as open to cross-country motorized travel.

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## Response

[NOTE TO BLM: Add current CTTM area designation acres to Chapter 3.]

## Section 24.3 - Impact Analysis

Total Number of Submissions: 3  
Total Number of Comments: 6

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## Summary

For various reasons, commenters assert that the Draft EIS/LUPA does not adequately analyze the impacts of proposed management actions on travel management. For example, commenters contend that the analysis is not based on sound science or is narrowly focused and biasedly uses studies that only demonstrate the negative effects from OHV use; does not adequately describe the magnitude of OHV vs. “naturally occurring” impacts across alternatives; and does not distinguish between motorized and non-motorized impacts. Commenters further request the BLM/FS consider conducting site-specific studies to support proposed management and assert that there would be indirect effects (e.g. ban on new road construction) incurred by existing ROW authorization holders by deferring travel management planning.

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## Response

As described in Section 4.6 of this comment report, the LUPA/FEIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. Further, as described in Section 4.4. of this comment report, the BLM used the most recent and best available information that was relevant to a land-use planning-level analysis.

Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13 and Chapter IV, B at 29). The DLUPA/EIS contains only planning actions and does not include any implementation actions. A more quantified or detailed and specific analysis would be required only if the scope of the decision included implementation actions. As specific actions that may affect the area come under consideration, the BLM will conduct subsequent NEPA analyses that include site-specific project and implementation-level actions. The site-specific analyses will tier to the plan-level analysis and expand the environmental analysis when more specific information is known. In addition, as required by NEPA, the public will be offered the opportunity to participate in the NEPA process for implementation actions.

The mechanism being used to determine landscape level travel area designations (open/limited/closed) is 43 CFR 8340 which regulates OHV travel on public lands. BLM does not have a similar regulation for non-motorized travel. Non-motorized travel can be regulated through supplementary rules. Supplemental rules and site specific route designations will be addressed at the implementation level in the future.

New construction related to power line access would be exempted under 43 CFR 8340.05 (3).

While multiple studies on OHV use have been cited, BLM is using the BLM Travel Management Manual and Handbook (M-1626 & H-83421) to address travel planning in the EIS and will continue to use the same policy for future implementation and planning.

## Section 24.5 - Mitigation measures

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The LUPA/EIS should adopt additional travel-related mitigation measures to educate the public and prevent the spread of invasive species from travel-related sources through mitigation measures such as those described at playcleango.org.

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### Response

Appendix C of the DEIS/LUPA includes required design features and best management practices, including those that are based on the best available science to prevent the spread and effects of non-native plant species. See RDF # 290.

NCT note: ID and NV should use the same response as it is the same issue statement.

1. BLM reviewed the measures provided by commenters on playcleango.org
2. they were found to be the same as (similar as?) those already provided in Appendix XX.
3. Review of the impact analysis confirmed that the outcomes from the suggested mitigation measures would be the same as those described in the EIS (see section XX).
4. Conclusion (e.g., no changes needed).

## Section 25 - Tribal Interest

### Section 25.1 - Consultation requirements

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

The BLM should consider additional areas for ACEC designation and should consult with the Shoshone-Bannock Tribes about these designations.

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### Response

The BLM and Forest Service recognize their responsibility to ensure that meaningful consultation and coordination concerning GRSG planning is conducted with federally recognized tribes, including the Shoshone-Bannock Tribes, to consider tribal treaty rights and trust resources. [BLM-FS-include relevant legal citations. Note consultation efforts to



date]

## Section 25.4 - Impact Analysis

Total Number of Submissions: 1

Total Number of Comments: 2

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### Summary

The BLM must ensure tribes, in particular the Shoshone-Bannock Tribe, maintain opportunities to access the public domain, exercise off-reservation treaty rights, and continue their traditional customs and practices.

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### Response

The BLM, Forest Service recognize their responsibility to consider potential impacts to Tribal resources.

Article 4 of the Fort Bridger Treaty, signed in 1868, retains the Eastern Band Shoshone and Bannock Tribes' rights to hunt, fish, gather natural resources, and provide other associative right necessary to effectuate these rights. Other treaties ensure similar rights for other tribes.

## Section 26 - Vegetation Sagebrush

### Section 26.1 - Range of alternatives

Total Number of Submissions: 6

Total Number of Comments: 12

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### Summary

Commenters recommended that the preferred alternative include:

- Specific vegetation treatment acreage objectives
  - Passive sagebrush restoration
  - Limitations on vegetation treatments in sagebrush areas. To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions.
  - Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment.
  - Restore non-native seedings to increase GRSG habitat
  - Apply additional restrictions for herbicide application in GRSG habitat
  - Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe.
  - Include specific objectives to measure success in invasive species eradication
- 

### Response

As described in Section 4.3, the ID/SWMT LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

Some of the recommended components were addressed in the DEIS and additional info will be included in the FEIS as

detailed below.

- Specific vegetation treatment acreage objectives [need National Policy team input- to decide how treatment objectives will be incorporated]
- Passive sagebrush restoration: In the DEIS Alternative C and management changes that allow progress towards standards and guidelines allow for passive sagebrush restoration. In some areas passive restoration may not be sufficient to improve GRSG habitat and active restoration may be necessary (Davies et al. 2011) (see pp 4-54 DEIS [- check page]).
- Limiting vegetation treatments in sagebrush areas is covered under Alternative D ([provide pg reference]). To meet COT report objectives, include regulatory mechanisms to avoid sagebrush removal or manipulation in sage-grouse breeding or wintering habitats with minor exceptions. [include info from FEIS specific to meeting COT report objectives if appropriate]
- Establish Priorities for pinyon-juniper removal including reduced grazing in conjunction with pinyon-juniper treatment: Priorities for PJ removal are addressed in the DEIS ([check that preferred alt includes removal within 1000m of leks per COT report objectives, if not explain rationale])
- Restore non-native seedings when beneficial to GRSG habitat: Alternative C in the DEIS supports restoration of native vegetation to areas that have been seeded with non-native species when beneficial to GRSG [cite mgmt. action]. The preferred alternative provides direction for restoring non-native seedings. [provide mgmt. action number and check language to refine if needed in mgmt. action]
- Apply additional restrictions for herbicide application in GRSG habitat: Herbicide/Pesticide BMPs are covered under the Veg treatment PEIS (BLM 2007x). The IDMT GRSG EIS tiers to the analysis in this document.
- Commit to a program to plan, fund, execute and monitor large scale integrated invasive species infestation and eradication projects in a measurable timeframe. Include specific objectives to measure success: This EIS is intended to provide treatment methods, priority and objectives and the conditions under which these treatment objectives would occur. Specifics regarding treatment effectiveness, funding and implementation would be covered in site specific management actions. BLM and Forest Service would follow agency specific monitoring requirements.

## Section 26.2 - Best available information baseline data

Total Number of Submissions: 13

Total Number of Comments: 24

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### Summary

The DEIS fails to provide adequate baseline information related to sagebrush vegetation. Commenters questioned the source of BLM data and requested the FEIS utilize additional baseline data on cheatgrass extent and evaluate effectiveness of continuing programs against weeds and juniper encroachment. Commenters provided additional literature to consider. Commenters also advocated an adaptive approach to vegetation management based on site-specific habitats.

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### Response

As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level. Adaptive management would be incorporated into vegetation treatment and restoration programs under Alternatives D and E. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs. [BLM: provide direction if any change to analysis is necessary. Notes during cmt response mtg: Clarify use of 70% cover from NTT; update EIS with new rare plant list.]

Change to make: Footnote in Table 3-4 change source to – ID team input and EIS vegetation model. Cite the VDDT appendix.]

The BLM and Forest Service has clarified the vegetation modeling and data sources in Chapter 3. [Insert details regarding location and changes made]

## Section 26.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 3

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### Summary

Commenters express concern about unintended or undesirable impacts of vegetation management programs to control weeds or restore sagebrush habitat. The DEIS inadequately analyzes impacts from vegetation restoration

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### Response

As described in Section 4.6, the DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives.

Contiguous blocks: Site-specific calculations will be conducted at the implementation level.

PJ: Clarification will be provided in [Section XX](#).

## Section 26.4 - Cumulative impact analysis

Total Number of Submissions: 1

Total Number of Comments: 1

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### Summary

BLM's cumulative impacts analysis for vegetation failed to consider the impacts of limited resources on sage-grouse protection.

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### Response

Funding and availability of resources is outside the scope of this EIS.

## Section 26.5 - Mitigation measures

Total Number of Submissions: 3

Total Number of Comments: 7

## Summary

Commenters requested detailed plans of action and clarification on mitigation and monitoring, including timing of re-seeding and restoration after fire.

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## Response

Mitigation has been further defined as a Regional Mitigation Framework and is detailed in Appendix X. The Framework is incorporated in the [insert Proposed Plan/Proposed Plan Amendment] and was developed to achieve a net conservation gain to the species by implementing conservation actions. Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can help achieve the greatest conservation benefit for greater sage-grouse and its habitats. If impacts to greater sage-grouse or its habitat from authorized land uses remain after applying avoidance and minimization measures, then compensatory mitigation projects will be used to fully offset impacts to achieve conservation benefits. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

Specific mitigation strategies, based on the Framework, will be developed by regional teams within one year of the issuance of the Record of Decision and be consistent with the BLM's Regional Mitigation Manual MS-1794, Forest Service Handbook FSH 1909.15, and CEQ regulations at 40 CFR 1508.20.

Mitigation measures for specific projects are implementation level decisions and will be included in site-specific analysis which is outside the scope of this EIS.

## Section 27 - Vegetation Riparian

### Section 27.1 - Range of Alternatives

Total Number of Submissions: 2

Total Number of Comments: 3

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## Summary

Commenters suggested management approaches for riparian vegetation, including removal of invasive tamarisk, limitations on or removal of livestock grazing, and maintenance of sage-grouse habitat objectives.

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## Response

As described in Section 4.3, the Idaho and Southwestern Montana LUPA/EIS planning team employed the BLM and Forest Service planning process to develop a reasonable range of alternatives for the LUPA.

[BLM: provide direction if any change to analysis is necessary.]

## Section 27.2 - Best Available Info Baseline Data

Total Number of Submissions: 2

Total Number of Comments: 2

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### Summary

Commenter requests baseline data related to Proper Functioning Condition of riparian areas in sage-grouse habitat. Commenter questions whether PFC protects stability of riparian habitat for sage-grouse.

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

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### Response

Comprehensive PFC data is not available on a sub-regional level but is displayed when available. Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse. Modifications to PFC methods are outside the scope of this planning effort.

## Section 27.5 - Mitigation Measures

Total Number of Submissions: 2

Total Number of Comments: 2

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### Summary

Commenter notes that current PFC assessment methods should be modified to address sage-grouse needs. Commenter requests site-specific management of riparian habitat to balance competing uses.

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### Response

Proper Functioning Condition of riparian systems according to BLM Manual 1737 includes stabilization of streambanks, maintenance of ponding, reduction in erosion, and other features beneficial to sage-grouse.

Under the proposed plan, adaptive management would be incorporated into vegetation treatment and restoration programs, including riparian management. Adaptive management would allow BLM increased flexibility to adjust programs based on data collected during operation, to respond to changing conditions and improve effectiveness of vegetation management programs.

*[BLM: provide direction if any change to analysis is necessary.]*

## Section 29 - Water

### Section 29.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

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#### Summary

The EIS fails to address impacts on the soil and watershed conditions resulting from grazing-sourced manure, soil erosion and pathogen contamination under each alternative and to provide appropriate mitigation measures. Such an analysis should include a list of impaired waters and the sources of contamination for those waters. The EIS also fails to address the negative impact on GRSG of restricting or removing water developments under Alternative D.

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#### Response

*NOTE TO BLM: BLM should review impact discussions under soil and water resources under each alternative and consider mentioning any appropriate beneficial impacts on soils and watersheds that would result from grazing restrictions.*

*NOTE TO BLM: BLM should review impacts on GRSG from grazing under Alternative D and consider whether it is appropriate to identify adverse impacts on GRSG through the restriction or removal of grazing-related water developments.*

*[NOTE TO BLM: Discuss with biologists the impacts of the removal of water development on Sage Grouse.]*

*303d listed streams are discussed in Section 3.16.2.*

## Section 30 - Wild Horse and Burros

Total Number of Submissions: 4

Total Number of Comments: 6

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#### Summary

Commenters stated that livestock and wild horses were inappropriately grouped together in management actions. Some commenters were also concerned with the 25% proposed reduction of AML under Alternative F and the basis for reduction; they requested reevaluation of reduction based on the fact that wild horse habitat overlaps a minimal percentage of GRSG habitat.

Some commenters also stated that the proposed management should provide flexibility to increase AML/AUM and/or open HAs if data becomes available demonstrating that genetic viability of wild horses and burros is threatened.

Commenters also stated that the preferred alternative would give the BLM too much discretion to reduce AMLs or zero out HMAs which would violate the BLM's legal mandate to protect WHB.

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#### Response

The BLM and the Forest Service considered a reasonable range of alternatives during the greater sage-grouse planning process in full compliance with the NEPA. See Section 4.3, NEPA Range of Alternatives, in this report for an expanded explanation on what constitutes a reasonable range of alternatives. *[NOTE TO BLM-check final response in section 4.3 for consistency]*

The BLM protects, manages, and controls wild horses in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended), the purpose of which is to "manage wild horses and burros within herd management areas (HMAs) designated for their long-term maintenance, in a manner designed to achieve and maintain a thriving natural ecological balance (TNEB) and multiple use relationships." The FLPMA directs the BLM to manage wild horses and burros as one of numerous multiple uses including mining, recreation, domestic grazing, and fish and wildlife. It also required a current inventory of wild horses and burros. Additional guidance is found in 43 CFR 4700, Protection, Management, and Control of Wild Free-roaming Horses and Burros.

Adjusting AML does fall within the legal mandate of the BLM to protect WHB and other resources. Through the BLMs program of monitoring and analysis of data, AMLs have been established and will continue to be adjusted based on the analysis of data. AMLs can be adjusted based on the limitations and capability of the range, including the four habitat components (forage, water, cover, and space), while managing for healthy populations of WHBs in balance with other uses and resources (including sage grouse). An explanation of the relationship between AMLs and AUMs has been included in the FEIS in [section X.X.X](#).

Should the 25% reduction be carried forward in the preferred alternative, genetic viability would be considered in the adjustment of AMLs. Increasing AMLs and/or opening HAs is outside the purpose and need for this project.

## Section 30.1 - Best available information baseline data

Total Number of Submissions: 2

Total Number of Comments: 3

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### Summary

Commenters requested documentation of critical genetic data on each of the wild horse and burro herds in the planning area. This will provide BLM basis for identifying which HMAs would not be feasible to place AML reductions on while maintaining genetically viable herds. Commenters also requested exact population data for all wild horse populations in HMAs and HAs and clearly defined maps of HMAs and HAs. Finally, commenters stated that any land policy changes resulting from the sage grouse plan must be in conformance with the National Academy of Sciences 2013 recommendations for reform of the federal wild horse management program.

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### Response

The prerequisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed decision. The baseline data provided in Chapter 3 and various appendixes in the Draft LUPA/DEIS is sufficient to support, at the general land use planning-level of analysis, the environmental impact analysis resulting from management actions presented in the Draft LUPA/DEIS. A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data (see response to section 4.4 in this report for more details). *[NOTE TO BLM- check final language in section 4.4 response for consistency]* Much of the data in the DLUPA/DEIS is presented in qualitative and map form, and is sufficient to support the gross scale analyses required for land use planning. The DEIS includes maps of HMAs and HAs. Population data is included in [Table 3.X](#) of the DEIS. These maps and tables have been reviewed for accuracy prior to inclusion in the FEIS. Genetic documentation of WHB is an ongoing implementation level process used to monitor the genetic health of BLM's wild horse and burro populations (see IM 2009-061).

The NAS report has been considered in the development of the FEIS and actions appropriate the land management planning level included as appropriate. Findings of the NAS would also be considered under separate site-specific NEPA actions.

## Section 30.2 - Impact Analysis

Total Number of Submissions: 6

Total Number of Comments: 9

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### Summary

Commenters stated that the analysis on GRSG from wild horses and burros are not distinguished from livestock which inaccurately increases the threat.

Commenters identified contradictions in the document such as where the document states that "Under all alternatives, no direct change would occur to areas allocated as HMAs/WHBTs for wild horses and burros", then the report proceeds to summarize how every single alternative would restrict wild horse and burro usage in their own federally designated habitats.

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### Response

The DLUPA/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives for a land use planning effort (see detailed response in section 4.6, NEPA Impacts Analysis).  
*[NOTE TO BLM- check final response in section 4.6 to ensure consistency]*

The USFWS identified grazing as a threat in the NTT and COT report but did not specifically delineate between livestock and WHB grazing. However, within the DEIS, the BLM and Forest Service did analyze impacts on WHB and domestic livestock grazing separately and also analyzed the impacts on GRSG from WHB and domestic livestock grazing separately. Impacts on GRSG from WHB and domestic livestock grazing are identified in Section 4.X of the DLUPA/DEIS. Impacts on WHB from GSRG management strategies are identified in Section 4.X of the DLUPA/DEIS. BLM appropriately analyzed the impacts to WHB from actions not related to changes in AML.

Text in the WHB impact section has been reviewed and relationship between allocation and management actions clarified in the FEIS.

*[NOTE TO BLM- insert the recommended text below in the FEIS: Under all alternatives, with the exception of Alternative XX, management actions for wild horses and burros would not result in direct changes to HMA status, to AMLs within designated HMAs, or acreage designated as HMAs. Impacts under all alternatives, with the exception of Alternative XX, would be limited to any future changes that may result in AML and/or acreage adjustment as well as reconsideration of HMA status that are based on achievement of GRSG habitat objectives for improving habitat conditions, as described in further detail below.*

*Under Alternative XX, in contrast, AMLs would be directly reduced by 25 percent for all HMAs within PPMAs. This would result in a reduction of the established AMLs for all HMAs that are located entirely or partially within mapped occupied GRSG habitat. As a result of AML reduction under Alternative XX, costs of wild horse and burro management would increase, due to a need for additional horse gathers for removal and/or population growth suppression (PGS) treatments.]*

## Section 31 – Lands with Wilderness Characteristics



## Section 31.1 - Range of Alternatives

Total Number of Submissions: 3

Total Number of Comments: 4

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### Summary

All lands with wilderness characteristics that overlap with Greater Sage-Grouse habitat represent good opportunities for Greater Sage-Grouse conservation and should be analyzed to see how managing those lands to protect wilderness characteristics would coincide with Greater Sage-Grouse conservation. The BLM should consider lands with wilderness protection as an alternative to ACEC protection for some areas.

The BLM should complete Lands with Wilderness Characteristics inventories and the DEIS should consider potential Lands with Wilderness Characteristics in the scope of this process.

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### Response

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, “In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document regarding lands with wilderness characteristics will not be completed.

As described in Section 8 of this comment report, Alternative C considers ACEC designation for Greater Sage Grouse habitat and species protection.

## Section 31.2 - Best Available Info Baseline Data

Total Number of Submissions: 4

Total Number of Comments: 4

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### Summary

The BLM should work with Upper Snake staff to ensure lands with wilderness characteristics inventories and management are consistent between this EIS/LUPA and the Upper Snake RMP.

The BLM must provide a map of the lands with wilderness characteristics and where it overlaps with priority habitat. The FEIS should explain how the BLM will comply with the 2014 appropriations bill for the Department of the Interior, Environment and Related Agencies and with Secretary Salazar’s Secretarial Order No. 3310.

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### Response

BLM Upper Snake Field Office continues to evaluate lands with wilderness characteristics within the planning area. Decisions related to lands with wilderness characteristics will be addressed in the Upper Snake EIS/LUP.

Per BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, “In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics.” Therefore, analysis in this planning document related to lands with wilderness characteristics will not be completed.

The BLM is not making decisions on lands with wilderness characteristics in this planning effort. Doing so is outside the purpose and need and scope of this EIS.

*[NOTE TO BLM: Consider including a map displaying the overlap of lands with wilderness characteristics and priority habitat should be included in the EIS.]*

NCT note: Consider using similar language to section 8 of this document. Language relevant to ACEC issues may be applicable to LWC and may help clarify why LWC is out of scope.

It does not seem that the response fully addresses the issue statement. Answer to Secretary Salazar's Secretarial Order No. 3310? Possibly use some of the language developed by NVCA in section 31.0 of this document.

## Section 31.3 - Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

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### Summary

If the BLM does not complete lands with wilderness characteristics inventories, the BLM should use GIS to inventory roadless areas and consider those as potential lands with wilderness characteristics for planning purposes.

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### Response

No decisions related to the management of lands with wilderness characteristics will be made at this part of the planning effort. Decision related to the management of lands with wilderness characteristics are out of the scope of this plan amendment process.

NCT note: It seems like this response could be combined with section 31.2 of this document. Responses are nearly identical and basically already included in the summary.

## Section 32.1 - Predation

Total Number of Submissions: 5

Total Number of Comments: 6

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### Summary

Some commenters state that the BLM does not adequately address the threat of predation or fully analyze the direct, indirect, and cumulative impacts of predation on GRSG populations; Predation was identified as a threat by the state of

Idaho. Others question the inclusion of analysis of impacts of anthropogenic structures on predators of GRSG, given that the USFWS did not identify predation as a primary threat to GRSG.

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## Response

As stated in Section 2.3.1 in the DRMPA/DEIS, predator removal is outside the scope of LUPA. The BLM and the Forest Service have updated the description of the threat of predation in Section 3.2.1 and addressed the potential effects of predation on GRSG populations in the **Section 4.x**.

The BLM and the Forest Service have authority to manage the habitat and have provided an updated analysis in **Section 4.x** of the FEIS to describe how the numerous management actions across the range of alternatives could affect the habitat and indirectly the effects of predation. Altering the sagebrush habitat of the greater sage-grouse can create an influx of predators into an area and lead to a population decline. Roads, fences, power lines, and other infrastructure as well as the development of trails and other disturbances may improve access for potential predators near GRSG habitat and increase risks to the species.

## Section 32.2 – Noise

Total Number of Comments: 1

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### Summary

Commentor states that noise studies cited in the DEIS are not public and therefore the results are not reproducible; alternative data should be utilized.

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### Response

Bilckley et al.'s research on noise and GRSG has since been published:

Blickley J.L, D. Blackwood, and G.L. Patricelli. 2012. Experimental evidence for the effects of chronic anthropogenic noise on abundance of greater sage-grouse at leks. Conservation Biology Vol 26. No 3. 461-471

This literature has been added to the noise section in the FEIS.

[Change to FEIS- add citation and data from this study in noise section. Consider addition of other data to support claims]

## Section 32.3 - Weeds

Total Number of Submissions: 2

Total Number of Comments: 4

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### Summary

Issue 1: Commenters request analysis of past vegetation treatment programs and recommend scientific literature on effects of vegetation treatments.

Issue 2: One commenter requests baseline data on cheatgrass in planning area.

Issue 3: Partnerships with private landowners to control cheatgrass should be considered in the FEIS.

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## Response

Response 1: As described in Section 4.4, the BLM and FS considered the availability of data from all sources, adequacy of existing data, data gaps, and the type of data necessary to support informed management decisions at the land use plan-level.

As a result of these actions, the BLM and Forest Service gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in detail in the DLUPA/DEIS. The BLM and Forest Service utilized the available data to provide an adequate analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives. [Insert any changes that were made to the EIS as a result of comment received. If no changes necessary, reference the section in the EIS that contain the relevant information].

Analysis of proposed weed treatment methods tiers off of analysis in the Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) [BLM 2007x]

Response 2: Potential occurrence of cheatgrass has been modeled (section 3.3.5). Acre of cheatgrass potential in GRSG habitat are shown in the DEIS based on Manier et al. 2013 (see Ttable 3-15, Acres of Cheatgrass Potential within GRSG) [Can incorporate concept of limited info regarding cheatgrass mapping] Information presented is appropriate for the planning level actions and analysis. Further analysis will occur on a site-specific basis at the implementation level.

Response 3: Cooperation with all landowners would be undertaken as feasible and is included in the range of alternatives.

**Meredith Zaccherio**

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**From:** Cooper, Natalie <ncooper@blm.gov>  
**Sent:** Wednesday, June 11, 2014 12:42 PM  
**To:** Brent Ralston  
**Cc:** Meredith Zaccherio  
**Subject:** Re: Question: BLM Internal Comments on the DEIS  
**Attachments:** 2-Lands and Realty FollowUp for FEIS.docx

Here is the document that contains items that need to be fixed.

Thank you,  
Natalie

\*\*\*\*\*

Natalie Cooper  
BLM Idaho State Office  
Realty Specialist (Rights-of-Way)  
1387 S. Vinnell Way  
Boise, ID. 83709  
(208) 373-3905 office  
(208 373-3974 fax

On Wed, Jun 11, 2014 at 1:07 PM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

Natalie,

Yes. I'm sure you sent those to me and I evidently didn't forward them on. Could you send them to me again and CC Meredith?

Thanks!

Brent Ralston

Greater Sage-Grouse Planning Lead

Idaho and Southwestern Montana Subregion

Idaho State Office

208-373-3812

**From:** Cooper, Natalie [mailto:[ncooper@blm.gov](mailto:ncooper@blm.gov)]  
**Sent:** Wednesday, June 11, 2014 9:31 AM  
**To:** Brent Ralston  
**Subject:** Question: BLM Internal Comments on the DEIS

Brent,

I while back I sent you a list of items that will need to be fixed in the FEIS. Should I be concerned that these are not in the document with BLM internal comments that you just sent out?

Since they are not there, should I keep these in mind and look for them in the FEIS?

Natalie

\*\*\*\*\*

Natalie Cooper  
BLM Idaho State Office  
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## **Lands and Realty Follow-Up for FEIS**

Per Comment Number 26-9, we will need to make sure it is clear that lands currently identified for “disposal”, will be changed to “retain.”

Per Comment Number 49-24, the question about buried powerlines vs. overhead lines causing impact to sage grouse needs to be answered (by biology), so that Lands and Realty management actions can lay out the recommendations.

Per Comment Number 49-7, we may need to explain that complete exclusion is unrealistic.

Per Comment Number 183-16 and 183-17, co-location is not always practicable or feasible; we may need to add flexibility into our Alt G lands and realty actions.

Per Comment Number 206-9, the suggestion that excluded activities in Alt D should go through the State’s proposed exemption process, may be one to add in Alt G.

Per Comment Number 210-7, we may want to reference APLIC standards.

Per Comment Number 212-6, need to ask Karen Porter about lease development and what is authorized. Do they contain a valid existing right to roads...?

Per Comment Number 242-20, may need to reference the COT in developing Alt G.

Per Comment Number 49-25, maybe some of the buffer’s bio’s are drafting will fit this comment?

Per Comment Number 183-37 and 49-31, biologists need to answer to the conflicting requests for perch divereters and then we need to make a recommendation for powerline in Alt. G.

Per Comment Number 210-4, with conflicting opinions, biologists may need to decide/recommend overhead vs. buried for Alt G and explain why.

Per Comment Number 180-42, we need to provide a conclusion on impacts of wind energy in Alt E.

Per Comment Number 183-29, we need to clarify what the acreages mean according to the BER report.

Per Comment Number 183-38, need to look at WECC and NERC standards to see if co-locating can have some flexibility; otherwise co-locations could cause reliability issues and outages.

Change D-LR-19. "Acquire habitat when possible and retain ownership of habitat, except if a ~~land exchange~~ would allow..." "land exchange" needs to be changed to "disposal" (a more correct terminology)

**In 2.6.4 Alternative D**, "Required" needs to be changed to "allowed" in the following sentence: The following are examples of ROWs that could be required in PPMA"

This statement does not seem accurate... I think it should be "decreasing" instead of "increasing:" "Alternatives A, B, C, and F would force wind energy ROWs outside GRSG habitat, thereby increasing the potential for indirect effects in the planning areas, such as requests for new transmission line ROWs and access roads.

The following needs to be clarified in the FEIS: "Impacts from lands and realty to wind energy were discussed in Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as best management practices that would also apply to Alternative A.



## Meredith Zaccherio

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**From:** Brent Ralston <bralston@blm.gov>  
**Sent:** Friday, June 13, 2014 11:12 AM  
**To:** Meredith Zaccherio  
**Subject:** FW: Cancelled Team Meeting 6/12 and Next Steps  
**Attachments:** Comment responseGHB4814.docx

Meredith,

Here are some comment responses for fire and fuels.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

**From:** Burkhardt, Glen [mailto:[gburkhardt@blm.gov](mailto:gburkhardt@blm.gov)]  
**Sent:** Wednesday, June 11, 2014 8:29 AM  
**To:** Brent Ralston  
**Subject:** Re: Cancelled Team Meeting 6/12 and Next Steps

Brent in response to Meredith comment on "Fire/Fuels" responses to public comments, I provided these to you back in April and then for the main document, I provided our current policy and comments. Here they are again, to submit to EMPSI. Thanks, Glen

On Wed, Jun 11, 2014 at 7:43 AM, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)> wrote:

We are still awaiting response from WO on approval of our proposed plan and allocation decisions. There is still much work to be done but much hinges on the proposed plan. I've attached several documents that I request you review – these are the internal and public comments that need some attention in the FEIS as we move forward. Most focus on minerals, and grouse (Karen Porter and Paul Makela) as well as some NEPA (Brent). I've also attached the RDF/BMP matrix if you could take a look at how those have been described.

There will not be a call this week. I'm hopeful that next week we can crank back up and focus on the effects analysis to get this document finished – stay tuned!

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

---

**From:** Meredith Zaccherio [mailto:[meredith.zaccherio@empfi.com](mailto:meredith.zaccherio@empfi.com)]  
**Sent:** Monday, June 09, 2014 1:58 PM  
**To:** "[bralston@blm.gov](mailto:bralston@blm.gov)" ([bralston@blm.gov](mailto:bralston@blm.gov))  
**Subject:** Internal and public DEIS comments & responses

Hi Brent,

Attached are two tables – one tracks the internal BLM comments on the DEIS. The other tracks changes to the FEIS needed based on public comments. I tried to identify where the change needs to be made and by whom. I did not see public comment responses (and changes to the FEIS) on the following topics:

- NEPA, etc
- ACECs
- Climate change
- Soils
- Water
- Fire/fuels
- Recreation
- Travel management
- Tribal interest
- Vegetation
- Wild horse and burro
- Lands with wilderness characteristics
- Livestock grazing

Meredith

**Meredith Zaccherio**

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--  
Glen Burkhardt  
BLM Idaho Fuels Management Specialist

Office: (208) 373-4047  
Cellular: (208) 830-2592

GHB response 4-9-14.

IDMTSG-14-0049-22, Greater Yellowstone Coalition, Barb Cestero, 12.1, Range of Alternatives, 12.1: Recovery of sagebrush lands impacted by fire is long-term and may often take decades or even centuries. Species composition, pre-burn site conditions, fire size and intensity, fire frequency, and availability of seed sources all play a role in the ability of sagebrush habitats to recover. Without readily available sagebrush habitat, most sites affected by fire are of little to no value to sage-grouse prior to recovery. At the same time, some priority sage-grouse habitats include substantial non-sagebrush habitat interspersed with sagebrush steppe, such as low-elevation Douglas-fir forests, where fire is a critical natural process. In the absence of fire on these landscapes or due to unnatural fire suppression efforts, there has been significant conifer expansion into sagebrush steppe and grasslands. For this reason, we suggest that prescribed fire be used sparingly in areas specially designated for sage-grouse conservation and prohibited completely in areas dominated by xeric sagebrush species such as Wyoming big sagebrush. Prescribed fire treatments should not be designed to remove sagebrush, but rather should only be used to address issues such as conifer encroachment that may contribute to declining health in sagebrush habitats.

Response: Prescribed fire is applied to meet resource goals in a variety of fuel models. Some habitat areas benefit from fire applications and this is analyzed from a landscape level, desired future condition.

IDMTSG-14-0053-8, Hagenbarth Livestock, Jim Hagenbarth, 12.1, Range of Alternatives, 12.1: Most of the alternatives dwell on core habitat fire suppression actions and the prevention of wildfire through education of all users. Alternative D speaks of revegetating green strips with native vegetation. Any responsible plan must include a comprehensive map of all natural and manmade firebreaks in priority habitat and then use fire specialists, landscape architects, and vegetative specialists to design additional green strip fuel breaks to further break up these fuel loads in GRSG habitats that are prone to burning. The loss of habitat from developing these green strips is minimal, compared to these huge uncontrollable fires. The cost of green stripping will be minimal compared to the cost of suppression. The ARS Forage and Range Resource Lab in Logan, Utah, has developed vegetation that can be used in green stripping. Forage kochia is one of these plants. It is very high in protein during the winter months and GRSG use of this plant has been documented. It is imperative that green stripping become a larger component in fire management.

Response: Green stripping or fuel breaks are an important part of the fuels management program in Idaho BLM.

IDMTSG-14-0159-23, American Exploration and Minind Association, Laura Skaer, 12.1, Range of Alternatives, 12.1: Alternatives B and F in the Idaho DEISs propose fire and fuels management within a

key/core habitat with an emphasis on protecting existing sagebrush ecosystems, but do not take into account the quality, suitability or relative importance of the habitat to GRSG. It may not be appropriate to maintain 15% sagebrush canopy in all key/core habitat in an area where removal and creation of a fuel break would have net beneficial effects on GRSG.

Response: 15% sage brush canopy would be an overall, landscape level goal. Some site specific areas may contain more or less.

IDMTSG-14-0159-26, American Exploration and Minind Association, Laura Skaer, 12.1, Range of Alternatives, 12.1: Governor's Alternative's prevention measures include fuel breaks, fuels reduction, and fire restrictions and closures. Governor's Alternative requires that strategy and associated NEPA for these prevention efforts should be completed within two years of signing the Record of Decision for this current EIS. Fire suppression measures include creating additional Rural Fire Protection Associations (RFPAs), response time analysis, suppression capacity analysis, water capacity analysis and implementation, and firefighter education on the importance of protection CHZ and IHZ. These measures should be implemented within one year of the Record of Decision for this EIS.

Response: Every effort will be made to implement measures in a timely manner, pending budgets, personnel and capacities.

IDMTSG-14-0168-15, Custer County Commissioners, Wayne F. Butts, 12.1, Range of Alternatives, 12.1: C-9"On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas."This RDF would apply to alternative B and F, and is inconsistent with the policies of Custer County. Under this policy the agencies are required to prioritize protection of the Greater Sage-Grouse over human life and property. All fire suppression resources in Custer County should be positioned for the protection of human life first. Coordination of this RDF should be coordinated with the Fire Districts within this planning region, and specifically within Custer County, to determine whether or not it is consistent with their existing policies, and if this policy creates conflicts that must be resolved. A discussion as to how this will be resolved needs to be included in the DEIS.

Response: Life and Property are always the top priorities in fire suppression, followed by resource protection. This will remain our priority unless policy changes for the Bureau of Land Management.

IDMTSG-14-0178-14, Idaho Cattle Association, Karen Williams, 12.1, Range of Alternatives, 12.1: " [This comment refers to Alternative D] Fire Management (2-30, Appendix K) " It is important that the agencies' fire management efforts are not restricted only to written language in a plan, but rather ensures that on-the-ground decision making will be enabled and encouraged. Fire patterns vary based on circumstances and suppression efforts cannot always be managed by the book

Response: Fire suppression efforts are directed by a qualified Incident Commander. On the ground decision making is encouraged and expected from these highly trained individuals.

IDMTSG-14-0178-16, Idaho Cattle Association, Karen Williams, 12.1, Range of Alternatives, 12.1: [This comment refers to Alternative D] Mitigation (2-75) The LUPA/DEIS mentions grazing management for post-fire restoration treatments. The final LUPA/EIS must make clear the need for flexibility in developing such treatments. In many cases, grazing restrictions post-fire only serve to exacerbate the invasive species problem which creates a cyclical negative impact on sage grouse.

Response: Grazing restrictions are generally put into place to allow post-fire rehabilitation efforts to meet certain criteria prior to re-establishing grazing practices.

IDMTSG-14-0179-15, Idaho Conservation League, John Robison, 12.1, Range of Alternatives, 12.1: It is important to note that the Idaho Fire Restrictions Plan is just one aspect of a larger public education and prevention program.<sup>11</sup> <http://www.idahofireinfo.blm.gov/southwest/firerestrictions.htm>The following criteria are among those to be considered when assessing the need for restrictions, but these criteria can be customized for each area:

- 1,000-hour fuel moisture content
- Live fuel moisture content
- Fire danger rating adjective class is at very high or extreme
- Fires are impacting available suppression resources making adequate initial attack difficult
- Area is receiving a high occurrence of human-caused fires
- Adverse fire weather conditions and risks are predicted to continue
- Social, political and economic impacts
- Life safety is jeopardized

If a certain number of the above conditions are met, Stage 1 Restrictions may be set in place which restrict building campfires and smoking beyond an enclosed vehicle or building. If even more of the above conditions are met, Stage 2 Restrictions may be set in place, which add operating motorized vehicles off designated road and trails, operating internal combustion engine such as a chainsaw, welding and using explosives. This program was successfully utilized to protect remaining sage-grouse habitat following the Murphy Fire when extreme fire conditions were still present. These restrictions were enacted specifically to prevent human-caused fires from impacting other sage-grouse habitat during a time when resources were stretched thin. As such, this program may be able to serve as an adequate and at least partially effective regulatory mechanism.

Response: All Stages of Fire Restrictions and plan will be utilized as conditions warrant to prevent unwanted human caused fires.

IDMTSG-14-0180-37, C.L. Butch Otter, 12.1, Range of Alternatives, 12.1: However, the distinction between Alternative E and its co-preferred partner Alternative D is that Alternative E is the only one that responds to the Service's concern that existing fire mechanisms were only implemented through temporary IMs that expired every two years. The table provided in Appendix D for Alternative E and also noted as Table 2-13 in this EIS provides timelines for both BLM and the Forest Service to implement long

term fire management measures. This ensures that measures are not only effective in reducing the impact of fires, but also that fires can continue to be managed consistently at the local level. No other Alternative in the DEIS addresses fire in this way. In fact, Alternatives C and F merely defer to Alternative B for the primary threat facing sage-grouse. Thus, while the impacts of the measures themselves may not differ substantially from Alternative A or B, Alternative E's impacts are much bigger as they are paired with a mechanism to ensure they are actually implemented.

Response: I.M.'s are generally re-issued if they are found viable and useful. All involved partners, federal, state and private are responsible to implement long term fire management measures.

IDMTSG-14-0206-27, The Nature Conservancy, William Whelan, 12.1, Range of Alternatives, 12.1: Fuel breaks can involve ground disturbing vegetation treatments that may provide a foothold for invasive weeds and may further fragment sage grouse habitat by removing shrub cover. For this reason, constructing fuel breaks outside of CHZ and IHZ habitats but in locations that help protect these habitat area may be preferred. Nevertheless, we do not propose a per se rule excluding fuel breaks from sage grouse habitats in all instances.

Response: N/A no question.

IDMTSG-14-0206-28, The Nature Conservancy, William Whelan, 12.1, Range of Alternatives, 12.1: Alternative E recommends prioritizing fuel breaks at the wildland-urban interface (WUI). We believe that a landscape scale analysis provides a better opportunity to place fuel breaks at locations that will be more effective at protecting sage grouse habitat than a WUI-focused strategy. Therefore, we suggest that the WUI preference not be carried forward into the final Plan.

Response: The Hazardous Fuels Reduction Program requires, both, resource and wildland/urban interface efforts. Unless policy changes both areas will remain priorities.

IDMTSG-14-0242-21, U.S. Fish and Wildlife Services, Dennis Mackey, 12.1, Range of Alternatives, 12.1: We recommend that the FEIS include provisions to eliminate prescribed burning in sage-grouse wintering and breeding [i.e., lekking, nesting and early brood rearing (Connelly et al. 2004, Connelly et al. 2011)] habitats unless biologically justified. The ecological role of fire in reducing sagebrush canopy and stimulating regeneration may justify the use of prescribed fire in site-specific circumstances (Manier et al. 2013). If prescribed fire is allowed in GRS habitat, then we recommend that the FEIS commit to using the risk analysis tool currently in development by WAFWA. We also recommend incorporating literature by the Fire and Invasive Species Team (FIST), which is currently developing landscape prioritization for fire and invasive species, as well as step down assessments

Response: Prescribed fire is applied to meet resource goals in a variety of fuel models. Some habitat areas benefit from fire applications and this is analyzed from a landscape level, desired future condition.

IDMTSG-14-0325-10, William J. Mulder, 12.1, Range of Alternatives, 12.1: Once a wildfire is started, BLM has shown it will use BMP with available resources to suppress the fire, regardless of whether in GRSG habitat or not. Effective control of wildfire will need to take place well before a fire occurs. None of the Alternatives adequately address this situation. Some general items that could reduce the wildfire threat are: -develop working relationships and agreements between all firefighting entities that would minimize jurisdictional delays in initial attack (see E-WFM-8); -specifically develop and maintain MOU's with local Rangeland Fire Protection Associations ("RFPAs"), which can greatly reduce response times to minimize wildfire impacts; -in addition to Fuels Management items below, avoid Wilderness and/or Lands with Wilderness Character designations and restrictions that promote road/trail closures or prohibit significant firebreak, fire lane and fire management projects; and -re-allocate BLM resources from a focus on over-regulating low-threat uses (e.g. grazing, underground rights-of-way, etc.) toward developing and maintaining effective fire-control measures.

Response: The Hazardous Fuels Reduction Program requires, both, resource and wildland/urban interface efforts. Unless policy changes both areas will remain priorities. Designations, closures and uses are land use decisions and not under the fire management program.

IDMTSG-14-0325-11, William J. Mulder, 12.1, Range of Alternatives, 12.1: [This comment corresponds to the headings in Table 2-17 and Table 2-18] Fuels Management. Mature sagebrush is arguably the most significant source of fire fuel in GRSG habitat. BLM's stated objective is conservation and rehabilitation of GRSG habitat to not less than 15% canopy. Alternatives B, C, D and F (B-FM1-F-FM1) resist any significant reduction in sage brush and the 15% cover objective, except under onerous conditions. Incredibly, many of the Alternatives are more concerned with regulating nearly insignificant uses as they relate to fuels treatments than in recognizing the problem on a broad scale B, C and F -FM1 actions). Failure to deal with fuel management by developing mosaic or linear breaks has contributed to massively detrimental wildfires (e.g. Murphy Complex, Long Draw, Holloway, etc.). Emphasis on actually increasing sage brush cover with more restrictive fuel treatment options will exacerbate the already primary threat. In addition to the considerations outlined in "General" (above), the adopted Alternative should promote the " ... aggressive wildlife [sic-"wildfire"] and invasive species management practices ... ) outlined in EFMI-6, as well as D-FM-6-9 and D-FM13-16.

Response: N/A opinion.



IDMTSG-14-0105-2, Owyhee County, Brook Russell, 12.2, Best available information baseline data, 12.2: A soon to be published study from the USGS shows that reseeding after fire has not been beneficial for Sage Grouse. And there is long term reduction in SG use in both the untreated and treated burned areas. BLM, in this LUP AIEIS, should be focusing to reduce any potential for fire with livestock grazing to reduced fuels.

Response: Livestock grazing is a grazing decision and must meet permit requirements.

IDMTSG-14-0153-63, Wild Earth Guardians, Erik Molvar, 12.2, Best available information baseline data, 12.2: Alternative E involves the widespread creation of 300-foot-wide “green strips” as fire breaks DEIS at 2-85. This is a practice unsupported by science. Please provide peer-reviewed, scientific literature that demonstrates that such “green strips” in sagebrush steppe habitat have been demonstrated to reduce fire. Our review of the literature uncovered only unpublished white papers and “fact sheets” that cited no actual scientific studies to support the assertion that “green strips” slow or halt the spread of fire. If no such evidence can be provided, such “green strips” should be explicitly forbidden in the RMP amendment. It is obvious that “green strips” will only be green in the spring, when precipitation occurs and the risk of fire is negligible. During the dry periods when fire ignitions occur and spread most readily, “green strips” will be brown and represent a concentrated source of fine fuels that will do nothing to slow the advance of a flame front, and may indeed accelerate it.

Response: Fire spread modelling, utilizing Behave software, has shown that perennial species will decrease fire behavior. This assumes that perennial species will retain higher live fuel moistures than the existing annual components, longer into the normal fire season, thus, reducing chance of ignition.

IDMTSG-14-0178-4, Idaho Cattle Association, Karen Williams, 12.2, Best available information baseline data, 12.2,26.2: Control of invasive species has a direct correlation with controlling wildfires. For the reasons mentioned above, grazing can be used as a tool to reduce many of the invasive species which also serve as fine fuel loads for fires. Peer-reviewed studies have proven that when rangeland is burned, it is much less prone to invasion by annual invasive weeds like cheat grass if it has been grazed (Davies, 2009). Due to reduced fuel loads and cooler burn temperatures, grazed rangeland is more likely to reestablish native bunch grass communities, while burned ground that has not been grazed is more likely to establish cheat grass communities. In light of these findings, appropriate grazing should be recognized in the RMPA as a primary tool in the prevention of wildfire and reduction of invasive weeds”two of the primary threats to sage grouse habitat. Diamond et al. (2009) found that targeted grazing may be a critical tool for breaking the exotic annual grass-fire cycle by decreasing the probability of fire disturbance. Additionally, Diamond et al. (2009) found that, on areas already invaded by exotic annual grasses, strategic grazing could reduce fuel loads and continuity enough to prevent a flame front from carrying across the treated areas, even under peak fire conditions. Ample research, including that of Olson and Lacey (1994) and Walker et al. (1994), has found livestock grazing to be an effective tool for the control of invasive plant communities.

Response: Livestock grazing is a grazing decision and must meet permit requirements. Grazing may also spread annual/invasive/noxious weed seed into areas where it does not occur or is a minimal part of the community.

IDMTSG-14-0223-3, Theodore Roosevelt Conservation Partnership, Edward B. Arnett, 12.2, Best available information baseline data, 12.2: We observed in several places where prescribed fire is mentioned and implied as a tool for management (e.g., Chapter 2, Table 2-1, page 2-4). We would argue that there is no science-based evidence to support using prescribed fire as a means of improving sage grouse habitat and in fact, studies indicate that prescribed fire will not improve habitat characteristics for sage grouse (e.g., Rhodes et al. 2010, Bates et al. 2011, Beck et al. 2011, 2012).

Response: Prescribed fire is applied to meet resource goals in a variety of fuel models. Some habitat areas benefit from fire applications and this is analyzed from a landscape level, desired future condition.

IDMTSG-14-0056-13, Helmick Ranch, Neil Helmick, 12.3, Impact Analysis, 12.3: Analysis of unintended consequences that are created by increased fuel loading attributable to reduced livestock grazing need to be considered in the document

Response: Livestock grazing is a grazing decision and must meet permit requirements.

IDMTSG-14-0105-15, Owyhee County, Brook Russell, 12.3, Impact Analysis, 12.3: Vol 2, Page 2-83: Regarding Alternative E -Fire Suppression Table 2-11 mentions Rangeland Fire Protection Associations. These have proven extremely effective in wildfire response and suppression. However, it should be kept in mind that the ranchers involved are there because they are able to maintain viable ranching operations and thus are not only present but have a vested interest in assuring that wildfire effects are minimized. The recent grazing permit renewals in the Owyhee Field Office have the potential to substantially alter the number of such ranch operations that will remain viable and present. The wide spread public benefit of Rangeland Fire Protection Association activity and their benefit to preservation of GRSG habitat should be considered in the evaluation of Alternative impacts on grazing opportunity.

Response: Address in Socio-economics section or in future plan amendments if this occurs?

IDMTSG-14-0130-16, Wild Earth Guardians, Erik Molvar, 12.3, Impact Analysis, 12.3: Natural fire return intervals in Wyoming big sagebrush average 100-240 years (Baker 2007). Wyoming big sagebrush recovers slowly after fires, which typically result in 100% sagebrush mortality; recovery to pre-fire canopy cover takes over 100 years (Cooper et al. 2007). The Idaho "Southwest Montana DEIS mischaracterizes this as 15 to 30 years, citing Manier et al. (2013:133-134). DEIS at 4-69. Manier et al.

(2013) repeatedly reference the very slow recovery times of sagebrush following fire, and the closest that they come to supporting the DEIS characterization is to note that in mountain big sagebrush habitats (as opposed to the drier Wyoming big sagebrush communities that dominate the planning area) with ideal soil and climate parameters, recovery can be as little as 20 years (at p. 79). However, even mountain big sagebrush can take 75 years or more to recover in certain circumstances (Baker 2011). Please rectify this apparent hard-look failure in the impacts analysis

Response: Add to research cited portion of document.

IDMTSG-14-0180-36, C.L. Butch Otter, 12.3, Impact Analysis, 12.3: The July 1 Clarification and Refinement letter sent to BLM by the Governor outlines a wildfire strategy that focuses on prevention, suppression, and restoration. These measures also require BLM to take certain actions within one year of signing the Record of Decision. This strategy provides certainty that the measures will be implemented and that action will be taken. Additionally, in 2012, Idaho, in collaboration with BLM established Rural Fire Protection Associations. These Associations, discussed in further detail in the attached comments from the Idaho Department of Lands, have already been established, and funded by the Idaho State Legislature and assisted BLM in the 2013 fire season. Additional Associations continue to be added and IDL recently established a full time position in their office to manage them. In contrast, under Alternative B and D, "impacts on sage-grouse from fire suppression activities would largely be the same as Alternative A." This determination is shocking, considering inadequate regulatory mechanisms for wildfire control was the primary purpose for the "warranted but precluded" determination. However, Alternative B does not alter the status quo. BLM reaches the same conclusions for Alternative D, saying on page 4-55, "overall, Alternative D would reduce impacts to wildfire similar to Alternative B."

Response: All involved partners, federal, state and private are responsible to implement long term fire management measures. BLM is still training and supporting RFPAs.

IDMTSG-14-0180-44, C.L. Butch Otter, 12.3, Impact Analysis, 12.3: The present DEIS is comprised of general statements about possible effects and do not constitute a "hard look." For example, on page 4-296, the DEIS is quick to dismiss Alternative E's extensive fire management approach because it "overall has fewer management actions to protect [sage-grouse] from fire than other action alternatives." In contrast, the DEIS praises Alternative B, while providing vague descriptions of how that alternative can affect the impacts of fire. Again, BLM fails to understand that the Service wanted a coherent strategy to address this threat, rather than a laundry list of conservation measures. This effects analysis does not address the fact that only Alternative E provides certainty of implementation for fire management, and every other threat.

Response: N/A opinion.



**Meredith Zaccherio**

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**From:** Brent Ralston <bralston@blm.gov>  
**Sent:** Tuesday, August 12, 2014 2:52 PM  
**To:** Meredith Zaccherio; Carol-Anne Garrison  
**Subject:** FW: Comment Response Review for Idaho/Montana Sage-Grouse EIS  
**Attachments:** TGA comment-Sage Grouse context.sol edits.8\_12\_14.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Here are some additional refinements to the comments.

Brent Ralston  
Greater Sage-Grouse Planning Lead  
Idaho and Southwestern Montana Subregion  
Idaho State Office  
208-373-3812

**From:** Larvie, Veronica [mailto:[veronica.larvie@sol.doi.gov](mailto:veronica.larvie@sol.doi.gov)]  
**Sent:** Tuesday, August 12, 2014 3:37 PM  
**To:** Lepak, Dominika; Kenneth Visser; Brent Ralston  
**Subject:** Re: Comment Response Review for Idaho/Montana Sage-Grouse EIS

All-

I am very sorry this is days late at this point. I've been in depositions for the last 2 weeks and I haven't caught up on all my SOL email, let alone BLM email.

I've made some edits to this response. I've not changed anything substantive but I've reorganized a bit and removed some redundancy.

Please let me know if you have an concerns with my suggestions.

Vonnie



Veronica Larvie  
125 So. State Street  
Salt Lake City, UT 84138

801.524.5677 ext. 238  
[Veronica.larvie@sol.doi.gov](mailto:Veronica.larvie@sol.doi.gov)

On Fri, Aug 8, 2014 at 8:40 AM, Lepak, Dominika <[dlepak@blm.gov](mailto:dlepak@blm.gov)> wrote:  
Hi Vonnie,

I just realized that this went to your BLM account instead of your SOL account, so I thought I would resend. A quick review would be much appreciated. Thanks!

----- Forwarded message -----

From: **Lepak, Dominika** <[dlepak@blm.gov](mailto:dlepak@blm.gov)>  
Date: Thu, Jul 31, 2014 at 2:37 PM  
Subject: Comment Response Review for Idaho/Montana Sage-Grouse EIS  
To: Veronica Larvie <[vlarvie@blm.gov](mailto:vlarvie@blm.gov)>  
Cc: Ken Visser <[kvisser@blm.gov](mailto:kvisser@blm.gov)>, Brent Ralston <[bralston@blm.gov](mailto:bralston@blm.gov)>

Hi Vonnie,

Ken Visser recommended that I request your review of one of our comment responses for the Idaho/MT Sage-Grouse EIS. We received several comments to the effect that BLM does not have authority to close grazing allotments, or that a new "chiefly valuable" determination would need to be made. The following is our response. Could you please review it by August 7th and let me know if any changes are needed?

Thank You,  
Nika

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Further, the BLM may designate lands as "available" or "unavailable" for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to cease livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions.

The Taylor Grazing Act requires that the Secretary "make such rules and regulations ... [and] do any and all things necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range." (43 USC § 315a).

FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield, areas of critical environmental concern, present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43USC 1711 Sec 201 (a)). 43 CFR § 4100.0-8 provides that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. Actions taken under land use plans may

include making some, or all of the land within grazing districts, unavailable for grazing during the life of the plan as well as imposing grazing use restrictions, limitations or other grazing management related actions intended to achieve such goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

A "chiefly-valuable-for-grazing" determination is required only when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district. (See USDI Solicitor Memorandum Clarification of M-37008 (May 13, 2003)). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as "chiefly-valuable-for-grazing" per the Taylor Grazing Act for purposes of establishing grazing districts within the public domain (see, 43 U.S.C. § 315) this does not negate the BLM's authority or responsibility to manage those lands to achieve resource condition goals and objectives under the principals of multiple use and sustained yield as required by FLPMA and its implementing regulations.

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Nika Lepak  
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FLPMA grants the Interior Secretary the authority to make land use planning decisions, taking into consideration multiple use and sustained yield. . . present and potential uses of the land, relative scarcity of values, and long-term and short-term benefits, among other resource values (43 USC 1711 Sec 201 (a)). BLM land use planning regulations, found at 43 CFR § 4100.0-8 provide that the BLM shall manage livestock grazing on public lands in accordance with applicable land use plans. The BLM may designate lands as “available” or “unavailable” for livestock grazing through the land use planning process (H-1601, Land Use Planning Handbook, Appendix C). A decision to make lands unavailable for livestock grazing is not permanent. It is subject to reconsideration, modification and reversal in subsequent land use plan decisions. □ BLM land use plans may make some, or all, of the land within grazing districts unavailable for grazing during the life of the plan. Further, land use plans may impose restrictions and limitations on grazing or any other grazing management related action intended to achieve the land use planning goals and objectives (H-1601, Land Use Planning Handbook, Appendix C).

The Taylor Grazing Act requires that the Secretary “make such rules and regulations ... [and] do any and all things necessary ... to insure the objects of ... grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury [and] to provide for the orderly use, improvement and development of the range.”.

A “chiefly-valuable-for-grazing” determination was originally made for most of the public lands pursuant to the Taylor Grazing Act (“TGA,” see, 43 USC § 315a). This determination need only be revisited when the Secretary is considering creating or changing grazing district boundaries. Such a determination is neither required nor appropriate when establishing grazing levels within a district during FLPMA land use planning. (See USDI Solicitor Opinion, “Clarification of M-37008, May 13, 2003”). This RMP is not considering creating or changing grazing district boundaries. Although lands have been identified as “chiefly-valuable-for-grazing” per the TGA for purposes of establishing



grazing districts within the public domain. This TGA determination does not contradict the BLM's authority or responsibility to manage those lands to achieve resource condition goals and objectives identified during land use planning as required by FLPMA's multiple use and sustained yield mandate.

**Meredith Zaccherio**

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**From:** Beck, Jonathan <jmbeck@blm.gov>  
**Sent:** Friday, March 13, 2015 8:53 AM  
**To:** Meredith Zaccherio  
**Subject:** comments - makela answers  
**Attachments:** IDMT-BLMResponsetoCmts\_20150212\_PM.docx

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Jonathan Beck  
Bureau of Land Management  
Idaho State Office  
208-373-4070

**IDMT GREATER SAGE-GROUSE  
RESOURCE MANAGEMENT PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT  
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1.			Jackovac – 14.1	Response: LR-19 and LR-21 do not specifically state whether or not lands identified for disposal in the LUPs would still be available for disposal. BLM needs to clarify this in the document.	<b>BLM: Lands classified as PHMA, IHMA, and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the GRSG.</b>
2.		IDMTSG-14-0105-15,	Burkhardt	Vol 2, Page 2-83: Regarding Alternative E -Fire Suppression Table 2-11 mentions Rangeland Fire Protection Associations. These have proven extremely effective in wildfire response and suppression. However, it should be kept in mind that the ranchers involved are there because they are able to maintain viable ranching operations and thus are not only present but have a vested interest in assuring that wildfire effects are minimized. The recent grazing permit renewals in the Owyhee Field Office have the potential to substantially alter the number of such ranch operations that will remain viable and present. The wide spread public benefit of Rangeland Fire Protection Association activity and their benefit to preservation of GRSG habitat should be considered in the evaluation of Alternative impacts on grazing opportunity. Response: Address in Socio-economics section or in future plan amendments if this occurs?	Addressed with ICF revisions.

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3.		IDMTSG-14-0130-16,	Burkhardt	<p>Natural fire return intervals in Wyoming big sagebrush average 100-240 years (Baker 2007). Wyoming big sagebrush recovers slowly after fires, which typically result in 100% sagebrush mortality; recovery to pre-fire canopy cover takes over 100 years (Cooper et al. 2007). The Idaho Southwest Montana DEIS mischaracterizes this as 15 to 30 years, citing Manier et al. (2013:133-134). DEIS at 4-69. Manier et al. (2013) repeatedly reference the very slow recovery times of sagebrush following fire, and the closest that they come to supporting the DEIS characterization is to note that in mountain big sagebrush habitats (as opposed to the drier Wyoming big sagebrush communities that dominate the planning area) with ideal soil and climate parameters, recovery can be as little as 20 years (at p. 79). However, even mountain big sagebrush can take 75 years or more to recover in certain circumstances (Baker 2011). Please rectify this apparent hard-look failure in the impacts analysis</p> <p>Response: Add to research cited portion of document.</p>	Liza: Chapter 4
4.		IDMTSG-14-0131-8	Porter-minerals-range of alts	<p>A more complete analysis of the effects of imposing restrictions on phosphate activities will be included in the FEIS.</p> <p>Clarify in FEIS the BMPs/RDFs that would apply to existing phosphate leases in sg habitat. Also clarify compensatory mitigation requirements. See notes for IDMTSG-14-0131-20 (row 22, below)</p>	<p>Katie: Work with Karen to make change, Chapter 4</p> <p>BLM: Has this been incorporated into Proposed Plan/RDFs?</p>
5.		IDMTSG-14-0049-10	Porter-minerals-range of alts	<p>While Alt. D of the DEIS did propose closing all PPMA and PMMA habitat in areas with no to low potential for the occurrence of a fluid mineral to future leasing, that management action has been changed in the FEIS to leave all lands open to future leasing, subject to a No Surface Occupancy stipulation in PPMA and PMMA.</p>	Addressed in Proposed Plan.

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6.		IDMTSG-14-0049-10	Porter-minerals-range of alts	add definition of VER to glossary. Note- this is not an easily definable term! I couldn't find a definition in Black's Law Dictionary, but did find a Solicitor's Opinion that provides context: M-36910 (Supp.) 88 I.D. 909, 912 (1981). Here are some excerpts: VER are those rights short of vested rights that are immune from denial or extinguishment by the exercise of Secretarial discretion. They may arise from two situations: a statute may prescribe a series of requirements which, if satisfied, create rights in the claimant by the claimant's actions under the statute without an intervening discretionary act; or, a VER may be created as a result of the exercise of Secretarial discretion. VERs are not absolute- the nature and extent of the rights are defined either by the statute creating the rights or by the manner in which the Secretary chose to exercise his discretion. VERs that include the right to develop may not be regulated to the point where the regulation unreasonably interferes with enjoyment of the benefit of the right.	Change made. Incorporated definition from NV/CA and UT plans to be consistent.
7.		IDMTSG-14-0049-27	Porter-minerals-range of alts	While Alt. D of the DEIS would have applied seasonal restrictions to lands with moderate to high potential for the occurrence of a fluid mineral, BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PHMA and IHMA. CSU, seasonal timing restrictions, buffers, and standard stipulations would be applied in GHMA.	Addressed in Proposed Plan
8.		IDMTSG-14-0049-9	Porter-minerals-range of alts	BLM's preferred management action for future oil and gas leasing has been changed in the FEIS to applying a year-round NSO stipulation in PMMA and PPMA. This will exclude all development on leases in these areas.	Addressed in Proposed Plan
9.		IDMTSG-14-0153-28	Porter-minerals-range of alts	BLM's preferred alternative for future leases has been changed in the FEIS to impose an NSO in all PPMA and PMMA habitat, and to impose a lek buffer in PGMA. What is the lek buffer for PGMA in FEIS?	Addressed in Proposed Plan

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10.		IDMTSG-14-0212-11	Porter-minerals-range of alts	There may be mineral leases in the ACECs proposed in Alts. C and F- that information will be included in the FEIS, as well as a discussion of mineral potential in the proposed ACECs Determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.	BLM: GIS analysis Katie work with Karen
11.		IDMTSG-14-0182-6	Porter-minerals-baseline data	BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of sage grouse habitat would not be subject to stipulations developed in this EIS.	Addressed in Proposed Plan
12.		IDMTSG-14-0180-43	Porter-minerals-impact analysis	The section describing the impacts from leasable minerals management for Alt E is not correct and needs major revision. See my comments on pg 4-61-63.	Katie work with Karen
13.		IDMTSG-14-0212-30	Porter-minerals-impact analysis	The impacts of Alts F and B will be analyzed in more detail in the FEIS, specifically with respect to disturbance caps. Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question.	Katie work with Karen
14.		IDMTSG-14-0212-29	Porter-minerals-impact analysis	Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Also, references to section 4.11.2 should be corrected and should refer to section 4.12.2.	ICF Katie – correct references; check comment for context.
15.		IDMTSG-14-0131-13	Porter-minerals-cumulative analysis	Cumulative effects across state lines will be considered in the FEIS.	BLM review: Cumulative effects will be across state lines for GRSG, but not for minerals. Does this response need to be revised?

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16.		IDMTSG-14-0131-20	Porter-minerals-cumulative analysis	Analysis of impacts in the DEIS doesn't make sense. Table 4-64 (and subsequent tables in the section) is full of errors. None of Idaho's Phosphate leases are subject to NSO, CSU, or TL stips. Also I question the figures identified as unleased KPLAs closed to leasing (3720 acres) and subject to NSO (620 acres). I recommend doing away with the following columns in Table 4-64: Closed, NSO, CSU and TL. Here are actual numbers from LR2000: There are a total of 80,168 acres designated as KPLA. Currently, there are 31,670 acres of KPLA leased (48,498 acres of unleased KPLA). There are 12,904 acres of leased land outside of KPLAs. None of the leases are covered by NSO, CSU, or TL stips.	BLM: GIS analysis Katie work with Karen
17.		IDMTSG-14-0131-30	Porter-minerals-cumulative analysis	Socio-economic impacts resulting from the loss of availability of phosphate resources in each of the alternatives will be discussed in greater depth in the FEIS. Add impacts from loss of phosphate resources to socio-economic section	Addressed with ICF revisions.
18.		IDMTSG-14-0212-31	Porter-minerals-cumulative analysis	Additional analysis is required. Reasonably foreseeable actions, and the impacts of proposed conservation measures, will be discussed in the FEIS. Additional analysis required. Discuss reasonably foreseeable actions and impacts of proposed conservation measures in FEIS.	Katie – work with Karen, cumulative impacts
19.		IDMTSG-14-0212-5	Porter-minerals-cumulative analysis	Add discussion of economic and social impacts of restricting phosphate mining and imposing conservation measures.	Addressed with ICF revisions.
20.		IDMTSG-14-0166-7	Porter-minerals-mitigation measures	The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Add wording to the FEIS from the NTT report in discussion of RDFs.	Yes we can add: "BMPs are continuously improving as new science and technology become available and therefore are subject to change. "

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21.		IDMTSG-14-0149-15	Makela- 7.3	Clarify in FEIS the validity of NTT, COT, BER relative to “establish standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders.”	Ask Jon – I don’t think this requires a change in the document. This is addressed in the comment response report. Agree No change needed in document
22.		IDMTSG-14-0151-29	Makela- 7.3	Ensure FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS).	MZ: Add to Chapter I  Makela-2/23/15. Needs to be incorporated where FEIS talks about PACs. Easy fix, but need to know where to insert it. Basically IDFG developed PACs based on merging of Core and Important designations from Governor’s Alt. E map. CONFIRMED WITH D. KEMNER 2/24/2015. Proposed Plan shows some additional areas of IHMA (and small areas of PHMA) outside PACs based on analyses subsequent to the delineation of PACs but this is ok as provides additional conservative landscape protections above and beyond the PACs. (This needs to be added the first time we introduce pacs in the document).
23.		IDMTSG-14-0151-39	Makela- 7.3	Clarify in FEIS: Sage-grouse MZs were an attempt by WAFWA to delineate GRSG habitat range wide into more discrete areas for broad scale planning. Population monitoring is still done at finer scales such as State, local working group, Conservation Area or similar.	MZ: Add to Chapter I after first use of “management zone”  Makela-2/23/15. This was a WWP comment. See below. Need to add wording into FEIS that describes intent of the GRSG Mgt Zones. The 2006 Rangewide Cons. Strategy page I.6, (Stiver et al. 2006) delineated 7 GRSG management zones based on 41 sage-grouse populations and 7 floristic provinces to “guide conservation goals and rangewide management”. The intent was not to portray GRSG habitat quality but rather an attempt to compartmentalize the range of grsg so we



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					<p>could better focus efforts and monitoring in a biologically meaningful way transcending jurisdictions.</p> <p>Add wording, “ Stiver et al. (2006) delineated seven GRSG Management Zones, based on the distribution of 41 sage-grouse populations and 7 floristic provinces to guide general conservation goals and rangewide management within the range of the species. More detailed site-specific data, such as for seasonal habitats, vegetation characteristics, and related factors are more appropriately addressed in finer scale planning efforts or activities.”</p> <p>Comment Number: IDMTSG-14-0151-39 Organization1:Western Watersheds Project Commenter1:Katie Fite</p> <p>Comment Excerpt Text: The COT perpetuated the WAFWA categorization of sagebrush habitat that has been used to mask concerns about loss of increasingly isolated populations and openly track declines – the Management Zones. Grouse populations were lumped in SMZs – based on generalized vegetation communities. But the vegetation communities of the contrived MZs have no real relation to the health/condition of sage- grouse habitat, or the viability of the species. Sage-grouse can survive just fine in sagebrush vegetation in any of the SMZs – and can move between some of the SMZs. The use of this SMZ category allows agencies to overlook sharp declines (or the disappearance/extirpation) of entire populations (the Weiser population in ID or the Quinn PMU in NV for example), or overlook very low numbers until it is too late) The MZs typically lump several</p>

**IDMT GREATER SAGE-GROUSE  
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					smaller or isolated populations in with a couple of larger ones in the 7 vegetation-based SMZs.  Stiver et al. 2006: Page 1.6
24.		IDMTSG-14-0049-32	Makela- 7.5	Ensure Proposed Plan has appropriate provisions/ clarity for actions in General management areas. Needs additional discussion.	Addressed in Proposed Plan.
25.		IDMTSG-14-0056-17	Makela- 7.5	<b>Commenter states:</b> There is no published research that supports restricting or closing grazing, in areas adjacent to burns, in order to compensate for loss of habitat attributable to wildfire. (DESR- 5, page 2-134). <b>Response:</b> Clarify this measure further in FEIS. The MA says to consider such action. The need for it, therefore, would depend on the site specific situation such as if a burn were adjacent to remaining limited/fragmented habitat or other circumstances	BLM: Jon discuss with Paul. Provide change to EMPSi.  Makela note. BLM currently restricts grazing in the burned area to allow for recovery. So the idea for this additional measure is to provide an opportunity for closing or more conservative use of unburned areas near or adjacent to burned areas, as another tool in the toolbox, in the event such an option is needed. May want to clarify about the need to consider the site specific situation, such as where local GRSG population trends are declining, or if the fire occurred in already limited sagebrush habitats, necessitating a more conservative/ restrictive approach to the management of remaining, unburned habitat.

**IDMT GREATER SAGE-GROUSE  
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26.		IDMTSG-14-0056-9	Makela- 7.5	<b>Commenter (0056-9 and similar comment for 0105-13) states:</b> Alternative E includes the requirement for any assessment to determine whether or not a given area has the ability to provide sage grouse habitat (See Appendix D, page D-36). This is critical because as the maps are difficult to decipher on the large scale and personal knowledge of the area reflects that some areas identified as within PPGH or Core habitat do not have the ability to provide for sage grouse needs. <b>Response:</b> Build a mechanism into the Proposed Plan that allows for evaluation of circumstances on case by case basis at the site specific scale. Maybe add wording that such would be addressed via subsequent project level NEPA analysis?	Addressed in Proposed Plan.
27.		IDMTSG-14-0105-13	Makela- 7.5	<b>Comment:</b> how would population triggers be applied if there is no definition for “population areas”? <b>Response:</b> Clarify discussion of habitat and population triggers for any relevant alternatives (D, E, Proposed Plan...).	Addressed in Proposed Plan
28.		IDMTSG-14-0153-26	Makela- 7.5	Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.	Liza: work with Paul, Chapter 4, this may have been resolved. Discussed week of 2/23. Issue is outside the scope of this Amendment/ FEIS.
29.		IDMTSG-14-0166-8	Makela- 7.5	Confirm that Alt F incorporates recommendations as noted (Sage-Grouse Recovery Alternative did not faithfully follow the original proposed alt)...BLM/FS believe that the Proposed Plan accommodates GRSG conservation without the need for additional broad land designations.	No change to Alternative F. Alternative F was developed based on their recommendations but was not taken verbatim and did not have to be.
30.		IDMTSG-14-0178-6	Makela- 7.5	Firm up discussion of existing policy/mechanisms in Alt A.	Liza: work with Paul, Chapter 4.  The existing policy was not adequate that's why we are doing the plan amendment.

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31.		IDMTSG-14-0180-48	Makela- 7.5	Need to confirm where, in Alt D, we refer to 80% relative to brood habitat	<p>BLM: Review. I believe the 80% is in Alternative E. Adaptive management triggers were revised in the Proposed Plan.</p> <p>This was a State of Idaho comment: Moreover, Connelly et al. (2000) indicated that productive brood rearing or summer habitats are usually characterized by the area having over 40% sagebrush cover, not 80% as suggested in Alternative D.” Actually, I find no reference to the “80%” figure relative to late brood habitat since we focused on nest/winter. First sentence below may have been interpreted by the state that we were including late brood habitat in the 80%. In discussing Alt D (page 2.73 in DEIS) we said:</p> <p>Habitat Triggers: In Guidelines to Manage Sage-grouse Populations and Their Habitat, Connelly et al. (2000) suggested at least 80 percent of a seasonal habitat’s breeding or winter habitat areas should reflect rangeland characteristics indicative of productive GRSG habitat as noted in the Guidelines. In the case of sagebrush, this suggests that at least 80 percent of nesting habitat should be in the range of 15 to 25 percent sagebrush canopy cover. Similarly, at least 80 percent of winter habitat should be between 10 to 30 percent canopy cover. The NTT Report (NTT 2011, pg. 6) suggested that a minimum range of 50 to 70 percent of priority habitat should be in sagebrush cover. For establishing a habitat loss trigger for adaptive management, an assumption was made that an overall loss of 20 percent of the sagebrush landscape within a population area was consistent with the published literature, and sufficiently conservative to allow for a management response. A loss of 10 percent of nesting or winter habitat were also selected as triggers, since these are especially important for population maintenance.</p>

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32.		IDMTSG-14-0206-1	Makela- 7.5	Commenter states: We worry that this language could be read to suggest that the State's objective is to protect just the CHZ with 65% of the leks in Idaho and that a population decline in the IHZ would be consistent with this objective. This could lead state and federal agencies to "manage down" to a lower population level... Response: Clarify the 65 % rationale for Alt E.	BLM: JB discuss with PM  Proposed plan has a pop trigger for both PHMA and IHMA within Cons Areas so this concern has been addressed. See latest Prop Plan page 2-14.
33.		IDMTSG-14-0212-1	Makela- 7.1 (moved to leasable minerals?)	Suggest looking more closely at this issue to ensure it has been adequately analyzed and address (economic issues vs. GRSG population impacts, etc). According to the commenter the core of this issue is that nearly 11 million acres of public land will be closed to phosphate development with this decision and that this is more restrictive than would be done under ESA if the species were listed. Under ESA, each individual project could be evaluated on a site-specific basis and mitigation strategies could be included.	Addressed with ICF revisions.
34.		IDMTSG-14-0212-27	Makela- 7.1 (moved to leasable minerals)	Is there an adequate baseline description for leasable minerals?	BLM: KP to provide changes to Chapter 3
35.		IDMTSG-14-0242-12	Makela- 7.1	Comment: Habitat monitoring discussed in Alternative D (Chapter 2) is significantly different than the Monitoring Framework Plan discussed in Appendix E. While we support the habitat characteristics identified in Alternative E, a more robust description of the habitat monitoring program should be provided. Response: Ensure we clarify habitat monitoring and mapping processes.	Description of monitoring has been expanded in the FEIS.
36.		IDMTSG-14-0242-19	Makela- 7.1	Verify that the habitat categories, Core, Important and General have been adequately defined and that they are tied to percentages of the population that they represent.	Addressed in Proposed Plan.

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37.		IDMTSG-14-0046-6	Makela- 7.6	Describe or confirm in section how GRSG populations have changed over time.	<p><b>BLM: PM to provide changes to Chapter 3</b></p> <p>DEIS page 3-5 cites Garton et al projections for declines for 2007-2037 for MZ IV and MZ II but nothing about past declines. Add to end of 1<sup>st</sup> para in sec 3.2.1 or insert a table based on FRN Table 5 on page 13922.</p> <p>Insert in section 3.2.1 following the first paragraph:</p> <p>“Periods of decline in GRSG populations rangewide have occurred since the late 1800s (FWS FRN 2010 Finding pg. 13921). More recently Connelly et al. (2004) reported long term declines (1965-2004) for GRSG in MZs II and IV; WAFWA (2008) reported declines in MZs II and IV from 1965-2007 of -2.7 and -3.8% respectively; Garton et al. (2011) reported annual rates of decline of -3.5% and -4% for MZs II and IV.”</p>
38.		IDMTSG-14-0053-10	Makela- 7.6	<p>Commenter states No population number has been suggested as the lowest recoverable figure by the USFWS or anyone else.</p> <p>Response: A population target has not been established. Clarify in FEIS what proportion of GRSG leks/numbers are captured by the management areas.</p>	Addressed in Proposed Plan
39.		IDMTSG-14-0056-9	Makela- 7.6	Add component in FEIS/Plan that describes fine/site scale review process.	Addressed in Proposed Plan
40.		IDMTSG-14-0105-7	Makela- 7.6	Ensure protocols and data needs for population and habitat monitoring, and relevant triggers are described. Reference 2014 HAF, IDFG lek route protocol etc.	Addressed in Proposed Plan and Monitoring Framework

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41.		IDMTSG-14-0108-6	Makela- 7.6	Confirm need to clarify discussion of current status of populations; effects of alts on GRSG.	BLM: PM to review, confirm, provide revision. See above. FEIS (and DEIS) analyzes Alts for various programs, using number of occupied leks affected by closures etc. and VDDT models address how much veg we need to treat. Adequate?
42.		IDMTSG-14-0151-106	Makela- 7.6	Clarify how population and habitat triggers will be used and how vegetation treatments factor in to the triggers.	BLM: JB/PM – are vegetation treatments addressed?  We would not do a veg treatment in sagebrush to the extent it would trip a trigger (Our disturbance cap guidance does not allow this).
43.		IDMTSG-14-0151-16	Makela- 7.6	Commenter states The DEIS has virtually no information whatsoever regarding current conditions of sage- grouse habitat at the allotment level.  Response: Clarify that function of LUPs is to address broader issues, not site/allotment scale. May need to clarify this in FEIS.	This is included in the comment response report and is not needed for the FEIS.
44.		IDMTSG-14-0151-31	Makela- 7.6	Clarify how EIS boundaries relate to GRSG populations. [Overall, ensure we clarify relation between final map, populations, Management Areas, COT PACs etc.]	BLM: PM – was this done in the Proposed Plan? Page 3-5 of DEIS talks about the WAFWA zones and that the majority of the IDSWMT is in MZ IV , with a small portion in MZ II. Should be sufficient.
45.		IDMTSG-14-0151-44	Makela- 7.6	Commenter states The indirect and cumulative effects analysis must extend beyond state lines.  Response: Clarify that cumulative effects analysis per NOC will be done by GRSG Management Zone	Addressed by CEA.
46.		IDMTSG-14-0151-45	Makela- 7.6	Ensure that FEIS clarifies focus of amendment on BLM and FS lands. Also that BER and disturbance calcs, triggers etc. will incorporate all lands to extent data are available.	BLM: Unsure if or where any changes need to be made.  Trigger info has been clarified, and FEIS should say up front that decisions apply to BLM.

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47.		IDMTSG-14-0151-70	Makela- 7.6	Ensure definition of “occupied” habitat is provided.	<p>BLM: Here is a definition from UT. PM to confirm if ok to use: “Lek active during at least one strutting season within the prior 10 years”</p> <p>No. The above in green is the def of Utah “occupied lek”. Comment had to do with occupied “habitat”. Table 2.3 in DEIS mentions “Scope: BLM and FS occupied habitat</p> <p>Define in Glossary: Occupied Habitat is defined by alternative under habitat characterization’s in table 2-3</p>
48.		IDMTSG-14-0151-71	Makela- 7.6	Clarify in FEIS process for delineating MT habitat.	<p>BLM: Has this been done?</p> <p>Need Kelly B. to address.</p>
49.		IDMTSG-14-0151-78	Makela- 7.6	<p>Consider incorporating/ how best to address, clarify these elements. (Please conduct a risk assessment and analysis of the degree to which the battery of sage and tree manipulation treatments and fuels projects that are envisioned will:</p> <ul style="list-style-type: none"> <li>- Fragment GRSG habitats, increase harmful edge.</li> <li>- Reduce cover in linkage areas.</li> <li>- Reduce or sever patch connectivity.</li> <li>- Sever linkage areas.</li> <li>- Increase Edge Effect and patchiness in the Landscape Matrix</li> <li>- Increase anthropogenic disturbances (removal of shrubs that prevent OHV use, intensified grazing in areas cleared or thinned of sage and trees, etc..)</li> </ul>	<p>Liza: Work with Paul and Ethan/incorporate impacts from conifer removal.</p> <p>Insert in chapter 4 in vegetation management: Cite Baruc- Mordo paper on benefits of juniper. We don’t see this as a fragmentation issue for grsg habitat; it is improving habitat quality, availability and extent. Cite juniper lit (Miller et al., etc.) as to its expansion the past 150 years or so, and the fact it is not limiting.</p>
50.		IDMTSG-14-0153-16	Makela- 7.6	Discuss incorp of WY Basins and N. Great Basin REAs	<p>BLM: BLM/Nika provide direction to EMPSi</p>



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51.		IDMTSG-14-0153-59	Makela- 7.6	Commenter states: Please provide documentation, preferably in the form of scientific studies, that demonstrate that adding new transmission lines to existing powerline corridors has no significant impact on grouse populations and habitat use, in order to fulfill NEPA's hard look requirements. Response: Not aware of such literature. Will review additional lit suggested. Clustering of infrastructure is assumed to be more desirable than creating new infrastructure in undisturbed areas.	Liza: work with Paul; Chapter 4  ???
52.		IDMTSG-14-0153-7	Makela- 7.6	Comment: Please document any and all scientific studies that conclude that compensatory mitigation efforts have yielded an increase in sage grouse populations for the area to which mitigation efforts apply. We are unaware of any cases in which a compensatory mitigation program has resulted in a significant increase in sage grouse compared to an untreated landscape. Response: Mitigation section will be revised for FEIS.	Mitigation Framework has been revised in the FEIS.
53.		IDMTSG-14-0157-9	Makela- 7.6	Include additional information for West Nile virus in Idaho.	BLM: PM to provide changes to Chapter 3  Management actions were included in the RDFs to address west nile for water developments.  Makala looking for language written by IDFG.
54.		IDMTSG-14-0168-27	Makela- 7.6	Commenter states: Quoting Connelly's quotes of other authors violates the Information Quality Act of 2001 (Section 515 of Public Law 106-554). Response: Confirm/clarify use of citations.	This is OK?
55.		IDMTSG-14-0169-41	Makela- 7.6	Consider incorp of available modeled nesting and winter habitat in FEIS.	Addressed in Proposed Plan

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56.		IDMTSG-14-0183-3	Makela- 7.6	Add wording in infrastructure discussion (and new lit) regarding uncertainty of some of the science, but also re-affirm/strengthen discussion of how FWS Warranted finding partly based on infrastructure as a threat.	Liza: Work with Paul and Ethan, Chapter 4
57.		IDMTSG-14-0204-1	Makela- 7.6	Clarify in FEIS the broad nature of the LUP amendment/FEIS and that seasonal habitat maps are more appropriately developed at the local scale. Also consider showing modeled nest and winter habitat map for Idaho (Montana if avail.).	Addressed in Proposed Plan and comment response report
58.		IDMTSG-14-0206-25	Makela- 7.6	Comment: A Literature Review of Transmission Line Effect Distances Response: Consider incorporation of this information into FEIS.	Liza: Work with Paul, Chapter 4  We are using the USGS data for buffers
59.		IDMTSG-14-0209-1	Makela- 7.6	Comment: We wish to add our completed Local Working Group Conservation Plan to the reference record for the EIS. It can be found at the Idaho Fish and Game's website at: <a href="http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174">http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174</a> under North Magic Valley Conservation Plan. Response: Reference completed LWG plans.	Liza: Work with Paul, Chapter 3  OK we can put this in the record because it is already cited in Chapter 1 (See 1.7.2 )
60.		IDMTSG-14-0212-3	Makela- 7.6	Discuss process for consideration of site scale discrepancies (e.g., if a portion of Core, Imp or Gen'l is not "habitat" at site scale, such as conifer, etc. Consider coordinated review/approval between local BLM, FS, IDFG.	Addressed in Proposed Plan
61.		IDMTSG-14-0031-5	Makela- 7.7	Discuss recomm. For managing lek viewing. Consult 2006 ID GRSG plan for wording.	BLM: Paul to provide changes, if any  IDFG Manages the wildlife. If it is not a permitted activity that we can restrict.
62.		IDMTSG-14-0046-4	Makela- 7.7	Clarify Alt A and mosaic discussion.	Liza: Work with Paul, Chapter 4, see comment for context.  We strive to meet objectives as we implement the plan. Management actions are designed to move an area toward meeting an objective. The effects analysis is based on Management Actions not objectives.

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63.		IDMTSG-14-0151-5	Makela- 7.7	Clarify fence collision risk per Stevens.	Liza: Work with Paul, Chapter 4, see comment for context.  Fencing MAs have been included in the proposed plan. The risk has been disclosed in chapter 1. We cite Stevens.
64.		IDMTSG-14-0153-14	Makela- 7.7	Comment: In particular, we are concerned that under Alternatives D, the prescribed conservation measures may not apply in areas not identified as sage grouse habitat. BLM states, “by including a rule set to release areas from PPMA, PMMA, PGMA protection, some vegetation communities that do not provide habitat for GRSG could receive less protection under this alternative and could be subject to removal, damage, or reduced condition caused by human disturbances.” DEIS at 4-102.) Response: Note to BLM/FS. Clarify site specific issues/process. Address via project-level NEPA ,etc.	Liza and MZ: Incorporate into Chapter 4
65.		IDMTSG-14-0153-26	Makela- 7.7	Discuss military overflight / noise issue with Planning leads. Is there a regional approach?	BLM: Ask PM. I think this has been resolved.  See comment above – outside the scope
66.		IDMTSG-14-0153-39	Makela- 7.7	Comment: BLM acknowledges that there is little potential for coal mining in the planning area; the agencies should therefore find Priority Habitats unsuitable for surface mining for coal in order to provide regulatory certainty. Response: Discuss coal mining. Clarify.	BLM: Don't think this is necessary, but review.  Agree
67.		IDMTSG-14-0153-58	Makela- 7.7	Discuss approach to predicting population trajectories under alternatives.	Liza: Discuss with Paul. Not sure if analysis of population trajectories is appropriate.  Work with Paul and Ethan to include in new effects analysis

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68.		IDMTSG-14-0242-16	Makela- 7.7	<p>Comment: We recommend that the impact analysis be improved through the following ways:</p> <p>a. We need more clarity as to the extent to which proposed actions within each alternative would ameliorate the threats to GRSG within the identified analysis areas. ...The impacts to individuals and associated populations should then be compared across alternatives.</p> <p>b. The analysis should consider the beneficial impacts of best management practices and required specific design features where appropriate.</p> <p>c. The analysis should address the extent to which conservation measures within the alternatives meet the objectives of the COT.</p> <p>Response: Planning leads discuss.</p>	Liza: Work with Paul Ethan and USFWS; Chapter 4
69.		IDMTSG-14-0050-22	Makela- 7.8	Refine cumulative effects section as appropriate. (The proposed EIS must include an analysis of the cumulative effects of the existing fences, prescribed burning and other proposed treatments and the effects of domestic livestock grazing on greater sage-grouse.)	Addressed in CEA. MZ to doublecheck
70.		IDMTSG-14-0153-58	Makela- 7.8	Ensure/refine cumulative effects section adequately address population projections and efficacy, as appropriate.	Addressed in CEA. MZ to doublecheck

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71.		IDMTSG-14-0179-10	Makela- 7.9	<p>Comment: Even with the best-intentioned avoidance and mitigation plan, some projects are simply “unmitigatable” due to the type or location of the project. As such, we recommend expanding the list of excluded projects in CHZ to include the following:</p> <ul style="list-style-type: none"> <li>• Landfills in sage-grouse habitats or within 5 km of sage-grouse habitats (especially because landfills subsidize synanthropic predators such as ravens)</li> <li>• Airports</li> <li>• Mineral development (leasable, locatable and salable) and associated infrastructure (processing, milling and stockpiling facilities)</li> <li>• Quarries and gravel pits over a certain size, based on best management practices</li> <li>• Oil and gas development</li> <li>• Commercial wind, solar, geothermal, hydroelectric and nuclear projects</li> </ul> <p>Response: Consider above bullets in review of RDFs, siting, buffers.</p>	<p>BLM: I believe this is addressed in Proposed Plan – JB and PM to check.</p> <p>The USGS buffer direction will mitigate the effects of these types of projects</p>
72.		IDMTSG-14-0179-8	Makela- 7.9	Clarify details for soft and hard triggers.	Addressed in Proposed Plan
73.		IDMTSG-14-0180-26	Makela- 7.9	Clarify in FEIS. While Alt D would preclude large scale infrastructure development in Priority habitat, some development could occur in Important or General habitat, triggering mitigation opportunities	<p>Liza: work with Paul; Chapter 4</p> <p>No net unmitigated loss went away with the new wo Direction</p>
74.		IDMTSG-14-0206-16	Makela- 7.9	TNC provides numerous constructive recommendations for the mitigation strategy.	<p>BLM: Has this been addressed?</p> <p>Mitigation strategy described in the PP. It will be completed after the ROD is signed so nothing there yet.</p>
75.		IDMTSG-14-0210-9	Makela- 7.9	Consider incentives etc. in mitigation plan.	Mitigation plan has been revised for the FEIS.

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76.		IDMTSG-14-0212-16	Makela- 7.9	Revising RDFs/buffers for FEIS. Clarify limits to such for mining.	BLM: Has this been addressed?  Have USGS buffers and Locatable mineral direction form WO changes the Proposed Plan
77.		IDMTSG-14-0212-17	Makela- 7.9	Comment: To incentivize immediate conservation efforts while ensuring realistic opportunities for development, the Agencies' Final LUP Amendment provisions should provide a clearer, more robust, mitigation credit program. The elements of the mitigation program should include, at a minimum, the ability of federal project proponents to pursue, and receive mitigation credits for, mitigation projects on private or state lands to offset future federal project impacts. Mitigation credit opportunities also should not be limited to traditional habitat improvement and protection activities. The Agencies should work with project proponents to develop alternative mitigation actions that could be used to offset project impacts.... Response: Discuss/consider this w/respect to mining which has little option for "NSO" type of buffers, especially for locatables under 3809.	Mitigation Plan has been revised in the FEIS.
78.			ICF- socio	See document from ICF titled "IDMT_Report_Section 22_ICF Expected revisions_042514.docx". This document contains revisions that ICF expects to make to the FEIS in response to public comments on the DEIS.	EMPSi see document to incorporate revisions
79.			Ralston- edits	You indicated in Appendix H-4 that if an area met the relevance criteria and were in PPH, they were determined to have importance because of being a national priority for BLM. Table 3-45 has 67 Existing ACECs. Why the difference in numbers? Response: Change made	Change made

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80.			Ralston- edits	Volume II A, Table I-5, page I-39: County Land Use and Sage-Grouse Management Plans lists Growth Policy dated June 20, 2005 as the reference for Beaverhead County, Montana. Our perspective would have indicated information on county land use policy for Beaverhead County, Montana would be found in the "Beaverhead County Public Lands Resource Use Policy and Plan" Response: Change made	Change made
81.			Ralston- edits	LG/RM-9 Alternative E: Instead of: "Manage allotments only for the primary seasonal habitat that it has the potential to support." We would prefer, "Manage allotments for seasonal habitat that it has the potential to support." Because in many areas seasonal habitats overlap and we are managing for spring breeding/brood rearing, summer, and winter habitats in these areas. Response: To be addressed by team.	BLM: Can EMPSi make this change?
82.			Ralston- edits	Language has been added to the planning criteria regarding the Wild Free Roaming Horse and Burro Act.	Change made
83.			Ralston- edits	Table 2-18 is being reformatted by Brent and EMPSi.	Change made
84.			Ralston- edits	GIS staff is working on maps to use a common and consistent color scheme.	Change made
85.			Ralston- edits	Page 3-73 First full paragraph: Discussion on rangeland health standards and guides: references allotments that are not meeting standards. Needs further discussion. Not clear if grazing is the problem or influenced by other sources. Response: Minor clarification of text. Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.	Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.

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86.			Ralston- edits	It needs to be kept in mind that this EIS will amend local agency land use plans and as such will be interpreted and implemented at a local level. Accordingly, any ambiguity will be multiplied by the number of affected local agency offices. There are a number of places in the EIS where definitions are necessary in order to understand the application of an Alternative e.g. "Population Area". The clarifications are also needed to assure that the final decision can be consistently applied among local administrative units and by constantly changing agency personnel over time. Response: The BLM and Forest Service are clarifying direction proposed in the Final EIS.	The BLM and Forest Service have clarified direction proposed in the Final EIS.
87.			Ralston- edits	Map Errors: Fig. 2-46 and others font heading erroneous- in hard copies, check CD versions too Response: GIS staff and EMPSi are developing maps that will show the appropriate title.	GIS staff and EMPSi are developing maps that will show the appropriate title.
88.			Ralston- edits	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.



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89.			Ralston- edits	<p>As noted in the introductory comments, Y -3 II straddles the Idaho and Nevada border and operates a single ranching entity to coordinate grazing on BLM allotments in both states. BLM, however, states in the Nevada DEIS that planning for the land use plans covering this part of both Idaho and Nevada will occur through the Nevada FEIS and Record of Decision but will be implemented and administered through the Jarbidge and Burley FEIS and Record of Decision. See Nevada DEIS Section ES.2. Additionally, the decisions and analyses for that portion of Y-3 II's allotments in Nevada will occur through the Nevada DEIS and will end at the Nevada state line apparently leaving decisions and analysis for Y-3 II's ranch operations north of the Nevada border to the Idaho DEIS. Id. This is confusing because just a few sentences earlier it is stated that planning for both Idaho and Nevada land use plans will occur through the Nevada DEIS. Id. Thus, within a few short sentences it is unclear how the lands utilized by Y-3 II in Nevada and Idaho are being analyzed, decided, implemented, and administered. If read correctly, it appears that actual management decisions are being made in each state's DEIS, but that Idaho will administer both Idaho's management decisions and Nevada's management decisions as they relate to Y -3 II. Consequently, Y -3 II must analyze and comment on both the Nevada and Idaho DEISs. Y -3 II also notes that this bifurcation of planning and management processes, while at least addressed by the Nevada DEIS, is not addressed in the Idaho DEIS as it should be.</p> <p>Response: Brent to convene a bi-state group to discuss this specific issue with Jarbidge, Burley, Bruneau and Elko Field Offices</p>	<p>BLM: work with NV. Has this been done?</p>

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90.			Ralston- edits	<p>The DEIS is also internally inconsistent, as to what BLM is proposing. In one place it states that it relates only to Forest Service decision making (implying BLM is not proposing any specific plan amendments) (DEIS at 5), and in another stating that “the BLM is proposing to amend the Battle Mountain/Tonopah Resource Management Plan (RMP) and the Carson City Field Office Consolidated RMP by adding to or changing some of the regulatory mechanisms to reduce, eliminate, or minimize threats to the Bi-state sage-grouse habitat on Federal lands administered under those plans” (DEIS at 1). This fundamental inconsistency also renders the DEIS inadequate as an informational document.</p> <p>Response: In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.</p>	In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.

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91.			Ralston- edits Appendix A	<p>A-1S "The County Plan encourages the federal agencies (BLM and Forest Service) to coordinate and maintain communication with the county and the counties' Natural Resource Advisory Committee. As part of this coordination the county requests documentation and research be available to support management decisions."</p> <p>This statement should be corrected. The County Plan "requires" the federal agencies to coordinate its plans and policies as directed under the appropriate federal statutes. The Plan requires coordination with the Board of Commissioners. The Natural Resource Advisory Committee's purpose is to advise the Commissioners. All official communication should be with the Commissioners. The County Plan does more than request documentation and research, but requires that all policies of the federal and state agencies be coordinated with the County for the purpose of ensuring a comprehensive approach to greater sage-grouse management Response: This has been changed in Appendix A.</p>	This has been changed in Appendix A.
92.			Ralston- edits	<p>2-18 "These plans were based largely on the existing LWG GRSB Plans (Custer county 2006, Owyhee County 2013), which were considered during the initial development of the range of alternatives considered in detail." This statement is false as it relates to the Custer County Sage Grouse Comprehensive Plan, which is the Counties primary planning device for Sage-Grouse in Custer County, and should be clarified. The Custer County plan was developed and approved in 2013, and while the Local Working Group plan was consulted during the development of the County's Sage Grouse Plan, it was only one of several grouse plans consulted. Response: Change made in FEIS.</p>	Change made

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93.			Ralston- NEPA range of alts	<p>Alternative A is excluded from the discussion of "Elements Common to Alternatives B, C, D, E, and F," which implies that these elements are not present in the no action alternative. This misleads the public. For instance, one of the elements common to all but Alternative A is "adaptive management." This element is clearly part of the current management framework as is noted in Appendix A, page 21. In answering whether the Challis RMP Complies with the Custer County Sage-Grouse Management principle that includes the use of adaptive management, the document affirms that the Challis RMP is compliant with a clear "Yes." However, in this same discussion, under "inclusion in Amendment EIS" the document only refers to Alternatives B-F as having an adaptive management component. Either Alternative A does use the adaptive management principle and it should state this, or it does not and compliance with Custer County Plan should be noted as a "NO."</p> <p>Response: Further description of adaptive management principles and strategies as described in each alternative has been included.</p>	Further description of adaptive management principles and strategies as described in each alternative has been included.
94.			Ralston- FLPMA consistency with other plans	<p>NEPA requires a discussion of "Possible conflicts between the proposed action and the objectives of Federal, regional, State and local land use plans, polices and controls for the area concerned." (40 CFR I 502.1 6(c)) It is the clear policy as stated in numerous County plans that the lands within the political boundaries of the county be maintained to ensure a vibrant local economy that is built on the historic use of and right to the productive use of these lands.</p> <p>Restricting and in some alternatives, eliminating these uses conflicts with the Counties policies. These conflicts have not been identified, analyzed or resolved in the DEIS.</p> <p>Response: As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.</p>	As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.

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95.			Ralston-ACECs range of alts	The Areas of Critical Environmental Concern (ACEC) details need to be corrected. Two of the maps did not say which Alternative they represented. On page 2-65 under Alternative C the BLM will designate 39 new ACECs, but elsewhere the number 4 is used, including on Figure 2-44. Response: This has been changed in the Final to reflect accurate numbers for Alternative C.	This has been changed in the Final to reflect accurate numbers for Alternative C.
96.		26-9	Cooper	We will need to make sure it is clear that lands currently identified for “disposal”, will be changed to “retain.”	BLM: Has this been addressed?
97.		49-24	Cooper	The question about buried powerlines vs. overhead lines causing impact to sage grouse needs to be answered (by biology), so that Lands and Realty management actions can lay out the recommendations.	BLM: Has this been addressed?
98.		49-7	Cooper	We may need to explain that complete exclusion is unrealistic.	This is included in the range of alternatives, but BLM/FS do not have to choose it.
99.		183-16 and 183-17	Cooper	Co-location is not always practicable or feasible; we may need to add flexibility into our Alt G lands and realty actions.	Addressed in Proposed Plan
100.		206-9	Cooper	The suggestion that excluded activities in Alt D should go through the State’s proposed exemption process, may be one to add in Alt G.	BLM: Has this been addressed?
101.		210-7	Cooper	We may want to reference APLIC standards.	BLM: Consider suggested change
102.		212-6	Cooper	Need to ask Karen Porter about lease development and what is authorized. Do they contain a valid existing right to roads...?	BLM
103.		242-20	Cooper	May need to reference the COT in developing Alt G.	Addressed in Proposed Plan
104.		49-25	Cooper	Maybe some of the buffer’s bio’s are drafting will fit this comment?	Liza: work with Paul re: power line impacts; Chapter 4
105.		183-37 and 49-31	Cooper	Biologists need to answer to the conflicting requests for perch divereters and then we need to make a recommendation for powerline in Alt. G.	Liza: work with Paul re: power line impacts; Chapter 4
106.		210-4	Cooper	With conflicting opinions, biologists may need to decide/recommend overhead vs. buried for Alt G and explain why.	BLM: Has this been addressed?
107.		180-42	Cooper	We need to provide a conclusion on impacts of wind energy in Alt E.	Peter: Work with Natalie

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108.		183-29	Cooper	We need to clarify what the acreages mean according to the BER report.	MZ: Chapter 3; include footnote explaining ROW width or extra reference to Manier.
109.		183-38	Cooper	Need to look at WECC and NERC standards to see if co-locating can have some flexibility; otherwise co-locations could cause reliability issues and outages.	Addressed in Proposed Plan
110.			Cooper	Change D-LR-19. "Acquire habitat when possible and retain ownership of habitat, except if a land exchange would allow..." "land exchange" needs to be changed to "disposal" (a more correct terminology)	Change made
111.			Cooper	<b>In 2.6.4 Alternative D</b> , "Required" needs to be changed to "allowed" in the following sentence: The following are examples of ROWs that could be required in PPMA"	No longer in Chapter 2
112.			Cooper	This statement does not seem accurate... I think it should be "decreasing" instead of "increasing;" "Alternatives A, B, C, and F would force wind energy ROWs outside GRSG habitat, thereby increasing the potential for indirect effects in the planning areas, such as requests for new transmission line ROWs and access roads.	Peter: work with Natalie
113.			Cooper	The following needs to be clarified in the FEIS: "Impacts from lands and realty to wind energy were discussed in Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as best management practices that would also apply to Alternative A.	Peter: work with Natalie
114.				The following are items to track in the comment response report	
115.		Section 4.5	Summary	NOTE TO BLM: some comments relate to specific changes for the maps presented in the DEIS, and for the data layers to be made available for download from the BLM website	BLM: GIS

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116.		Section 4.5	Response	NOTE TO BLM: Need to respond to the last comment related to consistency across state boundaries for our mapping efforts. There is no national response for this issue.	BLM: Jon, Paul, and GIS
117.		Section 5.2		Need to update Section 1.7 with any inconsistencies with other plans (including county GRSG plans)	BLM to provide consistency text. Also need to update comment report
118.		Section 5.4		Note from solicitor asking for more information in the response.	Need input from Brent for this response
119.				Sections 7.1; 7.5; 7.6; 7.8; 7.9; 8.1; 12.2; 12.3; 14.3; 16.1; 16.2; 22.3; 24.3; 26.1; 26.2; 26.3; 27.1; 30; 30.1; 30.2; 32.3; Response includes a reference to another section – need to update these once the sections are re-numbered.	EMPSi
120.		Section 7.1		Note in the response to clarify in the FEIS the policy requirements for Administrative Procedure Act (APA), NEPA relative to IM, and NTT and clarify the NTT process and FACA in the FEIS.	Brent to do
121.		Section 7.1		Note: ask for national justification of why the NTT was appropriate	Need to elevate this question. Applicable to all subregions.
122.		Section 7.3		Response suggests clarifications to the FEIS to incorporate	Brent
123.		Section 7.5		Need to include reference to section in FEIS that discusses lek buffers once known	EMPSi
124.		Section 7.5		Ensure 6840 manual and relevant FS policy are discussed in Alternative A	Brent
125.		Section 7.5		Review summary/response – is no net unmitigated loss still in the ADPP?	BLM: Jon & Paul
126.		Section 8.1		Review EIS/LUPA for consistent representation of proposed ACECs under Alternatives C and F	EMPSi and BLM
127.		Section 10.4		Need to add analysis of climate change on GRSG (cumulative?). Also add suggested statement to assumptions, Section 4.1 of FEIS.	Would like BLM input or higher level discussion
128.		Section 12		Should review all responses to determine if FIAT should be included to a greater extent	BLM/ Drew
129.		Section 12.2		Need to update FEIS regarding fuel breaks and relationship between livestock grazing and fire. (or change the response for this section)	Drew

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130.		Section 12.3		Update Chapter 4 to clarify impacts of reduced grazing on fuel loads and clarify impacts of different suppression measures	Drew
131.		Section 14		Need appropriate table number in Chapter 2 that shows lands and realty management actions for all alternatives	MZ
132.		Section 14.1		Correct the contradiction for geothermal development between D-LR-3 and D-MLM-1	BLM – revise management actions as necessary
133.		Section 14.2		May need to update based on new literature re: powerlines and predation.	Check with Liza/Paul
134.		Section 14.3		Revise wind energy analysis for Alternative E?	Ask Peter
135.		Section 15.1		Include definition of valid existing rights in the glossary per Karen’s definition above.	Change made
136.		Section 15.1		See notes to BLM in the response – ensure these are addressed	Karen/Katie
137.		Section 15.1		States that wording from NTT added to RDF discussion – ensure this has been done	Ask JB
138.		Section 15.3		See notes to BLM and make sure these are addressed	Karen/Katie
139.		Section 15.4		Response notes a change to cumulative effects analysis – make sure this is done	Karen/Katie
140.		Section 16.1		Clarifications to Alt F	I believe these are completed
141.		Section 16.2		Changes to Section 3.7 referenced – make sure these have been made	Drew
142.		Section 16.2		Need to add language recognizing the role of RFPAs and insert section #	Drew
143.		Section 16.3		Update socio impact analysis regarding grazing	Addressed with ICF revisions
144.		Section 17.4		Update cumulative effects for locatables. See note to BLM in response.	Katie/Karen
145.		Section 22.3		BLM provide input on why county-level analysis was not completed	Addressed with ICF revisions
146.		Section 24.2		Add current CTTM area designation acres to Chapter 3	Get acres from GIS if available



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147.		Section 26.2		Need to clarify use of 70% cover from NTT; and update EIS with new rare plant list. Need to clarify vegetation modeling and data sources in Chapter 3	Need input from BLM
148.		Section 26.2		Table 3-4 – Change source to ID team input and EIS vegetation model. Cite the VDDT appendix	EMPSi
149.		Section 29.3		Need input from BLM for response – no response currently exists, only questions for BLM	BLM
150.		Section 30		Need to add explanation of the relationship between AML and AUM to WHB Chapter 3 of FEIS	Zoe work with Nika
151.		Section 30.2		<p>Include text from response into Chapter 4 of the EIS for Alternative A (and reference all other alts except Alt F): <i>[Under all alternatives, with the exception of Alternative F], management actions for wild horses and burros would not result in direct changes to HMA status, to AMLs within designated HMAs, or acreage designated as HMAs. Impacts under all alternatives, with the exception of Alternative F, would be limited to any future changes that may result in AML and/or acreage adjustment as well as reconsideration of HMA status that are based on achievement of GRSG habitat objectives for improving habitat conditions, as described in further detail below.</i></p> <p><i>Under Alternative F, AMLs would be directly reduced by 25 percent for all HMAs within PPMA and PGMA. This would result in a reduction of the established AMLs for all HMAs that are located entirely or partially within mapped occupied GRSG habitat. As a result of AML reduction under Alternative F, costs of wild horse and burro management would increase, due to a need for additional horse gathers for removal and/or population growth suppression (PGS) treatments.]</i></p>	Change made
152.		Section 31.2		Note in response states: BLM consider including a map displaying the overlap of lands with wilderness characteristics and priority habitat in the EIS.	BLM: Is there a map of LWC for the subregion?
153.		Section 31.2		Need input to address NCT comments/suggestions	Brent

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154.		Section 32.1		Need to update GRSG impact analysis to describe how actions could affect habitat and indirectly the effects of predation.	Liza/Paul
155.		Section 32.2		Add Blickley et al. 2012 data and citation regarding noise impacts to GRSG impacts section	Liza

**Meredith Zaccherio**

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**From:** Porter, Karen <kfporter@blm.gov>  
**Sent:** Thursday, April 16, 2015 8:33 AM  
**To:** Meredith Zaccherio; Jonathan Beck; Diane McConnaughey; Katie Patterson  
**Subject:** Fwd: GRSG Draft comment Response  
**Attachments:** \IDMT-BLMResponsetoCmts\_20150212 (2)\_kpmmins.docx

Perhaps my comment responses did not make it to you? The version of Ch 3 that was sent yesterday does not appear to have incorporated these comemnts-

----- Forwarded message -----

**From:** Porter, Karen <kfporter@blm.gov>  
**Date:** Wed, Mar 11, 2015 at 2:56 PM  
**Subject:** Re: GRSG Draft comment Response  
**To:** "Beck, Jonathan" <jmbeck@blm.gov>  
**Cc:** Gloria Jakovac <gjakovac@blm.gov>, Paul Makela <pmakela@blm.gov>, Dominika Lepak <dlepak@blm.gov>, Natalie Cooper <ncooper@blm.gov>

Here are response to the highlighted comments addressed to me. Give a call if you wish to discuss-

On Mon, Feb 23, 2015 at 1:06 PM, Beck, Jonathan <jmbeck@blm.gov> wrote:

Folks, there is a little work needed to clean up the comment responses from the Draft EIS. You are receiving this email because EMPSi has identified needed information from your specialty. Please take a look the items in green are BLMs to complete or confirm that something has been completed. Most are for Makela and I. Please take a look for your name in the attached file that has a corresponding green highlighted question. If you can address these questions or confirm that it has been done please do so. Please return to me in track changes. I don't see a reason to have a meeting. As always the sooner the better. Call with questions. Jon

Makela, we need to meet. Jon

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Jonathan Beck  
Bureau of Land Management  
Idaho State Office  
208-373-4070

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BLM Idaho State Office  
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1.			Jackovac – 14.1	Response: LR-19 and LR-21 do not specifically state whether or not lands identified for disposal in the LUPs would still be available for disposal. BLM needs to clarify this in the document.	BLM: What are the changes and to which alternative?
2.		IDMTSG-14-0105-15,	Burkhardt	Vol 2, Page 2-83: Regarding Alternative E -Fire Suppression Table 2-11 mentions Rangeland Fire Protection Associations. These have proven extremely effective in wildfire response and suppression. However, it should be kept in mind that the ranchers involved are there because they are able to maintain viable ranching operations and thus are not only present but have a vested interest in assuring that wildfire effects are minimized. The recent grazing permit renewals in the Owyhee Field Office have the potential to substantially alter the number of such ranch operations that will remain viable and present. The wide spread public benefit of Rangeland Fire Protection Association activity and their benefit to preservation of GRSG habitat should be considered in the evaluation of Alternative impacts on grazing opportunity. Response: Address in Socio-economics section or in future plan amendments if this occurs?	Addressed with ICF revisions.

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3.		IDMTSG-14-0130-16,	Burkhardt	<p>Natural fire return intervals in Wyoming big sagebrush average 100-240 years (Baker 2007). Wyoming big sagebrush recovers slowly after fires, which typically result in 100% sagebrush mortality; recovery to pre-fire canopy cover takes over 100 years (Cooper et al. 2007). The Idaho Southwest Montana DEIS mischaracterizes this as 15 to 30 years, citing Manier et al. (2013:133-134). DEIS at 4-69. Manier et al. (2013) repeatedly reference the very slow recovery times of sagebrush following fire, and the closest that they come to supporting the DEIS characterization is to note that in mountain big sagebrush habitats (as opposed to the drier Wyoming big sagebrush communities that dominate the planning area) with ideal soil and climate parameters, recovery can be as little as 20 years (at p. 79). However, even mountain big sagebrush can take 75 years or more to recover in certain circumstances (Baker 2011). Please rectify this apparent hard-look failure in the impacts analysis</p> <p>Response: Add to research cited portion of document.</p>	<a href="#">Liza: Chapter 4</a>

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4.		IDMTSG-14-0131-8	Porter-minerals-range of alts	A more complete analysis of the effects of imposing restrictions on phosphate activities will be included in the FEIS. Section 4.12 and Tables 4-64 to 4-67 have been revised in the FEIS to more accurately reflect the impacts to non-energy leasable minerals from various alternatives. Stipulations applicable to fluid mineral leasing, such as NSO and TL, are generally not appropriate for open-pit phosphate mine development. Clarify in FEIS the BMPs/RDFs that would apply to existing phosphate leases in sg habitat. While the RDFs listed in Appendix C of the DEIS do not mention phosphate mining, the RDFs for locatable minerals would be used for phosphate mine proposals. Under all alternatives, including the No Action Alternative (A), RDFs can be applied as Conditions of Approval to post-lease actions, so long as they do not affect lessee's valid existing rights. Only those RDFs that are appropriate for the action being proposed would be applied. RDFs are appropriate for exploration activities and early mine site development, however, once mining commences, many of the RDFs would no longer be practical and there could be a loss of habitat. Should this occur, offset mitigation would be required, as described in Appendix F of the DEIS. None of the RDFs would have a significant impact to phosphate exploration activities or early mine development stages. Also clarify compensatory mitigation requirements. Consistent with Appendix F. See notes for IDMTSG-14-0131-20 (row 22, below)	Katie: Work with Karen to make change, Chapter 4  BLM: Has this been incorporated into Proposed Plan/RDFs?
5.		IDMTSG-14-0049-10	Porter-minerals-range of alts	While Alt. D of the DEIS did propose closing all PPMA and PMMA habitat in areas with no to low potential for the occurrence of a fluid mineral to future leasing, that management action has been changed in the FEIS to leave all lands open to future leasing, subject to a No Surface Occupancy stipulation in PPMA and PMMA.	Addressed in Proposed Plan.

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6.		IDMTSG-14-0049-10	Porter-minerals-range of alts	add definition of VER to glossary. Note- this is not an easily definable term! I couldn't find a definition in Black's Law Dictionary, but did find a Solicitor's Opinion that provides context: M-36910 (Supp.) 88 I.D. 909, 912 (1981). Here are some excerpts: VER are those rights short of vested rights that are immune from denial or extinguishment by the exercise of Secretarial discretion. They may arise from two situations: a statute may prescribe a series of requirements which, if satisfied, create rights in the claimant by the claimant's actions under the statute without an intervening discretionary act; or, a VER may be created as a result of the exercise of Secretarial discretion. VERs are not absolute- the nature and extent of the rights are defined either by the statute creating the rights or by the manner in which the Secretary chose to exercise his discretion. VERs that include the right to develop may not be regulated to the point where the regulation unreasonably interferes with enjoyment of the benefit of the right.	Change made. Incorporated definition from NV/CA and UT plans to be consistent.
7.		IDMTSG-14-0049-27	Porter-minerals-range of alts	While Alt. D of the DEIS would have applied seasonal restrictions to lands with moderate to high potential for the occurrence of a fluid mineral, BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PHMA and IHMA. CSU, seasonal timing restrictions, buffers, and standard stipulations would be applied in GHMA.	Addressed in Proposed Plan
8.		IDMTSG-14-0049-9	Porter-minerals-range of alts	BLM's preferred management action for future oil and gas leasing has been changed in the FEIS to applying a year-round NSO stipulation in PMMA and PPMA. This will exclude all development on leases in these areas.	Addressed in Proposed Plan
9.		IDMTSG-14-0153-28	Porter-minerals-range of alts	BLM's preferred alternative for future leases has been changed in the FEIS to impose an NSO in all PPMA and PMMA habitat, and to impose a lek buffer in PGMA. What is the lek buffer for PGMA in FEIS?	Addressed in Proposed Plan



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10.		IDMTSG-14-0212-11	Porter-minerals-range of alts	<p>There may be mineral leases in the ACECs proposed in Alts. C and F- that information will be included in the FEIS, as well as a discussion of mineral potential in the proposed ACECs</p> <p>Determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F. Existing leases or lands nominated for leasing in Proposed ACECs:</p> <ol style="list-style-type: none"> <li>1. Map H.1 of DEIS (Alt C ACECs)-There are no mineral leases in the ACECs proposed by Alt. C, however approx. 90,000 acres are nominated for oil and gas leasing in the Sagebrush Sea ACEC, proposed by Alt. C. O&amp;G Potential is low in that area. There are no lands nominated for geothermal leasing in the ACECs proposed by Alt C.</li> <li>2. Map H.2 of DEIS (Alt F ACECs)- There are 2 existing oil and gas leases on the Bear Lake Plateau in the East Idaho Uplands ACEC (moderate potential), in addition to the approx. 90,000 acres nominated for oil and gas leasing in the Shoshone Basin and Jarbidge ACECs (low potential). It appears that parts of several existing geothermal leases at Raft River lie within the South Magic Valley ACEC (in area of high potential), and parts of existing geothermal leases in the Crane Creek area appear to lie within the West Central ACEC (moderate geothermal potential).</li> </ol>	<p>BLM: GIS analysis Katie work with Karen</p>

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11.		IDMTSG-14-0182-6	Porter-minerals-baseline data	BLM's preferred management action has been changed in the FEIS to applying a year-round No Surface Occupancy stipulation in PPMA and PMMA. Seasonal restrictions would be applied in PGMA. Lands outside of sage grouse habitat would not be subject to stipulations developed in this EIS.	Addressed in Proposed Plan

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12.		IDMTSG-14-0180-43	Porter-minerals-impact analysis	<p>The section describing the impacts from leasable minerals management for Alt E is not correct and needs major revision. See my comments on pg 4-61-63.</p> <ul style="list-style-type: none"> <li>- Alt E should be described as open to leasing subject to NSO in PHMA and IHMA, not CSU and TL, as stated in the first paragraph “Impacts from Leasable Mins Mngt” in DEIS (pg 4-61).</li> <li>- Wording in first paragraph describing State Director authorizing or allowing development should be replaced with wording describing criteria for SD waiving the stipulation (2 sentences). That might help to clarify the sentence questioning “the policy” (see pg 4-61).</li> <li>- Second paragraph- Alt E does not close any additional acres to leasing. Lands would remain open to leasing, subject to NSO.</li> <li>- Table 4-35 is confusing and contradicts Alt A closure values (table 4-9). Alt E does not close additional lands, so acreages and % should be the same as in Table 4-9. Recommend changing the title to delete “Closure” and replace with “Proposed NSO stipulation.”. That way you could show closures the same as 4-9, and additional NSO acreages for each population area.</li> <li>- The purpose of the Occupied Leks count in Table 4-35 is unclear.</li> <li>- Pg 4-63. Alt E impacts from Geothermal Energy should have similar analysis as O&amp;G. Alt E is Open with NSO</li> </ul>	Katie work with Karen

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13.		IDMTSG-14-0212-30	Porter-minerals-impact analysis	<p>The impacts of Alts F and B will be analyzed in more detail in the FEIS, specifically with respect to disturbance caps. Distinguish between Impacts from Alts F and B. Note: This is a disturbance cap question. Alt F says close PPMA to future leasing and manage PGMA and PRMA the same as Alt A (i.e. stipulations including TLs and buffers). This is the same as Alt B.</p> <p>According to Table 2-8, MLS-5 for Alt B includes a 3% disturbance cap on existing leases in PHMA. Alt F says “same as Alt B.” I see no differences.</p>	Katie work with Karen
14.		IDMTSG-14-0212-29	Porter-minerals-impact analysis	<p>Include a discussion of the effects of phosphate management actions to socio-economics in Ch 4. Phosphate is discussed on Pg 4-230, but it is under the locatable and salable heading. Separate out phosphate from this section and place it under a heading “Impacts from Management Actions Affecting Phosphate leasing and development.” Phosphate is not a locatable or salable mineral. Also, references to section 4.10 should be for locatable mins, while section 4.11 is for salable mins. I provided additional info to the economist on 3-6-15, but it should be mentioned in this section that there is very little sage grouse habitat in the part of the study area where phosphate resources occur. The Blackfoot Bridge (not Ridge) Mine Plan has been approved and is currently in full production. Reference to it in this section should be deleted. As for unmined existing phosphate leases in sage grouse habitat, only the Trail Creek and Caldwell Canyon leases, held by Monsanto, are expected to be mined in the next 15 years. These leases have some General Habitat, and therefore would be expected to encounter potential impacts from sage grouse management actions.</p>	ICF Katie – correct references; check comment for context.

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15.		IDMTSG-14-0131-13	Porter-minerals-cumulative analysis	Cumulative effects across state lines will not be considered for minerals in the FEIS.	BLM review: Cumulative effects will be across state lines for GRSG, but not for minerals. Does this response need to be revised?
16.		IDMTSG-14-0131-20	Porter-minerals-cumulative analysis	Analysis of impacts in the DEIS doesn't make sense. Table 4-64 (and subsequent tables in the section) is full of errors. None of Idaho's Phosphate leases are subject to NSO, CSU, or TL stips. Also I question the figures identified as unleased KPLAs closed to leasing (3720 acres) and subject to NSO (620 acres). I recommend doing away with the following columns in Table 4-64: Closed, NSO, CSU and TL. Here are actual numbers from LR2000: There are a total of 80,168 acres designated as KPLA. Currently, there are 31,670 acres of KPLA leased (48,498 acres of unleased KPLA). There are 12,904 acres of leased land outside of KPLAs. None of the leases are covered by NSO, CSU, or TL stips.	BLM: GIS analysis Katie work with Karen
17.		IDMTSG-14-0131-30	Porter-minerals-cumulative analysis	Socio-economic impacts resulting from the loss of availability of phosphate resources in each of the alternatives will be discussed in greater depth in the FEIS. Add impacts from loss of phosphate resources to socio-economic section Phosphate and sage grouse habitat (other than general) don't overlap except in the Paris-Bloomington KPLA. BLM foresees no significant impacts to either resource (phosphate or SG) from implementation of any of the alternatives.	Addressed with ICF revisions.

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18.		IDMTSG-14-0212-31	Porter-minerals-cumulative analysis	<p>Additional analysis is required. Reasonably foreseeable actions, and the impacts of proposed conservation measures, will be discussed in the FEIS.</p> <p>Additional analysis required. Discuss reasonably foreseeable actions and impacts of proposed conservation measures in FEIS.</p> <p>Using updated information from Table 4-75, it is estimated that the following minerals-related leasing and development could occur in sage grouse habitat over the next 15 to 20 years:</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Mineral Type</th> <th>Estimated Acreage</th> <th>SG Habitat Name</th> </tr> </thead> <tbody> <tr> <td>Locatables</td> <td>8 ac (2 projects)</td> <td>Weiser</td> </tr> <tr> <td></td> <td>121 ac</td> <td>S Side Snake (Middle Mtn)</td> </tr> <tr> <td></td> <td>5 ac</td> <td>Mtn. Valleys</td> </tr> <tr> <td></td> <td>50 ac</td> <td>SW MT</td> </tr> <tr> <td><b>TOTAL Locatbl</b></td> <td><b>184 acres total estimated disturbed</b></td> <td></td> </tr> <tr> <td>Geothermal Ops</td> <td>55 acres</td> <td>S Side Snake</td> </tr> <tr> <td>MinMats</td> <td>77 ac</td> <td>SW ID, S Side Snake</td> </tr> <tr> <td>O&amp;G Ops</td> <td>10 APDs</td> <td>SW MT</td> </tr> <tr> <td>O&amp;G Lease nominations</td> <td>59,700 ac (mod) 90,000 ac (low)</td> <td>SE ID (Bear Lk) S. Side Snake (Rogerson) E-Central ID</td> </tr> <tr> <td>Total nominated</td> <td>10,000 ac (mod) 159,700 ac</td> <td></td> </tr> <tr> <td>Phosphate</td> <td>Approx. 600 acres (in General Hab.)</td> <td>SE ID (Trail/Caldwell)</td> </tr> </tbody> </table>	Mineral Type	Estimated Acreage	SG Habitat Name	Locatables	8 ac (2 projects)	Weiser		121 ac	S Side Snake (Middle Mtn)		5 ac	Mtn. Valleys		50 ac	SW MT	<b>TOTAL Locatbl</b>	<b>184 acres total estimated disturbed</b>		Geothermal Ops	55 acres	S Side Snake	MinMats	77 ac	SW ID, S Side Snake	O&G Ops	10 APDs	SW MT	O&G Lease nominations	59,700 ac (mod) 90,000 ac (low)	SE ID (Bear Lk) S. Side Snake (Rogerson) E-Central ID	Total nominated	10,000 ac (mod) 159,700 ac		Phosphate	Approx. 600 acres (in General Hab.)	SE ID (Trail/Caldwell)	Katie – work with Karen, cumulative impacts
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19.		IDMTSG-14-0212-5	Porter-minerals-cumulative analysis	Add discussion of economic and social impacts of restricting phosphate mining and imposing conservation measures.	Addressed with ICF revisions.
20.		IDMTSG-14-0166-7	Porter-minerals-mitigation measures	The RDFs were adopted from BMPs in Appendix D of the NTT report. In that appendix, it states that "BMPs are continuously improving as new science and technology become available and therefore are subject to change. Include from the following BMPs those that are appropriate to mitigate effects from the approved action." Add wording to the FEIS from the NTT report in discussion of RDFs.	Ask Jon if he concurs, could add to intro paragraph in the RDF appendix
21.		IDMTSG-14-0149-15	Makela- 7.3	Clarify in FEIS the validity of NTT, COT, BER relative to "establish standards of scientific integrity under the ESA, the Data Quality Act, and the Presidential and DOI memoranda and orders."	Ask Jon – I don't think this requires a change in the document. This is addressed in the comment response report.
22.		IDMTSG-14-0151-29	Makela- 7.3	Ensure FEIS clarifies how PACs were delineated (IDFG delineated based on Core and Important zones, and provided to FWS).	MZ: Add to Chapter I
23.		IDMTSG-14-0151-39	Makela- 7.3	Clarify in FEIS: Sage-grouse MZs were an attempt by WAFWA to delineate GRSG habitat range wide into more discrete areas for broad scale planning. Population monitoring is still done at finer scales such as State, local working group, Conservation Area or similar.	MZ: Add to Chapter I after first use of "management zone"
24.		IDMTSG-14-0049-32	Makela- 7.5	Ensure Proposed Plan has appropriate provisions/ clarity for actions in General management areas. Needs additional discussion.	Addressed in Proposed Plan.
25.		IDMTSG-14-0056-17	Makela- 7.5	<b>Commenter states:</b> There is no published research that supports restricting or closing grazing, in areas adjacent to burns, in order to compensate for loss of habitat attributable to wildfire. (DESR- 5, page 2-134). <b>Response:</b> Clarify this measure further in FEIS. The MA says to consider such action. The need for it, therefore, would depend on the site specific situation such as if a burn were adjacent to remaining limited/fragmented habitat or other circumstances	BLM: Jon discuss with Paul. Provide change to EMPSi.

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26.		IDMTSG-14-0056-9	Makela- 7.5	<b>Commenter (0056-9 and similar comment for 0105-13) states:</b> Alternative E includes the requirement for any assessment to determine whether or not a given area has the ability to provide sage grouse habitat (See Appendix D, page D-36). This is critical because as the maps are difficult to decipher on the large scale and personal knowledge of the area reflects that some areas identified as within PPGH or Core habitat do not have the ability to provide for sage grouse needs. <b>Response:</b> Build a mechanism into the Proposed Plan that allows for evaluation of circumstances on case by case basis at the site specific scale. Maybe add wording that such would be addressed via subsequent project level NEPA analysis?	Addressed in Proposed Plan.
27.		IDMTSG-14-0105-13	Makela- 7.5	<b>Comment:</b> how would population triggers be applied if there is no definition for "population areas"? <b>Response:</b> Clarify discussion of habitat and population triggers for any relevant alternatives (D, E, Proposed Plan...).	Addressed in Proposed Plan
28.		IDMTSG-14-0153-26	Makela- 7.5	Project leads should discuss how to consistently address impacts from military flights and firm up discussion at 4-15. Consider adding additional detail from Mt. Home AFB Integrated Resource Mgt. Plan.	Liza: work with Paul, Chapter 4, this may have been resolved.
29.		IDMTSG-14-0166-8	Makela- 7.5	Confirm that Alt F incorporates recommendations as noted (Sage-Grouse Recovery Alternative did not faithfully follow the original proposed alt)...BLM/FS believe that the Proposed Plan accommodates GRSG conservation without the need for additional broad land designations.	No change to Alternative F. Alternative F was developed based on their recommendations but was not taken verbatim and did not have to be.
30.		IDMTSG-14-0178-6	Makela- 7.5	Firm up discussion of existing policy/mechanisms in Alt A.	Liza: work with Paul, Chapter 4.
31.		IDMTSG-14-0180-48	Makela- 7.5	Need to confirm where, in Alt D, we refer to 80% relative to brood habitat	BLM: Review. I believe the 80% is in Alternative E. Adaptive management triggers were revised in the Proposed Plan.



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32.		IDMTSG-14-0206-1	Makela- 7.5	Commenter states: We worry that this language could be read to suggest that the State's objective is to protect just the CHZ with 65% of the leks in Idaho and that a population decline in the IHZ would be consistent with this objective. This could lead state and federal agencies to "manage down" to a lower population level... Response: Clarify the 65 % rationale for Alt E.	BLM: JB discuss with PM
33.		IDMTSG-14-0212-1	Makela- 7.1 (moved to leasable minerals?)	Suggest looking more closely at this issue to ensure it has been adequately analyzed and address (economic issues vs. GRSG population impacts, etc). According to the commenter the core of this issue is that nearly 11 million acres of public land will be closed to phosphate development with this decision and that this is more restrictive than would be done under ESA if the species were listed. Under ESA, each individual project could be evaluated on a site-specific basis and mitigation strategies could be included.	Addressed with ICF revisions.

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34.		IDMTSG-14-0212-27	Makela- 7.1 (moved to leasable minerals)	<p>Is there an adequate baseline description for leasable minerals?</p> <p>See 3.12.1 (pg 3-102) for O&amp;G. UPDATE- BLM now has two O&amp;G leases vs. 4 when DEIS was written. The two leases on the Bear Lake Plateau have terminated, so only the Grays Lake leases remain. Those leases total approx.. 4000 acres, of which 40 acres is BLM surface (the rest is split estate). Don't know if Dillons O&amp;G leasing numbers need to be updated.</p> <p>Pg 3-103 Geothermal update- there are now 19 geothermal leases in Idaho, totaling approx.. 48,000 acres. Several leases at Raft River and both the leases at Magic Reservoir have terminated. Thirteen of 19 leases are within habitat. First bullet on pg 3-103 should be changed from nine leases to seven. The last bullet on pg 3-105 can be deleted.</p> <p>Re-write of pg 3-114 in DEIS (section 3.12, NON-ENERGY SOLID LEASABLE MINERALS</p> <p>As with fluid minerals, the right to develop non-energy solid leasable mineral resources, such as phosphate, on federal lands may only be acquired through a mineral lease, offered and administered by the BLM in accordance with the Mineral Leasing Act of 1920, as amended and supplemented (30 U.S.C. 181 et seq.). Lands that are known to have a valuable phosphate resource have been designated by the U.S. Geological Survey as Known Phosphate Leasing Areas, or KPLAs, and are leased through a competitive leasing process. Lands outside a KPLA may also be leased, however the existence of a valuable phosphate resource must be proven first, through an activity referred to as "prospecting." Idaho has 8 KPLAs, totaling 80,168 acres. Idaho BLM has 48 existing leases in KPLAs, totaling 31,670 acres. Therefore there are 48,498 acres of unleased KPLA in Idaho. There are 12,904 acres leased outside of KPLAs (38 leases).</p> <p>The Pocatello Field Office in southeast Idaho has a large non-energy solid leasable mineral program, as the phosphate resource in that field office is significant. The Middle Permian Phosphoria formation comprises one of the largest resources of phosphate rock in the world, with the richest phosphorite accumulations being found in</p>	BLM: KP to provide changes to Chapter 3

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35.		IDMTSG-14-0242-12	Makela- 7.1	Comment: Habitat monitoring discussed in Alternative D (Chapter 2) is significantly different than the Monitoring Framework Plan discussed in Appendix E. While we support the habitat characteristics identified in Alternative E, a more robust description of the habitat monitoring program should be provided. Response: Ensure we clarify habitat monitoring and mapping processes.	Description of monitoring has been expanded in the FEIS.
36.		IDMTSG-14-0242-19	Makela- 7.1	Verify that the habitat categories, Core, Important and General have been adequately defined and that they are tied to percentages of the population that they represent.	Addressed in Proposed Plan.
37.		IDMTSG-14-0046-6	Makela- 7.6	Describe or confirm in section how GRSG populations have changed over time.	<b>BLM: PM to provide changes to Chapter 3</b>
38.		IDMTSG-14-0053-10	Makela- 7.6	Commenter states No population number has been suggested as the lowest recoverable figure by the USFWS or anyone else.  Response: A population target has not been established. Clarify in FEIS what proportion of GRSG leks/numbers are captured by the management areas.	Addressed in Proposed Plan
39.		IDMTSG-14-0056-9	Makela- 7.6	Add component in FEIS/Plan that describes fine/site scale review process.	Addressed in Proposed Plan
40.		IDMTSG-14-0105-7	Makela- 7.6	Ensure protocols and data needs for population and habitat monitoring, and relevant triggers are described. Reference 2014 HAF, IDFG lek route protocol etc.	Addressed in Proposed Plan and Monitoring Framework
41.		IDMTSG-14-0108-6	Makela- 7.6	Confirm need to clarify discussion of current status of populations; effects of alts on GRSG.	<b>BLM: PM to review, confirm, provide revision.</b>
42.		IDMTSG-14-0151-106	Makela- 7.6	Clarify how population and habitat triggers will be used and how vegetation treatments factor in to the triggers.	<b>BLM: JB/PM – are vegetation treatments addressed?</b>
43.		IDMTSG-14-0151-16	Makela- 7.6	Commenter states The DEIS has virtually no information whatsoever regarding current conditions of sage- grouse habitat at the allotment level.  Response: Clarify that function of LUPs is to address broader issues, not site/allotment scale. May need to clarify this in FEIS.	This is included in the comment response report and is not needed for the FEIS.

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44.		IDMTSG-14-0151-31	Makela- 7.6	Clarify how EIS boundaries relate to GRSB populations. [Overall, ensure we clarify relation between final map, populations, Management Areas, COT PACs etc.]	BLM: PM – was this done in the Proposed Plan?
45.		IDMTSG-14-0151-44	Makela- 7.6	Commenter states The indirect and cumulative effects analysis must extend beyond state lines.  Response: Clarify that cumulative effects analysis per NOC will be done by GRSB Management Zone	Addressed by CEA.
46.		IDMTSG-14-0151-45	Makela- 7.6	Ensure that FEIS clarifies focus of amendment on BLM and FS lands. Also that BER and disturbance calcs, triggers etc. will incorporate all lands to extent data are available.	BLM: Unsure if or where any changes need to be made.
47.		IDMTSG-14-0151-70	Makela- 7.6	Ensure definition of “occupied” habitat is provided.	BLM: Here is a definition from UT. PM to confirm if ok to use: “Lek active during at least one strutting season within the prior 10 years”
48.		IDMTSG-14-0151-71	Makela- 7.6	Clarify in FEIS process for delineating MT habitat.	BLM: Has this been done?
49.		IDMTSG-14-0151-78	Makela- 7.6	Consider incorporating/ how best to address, clarify these elements. (Please conduct a risk assessment and analysis of the degree to which the battery of sage and tree manipulation treatments and fuels projects that are envisioned will: - Fragment GRSB habitats, increase harmful edge. - Reduce cover in linkage areas. - Reduce or sever patch connectivity. - Sever linkage areas. - Increase Edge Effect and patchiness in the Landscape Matrix - Increase anthropogenic disturbances (removal of shrubs that prevent OHV use, intensified grazing in areas cleared or thinned of sage and trees, etc.)	Liza: Work with Paul/incorporate impacts from conifer removal.
50.		IDMTSG-14-0153-16	Makela- 7.6	Discuss incorp of WY Basins and N. Great Basin REAs	BLM: BLM/Nika provide direction to EMPSI

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51.		IDMTSG-14-0153-59	Makela- 7.6	Commenter states: Please provide documentation, preferably in the form of scientific studies, that demonstrate that adding new transmission lines to existing powerline corridors has no significant impact on grouse populations and habitat use, in order to fulfill NEPA's hard look requirements. Response: Not aware of such literature. Will review additional lit suggested. Clustering of infrastructure is assumed to be more desirable than creating new infrastructure in undisturbed areas.	Liza: work with Paul; Chapter 4
52.		IDMTSG-14-0153-7	Makela- 7.6	Comment: Please document any and all scientific studies that conclude that compensatory mitigation efforts have yielded an increase in sage grouse populations for the area to which mitigation efforts apply. We are unaware of any cases in which a compensatory mitigation program has resulted in a significant increase in sage grouse compared to an untreated landscape. Response: Mitigation section will be revised for FEIS.	Mitigation Framework has been revised in the FEIS.
53.		IDMTSG-14-0157-9	Makela- 7.6	Include additional information for West Nile virus in Idaho.	BLM: PM to provide changes to Chapter 3
54.		IDMTSG-14-0168-27	Makela- 7.6	Commenter states: Quoting Connelly's quotes of other authors violates the Information Quality Act of 2001 (Section 515 of Public Law 106-554). Response: Confirm/clarify use of citations.	MZ: Ask JB or tech editor. Is this OK?
55.		IDMTSG-14-0169-41	Makela- 7.6	Consider incorp of available modeled nesting and winter habitat in FEIS.	Addressed in Proposed Plan
56.		IDMTSG-14-0183-3	Makela- 7.6	Add wording in infrastructure discussion (and new lit) regarding uncertainty of some of the science, but also re-affirm/strengthen discussion of how FWS Warranted finding partly based on infrastructure as a threat.	Liza: Work with Paul, Chapter 4
57.		IDMTSG-14-0204-1	Makela- 7.6	Clarify in FEIS the broad nature of the LUP amendment/FEIS and that seasonal habitat maps are more appropriately developed at the local scale. Also consider showing modeled nest and winter habitat map for Idaho (Montana if avail.).	Addressed in Proposed Plan and comment response report

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58.		IDMTSG-14-0206-25	Makela- 7.6	Comment: A Literature Review of Transmission Line Effect Distances Response: Consider incorporation of this information into FEIS.	Liza: Work with Paul, Chapter 4
59.		IDMTSG-14-0209-1	Makela- 7.6	Comment: We wish to add our completed Local Working Group Conservation Plan to the reference record for the EIS. It can be found at the Idaho Fish and Game's website at: <a href="http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174">http://fishandgame.idaho.gov/public/wildlife/sageGrouse/?getPage=174</a> under North Magic Valley Conservation Plan. Response: Reference completed LWG plans.	Liza: Work with Paul, Chapter 3
60.		IDMTSG-14-0212-3	Makela- 7.6	Discuss process for consideration of site scale discrepancies (e.g., if a portion of Core, Imp or Gen'l is not "habitat" at site scale, such as conifer, etc. Consider coordinated review/approval between local BLM, FS, IDFG.	Addressed in Proposed Plan
61.		IDMTSG-14-0031-5	Makela- 7.7	Discuss recomm. For managing lek viewing. Consult 2006 ID GRSG plan for wording.	BLM: Paul to provide changes, if any
62.		IDMTSG-14-0046-4	Makela- 7.7	Clarify Alt A and mosaic discussion.	Liza: Work with Paul, Chapter 4, see comment for context.
63.		IDMTSG-14-0151-5	Makela- 7.7	Clarify fence collision risk per Stevens.	Liza: Work with Paul, Chapter 4, see comment for context.
64.		IDMTSG-14-0153-14	Makela- 7.7	Comment: In particular, we are concerned that under Alternatives D, the prescribed conservation measures may not apply in areas not identified as sage grouse habitat. BLM states, "by including a rule set to release areas from PPMA, PMMA, PGMA protection, some vegetation communities that do not provide habitat for GRSG could receive less protection under this alternative and could be subject to removal, damage, or reduced condition caused by human disturbances." DEIS at 4-102.) Response: Note to BLM/FS. Clarify site specific issues/process. Address via project-level NEPA ,etc.	Liza and MZ: Incorporate into Chapter 4
65.		IDMTSG-14-0153-26	Makela- 7.7	Discuss military overflight / noise issue with Planning leads. Is there a regional approach?	BLM: Ask PM. I think this has been resolved.

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66.		IDMTSG-14-0153-39	Makela- 7.7	Comment: BLM acknowledges that there is little potential for coal mining in the planning area; the agencies should therefore find Priority Habitats unsuitable for surface mining for coal in order to provide regulatory certainty. Response: Discuss coal mining. Clarify.	BLM: Don't think this is necessary, but review.
67.		IDMTSG-14-0153-58	Makela- 7.7	Discuss approach to predicting population trajectories under alternatives.	Liza: Discuss with Paul. Not sure if analysis of population trajectories is appropriate.
68.		IDMTSG-14-0242-16	Makela- 7.7	Comment: We recommend that the impact analysis be improved through the following ways:  a. We need more clarity as to the extent to which proposed actions within each alternative would ameliorate the threats to GRSG within the identified analysis areas. ...The impacts to individuals and associated populations should then be compared across alternatives. b. The analysis should consider the beneficial impacts of best management practices and required specific design features where appropriate. c. The analysis should address the extent to which conservation measures within the alternatives meet the objectives of the COT. Response: Planning leads discuss.	Liza: Work with Paul and USFWS; Chapter 4
69.		IDMTSG-14-0050-22	Makela- 7.8	Refine cumulative effects section as appropriate. (The proposed EIS must include an analysis of the cumulative effects of the existing fences, prescribed burning and other proposed treatments and the effects of domestic livestock grazing on greater sage-grouse.)	Addressed in CEA. MZ to doublecheck
70.		IDMTSG-14-0153-58	Makela- 7.8	Ensure/refine cumulative effects section adequately address population projections and efficacy, as appropriate.	Addressed in CEA. MZ to doublecheck

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71.		IDMTSG-14-0179-10	Makela- 7.9	<p>Comment: Even with the best-intentioned avoidance and mitigation plan, some projects are simply “unmitigatable” due to the type or location of the project. As such, we recommend expanding the list of excluded projects in CHZ to include the following:</p> <ul style="list-style-type: none"> <li>• Landfills in sage-grouse habitats or within 5 km of sage-grouse habitats (especially because landfills subsidize synanthropic predators such as ravens)</li> <li>• Airports</li> <li>• Mineral development (leasable, locatable and salable) and associated infrastructure (processing, milling and stockpiling facilities)</li> <li>• Quarries and gravel pits over a certain size, based on best management practices</li> <li>• Oil and gas development</li> <li>• Commercial wind, solar, geothermal, hydroelectric and nuclear projects</li> </ul> <p>Response: Consider above bullets in review of RDFs, siting, buffers.</p>	BLM: I believe this is addressed in Proposed Plan – JB and PM to check.
72.		IDMTSG-14-0179-8	Makela- 7.9	Clarify details for soft and hard triggers.	Addressed in Proposed Plan
73.		IDMTSG-14-0180-26	Makela- 7.9	Clarify in FEIS. While Alt D would preclude large scale infrastructure development in Priority habitat, some development could occur in Important or General habitat, triggering mitigation opportunities	Liza: work with Paul; Chapter 4
74.		IDMTSG-14-0206-16	Makela- 7.9	TNC provides numerous constructive recommendations for the mitigation strategy.	BLM: Has this been addressed?
75.		IDMTSG-14-0210-9	Makela- 7.9	Consider incentives etc. in mitigation plan.	Mitigation plan has been revised for the FEIS.
76.		IDMTSG-14-0212-16	Makela- 7.9	Revising RDFs/buffers for FEIS. Clarify limits to such for mining.	BLM: Has this been addressed?



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77.		IDMTSG-14-0212-17	Makela- 7.9	<p>Comment: To incentivize immediate conservation efforts while ensuring realistic opportunities for development, the Agencies' Final LUP Amendment provisions should provide a clearer, more robust, mitigation credit program. The elements of the mitigation program should include, at a minimum, the ability of federal project proponents to pursue, and receive mitigation credits for, mitigation projects on private or state lands to offset future federal project impacts. Mitigation credit opportunities also should not be limited to traditional habitat improvement and protection activities. The Agencies should work with project proponents to develop alternative mitigation actions that could be used to offset project impacts....</p> <p>Response: Discuss/consider this w/respect to mining which has little option for "NSO" type of buffers, especially for locatables under 3809.</p>	Mitigation Plan has been revised in the FEIS.
78.			ICF- socio	See document from ICF titled "IDMT_Report_Section 22_ICF Expected revisions_042514.docx". This document contains revisions that ICF expects to make to the FEIS in response to public comments on the DEIS.	EMPSi see document to incorporate revisions
79.			Ralston- edits	<p>You indicated in Appendix H-4 that if an area met the relevance criteria and were in PPH, they were determined to have importance because of being a national priority for BLM. Table 3-45 has 67 Existing ACECs. Why the difference in numbers?</p> <p>Response: Change made</p>	Change made
80.			Ralston- edits	<p>Volume II A, Table I-5, page I-39: County Land Use and Sage-Grouse Management Plans lists Growth Policy dated June 20, 2005 as the reference for Beaverhead County, Montana. Our perspective would have indicated information on county land use policy for Beaverhead County, Montana would be found in the "Beaverhead County Public Lands Resource Use Policy and Plan"</p> <p>Response: Change made</p>	Change made

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81.			Ralston- edits	LG/RM-9 Alternative E: Instead of: "Manage allotments only for the primary seasonal habitat that it has the potential to support." We would prefer, "Manage allotments for seasonal habitat that it has the potential to support." Because in many areas seasonal habitats overlap and we are managing for spring breeding/brood rearing, summer, and winter habitats in these areas. Response: To be addressed by team.	BLM: Can EMPSi make this change?
82.			Ralston- edits	Language has been added to the planning criteria regarding the Wild Free Roaming Horse and Burro Act.	Change made
83.			Ralston- edits	Table 2-18 is being reformatted by Brent and EMPSi.	Change made
84.			Ralston- edits	GIS staff is working on maps to use a common and consistent color scheme.	Change made
85.			Ralston- edits	Page 3-73 First full paragraph: Discussion on rangeland health standards and guides: references allotments that are not meeting standards. Needs further discussion. Not clear if grazing is the problem or influenced by other sources. Response: Minor clarification of text. Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.	Existing text clearly described the allotments meet or not meeting standards and whether livestock grazing management was the causal factor of not meeting standards.
86.			Ralston- edits	It needs to be kept in mind that this EIS will amend local agency land use plans and as such will be interpreted and implemented at a local level. Accordingly, any ambiguity will be multiplied by the number of affected local agency offices. There are a number of places in the EIS where definitions are necessary in order to understand the application of an Alternative e.g. "Population Area". The clarifications are also needed to assure that the final decision can be consistently applied among local administrative units and by constantly changing agency personnel over time. Response: The BLM and Forest Service are clarifying direction proposed in the Final EIS.	The BLM and Forest Service have clarified direction proposed in the Final EIS.

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87.			Ralston- edits	Map Errors: Fig. 2-46 and others font heading erroneous- in hard copies, check CD versions too Response: GIS staff and EMPSi are developing maps that will show the appropriate title.	GIS staff and EMPSi are developing maps that will show the appropriate title.
88.			Ralston- edits	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.	MOU is included in Chapter I and has been incorporated in the development of the Proposed Plan.

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89.			Ralston- edits	<p>As noted in the introductory comments, Y -3 II straddles the Idaho and Nevada border and operates a single ranching entity to coordinate grazing on BLM allotments in both states. BLM, however, states in the Nevada DEIS that planning for the land use plans covering this part of both Idaho and Nevada will occur through the Nevada FEIS and Record of Decision but will be implemented and administered through the Jarbidge and Burley FEIS and Record of Decision. See Nevada DEIS Section ES.2. Additionally, the decisions and analyses for that portion of Y-3 II's allotments in Nevada will occur through the Nevada DEIS and will end at the Nevada state line apparently leaving decisions and analysis for Y-3 II's ranch operations north of the Nevada border to the Idaho DEIS. Id. This is confusing because just a few sentences earlier it is stated that planning for both Idaho and Nevada land use plans will occur through the Nevada DEIS. Id. Thus, within a few short sentences it is unclear how the lands utilized by Y-3 II in Nevada and Idaho are being analyzed, decided, implemented, and administered. If read correctly, it appears that actual management decisions are being made in each state's DEIS, but that Idaho will administer both Idaho's management decisions and Nevada's management decisions as they relate to Y -3 II. Consequently, Y -3 II must analyze and comment on both the Nevada and Idaho DEISs. Y -3 II also notes that this bifurcation of planning and management processes, while at least addressed by the Nevada DEIS, is not addressed in the Idaho DEIS as it should be.</p> <p>Response: Brent to convene a bi-state group to discuss this specific issue with Jarbidge, Burley, Bruneau and Elko Field Offices</p>	<p>BLM: work with NV. Has this been done?</p>

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90.			Ralston- edits	<p>The DEIS is also internally inconsistent, as to what BLM is proposing. In one place it states that it relates only to Forest Service decision making (implying BLM is not proposing any specific plan amendments) (DEIS at 5), and in another stating that “the BLM is proposing to amend the Battle Mountain/Tonopah Resource Management Plan (RMP) and the Carson City Field Office Consolidated RMP by adding to or changing some of the regulatory mechanisms to reduce, eliminate, or minimize threats to the Bi-state sage-grouse habitat on Federal lands administered under those plans” (DEIS at 1). This fundamental inconsistency also renders the DEIS inadequate as an informational document.</p> <p>Response: In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.</p>	In the preparation of the Final EIS any internal inconsistencies that have been identified are being corrected. This particular inconsistency does not apply to the Idaho and Southwestern Montana Draft EIS.

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91.			Ralston- edits Appendix A	<p>A-1S "The County Plan encourages the federal agencies (BLM and Forest Service) to coordinate and maintain communication with the county and the counties' Natural Resource Advisory Committee. As part of this coordination the county requests documentation and research be available to support management decisions."</p> <p>This statement should be corrected. The County Plan "requires" the federal agencies to coordinate its plans and policies as directed under the appropriate federal statutes. The Plan requires coordination with the Board of Commissioners. The Natural Resource Advisory Committee's purpose is to advise the Commissioners. All official communication should be with the Commissioners. The County Plan does more than request documentation and research, but requires that all policies of the federal and state agencies be coordinated with the County for the purpose of ensuring a comprehensive approach to greater sage-grouse management Response: This has been changed in Appendix A.</p>	This has been changed in Appendix A.
92.			Ralston- edits	<p>2-18 "These plans were based largely on the existing LWG GRSG Plans (Custer county 2006, Owyhee County 2013), which were considered during the initial development of the range of alternatives considered in detail." This statement is false as it relates to the Custer County Sage Grouse Comprehensive Plan, which is the Counties primary planning device for Sage-Grouse in Custer County, and should be clarified. The Custer County plan was developed and approved in 2013, and while the Local Working Group plan was consulted during the development of the County's Sage Grouse Plan, it was only one of several grouse plans consulted. Response: Change made in FEIS.</p>	Change made

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93.			Ralston- NEPA range of alts	<p>Alternative A is excluded from the discussion of "Elements Common to Alternatives B, C, D, E, and F," which implies that these elements are not present in the no action alternative. This misleads the public. For instance, one of the elements common to all but Alternative A is "adaptive management." This element is clearly part of the current management framework as is noted in Appendix A, page 21. In answering whether the Challis RMP Complies with the Custer County Sage-Grouse Management principle that includes the use of adaptive management, the document affirms that the Challis RMP is compliant with a clear "Yes." However, in this same discussion, under "inclusion in Amendment EIS" the document only refers to Alternatives B-F as having an adaptive management component. Either Alternative A does use the adaptive management principle and it should state this, or it does not and compliance with Custer County Plan should be noted as a "NO."</p> <p>Response: Further description of adaptive management principles and strategies as described in each alternative has been included.</p>	Further description of adaptive management principles and strategies as described in each alternative has been included.
94.			Ralston- FLPMA consistency with other plans	<p>NEPA requires a discussion of "Possible conflicts between the proposed action and the objectives of Federal, regional, State and local land use plans, polices and controls for the area concerned." (40 CFR I 502.1 6(c)) It is the clear policy as stated in numerous County plans that the lands within the political boundaries of the county be maintained to ensure a vibrant local economy that is built on the historic use of and right to the productive use of these lands.</p> <p>Restricting and in some alternatives, eliminating these uses conflicts with the Counties policies. These conflicts have not been identified, analyzed or resolved in the DEIS.</p> <p>Response: As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.</p>	As a result of the Preliminary Proposed Plan review any inconsistencies with local plans will be noted by those entities and will be addressed accordingly.

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95.			Ralston-ACECs range of alts	The Areas of Critical Environmental Concern (ACEC) details need to be corrected. Two of the maps did not say which Alternative they represented. On page 2-65 under Alternative C the BLM will designate 39 new ACECs, but elsewhere the number 4 is used, including on Figure 2-44. Response: This has been changed in the Final to reflect accurate numbers for Alternative C.	This has been changed in the Final to reflect accurate numbers for Alternative C.
96.		26-9	Cooper	We will need to make sure it is clear that lands currently identified for “disposal”, will be changed to “retain.”	BLM: Has this been addressed?
97.		49-24	Cooper	The question about buried powerlines vs. overhead lines causing impact to sage grouse needs to be answered (by biology), so that Lands and Realty management actions can lay out the recommendations.	BLM: Has this been addressed?
98.		49-7	Cooper	We may need to explain that complete exclusion is unrealistic.	This is included in the range of alternatives, but BLM/FS do not have to choose it.
99.		183-16 and 183-17	Cooper	Co-location is not always practicable or feasible; we may need to add flexibility into our Alt G lands and realty actions.	Addressed in Proposed Plan
100.		206-9	Cooper	The suggestion that excluded activities in Alt D should go through the State’s proposed exemption process, may be one to add in Alt G.	BLM: Has this been addressed?
101.		210-7	Cooper	We may want to reference APLIC standards.	BLM: Consider suggested change
102.		212-6	Cooper	Need to ask Karen Porter about lease development and what is authorized. Do they contain a valid existing right to roads...?	BLM
103.		242-20	Cooper	May need to reference the COT in developing Alt G.	Addressed in Proposed Plan
104.		49-25	Cooper	Maybe some of the buffer’s bio’s are drafting will fit this comment?	Liza: work with Paul re: power line impacts; Chapter 4
105.		183-37 and 49-31	Cooper	Biologists need to answer to the conflicting requests for perch divereters and then we need to make a recommendation for powerline in Alt. G.	Liza: work with Paul re: power line impacts; Chapter 4
106.		210-4	Cooper	With conflicting opinions, biologists may need to decide/recommend overhead vs. buried for Alt G and explain why.	BLM: Has this been addressed?
107.		180-42	Cooper	We need to provide a conclusion on impacts of wind energy in Alt E.	Peter: Work with Natalie



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108.		183-29	Cooper	We need to clarify what the acreages mean according to the BER report.	MZ: Chapter 3; include footnote explaining ROW width or extra reference to Manier.
109.		183-38	Cooper	Need to look at WECC and NERC standards to see if co-locating can have some flexibility; otherwise co-locations could cause reliability issues and outages.	Addressed in Proposed Plan
110.			Cooper	Change D-LR-19. "Acquire habitat when possible and retain ownership of habitat, except if a land exchange would allow..." "land exchange" needs to be changed to "disposal" (a more correct terminology)	Change made
111.			Cooper	<b>In 2.6.4 Alternative D</b> , "Required" needs to be changed to "allowed" in the following sentence: The following are examples of ROWs that could be required in PPMA"	No longer in Chapter 2
112.			Cooper	This statement does not seem accurate... I think it should be "decreasing" instead of "increasing;" "Alternatives A, B, C, and F would force wind energy ROWs outside GRSG habitat, thereby increasing the potential for indirect effects in the planning areas, such as requests for new transmission line ROWs and access roads.	Peter: work with Natalie
113.			Cooper	The following needs to be clarified in the FEIS: "Impacts from lands and realty to wind energy were discussed in Chapter 4, page 4-331. BLM groups Alternative A and Alternative E together in regards to impacts on wind energy. Under Alternative E, the BLM and the Forest Service would limit impacts from wind and solar energy development through the use of triggers in addition to the general stipulations identified in the GRSG section, as well as best management practices that would also apply to Alternative A.	Peter: work with Natalie
114.				The following are items to track in the comment response report	
115.		Section 4.5	Summary	NOTE TO BLM: some comments relate to specific changes for the maps presented in the DEIS, and for the data layers to be made available for download from the BLM website	BLM: GIS

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116.		Section 4.5	Response	NOTE TO BLM: Need to respond to the last comment related to consistency across state boundaries for our mapping efforts. There is no national response for this issue.	BLM: Jon, Paul, and GIS
117.		Section 5.2		Need to update Section 1.7 with any inconsistencies with other plans (including county GRSg plans)	BLM to provide consistency text. Also need to update comment report
118.		Section 5.4		Note from solicitor asking for more information in the response.	Need input from Brent for this response
119.				Sections 7.1; 7.5; 7.6; 7.8; 7.9; 8.1; 12.2; 12.3; 14.3; 16.1; 16.2; 22.3; 24.3; 26.1; 26.2; 26.3; 27.1; 30; 30.1; 30.2; 32.3; Response includes a reference to another section – need to update these once the sections are re-numbered.	EMPSi
120.		Section 7.1		Note in the response to clarify in the FEIS the policy requirements for Administrative Procedure Act (APA), NEPA relative to IM, and NTT and clarify the NTT process and FACA in the FEIS.	Brent to do
121.		Section 7.1		Note: ask for national justification of why the NTT was appropriate	Need to elevate this question. Applicable to all subregions.
122.		Section 7.3		Response suggests clarifications to the FEIS to incorporate	Brent
123.		Section 7.5		Need to include reference to section in FEIS that discusses lek buffers once known	EMPSi
124.		Section 7.5		Ensure 6840 manual and relevant FS policy are discussed in Alternative A	Brent
125.		Section 7.5		Review summary/response – is no net unmitigated loss still in the ADPP?	BLM: Jon & Paul
126.		Section 8.1		Review EIS/LUPA for consistent representation of proposed ACECs under Alternatives C and F	EMPSi and BLM
127.		Section 10.4		Need to add analysis of climate change on GRSg (cumulative?). Also add suggested statement to assumptions, Section 4.1 of FEIS.	Would like BLM input or higher level discussion
128.		Section 12		Should review all responses to determine if FIAT should be included to a greater extent	BLM/ Drew
129.		Section 12.2		Need to update FEIS regarding fuel breaks and relationship between livestock grazing and fire. (or change the response for this section)	Drew

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130.		Section 12.3		Update Chapter 4 to clarify impacts of reduced grazing on fuel loads and clarify impacts of different suppression measures	Drew
131.		Section 14		Need appropriate table number in Chapter 2 that shows lands and realty management actions for all alternatives	MZ
132.		Section 14.1		Correct the contradiction for geothermal development between D-LR-3 and D-MLM-1	BLM – revise management actions as necessary
133.		Section 14.2		May need to update based on new literature re: powerlines and predation.	Check with Liza/Paul
134.		Section 14.3		Revise wind energy analysis for Alternative E?	Ask Peter
135.		Section 15.1		Include definition of valid existing rights in the glossary per Karen’s definition above.	Change made
136.		Section 15.1		See notes to BLM in the response – ensure these are addressed	Karen/Katie
137.		Section 15.1		States that wording from NTT added to RDF discussion – ensure this has been done	Ask JB
138.		Section 15.3		See notes to BLM and make sure these are addressed	Karen/Katie
139.		Section 15.4		Response notes a change to cumulative effects analysis – make sure this is done	Karen/Katie
140.		Section 16.1		Clarifications to Alt F	I believe these are completed
141.		Section 16.2		Changes to Section 3.7 referenced – make sure these have been made	Drew
142.		Section 16.2		Need to add language recognizing the role of RFPAs and insert section #	Drew
143.		Section 16.3		Update socio impact analysis regarding grazing	Addressed with ICF revisions
144.		Section 17.4		Update cumulative effects for locatables. See note to BLM in response.	Katie/Karen
145.		Section 22.3		BLM provide input on why county-level analysis was not completed	Addressed with ICF revisions
146.		Section 24.2		Add current CTTM area designation acres to Chapter 3	Get acres from GIS if available

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147.		Section 26.2		Need to clarify use of 70% cover from NTT; and update EIS with new rare plant list. Need to clarify vegetation modeling and data sources in Chapter 3	Need input from BLM
148.		Section 26.2		Table 3-4 – Change source to ID team input and EIS vegetation model. Cite the VDDT appendix	EMPSi
149.		Section 29.3		Need input from BLM for response – no response currently exists, only questions for BLM	BLM
150.		Section 30		Need to add explanation of the relationship between AML and AUM to WHB Chapter 3 of FEIS	Zoe work with Nika
151.		Section 30.2		<p>Include text from response into Chapter 4 of the EIS for Alternative A (and reference all other alts except Alt F): <i>[Under all alternatives, with the exception of Alternative F], management actions for wild horses and burros would not result in direct changes to HMA status, to AMLs within designated HMAs, or acreage designated as HMAs. Impacts under all alternatives, with the exception of Alternative F, would be limited to any future changes that may result in AML and/or acreage adjustment as well as reconsideration of HMA status that are based on achievement of GRSG habitat objectives for improving habitat conditions, as described in further detail below.</i></p> <p><i>Under Alternative F, AMLs would be directly reduced by 25 percent for all HMAs within PPMA and PGMA. This would result in a reduction of the established AMLs for all HMAs that are located entirely or partially within mapped occupied GRSG habitat. As a result of AML reduction under Alternative F, costs of wild horse and burro management would increase, due to a need for additional horse gathers for removal and/or population growth suppression (PGS) treatments.]</i></p>	Change made
152.		Section 31.2		Note in response states: BLM consider including a map displaying the overlap of lands with wilderness characteristics and priority habitat in the EIS.	BLM: Is there a map of LWC for the subregion?
153.		Section 31.2		Need input to address NCT comments/suggestions	Brent

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154.		Section 32.1		Need to update GRSG impact analysis to describe how actions could affect habitat and indirectly the effects of predation.	Liza/Paul
155.		Section 32.2		Add Blickley et al. 2012 data and citation regarding noise impacts to GRSG impacts section	Liza

**Continuation of response to comment #34, pg 14**

The thickest, richest accumulations of phosphate occur in southeast Idaho, centered around the Soda Springs area. BLM manages these resources on behalf of the Federal Government. The goal in the Pocatello RMP is to manage the Federal mineral estate while minimizing adverse impacts to resource values. The 2012 Pocatello RMP does not have any stipulations or minerals guidance for non-energy leasable minerals which specifically address sage grouse.

**Existing Condition:**

Phosphate has been mined commercially in southeast Idaho for over one hundred years. Most of the mining has occurred east of Soda Springs, an area that has relatively little sage grouse habitat. Of the 86 existing Federal phosphate leases that BLM administers in Idaho, only 10 are located in sage grouse habitat. Nine of these leases are located north and west of Blackfoot Reservoir and Soda Springs, in or near General GRSG habitat. None of those leases have had active mining operations on them, nor is any mining planned on the leases in the next 5 to 10 years. Most of the leased acreage around Blackfoot Reservoir is split estate (privately-owned or state-owned surface with federal minerals). The Trail Creek and Caldwell Canyon leases, located in general GRSG habitat east of Conda Mountain, are currently undergoing drilling. One additional lease is located in priority GRSG habitat northwest of Bear Lake near Paris, Idaho. Exploration drilling was conducted in 2012 on the lease, and on the private lands and unleased split estate lands surrounding the small lease. Timing restrictions for sage grouse were applied to the approval for the drilling. If developed, this property would likely be developed as an underground mine, due to geologic factors.

In total, approximately half of the Federal leases in Idaho have been mined, are currently being mined, or are proposed to be mined in the next 5 to 10 years. The remaining unmined leases have been held for many years and are subject to valid existing rights. The Dillon Field Office has one non-energy solid leasable lease, for phosphate. It is not located in sage grouse habitat, and is undeveloped.

Figure 3-13, Unleased Known Phosphate Leasing Areas, shows phosphate potential within the planning area.

On page 3-119, the following sentence should be added as a new paragraph at the end of the non-energy solid leasable minerals section:

**BLM has not offered a competitive phosphate lease since 2000 and does not currently have any pending requests for competitive leasing. As the remaining existing leases are developed however, demand for leasing, particularly in the unleased portions of KPLAs, is expected to increase.**

**Ch. 4**

The title of Section 4.9 should be “Fluid Leasable Minerals (Leased and Unleased), including Oil and Gas and Geothermal” (this section in the DEIS didn’t have nonenergy solids in it. They are in Section 4.12). Section 4.9.1 should be Oil and Gas (since section 4.9.2 is geothermal).

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4.12 Nonenergy Solid Leasable Minerals

Notes for consideration:

Describe areas with high phosphate development potential as “unmined leases”

Describe areas with medium phosphate development potential as “unleased KPLAs”

Describe areas with low phosphate development potential as “unleased lands outside KPLAs”

The first indicator would be more meaningful if it were changed to “the amount of land within unleased KPLAs proposed to be closed to nonenergy solid mineral leasing.”

The third indicator would be better to say “Application of RDFs that can be placed on existing phosphate leases”

In the last sentence of both the second and third assumptions on page 4-202, the term “mineral material” is used. The word “material” should be deleted in both instances.

On pg 4-202, the first sentence under Nature and Type of Effects (4.12.2) should be revised, by replacing the term “potential” with “opportunity”. In the next sentence, which begins “Mining operations may move to nearby private or state lands” the remainder of the sentence should be revised by deleting what’s now there and saying “but only if geologic conditions are favorable.” In areas open to leasing, applying stipulations (...) would be effective in mitigating impacts from some exploratory and early mine development activities, but once mineral production begins, such stipulations would no longer be applicable.

Tables 4-64 to 4-67 don’t make a lot of sense. First, no phosphate leases in Idaho are subject to NSO, CSU, or TL stipulations, nor do any of the alternatives propose such stipulations. The management actions for phosphate are to either close some acreage to future leasing, or to apply RDFs to existing leases, to the extent practicable. Perhaps a table comparing alternatives, like:

	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G
Acres of Unleased KPLAs to be closed to phosph Leasing							
Acres of Unleased KPLAs open to leasing							
Acres of Unmined Leases to be subject to RDFs							
Acres of unmined							

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leases not subject to GRSG RDFs							
Acres in Decision area to be closed to leasing							
Acres in Decision area open to leasing							

## Meredith Zaccherio

---

**From:** Makela, Paul <pmakela@blm.gov>  
**Sent:** Thursday, April 16, 2015 7:41 AM  
**To:** Meredith Zaccherio; Jonathan Beck  
**Subject:** Re: GRSG public comment response  
**Attachments:** IDMT-BLMResponsetoCmts\_20150415\_forBLM\_makela.docx

Hi Meredith,

I responded to the WNV (comment 3) and Climate change (comment 10). See yellow highlights. Call if questions.

Paul

Paul Makela  
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Idaho BLM State Office  
Branch of Resources and Science  
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On Wed, Apr 15, 2015 at 10:41 AM, Meredith Zaccherio <[meredith.zaccherio@empsi.com](mailto:meredith.zaccherio@empsi.com)> wrote:

Hello all,

I am reviewing the public comment response report and trying to finish addressing our revisions and responses by next **Tuesday, April 21**. This will give us time to get the report in the document for our Washington Office review deliverable next Friday. Attached are the outstanding items that I would like BLM input to address. Some of these are to help refine the responses to the comments in the comment summary report, while others are more EIS-specific, identifying changes needed in certain areas of the EIS. Please search for your name highlighted in green. I'm free to discuss if needed.

Thanks,

Meredith

**Meredith Zaccherio**  
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1.		IDMTSG-14-0212-11	Porter-minerals-range of alts	There may be mineral leases in the ACECs proposed in Alts. C and F- that information will be included in the FEIS, as well as a discussion of mineral potential in the proposed ACECs Determine whether there are mineral leases in the ACECs proposed by Alts C and F. Determine mineral potential in ACECs proposed by Alts. C and F.	Diane and Karen: GIS analysis. Please overlay mineral leases and mineral potential with proposed ACECs in Alternatives C and F. I think this would apply to both fluid and nonenergy leasables, but please work with Karen to determine. Katie will make revision in Chapter 4
2.		IDMTSG-14-0212-27	Makela- 7.1 (moved to leasable minerals)	Is there an adequate baseline description for leasable minerals? Comment states: To determine the effects of a proposed action on the environment, an EIS must first disclose the baseline conditions of the affected environment. See 40 C.F.R. § 1502.15. The affected environment includes biological, physical, social and economic elements of the environment. See BLM NEPA Handbook, at 53. Although the Agencies proposed to close large areas to phosphate leases to protect the sage-grouse or its habitat, the Agencies provided little, if any, explanation of impacts that phosphate mining has had on the species in past, particularly the near past. Our understanding is that the impacts on sage-grouse from phosphate mining in Idaho has been limited, particularly within the last decade, where no new mines have been started in high-value sage-grouse habitat or impacted significant amounts of the bird's habitat. Because the Agencies failed to provide the environmental baseline information regarding past impacts of phosphate mining, the Agencies' analysis is flawed	Karen: Please review Chapter 3 for sufficiency. If there are any revisions necessary, please provide to EMPSi.

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3.		IDMTSG-14-0157-9	Makela- 7.6	Include additional information for West Nile virus in Idaho.	<p>Management actions were included in the RDFs to address west nile for water developments.</p> <p>Paul: Note saying that Paul is looking for language written by IDFG.</p> <p>Makela note 4/16/2015: Comment 14-157-9 asked for more info about WNV effects in Idaho, as there was an outbreak in 2006 and IDFG changed hunting season. I recommend adding the wording below, to Sec 3.2.2 Line 19 following first mention of WNV. Also, appended at the end this document-- if we need more info- is wording we developed here about WNV for another EA:</p> <p>West Nile virus has acted as an important source of mortality for sage-grouse and the virus was an important new source of mortality in low and mid-elevation Greater sage-grouse populations range-wide from 2003–2007 (Walker and Naugle 2011). The highest confirmed elevation at which Greater Sage-Grouse have been infected with WNV is ~2,300 m (7,500 feet) in the Lyon-Mono population of eastern California (Naugle et al. 2005). Individual sage-grouse in populations exposed to the virus during July–August 2003 were 3.3 times more likely to die than birds in uninfected populations (Naugle et al. 2004). WNV mortality of sage-grouse has been documented as ranging from 5 to 44 percent with most mortality occurring in July and August (Walker and Naugle 2011, Kaczor, 2008). WNV has been documented in sage-grouse in Idaho and in 2006, the sage-grouse hunting season was closed in western Owyhee County due to concerns of West Nile virus impacts (Idaho Sage-grouse Advisory Committee, 2008).</p>

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4.			Ralston- edits	<p>As noted in the introductory comments, Y -3 II straddles the Idaho and Nevada border and operates a single ranching entity to coordinate grazing on BLM allotments in both states. BLM, however, states in the Nevada DEIS that planning for the land use plans covering this part of both Idaho and Nevada will occur through the Nevada FEIS and Record of Decision but will be implemented and administered through the Jarbidge and Burley FEIS and Record of Decision. See Nevada DEIS Section ES.2. Additionally, the decisions and analyses for that portion of Y-3 II's allotments in Nevada will occur through the Nevada DEIS and will end at the Nevada state line apparently leaving decisions and analysis for Y-3 II's ranch operations north of the Nevada border to the Idaho DEIS. Id. This is confusing because just a few sentences earlier it is stated that planning for both Idaho and Nevada land use plans will occur through the Nevada DEIS. Id. Thus, within a few short sentences it is unclear how the lands utilized by Y-3 II in Nevada and Idaho are being analyzed, decided, implemented, and administered. If read correctly, it appears that actual management decisions are being made in each state's DEIS, but that Idaho will administer both Idaho's management decisions and Nevada's management decisions as they relate to Y -3 II. Consequently, Y -3 II must analyze and comment on both the Nevada and Idaho DEISs. Y -3 II also notes that this bifurcation of planning and management processes, while at least addressed by the Nevada DEIS, is not addressed in the Idaho DEIS as it should be.</p> <p>Response: Brent to convene a bi-state group to discuss this specific issue with Jarbidge, Burley, Bruneau and Elko Field Offices</p>	Jon: Do you know if this has been done?

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5.		26-9	Cooper	We will need to make sure it is clear that lands currently identified for “disposal”, will be changed to “retain.”	Jon and Natalie: Please review Suggest change to: <b>D-LR-19: PHMA:</b> Acquire habitat when possible and retain ownership of habitat, including lands identified for disposal in in current land use plans, except if a disposal would allow for additional or more contiguous federal ownership patterns within PHMA.
6.		210-7	Cooper	We may want to reference APLIC standards. Comment: Rather than call for the use of perch discouragers, NorthWestern Energy recommends the BLM reference the BMPs (see below) for power lines in sage-grouse habitat they are currently helping develop. Likewise, current APLIC guidance should be applied to minimize avian electrocution and collision risks.	Jon and Natalie: Please review. Suggest change to: <b>D-LR-18: PHMA:</b> Design structures and facilities to reduce perching and nesting opportunities for avian predators. Follow APLIC guidelines to minimize electrocution and collision risks.
7.		212-6	Cooper	Need to ask Karen Porter about lease development and what is authorized. Do they contain a valid existing right to roads...? Comment states: For any management action that potentially would interfere with the exercise of valid existing rights, the Final LUP Amendment should provide flexibility for case-by-case exceptions to protect such rights without the need to amend the LUP. For example, the Final LUP Amendment should recognize that, if a BLM right-of-way through sage-grouse habitat is required to access an existing phosphate lease, the right-of-way exclusion area provisions of the LUP or other restrictions on rights-of-way will not be applied in a manner so as to make accessing the lease area unreasonable or unduly uneconomical—e.g., by requiring a 25-mile road detour around sage-grouse habitat where two miles of road would provide proper access—and without considering possible mitigation. With respect to future phosphate mining opportunities, the Final LUP Amendment should similarly allow sufficient flexibility for mineral development to coexist with sage-grouse conservation	Jon and Karen: Please review. I believe the response to this comment is that valid existing rights would be recognized under all alternatives and thus management actions would not interfere with exercising these rights.

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8.		Section 4.5	Response	NOTE TO BLM: Need to respond to the last comment related to consistency across state boundaries for our mapping efforts. There is no national response for this issue.	Jon: Please review. I changed the response to state: Between the Draft and Final EIS, the BLM and Forest Service worked closely to resolve differences between GRSG habitats across state boundaries. These refinements are reflected in the Final EIS maps and GIS calculations
9.		Section 5.2		Need to update Section 1.7 with any inconsistencies with other plans (including county GRSG plans)	Jon: Are we including this in the FEIS?
10.		Section 10.4		Need to add analysis of climate change on GRSG (cumulative?). Also add suggested statement to assumptions, Section 4.1 of FEIS. Suggested statement: It is speculative to attempt to predict the specific nature or magnitude of such changes	Jon and Paul: We do not really have an in-depth analysis of climate change in the document. [Makela note 4/16/2015—Climate change is mentioned throughout, and there is an entire section on it on page 3-171 of Chapter 3 latest version. There is also a reasonable presentation of assumptions in section 4.1, 4.2.1 and 4.2.1, and we cite the N. Great Basin REA. My only edit/suggestion is to change the bullet at Sec 4.1 lines 26-30 to read (add bold) “In the future, as tools for predicting climate changes in a management area improve and climate change affects resources and necessitates changes in how resources are managed, the BLM and Forest Service may be required to reevaluate direction provided as part of this planning process and adjust management accordingly. It is speculative at this time to attempt to predict the specific nature or magnitude of such changes.”

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11.		Section 14.1		<p>Correct the contradiction for geothermal development between D-LR-3 and D-MLM-1</p> <p><b>D-LR-3: PHMA:</b> Designate PHMA as ROW Avoidance areas and exclusion areas for wind and solar development (see <b>Table 2-9</b>). New authorizations for the following uses are not allowed: Transmission facilities (greater than 50kV in size), wind energy testing and development, commercial solar development, commercial geothermal development, nuclear development, oil and gas development, mineral development, airports, and ancillary facilities associated with any of the aforementioned development; paved roads and graded gravel roads, landfills, airports, and hydroelectric projects. Communication sites would be allowed.</p> <p><b>D-MLM-1: PHMA:</b> Lands would remain open to locatable mineral entry (see <b>Table 2-9</b>).</p>	<p>Jon, Natalie, and Karen: please review. Suggested change:</p> <p><b>D-LR-3: PHMA:</b> Designate PHMA as ROW Avoidance areas and exclusion areas for wind and solar development (see <b>Table 2-9</b>). New authorizations for the following uses are not allowed: Transmission facilities (greater than 50kV in size), wind energy testing and development, commercial solar development, commercial geothermal development, nuclear development, oil and gas development, mineral development (except locatable mineral entry), airports, and ancillary facilities associated with any of the aforementioned development; paved roads and graded gravel roads, landfills, airports, and hydroelectric projects. Communication sites would be allowed.</p>
12.		Section 24.2		Add current CTTM area designation acres to Chapter 3	Get acres from GIS if available
13.		Section 29.3		<p>Need input from BLM for response – no response currently exists, only questions for BLM</p> <p>Summary of comment: The EIS fails to address impacts on the soil and watershed conditions resulting from grazing-sourced manure, soil erosion and pathogen contamination under each alternative and to provide appropriate mitigation measures. Such an analysis should include a list of impaired waters and the sources of contamination for those waters. The EIS also fails to address the negative impact on GRSG of restricting or removing water developments under Alternative D.</p>	<p>Jon: Please review. Proposed response: During preparation of the EIS, it was determined that impacts on soil and water from management actions would be negligible or beneficial and thus did not warrant an extensive analysis in Chapter 4. Analysis of impacts on soil and water would be conducted during the NEPA review of implementation-level projects. Section 4.2.2 has been revised to include impacts from restriction/removal of water developments.</p>
14.		New section # 12.4		Summary states: The DLUPA/DEIS fails to adequately analyze the cumulative impact of locatable mineral withdrawals across the GRSG range	<p>Jon and Karen review. Proposed response: The cumulative impact of locatable mineral withdrawals has been analyzed independently under each sub-regional EIS and is not analyzed rangewide in this effort.</p>

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Wording about West Nile Virus for Comment Response 3 above regarding Comment 14-0157-9.

Note to Meredith: As a minimum add the highlighted paragraph to 3.2.2 line 19 as I mentioned in the table above. I don't think we necessarily need the full discussion of the other paragraphs or citations below, but I included them here in case we need to discuss further. Make sure the citations in the yellow section are added to the Lit Cited in the FEIS if not already there. The full citations are at the end.

**West Nile Virus (WNV).** West Nile virus has acted as an important source of mortality for sage-grouse and the virus was an important new source of mortality in low and mid-elevation Greater sage-grouse populations range-wide from 2003–2007 (Walker and Naugle 2011). The highest confirmed elevation at which Greater Sage-Grouse have been infected with WNV is ~2,300 m (7,500 feet) in the Lyon-Mono population of eastern California (Naugle et al. 2005). Individual sage-grouse in populations exposed to the virus during July–August 2003 were 3.3 times more likely to die than birds in uninfected populations (Naugle et al. 2004). WNV mortality of sage-grouse has been documented as ranging from 5 to 44 percent with most mortality occurring in July and August (Walker and Naugle 2011, Kaczor, 2008). WNV has been documented in sage-grouse in Idaho and in 2006, the sage-grouse hunting season was closed in western Owyhee County due to concerns of West Nile virus impacts (Idaho Sage-grouse Advisory Committee, 2008).

The long-term response of different sage-grouse populations to WNV is expected to vary markedly depending on factors that influence susceptibility including: (1) annual and seasonal temperature-precipitation profiles, (2) land uses that influence the distribution of surface water, (3) population size, (4) genetic diversity, and (5) connectivity with other populations. Small, isolated, or genetically depauperate populations and those on the fringe of the species' range as in eastern California, Washington, North and South Dakota, Alberta, and Saskatchewan, are likely at higher risk. WNV outbreaks in small populations are more likely to reduce population size below a threshold from which recovery is unlikely and the likelihood of demographic or genetic rescue by adjacent populations is low (Morris and Doak 2002). Large, intact, low- to mid-elevation populations affected annually by WNV in northern Nevada, southeastern Idaho, central Montana, may absorb impacts of WNV if the quality and extent of available habitat still supports positive population growth (Walker and Naugle 2011).

WNV infection has been documented in several genera of mosquitoes (*Culex*, *Aedes*, *Ochlerotatus*, *Culiseta*; (Goddard et al. 2002, Doherty 2007) and at least one other biting midge (*Culicoides sonorensis*) (Naugle et al. 2004), in sagebrush habitats of western North America. However, *Culex tarsalis* is the dominant vector of WNV in sagebrush habitats (Goddard et al. 2002, Naugle et al. 2004, Doherty 2007). This species of mosquito prefers sites with submerged vegetation on which to oviposit (deposit eggs) and warm, standing water that promotes rapid larval development, including ephemeral puddles, vegetated pond edges, and water-filled hoof prints (Milby and Meyer 1986, Buth et al. 1990, Doherty 2007). Dense stands of emergent plants physically obstruct access to mosquitoes (larvae and pupae) by predators and hinder mosquito control efforts (Knight et al. 2003). Open water areas provide unsuitable habitats for mosquito larvae and pupae due to increased wave action and increased vulnerability to predation by native predators of mosquitoes (Laird 1988).

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West Nile virus transmission is also regulated by environmental factors, including temperature, precipitation, and distribution of anthropogenic water sources that support breeding mosquito vectors (Brust 1991, Dohm et al. 2002, Reisen et al. 2006a, Zou et al. 2006a, b). It has been suggested in ecosystems other than sagebrush that high temperatures associated with drought conditions increases West Nile virus transmission (Epstein and Defilippo 2001, Shaman et al. 2005). Higher temperatures facilitate greater nocturnal host-seeking activity by mosquitoes, more rapid larval development, and shorter extrinsic incubation periods for the virus—the time it takes for the virus to replicate inside the mosquito and invade its salivary glands (Reisen et al. 2006a).

Man-made water sources may also facilitate the spread of WNV within sage-grouse habitats (Zou et al. 2006b, Doherty 2007, Walker et al. 2007).

Man-made water sources known to support breeding *Culex tarsalis* in sage-grouse habitat include overflowing stock tanks, stock ponds, seep and overflow areas below earthen dams, irrigated agricultural fields, and ponds constructed for coal-bed natural gas development (Zou et al. 2006b, Doherty 2007). Also, habitat or range improvement projects that create mesic zones around stock tanks or ponds may inadvertently contribute to the WNV problem, because *Culex tarsalis* readily takes advantage of water-filled hoof prints around tanks and ponds for breeding (Doherty 2007). Managing the production of mosquito vectors from man-made water sources, reducing the distribution of man-made mosquito breeding habitats in sage-grouse habitat, or both, are potential options for reducing impacts of WNV. Suggestions include (Doherty 2007 and Knight et al. 2003):

1. Overbuild the size of ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding *Cx. tarsalis* avoid (De Szalay and Resh 2000). This modification may reduce *Cx. tarsalis* habitat but could create larval habitat for *Culicoides sonorensis*, a vector for blue tongue disease, and should be used sparingly (Schmidtman et al. 2000). Steep shorelines should be used in combination with this technique whenever possible (Knight et al. 2003).
2. Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments (Knight et al. 2003). Construction of steep shorelines also will increase wave action that deters mosquito production, and create more permanent ponds that are a deterrent to colonizing mosquito species like *Cx. tarsalis* which prefer newly flooded sites with high primary productivity (Knight et al. 2003).
3. Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open water produce 5 -10 fold less *Culex* mosquitoes than completely vegetated wetlands (Walton and Workman 1998). Wetlands with open water also had significantly less stage III and IV larval instars which may be attributed to increased predator abundances in open water habitats (Walton and Workman 1998).

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4. Construct dams or impoundments that restrict down slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for affluent water storage, or lining constructed ponds in areas where seepage is anticipated (Knight et al. 2003). Seepage and overflow results in down-grade accumulation of vegetated shallow water areas that support breeding mosquitoes.
5. Line the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water, thus precluding shallow surface inflow and accumulation of sediment that promotes aquatic vegetation.
6. Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.
7. Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes.
8. Channelization to increase the water flow, to steepen banks and provide access to predators of mosquitoes that reduce the likelihood of isolated pools and marshy areas favorable for mosquito development (Knight et al. 2003).

**LITERATURE CITED**

- Brust, R. A. 1991. Environmental regulation of autogeny in *Culex tarsalis* (Diptera culicidae) from Manitoba, Canada. *Journal of Medical Entomology* 28:847–853.
- Buth, J. L., R. A. Brust, and R. A. Ellis. 1990. Development time, oviposition activity and onset of diapause in *Culex tarsalis*, *Culex restuans* and *Culiseta inornata* in southern Manitoba. *Journal of the American Mosquito Control Association* 6:55–63.
- Doherty, M. K. 2007. Mosquito populations in the Powder River Basin, Wyoming: a comparison of natural, agricultural and effluent coal-bed natural gas aquatic habitats. M.S. thesis, Montana State University, Bozeman, MT.
- Dohm, D. J., M. L. O’Guinn, and M. J. Turell. 2002. Effect of environmental temperature on the ability of *Culex pipiens* (Diptera: Culicidae) to transmit West Nile virus. *Journal of Medical Entomology* 39:221–225.
- Epstein, P. R., and C. Defilippo. 2001. West Nile virus and drought. *Global Change and Human Health* 2:105–107.

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RESOURCE MANAGEMENT PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT  
Changes to Public Draft RMPA/EIS**

- Goddard, L. B., A. E. Roth, W. K. Reisen, and T. W. Scott. 2002. Vector competence of California mosquitoes for West Nile virus. *Emerging Infectious Disease* 8:1385–1391.
- Idaho Sage-grouse Advisory Committee. 2008. Idaho Sage-grouse Local Working Groups Annual Report. Unpublished report. Idaho Department of Fish and Game.
- Knight, R.L., W.E. Walton, G.F. O’Meara, W.K. Reisen, and R. Wass. 2003. Strategies for effective mosquito control in constructed treatment wetlands. *Ecological Engineering* 21:211-232.
- Kaczor, N. W. 2008. Nesting and brood-rearing success and resource selection of Greater Sage-Grouse in northwestern South Dakota. M.S. thesis, South Dakota State University, Brookings, SD.
- Laird, M. 1988. The natural history of larval mosquito habitats. Academic, San Deigo, CA.
- Milby, M.M., and R. P. Meyer. 1986. The influence of constant versus fluctuating water temperatures on the preimaginal development of *Culex tarsalis*. *Journal of the American Mosquito Control Association* 2:7–10.
- Naugle, D. E., C. L. Aldridge, B. L. Walker, K. E. Doherty, M. R. Matchett, J. McIntosh, T. E. Cornish, and M. S. Boyce. 2005. West Nile virus and sage-grouse: what more have we learned? *Wildlife Society Bulletin*: 33:1–8.
- Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, B. J. Moynahan, M. J. Holloran, K. Brown, G. D. Johnson, E. T. Schmidtman, R. T. Mayer, C. Y. Kato, M. R. Matchett, T. J. Christiansen, W. E. Cook, T. Creekmore, R. D. Falise, E. T. Rinkes, AND M. S. Boyce. 2004. West Nile virus: pending crisis for Greater Sage-Grouse. *Ecology Letters*: 7:704–713.
- Reisen, W. K., Y. Fang, V. M. Martinez. 2006a. Effects of temperature on the transmission of West Nile virus by *Culex tarsalis* (Diptera: Culicidae). *Journal of Medical Entomology* 43:309–317.
- Shaman, J., J. F. Day, and M. Stieglitz. 2005. Drought-induced amplification and epidemic transmission of West Nile virus in southern Florida. *Journal of Medical Entomology* 42:134–141.
- Walker, B. L., D. E. Naugle, K. E. Doherty, and T. E. Cornish. 2007. West Nile virus and Greater Sage-Grouse: estimating infection rate in a wild bird population. *Avian Diseases* 51:691–696.

**IDMT GREATER SAGE-GROUSE  
RESOURCE MANAGEMENT PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT  
Changes to Public Draft RMPA/EIS**

- Walker, B. L., and D. E. Naugle. 2011. West Nile virus ecology in sagebrush habitat and impacts on greater sage-grouse populations. Pages 127-144 in S. T. Knick and J. W. Connelly, editors. Greater sage-grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology 38. University of California Press, Berkeley, California, USA.
- Zou, L., S. N. Miller, and E. T. Schmidtman. 2006a. A GIS tool to estimate West Nile virus risk based on a degree-day model. Environmental Modeling and Assessment (on-line):DOI 10.1007/s10661-006-9373-8
- Zou, L., S. N. Miller, and E. T. Schmidtman. 2006b. Mosquito larval habitat mapping using remote sensing and GIS: implications of coalbed methane development and West Nile virus. Journal of Medical Entomology 43:1034–1041.

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Commenter Name	Page Number	Paragraph/Line Number	Comment	ID/SW MT Response
G. Lampman (planning)		All references are line numbers		
	General	General	In general, the ROD needs to be a lot clearer than this EIS. I do not think that a Forest can read this EIS and figure out what it needs to do. The ROD will need to provide the clarity for the Forest and the publics.  I look at processes such as calculations of disturbance caps (App G) and hope that someone is figuring out how to help the Forests do all of this. I foresee project planning is going to come to a standstill, either through specialists not having the time, knowledge, or information to figure out how to design projects or through numerous objections on multiple points as the public challenges us on how we think we're supposed to design projects.	No change
	1-1	8	I didn't see the SFAs discussed in section 1.1.2.	No change
	1-4	10	"The planning strategy will . . .": The document needs to be edited for tense, but this phrase is particularly bad, because it sounds as though after the amendment there will still be implementation of a "strategy."	No change
	1-8	22-23	"The Forest Service has partnered with the BLM to help complete the LUPAs and EISs to implement the Strategy.": This is phrased as if the Strategy, which hasn't undergone public disclosure or NEPA, is governing the amendment. As written, this would be a NEPA problem, if not a planning problem. If this "planning strategy" is the same one mentioned on page 1-4, line 10, then it's more or less a process outline and not a NEPA or planning problem, but it's not really clear if it's the same thing. Suggest just deleting the line. The previous paragraph says the FS is a cooperating agency. That should suffice.	revise
	1-9	21	"planning decisions analyzed in the LUP/EISs": They're not "decisions" until the ROD. What's analyzed are proposed amendments, or in EIS lingo, the LUPAs and alternatives.	revise
	1-12	11-12	The Challis and Salmon are one administrative unit, Salmon-Challis National Forest. The Caribou, Targhee, and Curlew are one administrative unit, the Caribou-Targhee National Forest. (The plans are separate, as provided in Table 1-2.)	revise
	1-12	28-29	"Idaho and Southwestern Montana Sub-region BLM and Forest Service offices": Change Forest Service offices to National Forest System lands. Habitat is not in	revise

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			<p>offices. Also, clarify that the lands in Utah that are managed under the Sawtooth forest plan are included in the plan area and decision area for this Idaho/Montana EIS. The Utah EIS makes such a statement, but this one is missing it.</p> <p><b>FOLLOW UP:</b> Saw it in 1.3.1. Should suffice but was confusing at first.</p>	
	1-13	Table 1-2	<p>Boise NF: The LUP is Boise National Forest Revised Forest Plan. The year is 2003. Sawtooth NF: The LUP is Sawtooth National Forest Revised Forest Plan. The year is 2003.</p> <p>All of the forest plans would be forest plans as subsequently amended. That should be made clear somewhere. The years that are listed should be the years of approval of the original plan or the revised plan.</p>	revise
	1-15	5	<p>“ inadequacy of regulatory mechanisms”: Earlier section says the LUPA is responding to ESA-listing criteria A and D. This is only about D. Make the link to A.</p>	revise
	1-16	13	<p>“ excluding the Idaho panhandle”: The Payette is not included and not In the panhandle. It has no GSG habitat.</p>	revise
	1-26	33	<p>“ Revised as of July 1, 2000”: Have someone check to see that this is the proper way to cite this. The 1982 rule we look at is in the “36 CFR Ch. II, 7-1-00 Edition” per the heading in the CFR. We are not using the 2000 revision of the rule.</p>	<p>Revise line 32 (p 1-26) to line 4 (p 1-27) to read: The process of amending a LRMP is outlined in 36 CFR 219. The current version of this regulation states that plan amendments that were initiated before May 9, 2015 may be developed in conformance with the provisions of the prior planning regulation. Therefore, the LRMP amendments in this document were developed according to direction in the 1982 version of the CFR 25 219. A LRMP includes plan components, proposed and possible actions, the monitoring</p>



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				<p>program, and maps. The objectives of LRMPs are: Establishment of Forest-wide or Grassland-wide Multiple Use Goals and Objectives, including Desired Conditions.</p> <ol style="list-style-type: none"><li>1. Establishment of Forest-wide or Grassland-wide Management Requirements, including standards and guidelines.</li><li>2. Establishment of Management Area direction, including prescriptions and associated standards and guidelines.</li><li>3. Identification of lands suitable or unsuitable for various uses.</li><li>4. Recommendations for any Wilderness, Wild-Scenic, or other designated areas.</li><li>5. Establishment of requirements for monitoring and evaluation.</li></ol>
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	1-27	9-10	“a proposed action that may result in a change in the scope of resource uses, or a change in the standards and guidelines of the approved plan”: I think this whole part of the sentence relates to amendments needed such that projects are consistent with the forest plan. If so, as written it sounds as though a project approval automatically means an amendment, whereas the opposite is true, and the forest plan rules. If the amendment is not done, the project is not approved. If I’m reading it correctly, rephrase to “. . . because approval of a project or activity is dependent on a change in the forest plan such that the approved project or activity is consistent with the forest plan.”	consider
	1-27	15	Replace “For this amendment . . . “ with “If this were an effort undertaken solely by the Forest Service, this amendment. . . “ Otherwise it’s confusing to lay out the process then say it’s not going to be followed. Also, note, the list only has 6 steps, as outlined, not 8.	No change
	1-27	footnote	Make the correction on line 15, per above, and turn the footnote into a paragraph right after the list.	No change
	1-28	1-4 and footnote	Delete the paragraph and associated footnote. It’s confusing, if not also incorrect. Decisions on leasing availability and leasing stipulations could have been made outside of the revision or original planning processes; however, they are not always “independent of the LRMP,” as stated in the footnote. The decisions for some have been approval of plan amendments that make lands available or provide the leasing stipulations. As such, they are part of the forest plan and could be changed by this amendment.  There are two different concepts being presented. One has to do with activity- or project-related plan amendments. Those plan amendments, not necessarily the activity, are part of the forest plan and could be amended by the proposals. The other concept is about activities and projects that are currently in progress. This proposal should make statement that such activities or projects would be changed, under appropriate processes, to be consistent with the approved plan amendment.	No change
	1-41	3	Replace “determine” with “inform.” BASI is only one part of the picture. It is not necessarily the determining factor (36 CFR 219.3).	revise
	1-41	9-44	These bullets are about project and activity implementation and, thus, are not “planning criteria.” They are not about plan amendment development. Only FSM 1920 and FSH 1909.12 provide direction for forest planning.	No change
	1-42	30-34	The 368 Energy Corridor decision was a plan amendment, which means it’s part of the affected plans. It’s not planning criteria, and it’s possible that the 368 Energy Corridor amendment could itself be amended. I do not know enough about the	No change

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			geothermal leasing “amendment” mentioned in the next bullet. If it was a forest plan amendment, it, too, would not be planning criteria and could be subject to amendment.	
	2-1	37	<p>“Allocation” is troublesome from a FS perspective, especially with the polygons being named “... management areas.” We allocate acres to management areas, which have specific direction in forest plans. There is no creation of management areas per FS planning associated with this amendment, and there is no change in allocations of acres by management area or management prescription category being made by this amendment. There has been no analysis for effects of such changes in forest plan allocations. A better phrase for the FS would be something like “acres managed as PHMA...”</p> <p>Note: I dislike “..MA” because of its inconsistency with forest planning terminology.</p>	No change
	2-2	6	Change “proposed plan” to “proposed amendment” or “proposed LUPA.” This error occurs in multiple locations. Do a global search and change where needed. This is not an EIS for a revision, which would be a plan, only an amendment.	consider
	2-2	25ff	Sagebrush Focal Areas: I’ll start with stating that my preference would be for PHMA and GHMA to drop the MA, because they are not “management areas” per forest planning. Given that such argument is going nowhere and the “MA” is being kept for those polygons, I suggest the SFA be called “Sagebrush Focus Management Areas” to keep in line with the misnomer MAs for the others and not to cause confusion with possible creation of special “designated areas” per forest planning. “Designated areas” have their own set of regs and directives, including for forest planning, that are not completely covered by the EIS, i.e. designated area-specific analysis of effects and direction.	No change
	2-4	35ff	<p>Adaptive Management: The concept of putting “adaptive management” in as standards is inconsistent with FS planning.</p> <ol style="list-style-type: none"> <li>1) S&amp;Gs are design criteria for projects or activities implemented under the plan. In short, one looks at S&amp;Gs when designing projects. As such there is no applicability for “trigger is reached.”</li> <li>2) These “triggers” are identified during monitoring; however, FS monitoring programs do not have “triggers.” Per the 2012 rule, results of monitoring under the plan monitoring program are required to be evaluated biennially. No “triggers” are involved.</li> </ol> <p>Also see comment on p 2-75, line 38ff, Section 2.7</p>	No change

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	2-5	19	Forest plans do not “implement” anything. Replace “implement” with “incorporate.”	No change
	2-67	Section 2.7	<p>The whole section is inconsistent with FS planning regulation and direction.</p> <p>The FS should not be associated with any sentences relating to “triggers.”</p> <p>“Adaptive management” as described in this section is inconsistent with “adaptive management” as used in the planning rule or planning directives.</p> <p>This section is mostly written with just BLM mentioned, but at times the FS is mentioned. Does it all apply to the FS? Or just where FS is mentioned?</p> <p>The development of the monitoring plan (as stated in App C) should not be part of the “amendment,” because the FS does not plan to plan. “Implementation” monitoring, as described in the appendix C, is inconsistent with the monitoring program as set forth in the planning rule. Plan monitoring programs are for determinations of movement toward desired conditions and objectives.</p> <p>If there is no way to exclude this “adaptive management” piece from the document or decision, then make it a part of the decision that is separate from the amendment. The overall decision would be about this GSG programmatic strategy, of which one part is the plan amendment, a different part is this adaptive management piece, and yet another part are those actions or procedures that the responsible official commits to that are not part of forest plans (because forest plans do not commit to actions and they do not include procedures).</p> <p>Some specifics. . .</p> <p>Page 2-642, line 15: What is meant by “apply to”? The adaptive management and monitoring as described are not forest plan material. The decision could include the actions described, but they would be separate from the amendment itself.</p> <p>Page 2-62, line 26: “Decisions” that involve FS actions require NEPA for site-specific, activity-specific, project-specific analysis.</p> <p>Page 2-63, line 7ff: This second sentence of the paragraph is about the only statement that is correct for the FS. Monitoring should provide us with the</p>	No change

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			information to determine if the direction in the plan is sufficient enough for projects and activities implemented under the direction result in progress toward, or at least not prohibiting movement toward, desired conditions and objectives. The appendix, however, only states that a monitoring plan will be developed after the decision.	
	2-64	Section 2.7.2	See comments on Appendix E.	No change
	2-65	Section 2.7.3	As with the adaptive management piece, this “mitigation” section does not belong with the plan amendment. If desired to be included in the decision, it should not be part of the amendment, just the decision as one of those separate actions.  Establishing a team is definitely not part of plan direction. Developing a strategy is planning to plan, not something we should be doing. Procedures, e.g. include in NEPA analysis, are not plan direction.	No change
	2-89	Section 2.10	This seems more pertinent to the BLM and not the FS. As such, references to the FS should be removed. If this is supposed to be for the FS as well, “Management actions” is a confusing phrase for the FS, because plan amendments do not have “actions.” Some of the “actions” are design criteria and, thus, could be transformed into standards or guidelines. Some are “actions,” like “designate. . .” and would not be plan amendment material. Most of the “actions” are actions and not plan amendment material. This information is more in line with “for the purpose of this analysis for effects to other programs or meeting the purpose and need, these are assumptions about actions that may be taken to meet objectives and DCs.” It is not a commitment to such actions, unless there’s intent to make such a decision, in addition to but separate from the amendment.	No change.
	App E	General	In general, how does a Forest read this and know what it needs to do? A lot of the appendix seems to be background material with nothing relating to what the Forests need to know to ensure they are conducting project planning and management consistent with the plan amendment.	No change
	App E, page 3	Par 1, sentence 2	This sentence is incorrect and should be deleted for the FS. There is no 36 CFR 209. This was probably meant to be Part 219, FS planning regulations. Part 219 does NOT require “intervals and standards, as appropriate for monitoring and evaluations based on the sensitivity of the resource to the decisions involved.” The monitoring requirement in 219.12 involves biennial evaluation, no choice in setting intervals. There are no “standards” for monitoring. The plan monitoring program must have questions and indicators addressing 8 specified topics.	Delete “and the Forest Service (36 CFR part 209, July 1, 2010). Delete “Therefore,” from next sentence.
	App E, page 3	Par 1, sentence 4	What is meant by a monitoring plan “specific to the Environmental Impact Statement”?	No change

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	App E, page 3	Par 2, sentence 1	“Implementation” monitoring is not the focus or purpose of plan monitoring programs under the current planning rule. Monitoring programs are to determine progress toward desired conditions or objectives.	No change
	App E, page 7	Section A	Has anyone thought about how this will be done? “Implementation” monitoring of activities was part of the PACFISH/INFISH BO terms and conditions. Establishing a way to do this that did not overburden Forest personnel and had some form of consistency and quality control were a nightmare, and that was just for livestock grazing.	No change
	App E, page 30	1.b	“What is the existing amount of sagebrush on the landscape and the change in the amount relative to the pre-EuroAmerican historical distribution of sagebrush (BpS)?”: I didn’t see pre-EuroAmerican conditions as part of the purpose and need or desired conditions. Why would we have this as a monitoring question? Also, it seems like a point in time, whereas per the planning rule we aim ecological conditions for ecosystem integrity relative to natural range of variability.	No change

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Commenter Name	Page Number	Paragraph/Line Number	Comment	ID/SW MT Response
LParker	Inside Cover		<p>Add FS mission statement. This is a joint effort, both agency names are on the cover, both agency mission statements should be represented on the inside of the cover, or do not include mission statements.</p> <p>(Apply this comment for the other FEIS where it pertains.)</p>	Revise.
LParker	1-28	1st paragraph Ch 1.4.2	<p>This is a statement about both agencies and does not belong in the FS Planning Process 1.4.2 section. Please remove from this section.</p> <p>(Apply this comment for the other FEISs where it pertains.)</p> <p>For the FS, this statement adds more confusion than value. The words “plan” and “amendment” are used in a different context than how our agencies uses these terms in our planning process.</p> <p>If this statement is important to retain in the document, suggest this rewording:                      In addition, both agencies have certain existing <del>program specific plans or amendments</del><u>programs, activities, or projects</u> that implement their respective LUPs (for example oil and gas and geothermal leasing analyses). <del>Similar to the broad scale LUPs, these</del><u>These</u> program-specific <del>plans</del><u>documents</u> may also be <del>amended</del><u>updated</u> to reflect new information or changed circumstances that result from this analysis.</p>	No change

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Commenter Name	Page Number	Paragraph/Line Number	Comment	ID/SW MT Response
Kurth	5-20	19	Recommend removal of 'enhanced policies and'. The order does not set forth policy, but rather identifies actions (strategy). These may eventually lead to policy. Additionally any perceived policy in the order would be limited to DOI as a DOI secretarial order does not establish USDA policy. If policy is kept here, it must be clarified that it is DOI.	Revise as recommended.

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Idaho				
Harber/Sherri Thompson	2-172	MLS-4	Existing regulations state that operators may elect to submit Master Development Plans to address multiple wells. We do not have clear regulatory authority to require a Master Development Plan in lieu of individual APD submittals. Delete the reference to a Master Development plan and state that the FS will work with the lessee to design and locate developments so that impacts to sage-grouse and their habitat will be minimized whenever possible, consistent with rights granted in the lease.	Please revise.
Harber/Sherri Thompson	2-172	MLS-9	We do not have the authority to require a lessee to relinquish a lease. Delete the reference to lease relinquishment and state that the FS will work with the lessee to design and locate developments so that impacts to sage-grouse and their habitat will be minimized whenever possible, consistent with rights granted in the lease.	Please revise.
Harber/Sherri Thompson	2-173	E-MLS-12	It is extremely rare that we would waive a stipulation. That would mean that the stipulation never applies again any time on the lease because the reason for including the stipulation no longer exists. Modify the statement to read that the Authorized Office may “waive, except, or modify” the stipulation in the situations described. An exception would exempt the lessee from the situation for a specific instance. A modification could be used to add protection for sage-grouse.	Please revise.



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## 71 Liv estock Association com ments

1 message

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gus brackett <gusbrackett@rtci.net>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 29, 2014 at 1:36 PM

71 Livestock Association  
54899 Crawfish Rd.

## Rogerson ID 83302

“...to improve conditions on the range.”

January 28, 2014

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise, ID 83709

The members of the 71 Livestock Association respectfully encourage the BLM to adopt the Governor’s Sage Grouse Alternative (Alternative E). The 71 Livestock Association represents ranchers in the Jarbidge Resource Area and for the past 97 years our mission has been “to improve conditions on the range.” We have done this by working with federal, state, and local governmental entities in a collaborative effort to fulfill our mission. In our opinion, the Governor’s Sage Grouse Alternative (Alternative E) was created in a manner that is consistent with our philosophy of collaboration and provides the greatest localized flexibility that will enable our organization to continue to fulfill our mission.

The US Fish and Wildlife Service (USFWS) identified fragmentation due to wildfire and invasive species as a primary threat to sage grouse. Alternative E recognizes livestock grazing as an effective and inexpensive tool for fuels reduction. Alternative E recognizes the importance of Rangeland Fire Protection Associations (RFPAs) in initial attack of wildfire and that important role in curtailing massive wildfires. In the Jarbidge Resource Area, two RFPAs were formed (the Saylor Creek RFPA and the Three Creek RFPA) and the first year results were remarkable. They tell a tale of cooperative success between state, federal, and local firefighters which had tangible results on the ground of smaller, less intense fires. If given a chance, the combination of reduced fuels and initial attack will greatly minimize wildfire as a

threat to sage grouse.

The USFWS also identified infrastructure and energy developments as primary threats to the species. Alternative E helps to better define the infrastructure problem as “large-scale infrastructure.” This is an important distinction because some groups and even some agencies have categorized small-scale range improvements as infrastructure. Fences that provide for better grazing management and water systems that better distribute livestock and relieve pressure from critical sage grouse areas are not a hindrance to sage grouse. The distinction between small-scale range improvements and large-scale infrastructure should be recognized in any plan that is adopted. Alternative E minimizes the threat of large-scale infrastructure development by locating these developments in less critical sage grouse habitat. This system will work best if the BLM and USFWS recognize that mitigation is not a payoff to some third party, but instead mitigation is the increased cost of locating large-scale infrastructure projects outside of the Core Habitat Zone (CHZ).

Finally, Alternative E places secondary threats in an appropriate context. The USFWS has identified improperly managed livestock grazing as a threat to sage grouse. We contend that properly managed livestock grazing can actually be beneficial to sage grouse. Alternative E provides the flexibility in management that will maintain sage grouse habitat and also maintain the viability of the livestock operation. Our organization is comfortable with the Idaho Rangeland Health Standards and the adaptive management involved in meeting these standards. Alternative E only requires habitat characteristics be achieved where sage grouse habitat actually exists. This provides predictability for livestock producers who operate in sage grouse habitat.

The 71 Livestock Association has a 97-year history of collaborating with federal, state and local governmental entities to improve conditions on the range. We strongly believe in the philosophy of multiple-use on our rangelands. We contend the Governor’s Sage Grouse Alternative (Alternative E) allows us to meet our mission of improving conditions on the range. We also believe the Governor’s Sage Grouse Alternative (Alternative E) best conforms to our philosophy of multiple-use. Therefore, we encourage the BLM to adopt the Governor’s Sage Grouse Alternative (Alternative E) as the sole final alternative for managing sage grouse in the state of Idaho.

We thank you for the careful consideration of our comments.

Sincerely,

The 71 Livestock Association

Keith Severe, President

Gus Brackett, Sec./Tres.



71 Livestock Association comments.pdf  
79K



71 Livestock Association  
54899 Crawfish Rd.  
Rogerson ID 83302  
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January 28, 2014

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1387 S. Vinnell Way  
Boise, ID 83709

The members of the 71 Livestock Association respectfully encourage the BLM to adopt the Governor’s Sage Grouse Alternative (Alternative E). The 71 Livestock Association represents ranchers in the Jarbidge Resource Area and for the past 97 years our mission has been “to improve conditions on the range.” We have done this by working with federal, state, and local governmental entities in a collaborative effort to fulfill our mission. In our opinion, the Governor’s Sage Grouse Alternative (Alternative E) was created in a manner that is consistent with our philosophy of collaboration and provides the greatest localized flexibility that will enable our organization to continue to fulfill our mission.

The US Fish and Wildlife Service (USFWS) identified fragmentation due to wildfire and invasive species as a primary threat to sage grouse. Alternative E recognizes livestock grazing as an effective and inexpensive tool for fuels reduction. Alternative E recognizes the importance of Rangeland Fire Protection Associations (RFPAs) in initial attack of wildfire and that important role in curtailing massive wildfires. In the Jarbidge Resource Area, two RFPAs were formed (the Saylor Creek RFPA and the Three Creek RFPA) and the first year results were remarkable. They tell a tale of cooperative success between state, federal, and local firefighters which had tangible results on the ground of smaller, less intense fires. If given a chance, the combination of reduced fuels and initial attack will greatly minimize wildfire as a threat to sage grouse.

The USFWS also identified infrastructure and energy developments as primary threats to the species. Alternative E helps to better define the infrastructure problem as “large-scale infrastructure.” This is an important distinction because some groups and even some agencies have categorized small-scale range improvements as infrastructure. Fences that provide for better grazing management and water systems that better distribute livestock and relieve pressure from critical sage grouse areas are not a hindrance to sage grouse. The distinction between small-scale range improvements and large-scale infrastructure should be recognized in any plan that is adopted. Alternative E minimizes the threat of large-scale infrastructure development by locating these developments in less critical sage grouse habitat. This system will work best if the BLM and USFWS recognize that mitigation is not a payoff to some third party, but instead mitigation is the increased cost of locating large-scale infrastructure projects outside of the Core Habitat Zone (CHZ).

Finally, Alternative E places secondary threats in an appropriate context. The USFWS has identified improperly managed livestock grazing as a threat to sage grouse. We contend that properly managed livestock grazing can actually be beneficial to sage grouse. Alternative E provides the flexibility in management that will maintain sage

grouse habitat and also maintain the viability of the livestock operation. Our organization is comfortable with the Idaho Rangeland Health Standards and the adaptive management involved in meeting these standards. Alternative E only requires habitat characteristics be achieved where sage grouse habitat actually exists. This provides predictability for livestock producers who operate in sage grouse habitat.

The 71 Livestock Association has a 97-year history of collaborating with federal, state and local governmental entities to improve conditions on the range. We strongly believe in the philosophy of multiple-use on our rangelands. We contend the Governor's Sage Grouse Alternative (Alternative E) allows us to meet our mission of improving conditions on the range. We also believe the Governor's Sage Grouse Alternative (Alternative E) best conforms to our philosophy of multiple-use. Therefore, we encourage the BLM to adopt the Governor's Sage Grouse Alternative (Alternative E) as the sole final alternative for managing sage grouse in the state of Idaho.

We thank you for the careful consideration of our comments.

Sincerely,

The 71 Livestock Association

Keith Severe, President

Gus Brackett, Sec./Tres.



American Bird Conservancy Form Letter Master

Subject: Please Ensure Sustainable Management for Greater Sage-Grouse

Dear Bureau of Land Management officials:

I am pleased that BLM is leading the effort to conserve the Greater Sage-Grouse, one of the most iconic and imperiled bird species of the American West. However, I am concerned that BLM's draft preferred alternatives do not comply with the best available science or with standards necessary to stabilize and recover grouse populations. I encourage BLM to adopt the conservation alternative to ensure sustainable management to conserve the species. These include science-based recommendations to limit future development and to create protected areas.

Conserving the Greater Sage-Grouse will require both protecting large areas of habitat and making significant changes in land management to reverse population declines of this wide-ranging species. Most priority sage-grouse habitat is already heavily degraded and grouse are only persisting in large, relatively undisturbed blocks of habitat. For years, fossil fuels production and other commercial uses have dominated public land management across sagebrush habitats, resulting in significant impacts to wildlife, public recreation, and air and water quality.

Protecting large expanses of important sage-grouse habitat—as outlined in the conservation alternative—will help stem the decline of many species of wildlife across the American West. The conservation alternative will begin restoring balance to an iconic American landscape by identifying areas most appropriate for development and those that need to be protected.

Thank you for considering these comments.

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:  
blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	1-14-14
Name:	JASON ANDERSON
Address:	327 A So 230 W. Jerome ID 83338

Reducing livestock grazing is not a good tool

In managing sage grouse habitat, fires - It will only  
hurt sage grouse numbers + Increase fires

Grazing helps reduce fires, Improves forages, Removes  
Invasive species + Benefits Sage grouse habitat

The BLM + USFS should NOT <sup>only</sup> adopt Alternative E  
for grazing mgmt. because it is the best option  
for conserving habitat for Sage Grouse

JASON ANDERSON



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Comments on Sage Grouse Plan

1 message

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Holly Endersby <hollye@hughes.net>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 29, 2014 at 10:01 AM

The Idaho Chapter of Backcountry Hunters and Anglers would like to go on record as supporting the BLM sage grouse DEIS. While not perfect, we feel the federal land management agency is best suited to oversee habitat on large swaths of land.

Holly Endersby

*Holly Endersby*

Conservation Director

Backcountry Hunters & Anglers

[hollye@hughes.net](mailto:hollye@hughes.net)

208-628-3956



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Comments

1 message


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Bill Baker <jabab53@cableone.net>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 29, 2014 at 8:29 AM

Thank you for the opportunity to provide my comments as an individual to this very important issue.

---

 1.29.2014 Letter to BLM GRSG EIS.pdf  
391K

January 29, 2014

Dear Sirs:

Thank you for the opportunity to respond to your BLM/USFS Draft LUP Amendment and EIS dated October 2013 concerning Greater Sage-Grouse (GRSG). I am responding as an individual, representing just myself and my personal views. My views come from my education, life experiences and employment with BLM concluding with approximately 35 years. Currently I am a retired and my last position was being a District Manager in Idaho.

Alternative A is No Action. This alternative is required and provides a baseline but is not realistic in making a good decision to support the GRGS. Therefore, my discussion will end on Alternative A at this time.

Alternative B emphasizes restrictions on resource uses. While very realistic in terms of the fiscal capabilities of the federal agencies in the long-term, it is not much better than Alternative A in terms of supporting the GRGS. Therefore, my discussion will end on Alternative B at this time.

Alternative C was driven by individuals and conservation groups. It appears it is the same as always, remove grazing and life will be grand. They also want more ACECs that continue to not stand up to a true test of the required relevance and importance analysis. This alternative appears totally without concern of the top five threats as listed in Table 2-1 that have real impacts to the GRGS. I believe it is to meet their interests in removing livestock grazing from all federal lands at all costs and with every opportunity they are presented with. They also appear to lack a true concern of the health of the public lands since they started down this road in the past, are on it now and will continue this approach into the future.

Alternative D was driven by addressing conservation measures, while balancing resources with their uses. It is similar to Alternative B but would emphasize improving the success of rehabilitation efforts and planning for wildfire suppression. I will add to this alternative in my comments later.

Alternative E is the Governor of Idaho's Alternative. I understand they own and manage the wildlife within the state and the federal agencies manage the habitat. I will add to this alternative in my comments later.

Alternative F is another alternative that was driven by individuals and conservation groups. This alternative has more restrictions and less flexibility and has proposed even more ACECs. This is also not a new approach to resource management by some individuals or groups. Without adaptive management and with the unknowns of climate change will lead to failure in your decision process if you select any portion of this alternative. Individuals and groups have tried this process with proposed ACECs in the past and by the time BLM makes an analysis of the relevance and importance, BLM could not justify further levels of management as ACECs. When you review past attempts and conclude your analysis, I believe you should come to the same conclusions again. BLM does not need additional management direction beyond these LUP amendments and this EIS to address the GRSG. The costs of

this additional level of management will not be justifiable for the protection GRGS and their habitat needs. In addition, the funds and resources required to do this unjustified level of management need to be spent on the top threats of this issue.

I commend your incorporation of Adaptive Management and its components. However, as time goes by, I would hope we can use Adaptive Management in response to good results that will be achieved. As written, it appears to only be responsive to negative results, which leads me to believe, we can't use Adaptive Management to diminish hard decisions being made now. In the future, when science indicates threats are being reduced or eliminated as a result of everyone's hard work, adaptive management needs to give credit where credit is due.

On page 2-21, you stated: "There are currently no science –based studies that demonstrate that increased livestock grazing on public lands would enhance or restore GRSG habitat or maintain or increase GRSG abundance and distribution." In general, I believe individuals and groups have been funding and supporting studies for decades to support their views that livestock are bad in every circumstance. Whereas, for the same timeframe, the federal government has not consistently encouraged science –based studies to see how best to use livestock as tools and as part of their obligation. There have been some studies on the fringes of this question, but not enough to support their multiple-use mandates. I believe livestock are still the best low-cost alternative in vegetation management you have in your tool box. So I hope as we proceed that these science-based studies are completed to address this on-going question.

I am concerned about your statement on Table 2-3, Alternative D. You indicate developing a fuel management strategy. You have had various strategies for nearly 20 years now. When it was first initiated in the mid-late 1990's BLM successfully completed 100's of thousands of acres in high quality fuel reduction and restoration projects. My team even received national recognition for what we accomplished. Then as funding started to drop and competition for the funds increased, it was reduced to a mere nothing as compared to the beginning due to budget constraints. History will repeat itself and I believe this process will continue, even though you will make promises in this process that can't be achieved over the life of this plan. You also indicate as a priority you want to use native fire resistant species. That is admirable. But again as history will repeat itself, those species may or may not be available in the quantities you need and as your fire rehabilitation funds have diminished, so has your ability to purchase even small amounts of these expensive species. I remember BLM staff indicating they would rather not do rehabilitation efforts if native species were not available versus the use of more typical species that were readily available and affordable. That mindset will not help the GRSG or the general health of the lands you administer into the future. Will you readily demand offices use non-native species to save SRSG habitat? Another point is that 20 years ago BLM basically had the funding to do all the fire rehabilitation that was required. Now with those funds both reduced and required to suppress more and more fires, many fires are receiving no funds to complete the needed rehabilitation and monitoring. How will that change through this effort and during the life of this EIS?

I am also concerned about your statement on Table 2-3, Alternative D and strategically "placing treatments on a landscape scale to prevent fires from spreading onto PPMA or WUI." The federal,

state and local agencies have been great in their education and information in trying to change what has occurred from past social, planning and zoning practices. This more typically was called the fire-wise and WUI programs. However, as well as the federal agencies have educated the private landowners on what to do on their private land, the agencies have not practiced what they preached on the lands they administer. For example, if BLM would have done more WUI work, then they would not be asked to support a rural fire department to protect life and property from fires originating on public lands they administer. That being said, I remember being questioned internally in BLM why we moved aircraft support from sage grouse habitat to a housing community. The answer was because of priorities for life and property are higher than for sage grouse habitat and because a rural fire chief requested our assistance. What is expected to happen in the future on this same scenario? Will you turn your back on your partners the rural fire chiefs? If you are able to make all of these landscape scale fixes and they work, what is your interim plan going to be? Between funding and legal challenges of local project proposals, I do not believe this will occur enough over the life of this plan to be effective. Do you?

We know as long as ongoing wildfires do not exceed the capacity of the available resources, normally the wildfires do not pose catastrophic levels of safety or damage. However, as soon as the wildfires, either in numbers, size or intensity exceeds the resource capability, the threats to life and property increase dramatically. We also know that with climate change, we all see less snow packs, more spring rains and longer fire seasons than just a few years and decades ago. I believe this lower snow pack in historic places like GRS habitat is leading to stress of the shrub species that need deep watering that is provided by slow snow melt. Without this snow pack and higher summer temperatures, I believe this situation will ultimately lead to their demise as individuals' and plant communities. Thus that means your habitat is in trouble even without this EIS and the follow-up actions you propose. For example, it is admirable that BLM plants sagebrush in their rehabilitation and restoration projects. It has quite often been very successful. However, under this scenario will they survive until they reach maturity and produce seed themselves? Or will they die from a lack of moisture and un-natural fire regimes that exist? We all know fire regimes will not change in at least the next twenty years, even if you have projects already approved and on the shelf ready to go. You can potentially reduce fire size and intensity over the life of this EIS, but not the number of fires or the regimes that require a long-term transformation. We also have seen with spring rains, the grasses flourish making either forage for wildlife and livestock or fuel for wildfires. How will your adaptive management meet this scenario? How will you be able to meet the challenges of removing this fuel load between the rains in April and May and the fires starting in late June the same year? We all have witnessed that the fire seasons have been getting longer and will undoubtedly keep getting longer. It is your responsibility to address this situation in this document and into the future. How will your adaptive management strategy be able to respond to this significant issue in a timely manner and on a yearly basis? I believe local planning project requirements and on-going litigation will stop you in your tracks before you get started. Then what are you going to do?

Your alternatives address weed management actions for noxious and invasive species. Your funding has never been adequate to support either issue. Because of this they are both expanding. Funding after fires, if provided at all is not long enough to adequately address these issues. Then your neighbors

commonly do not have adequate funds. Therefore, to be effective, you will need to take the lead in supporting this effort across all lands in providing funds and coordination. Where will the funds come from? Where will your long-term commitment come from?

You then go on to a monitoring program. In the early 1980's BLM moved from one-point-in-time inventories and went to on-going monitoring to address the requirements of FLPMA in knowing the condition of land and other issues. One of the first things that get cut in budget reductions is the staffing to do adequate monitoring of all types. What assurances are you going to give to do this monitoring? What priority order are you going to use and what monitoring efforts are you going to forego to do what you are promising or will be required here?

I am afraid of the restrictions of Alternative D in terms of new authorizations of transmission lines greater than 50kV. I believe this is a perfect example that your adaptive management needs to allow transmission lines greater than 50kV when and if science-based studies support it. Selecting this LUP decision as written is too restrictive without the flexibility I mentioned above.

As I read more about strategic wildfire suppression planning I recall many of those in the past. BLM at all levels was great in telling everyone, including Congress, what they were going to do and had coordination meetings and training sessions every spring in preparation of an on-going or a new strategy. However, when the season hits and is larger than BLM had capability to address it was for not. A typical strategy is to pre-position fire suppression resources and confront the first fires that start. You also never totally left an on-going fire to go to another, no matter how important the resources are in the new fire. That being said, the later fires were unattended for some period of time and the early ones may lose capability as I described earlier. Therefore, all the strategies I have been part of in the past looked great on paper, but had huge limitations in real life. How will you assure a different result this time? Remember, Einstein said something to the effect; a definition of insanity is when we keep doing the same basic work and expect different results.

Before I go any further, I will explain your highly flawed ACEC process. Your entire write-up for ACECs in Chapter 3 is only eight pages long for 59 existing ACECs. You indicated in Appendix H-4 that if an area met the relevance criteria and were in PPH, they were determined to have importance because of being a national priority for BLM. Table 3-45 has 67 Existing ACECs. Why the difference in numbers? On page 3-120 you indicated that both the identified relevance and importance values are listed for each ACEC. As we all know when you go through the ACEC evaluation process all relevant values are not also importance values. You made no attempt in distinguishing that fact in this document. The only rationale you provided why these were now for GRSG is a national priority for BLM. That is not rationale to require additional management above the areas immediately adjacent to them. The other big piece of missing information is the list of management prescription(s) necessary to maintain and protect each relevant and important value. Again, without this list why are these existing ACEC requiring additional management not required on the adjacent lands you administer. You have provided no science-based rationale for you proposed decisions.



Appendix H supporting your ACEC evaluations is only ten pages long and most of that are maps and tables. According to the Map H.1 four new ACEC are being proposed in Alternative C, Map H.2 has 16 proposed for Alternative F, Map H.3 has 18 proposed in Alternative F, and then Table H.1 has 39 listed. As I wrote in the paragraph above, where as a reader are we to see your evaluation, analysis and rationale for each of these? As a simple example of how you should have presented this whole part of this EIS can be found in a document you have. That is the Draft Amendments to Shoshone Field Office Land Use Plans of June 2002. You will see the appropriate method of displaying to the reader the relevance, importance, management prescriptions and rationale for each nomination so we have the opportunity to review your work.

Why have you either hidden this information so deep into this document I can't find it or have never completed your work on this important aspect to begin with? Your statement of "protection of GRSG is a national priority for BLM" therefore, they require additional protection is without merit and as I referenced in the June 2002 document on pages 128 is not the appropriate to make this decision. How can you make this pre-EIS decisional decision at this time? This is especially true without any supporting justification in your current documentation. I believe you need to present this evidence to the public in a timely fashion to keep this EIS on track.

In my thirty-five year career, I am not aware of one LUP ever being fully implemented and not one BLM Manager held accountable for not fully implementing it. I see this effort following the same path. I also witnessed that not all federal employees are concerned about how their decisions would impact their neighbors, communities or the State where they lived and worked in. I believe it was even worse when they lived in one state and made decisions affecting another. I also believe as some moved to new offices and moved up in the ranks they became even less engaged with local people and local issues and therefore, the impacts they create. That being said, and knowing no federal employee will be held accountable for the outcomes of their actions or lack of actions in this endeavor, I believe the best alternative is Alternative E. The Governor and the citizens of Idaho have the greatest obligation to see the protection of GRSG while meeting requirements of their State. Also, since they own the wildlife in the state they have more ownership in this important endeavor. They should have the greatest responsibilities and they should receive the greatest rewards for their efforts. Therefore, they need the opportunity for more freedom through positive adaptive management implementation.

I read while selecting Alternative E for Idaho, lands in Montana would be managed under Alternative A. I believe that is inappropriate as I stated above about Alternative A and similar LUP decisions I addressed above need to be made for Montana also.

Sincerely,



Bill Baker  
92 Sunnyside Drive  
Jerome, Idaho 83333



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## sage grouse concerns

1 message

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Polly Payne <pollyapayne@yahoo.com>

Wed, Jan 29, 2014 at 2:19 PM

Reply-To: Polly Payne <pollyapayne@yahoo.com>

To: "blm\_id\_swmt\_sagegrouse\_eis@blm.gov" <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Please see attached letter regarding our sage grouse concerns. Thank you.



Sage Grouse Concerns.docx

13K

RE: Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement

To Whom it May Concern,

As an Idaho rancher, I submit the following comments on the BLM/Forest Service sage grouse management proposals. My livelihood depends on my ability to graze livestock on public and private lands. As such, it is in my best interest that the lands are managed to optimum condition, which is both ecologically and economically beneficial. I am concerned that the pending effort to significantly amend the land use plans has the potential to create unnecessary restrictions on my ability to graze livestock and will result in unintended consequences that will be more harmful than helpful to sage grouse.

I would like to call to your attention the situation in the 1990's with the spotted owl. Closing down the timber industry devastated rural economies and communities. Now western forests are overgrown which has led to the huge devastation of forest fires and the loss of lives, some human and much wildlife. The spotted owl debate is an example of how extreme measures just don't work for the pretty bird in question and the surrounding economies.

We need balance to manage the sage grouse. We need to be able to limit the predators that kill them. Keep in mind that wolves have been recently added to the already existing coyote population in the region. Another predator that has a huge impact on the sage grouse is the hawk. At this time, it is unlawful to hunt hawks. If their numbers were reduced slightly, the sage grouse would have a much better chance of survival.

Many ranchers are working to improve the sage grouse habitat with the juniper encroachment project. They are opening up areas by removing the trees which give hawks a bird's eye view of their victims. This tactic alone is going to make a tremendous difference in the population of the sage grouse.

For these reasons, I encourage the BLM and Forest Service to adopt Alternative E, the Idaho Governor's Alternative as the sole final alternative for managing sage grouse within the state of Idaho. Alternative E offers the best option for conserving sage grouse and its habitat and achieving the goal of avoiding an unnecessary federal listing of the species, while protecting and maintaining land-use activities in the state and preserving Idaho's way of life.

Sincerely,

Cody & Polly Baldwin  
300 N. 2<sup>nd</sup> Ave. West  
Middleton ID 83644  
208-880-9962



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## SAGE GROUSE EIS COMMENT

1 message

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Sue Ellen Barnard <sue.ellen.barnard@comcast.net>

Tue, Jan 28, 2014 at 1:20 PM

Reply-To: sue.ellen.barnard@comcast.net

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mustangs and burros are federally protected.

They are few compared to the massive numbers of cattle and sheep grazing on BLM lands.

You cannot use the sage grouse as an excuse to get rid of or reduce wild horses and burros in Utah and Idaho!

Sue Ellen Barnard  
911 Hillsboro Road  
Franklin, TN 37064



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## LUP Am endm ent & EIS com ments

2 messages

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STephen Bauchman <sbauchman@challisck.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 5:03 PM

Enclosed herewith is our comments on the SAge Grouse draft LUP and EIS.

While the co-preferred alternatives, D & E, are similar in nature as to development of Management AReas or Conservation Zones, three types of habitat, and triggers to measure the impacts on the habitat and population, they differ greatly in regards to the implementation. Alternative E employs a robust 'site-specific' adaptive management strategy to direct resources to the relevant urgent threats within the distinct MA/CZ. Additionally, Alt E provides a more detailed framework that includes a broad scope of participants within the MA/CZ. The success of the program requires the involvement of all parties, agencies, IDF&G, permittees and users, private landowners, LWG, conservation groups, etc. The implementation of a 'one size fits all' agency approach dictates an inflexible approach without considering the conditions on the ground. Furthermore, it will be difficult for the agencies to develop new LUP while addressing the 'inconsistencies' with local LUPs. Implementing Alt E provides a framework to address threats within the MA/CZ through the inclusion of local partners. {Alternative E employs the use of conservation partners, yet to be defined, governed by a region wide board.}

Furthermore the adoption of the alternatives, other than perhaps E, do not meet the requirements of NEPA (40 CFR 1500-1508) pthat requires a consideration of the impact on the 'human enviornment' as the result of any action. The socio-economic analysis within the EIS provides only a macro analysis. With the adoption of Alternative D {B, C, F} there will be a reduction in grazing permits as well as other multiple uses [mining & recreation] within the Intermountain MA/CZ. The impact on the social, cultural, and economic environment of the communities will be significant, and require further analysis than included therein.

[STephen Bauchman](#)  
[P.O. Box 10](#)  
[Challis, Idaho 83226](#)  
[208-833-5515 cell](#)  
[208-879-5514 fax](#)



EIS response 1-22-14.docx  
132K

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STephen Bauchman <sbauchman@challisck.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 5:05 PM

A pdf copy is enclosed

Begin forwarded message:

From: Stephen Bauchman <[sbauchman@challiscrk.com](mailto:sbauchman@challiscrk.com)>  
Date: January 27, 2014 5:03:21 PM MST  
To: [blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)  
Subject: LUP Amendment & EIS comments

Enclosed herewith is our comments on the SAge Grouse draft LUP and EIS.

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Stephen Bauchman  
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EIS response 1-22-14.pdf  
165K

## Stephen Bauchman

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January 22, 2014

BLM Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise, ID 83709  
208-373-3805 fax  
[blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

RE: ID & SW Mt Sub-regional Sage Grouse EIS

The comments contained herein are directed towards the Preferred Alternative as outlined in 2.5.2, "...Alternatives D and E...co-Preferred Alternatives..." and addresses the features of each that provide the flexibility to address the various distinct threats affecting GRSG habit and populations within the various Management Areas/ Habitat Zones (MA/HZ). Comments herein concern the southern Lemhi and Custer county area within the Mountain Zone as it relates to Livestock Grazing.

While "*These alternatives each have different strengths that reduce, eliminate or minimize threats to GRSG and their habitat...*" Alternative E provides a process that will address "*...deficiencies in existing management, exploring opportunities for enhanced management, and addressing issues identified through internal assessment...*" (2.6.5) tailored to the local implementation. While the two alternatives are similar in approach it is in the implementation where the two diverge in effectiveness. The status of the GRSG and the threats within each CA are uniquely distinct and must address LUP accordingly. This response will address the features of Alternative E that provide the 'site specific' locally directed adaptive management strategy.

### **DEVELOPMENT and INCLUSION**

Alternative E provides a more inclusive list of contributors establishing 'buy-in' of various diverse groups ultimately responsible for addressing LUP issues. The regulatory result of an Alternative will impact all resource users in various degrees and will require cooperation from all groups and require them to mitigate against actions on the ground. "*The task force was a diverse group of*



*stakeholders comprised of representatives from local Sage-Grouse working groups, conservation interests, state and local officials, and industry.”* Alternative E allows each user to address their impacts or lose the use of the resource. While it is recognized that not all MA/HZ’s have active LWG, within the Mountain Zone there is an active LWG working in concert with agencies, industry, and Permittee. Alternative E provides a more effective implementation process leading to immediate ‘on the ground’ results.

Alternative D is directed more towards a sub-regional response without considering the distinct differences in threats, topography and local management practices. Once the alternative is implemented it must allow local land management agencies in concert with State wildlife managers to specifically address actions that are affecting the GRSG. The approach in one MA/HZ may be radically different from another and alternative D is directed “...to respond to sub-regional conditions and management in order to meet the needs of ongoing programs and land uses.” (2.6.4) The consideration for the Preferred Alternative is to “...offer a range of discrete strategies for resolving deficiencies in existing management, exploring opportunities for enhanced management, and addressing issues ... related to maintaining or increasing GRSG abundance and distribution on BLM- and Forest Service-administered lands.” (2.5.1)

Either alternative is significantly above the other alternatives and provide a regulatory basis for managing habitat and populations of GRSG, Alternative E addresses not only the issues sub-regional wide but meets the requirements of FLMPA by involving local government entities, industry, local conservation agencies [LWG], resource users and especially Permittee in the Mountain CA/HZ where Primary threats are not an issue.

### **GRSG MAPPING and HABITAT DESIGNATION**

Key to either alternative is the ‘base line’ determination of habitat and populations. The BLM assembled the preliminary data at the broad and mid scales using LANDFIRE. They also are tasked to provide Key Habitat Map updates to be solicited “...from partners in GRSG conservation...” considering factors such as “Habitat mapping errors or omissions that have been identified in the most current Sage-Grouse Habitat Planning Map and other edits recommended by Sage-Grouse conservation partners...(2.6.4) There needs to be precise language within the document that identifies the ‘conservation partners’. There are major differences in the mapping of the NTT and that provided by the Challis LWG. Even with updates to reflect resource assessments and bird counts by IDF&G, the two are radically different.

As both alternatives (D&E) rely on a base line to measure [monitor] the affects on GRSG by various resource actions, and considering the Mountain MA/HZ threat is ‘Improper Livestock Grazing’, it is essential that the framework is in place to

identify the condition of the habitat and population densities by Record of Decision.

Thus while the habitat mapping applied to either Alternative D or E will be broadly encompassing, it is critical that local GRSG conservation partners provide the parameters to manage the habitat and populations and apply 'adaptive management' guidelines or BMPs specific to the 'fine and Site Scales, defining "...physical and geographic area within home ranges. At this level, maps of seasonal habitats (breeding, summer, and winter) and the connectivity between these seasonal use areas can be examined to determine limiting factors for populations, subpopulations, and PACs." (E.2) Additionally habitat determination must be based on "...physical conditions and the geographic area within seasonal ranges to meet life requisite needs (e.g., nesting and brood rearing)." (E.2) The Plan needs to have the flexibility of local input to address the nature and potential of the habitat. Alternative E provides greater local input and tailors its monitoring and implementation accordingly.

Within the Challis area the soils varies greatly affecting the sagebrush canopy and types of forbes. Within the SCNF GRSG habitat there is even more radical changes in topography given the rapid elevation changes. Additionally the FS doesn't have soil sampling. Thus applying a standard criteria for Habitat Characteristics my not be reasonable [Table 2-8, page 2-71] within a framework that addresses GRSG from a sub-regional basis. With variation in 'habitat Characteristics' between CA/HZ, especially in the Mountain, there needs to be flexible solutions addressed by local 'conservation partners'. Alternative E provides this framework.

### **HABITAT CHARACTERISTICS**

The habitat Characteristics for Alternative D, set forth in tables 2-7 through 2-10 are not applicable in large areas of S. Lemhi and Custer County. As such this places an unrealistic burden on local land management agencies in evaluating resource status or potential during the LUP process. In fact the SCNF is using the criteria set forth in table 2-8 'Perennial Grass and Forb Heights' as their criteria in current LUP efforts for livestock grazing while recognizing it is an unrealistic, but it is the framework set forth.

Compare this to Alternative E, tables 2-14 through 2-16, which is more habitat dependent. This places the impetus on the management practices that are not meeting Rangeland Standards and health especially within critical GRSG habitat.

### **ADAPTIVE MANAGEMENT**

*"Both Alternatives D and E contain some specific details with regard to the adaptive management process that are further explained within those alternative discussions (see **Sections 2.6.4 and 2.6.5**, respectively)." As a part of the*

process the alternatives rely on science based soft and hard adaptive management triggers, based on habitat and population assessments.

The method employed by Alternative E focuses on a set of primary threats of wildfire, invasive species, and large infrastructure projects, and secondarily on improper livestock grazing management and related infrastructure. Activities not addressed by E will be "...guided by the 2006 State Plan, LWG plans, or relevant federal resource management plans." (page 2-76) This alternative provides for BMPs to 'site specifically' address issues. In the case of Livestock grazing "*This alternative emphasizes the need for livestock permittees to achieve the Idaho Rangeland Health Standards while also achieving flexibility and management predictability through the use of the state's adaptive construct, which respond to the COT Report*" (page 2-77) thus drawing together land managers, conservation partners, and resource users in a Cooperative Arrangement'. In order for the Sage Grouse Management Process to be successful it must provide 'buy-in' by the private landowner, the largest resource user, through a local based initiative as opposed to a 'top down approach'.

*Alternative D would encompass the consideration of changes or trends in habitat and population indices" evaluated by a collaboration of TAT & IDF&G. Recommendations are sent to the BLM and FS supervisor to be implemented in accordance with adaptive management triggers. (page 2-72) Monitoring will be used to determine whether trends and generally doesn't require 'fine and site-scale specific habitat monitoring which depends on "...on proposed projects, existing conditions, habitat variability, threats, and land health. However the metrics for quantifying the indicators can be adjusted for local conditions." (page E-8) This doesn't provide the criteria or basis from which to evaluate and respond to site-specific conditions and sets the basis for managing GRSG with a sub-regional approach. Furthermore this plan is yet to be identified while Alternative E has the framework in place. "This draft monitoring framework was developed for draft environmental impact statements to describe the proposed monitoring activities for this plan. The BLM and USFS will consider public comments and collaborate with other agencies to finalize the Idaho and Southwestern Montana Sub-Region Sage-grouse Monitoring Plan." (E.3, page E-8)*

## **LIVESTOCK GRAZING IMPACTS**

Improper Livestock Grazing, a secondary threat, is the largest single threat within the S. Lemhi and Custer County GRSG area. This area also has a stable viable population as such the habitat mapping and assessment process, monitoring and implementation, and ability for site-specific mitigation is critical, especially when the majority of the area is defined as PPMA or CHZ. While there are some differences between the area of designation and monitoring basis of Alternatives D & E the approach to the designation of the habitat type and potential, monitoring, and mitigation are significant.

Alternative E provides action to address 'site specific' habitat or populations declines where Alternative D is done on a sub-regional basis. *"Most management actions and related impacts on grazing would be applied across all three habitat types, so they would be similar to those discussed in Alternative B but increased in intensity. (PG 4-148) There would be prioritized implementation of grazing systems or permit modifications to meet habitat objectives in areas that are not meeting these objectives. This would result in a moderate decline in permitted grazing over time as permits are modified to incorporate GRSG objectives at renewal. (PG 4-149)"* It is recognized that there will be some modification in grazing allotments, this will also require flexibility in management and utilization of other allotments. Yet Alternative D proposes, *"Retiring grazing permits, as described under Alternative B, would be considered where grazing privileges are relinquished or the allotment is vacant in all GRSG habitat types. As a result, total areas open to grazing may be reduced in the long term."* It would be more beneficial to adjust grazing, utilizing available allotments for responsible permittees as a part of a 'Cooperative Framework'.

Alternative E 'site specific' approach places priority *"...on allotment renewal in CHZ and IHZ where populations are declining. Management changes, if required, would be tailored to specifically address habitat objectives that need improvement, and the impacts on other resources or resource uses, such as wildland fire management, would be examined. As a result, impacts on livestock management may be limited, compared to other action alternatives, due to the increased flexibility to address site-specific needs."* (4.6.8, pg 4-150) The renewal process is directed towards *"...where populations of GRSG are. Changes to grazing management and associated impacts are most likely to occur in these areas."* (pg 4-151) This provides prioritizes efforts towards addressing GRSG concerns utilizing limited agency resources which already are overburdened, and applying efforts that will provide immediate remediation where needed.

Alternative E would have the least 'socio-economic' impact on Livestock grazing. *"Existing grazing management would be maintained unless the current grazing system does not meet GRSG habitat objectives and there is compelling information that changing the system would enhance habitat. Specifically, management actions in this alternative state that where population and habitat triggers are being maintained within a Conservation Area, this shows that the current grazing system is adequate to maintain viable GRSG populations and therefore absent compelling information, no further changes to BLM grazing systems would be required pursuant to Standard 8."* Should adjustments be required to Grazing Management plans these *"...would be applied at a site-specific level and specifically tailored to achieve objectives. (pg 4-151) Under Alternative E, some additional limitations would apply to structural range improvements, as compared to Alternative A. This could increase the time or costs for construction and maintenance of improvements or could impact the*

*ability to distribute livestock. These restrictions are more flexible than those under other action alternatives.”*

### **SOCIO-ECONOMIC IMPACTS**

While the EIS addresses Macro Social and Economic Impacts it doesn't meet NEPA requirements with regards to considering Micro Social Economic Impacts. Specifically *““The council on Environmental Quality's (CEQ's) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508) point-out that the "human environment" is to be "interpreted comprehensively" to include "the natural and physical environment and the relationship of people with that environment" (40 CFR 1508.14). Agencies need to assess not only so-called, "direct" effects, but also "aesthetic, historic, cultural, economic, social, or health" effects, "whether direct, indirect, or cumulative" (40 CFR 1508.8). Furthermore, the Act stipulates "... when an EIS is prepared "and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment" (40 CFR 1508.14). The EIS's are thus intended to provide a kind of full-disclosure procedure for federal decision-makers, who are then expected to consider the negative as well as the positive implications of potential courses of action, and the unintended as well as the intended consequences, before they proceed.”*

The main economic basis in Custer County is mining and then agriculture/ranching. A reduction or major modification to livestock grazing permits would impact the viability of the ranches within the area. While there has been some transition from family owned ranches to corporate/investor owned, local business is heavily dependent on the ranching community and the associated grazing permits. Any implementation of a Sage Grouse Management Plan that would have major changes in the grazing would severely impact the historical cultural economic affect on the community. As such the implementation of Alternative D [B, C, or F] must consider the direct, indirect, or cumulative impacts as set forth in 40 CFR 1508.8, of which the EIS does not.



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Comment for sage grouse plans

2 messages

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Von Bean <lemhi123@gmail.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 7:42 AM

To whom it may concern;

I wholeheartedly endorse plans related to sage grouse that allow the continued use of public land for the public. Any limitation for public access and use would directly and adversely affect my business and my ability to provide a living for my family. This would not only affect me but most of the families in my community. Further restrictions on our way of life and business interests would make us the endangered species. Most of the proposed alternatives, if not all, do not address the real culprits to sage grouse which are predators.

I endorse the Idaho Governor's Alternative as the best option because it provides for continued, measurable use based on science, not an unproven dislike for any one industry. Thank you.

Von Bean  
P.O. Box 42  
Lemhi, ID 83465

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: IDMTSagegrouse\_EIS@empis.com

Mon, Jan 27, 2014 at 11:42 AM

[Quoted text hidden]



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Beaverhead County Commission Sage -Grouse Comments

1 message

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Patti Odasz <podasz@beaverheadcounty.org>

Mon, Jan 27, 2014 at 4:26 PM

To: Sage-Grouse Comments <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Patti T. Odasz  
Administrative Assistant  
Beaverhead County Commission  
2 S. Pacific, Ste. #4  
Dillon, MT 59725-4000  
Ph: 406/683-3767  
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Email: [podasz@beaverheadcounty.org](mailto:podasz@beaverheadcounty.org)

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632K



## Beaverhead County Commissioners

2 South Pacific St., Ste. #4

Dillon, MT 59725-4000

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[trice@beaverheadcounty.com](mailto:trice@beaverheadcounty.com)

[ghaugland@beaverheadcounty.com](mailto:ghaugland@beaverheadcounty.com)

[mmcginley@beaverheadcounty.com](mailto:mmcginley@beaverheadcounty.com)

January 27, 2013

BLM – Greater Sage-Grouse EIS  
1387 S. Vinnell Way  
Boise, Idaho 83709

RE: Draft – Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan  
Amendment and Environmental Impact Statement.

The Beaverhead County Commissioners support No Action – Alternative A for  
southwestern Montana.

The Commissioners feel that the second paragraph on Page 4-293, Environmental  
Consequences Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan  
Amendment and Environmental Impact Statement, Volume II B summarizes our area and is  
extremely important. This paragraph is as follows:

### Southwestern Montana

The southwestern Montana population occurs in Beaverhead and Madison  
Counties, in the vicinity of Dillon, MT. Segments of this population make  
seasonal migrations into Idaho. Priority areas for conservation encompass 80  
percent of this area, divided into four sub-populations, and were identified by the  
relatively high density of GRSG and the genetic connectivity between this area  
and Idaho. Habitat threats are generally improper grazing management, isolated  
sagebrush control efforts, and expansion of conifers in Sage-Grouse habitat.  
Habitat conversion on the Idaho side of the MZ may also affect this population to  
some extent. Given this population's size, limited habitat threats, and  
connections to Idaho, the southwestern Montana population is considered low  
risk (USFWS 2013).

Thank you for this opportunity to comment.

Sincerely,

C. Thomas Rice  
Chairman

Garth L. Haugland  
Commissioner

Michael J. McGinley  
Commissioner

:pto





SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage-Grouse EIS Comment

1 message

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Beaverhead Outdoors <beaverheadoutdoors@yahoo.com>  
Reply-To: Beaverhead Outdoors <beaverheadoutdoors@yahoo.com>  
To: BLM Comment <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Tue, Jan 28, 2014 at 8:42 AM

To Whom it may concern;

On this 89th day of the 90 day comment period the members of the Beaverhead Outdoors Association respectfully request you accept the attached comment letter

Thank You

Steve Jennings



BLM Sage-Grouse Comment.rtf  
899K



## Beaverhead Outdoors Association

P.O. Box 1401

Dillon, Montana 59725

[beaverheadoutdoors@yahoo.com](mailto:beaverheadoutdoors@yahoo.com)

BLM-Greater Sage-Grouse EIS

1387 S. Vinnell Way

Boise, ID 83709

[Blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:Blm_id_swmt_sagegrouse_eis@blm.gov)

28 January 2014

RE: Idaho and Southwestern Montana Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement.

To Whom It May Concern;

The members of the Beaverhead Outdoors Association respectfully request the BLM and the Forest Service accept this comment letter regarding the Idaho and Southwestern Montana Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement (Sage-Grouse Plan or Plan).

The Beaverhead Outdoors Association is a group of approximately one hundred thirty (130) hunters, fishermen and women, ranchers, farmers and those that enjoy recreating on public lands. We live in a county comprised of nearly sixty-nine percent (69%) public land. Of this fifty-nine percent (59%) is under federal management and ten percent (10%) is state land. Our members are significantly impacted by any changes to land management policy. Some of our comments are of an overall general nature while some are specific to the Plan.

When discussing the “Endangered Species Act” there are several deficiencies contained in the Act. We would hope that everyone concerned with wildlife preservation consider utilizing the “Top Ten Ways to Improve the Endangered Species Act” (Range Magazine \* Summer-2013 \* page 71). These suggestions are not law, however should be. We will leave these ideas as food for thought during your sage-grouse strategy development.

1. Reward private landowners who chose to participate in saving species

instead of punishing them through regulatory confiscation for having those species on their land.

2. All agency actions in the listing process must be judicially reviewable.
3. There must be more realistic timelines for determinations. (Rule is 90 days)
4. The data used must be reliable, replicable and verifiable.
5. The ESA must not focus on single species management.
6. Replace coercive incentive programs with truly incentive-based compensatory programs.
7. The cost of the ESA and its implementation should be borne by the general public and fully accountable on an annual basis.
8. Species which are listed and afforded the protections of the ESA should be limited to those species with a majority range within the borders of the United States.
9. Ambiguous and subjective language must be eliminated.
10. Efforts must be more focused on those species that are in most danger of extinction due to the direct measurable effects of human activity, and only when the modification of those activities will have significant measureable effect on species survival.

Keeping these ten ways of improving the Endangered Species Act in your thoughts should help produce an intelligent plan that the landowner and citizen in general can accept and live with.

The first general comment has to do with the title of the Plan, “Idaho and Southwestern Montana Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement”. This leaves the reader with the impression that “Land Use” or habitat is the only focus of the Plan. The members of the BOA oppose management plans that focus on only one aspect of a single species management. This includes the application of the Endangered Species Act as well as land management policies. When all species including livestock are included in habitat management decisions, all will thrive. Grazing by bison and then livestock has been historically shown to be beneficial to all wildlife.

The second general comment is the federal government’s dysfunctional approach to land management in general and sage-grouse management in particular. The Montana Fish, Wildlife and Parks has been tasked with trying to improve

habitat for a sage-grouse population, that is not in trouble within Montana. The first thing the BLM and Forest Service did was to divide the state of Montana into five (5) districts that overlapped Idaho, Wyoming, Utah, Nevada, North and South Dakota. Each state must be allowed to develop their own strategy to keep the sage-grouse from being listed as endangered in their own state. Federal plans to aid the recovery of one species generally causes the extinction of another species. Ravens are a protected species that has been proven to be the greatest predator of sage-grouse. Research by the USGS, Idaho State University and the Nevada Department of Wildlife has documented this finding.

The third general comment deals with the “Numbers Game”. The deception concerning wolf numbers and what is recovered and how often the goal posts were moved by the U.S. Fish and Wildlife Service, The Montana Fish Wildlife and Parks and the numerous Federal Judges involved has left a sour taste in the mouths of our members.

The first determination must be: “How are sage-grouse numbers to be determined?” Are lek locations and bird counts to be made on the ground or at thirty thousand (30,000) feet or higher? What methodology of counting sage-grouse will be used? The Montana FWP plan calls for a count of displaying males at each lek in a range of between 6.98 and 18.71 males and that the number used will be determined at a later date. Without knowing the specific range number goal before the counting begins will lead to goal posts being moved to insure the removal of man from the landscape and an end of intelligent land management. The U. S. Fish and Wildlife Service, 50CFR Part 17 requires that the rangewide population of sage-grouse fall below five thousand (5,000) mature birds to legally qualify for listing as threatened or endangered. The population of the range must be geographically connected. Without on the ground counts by wildlife biologists of not only birds but active leks and their location, there will be a continual debate over estimated numbers. The methodology of initial counting, frequency of count updates and the goal count must be agreed upon by all parties and approved by the courts before a plan can be established.

The second determination must be: “What was the original range of the Greater Sage-Grouse?” Have there been careful analysis of the Journals of Lewis and Clark, Peter Skene Ogden, Fremont and Workman Expeditions to determine the frequency of encounter as well as the “original” historic range. Were sage-

grouse noted in large numbers before European expansion into the West? Where were sage-grouse encountered? Are the baseline numbers and range to be those of the 1804-1830 time of original exploration or the 1870-1900 timeframe of westward expansion and livestock grazing? What scientific studies in each region have been completed and verified to establish the range and population size of the sage-grouse. Once an accurate on the ground count within each state is completed and verified, the U.S. Fish and Wildlife Service must return to the court, present the verifiable data, correct the misinformation in the “Species Assessment and Listing Priority Assignment Form” and request an end to litigation by environmental groups. We prefer verifiable scientific studies to anecdotal journals, letters and stories. Once the courts have approved the methodology of counting and accepted the resulting counts, a control group in each state must be established. We would prefer private lands be managed by the land owner as they deem appropriate without interference by the courts and other agencies. Federal lands managed by the BLM and Forest Service would be managed by the plan created by this EIS process. Scientific review on an ongoing and replicable basis would compare the results achieved by the varied plans for production capability and all wildlife health. Only with analysis of differing management approaches can the value or deficiency of each management plan be determined. Each plan can then be modified to utilize the most effective aspects of the competing plans and discard what isn't working.

The forth general comment is in regard to the voluminous quantity of un-useable maps. Seventy (70) pages of blurry, over marked maps that are way too small for the citizen to determine where their favorite recreation area is let alone determine the plan's intent is a waste. Magnifying the map CD to 300% still leaves the observer with no detailed idea of exactly what the BLM is trying to show. Way too much information on a map that is way too small to determine detail. EIS Volume I, page ES-13 Delineated GRSG Management Areas states: “Due to differences in state-level mapping efforts in Idaho and Montana, there is currently no consistent designation of specific GRSG seasonal habitat or vegetation across the sub-region.” How can you produce maps and designate habitat when there are “differences” in mapping efforts?

Our final general comment concerns the cost of producing the five (5) volume “Sage-Grouse Plan” for Southwestern Montana and Idaho. This appears to be an extravagant expenditure of taxpayer monies that could have been better spent

hiring the best lawyers to press the case to the Federal Judiciary that the sage-grouse is not threatened in most of the United States. Currently it appears that the U. S. Forest Service and the Bureau of Land Management are budgeting more and more resources on administrative appeasement of radical environmentalist organizations than on the ground locally developed improvements to the land. Locking man out of public lands and removal of multiple-use strategies does more harm to wildlife habitat than federal agencies will admit. A fundamental change in how the agencies spend their limited resources must be developed before public lands are lost forever.

In the introductory letter dated November 1, 2013 on page one of EIS Volume I paragraph one states “This document has been prepared in consultation with cooperating agencies and in accordance with the National Environmental Policy Act of 1969,…” This is a gross misstatement. The U.S. Fish and Wildlife Service created an inaccurate, incomplete and flawed Species Assessment and Listing Priority Assignment Form and ran. Until such time as the Service is forced to join in the development of the plan and defend the listing of avian predators that are creating suspected declines in sage-grouse numbers, this plan will be a sham designed to remove man from public lands. If there is truly a problem with sage-grouse numbers then all contributors to the decline, including ESA listed species, in those purported numbers must be addressed.

Again from the introductory letter dated November 1, 2013 paragraph two concludes with the statement: “All actions analyzed in this Draft LUPA/EIS would apply to the lands and resources managed by the BLM and US Forest Service.”

An open house scoping meeting was held at the beginning of this process in January 2012 at the National Guard Armory in Dillon, MT. The handout, National Greater Sage-Grouse Planning Strategy: Purpose and Need states: “Amending the existing LUPs will provide long-term consistency and an adequate approach toward managing greater sage-grouse habitat on BLM-and Forest Service-administered lands in the affected states, as well as habitat administered by other agencies and privately owned habitat.” The BLM representative conducting the sage-grouse open house in Dillon on 9 January 2014 stated that the handout was simply a “poorly worded statement” and I “misinterpreted” the meaning of the statement on the 2012 handout. “The agencies involved would never interfere in private property rights.” Past actions by the federal government has shown contempt for private property

rights and a willingness to circumvent the Constitution. This over reaching mentality of the Federal government must be ended and any federal employee trying to impose his/her Big Brother Plan on private property must be terminated.

The Montana “Draft Greater Sage-Grouse Habitat Conservation Strategy” speaks of land and habitat without any de-lineation between federal, state or private property. This is problematic from many perspectives. Now there are three documents with three perspectives of what sage-grouse habitat is and how it is to be managed. The BOA is adamantly opposed to any infringement on private property rights. The overreach of the federal government into the operations of farmers and ranchers that are feeding our nation must be removed from any plans. As mentioned in the “Ten Ways to Improve the Endangered Species Act” incentive based co-operation with landowners is preferable to rules and regulations.

Volume II A, Table 1-5, page 1-39: County Land Use and Sage-Grouse Management Plans lists Growth Policy dated June 20, 2005 as the reference for Beaverhead County, Montana. Our perspective would have indicated information on county land use policy for Beaverhead County, Montana would be found in the “Beaverhead County Public Lands Resource Use Policy and Plan”

Table ES-2, Identified Threats to Greater Sage-Grouse, the USFWS lists invasive species as the number one threat to sage-grouse while both Montana and Idaho list fire/wildfire as number one. Conifer encroachment is listed as number nine. Isn't conifer encroachment an invasive species along with juniper? These two could be combined into one comprehensive plan although conifer encroachment requires a chain saw and invasive grasses requires better fire management (number 3). Have the courts rejected environmental litigation in favor of logging contracts to reduce conifer encroachment? Has the Forest Service and BLM used the habitat restoration for Endangered Species Act purposes argument in court to allow timber harvest for the purpose of reduction of conifer encroachment?

Fire and invasive species are also interconnected. For ten thousand (10,000) years the Native American peoples have used fire as a management tool (References on the American Indian Use of Fire in Ecosystems, Gerald W. Williams, PhD.). “Generally, the American Indians burned parts of the ecosystems in which they lived to promote a diversity of habitats, especially increasing the “edge effect”, which gave the Indians greater security and stability to their lives.” Through scheduled and purposeful low intensity fire application to the ecosystem

the Native Indian Tribes maintained a vibrant ecosystem.

Current fuel loads on both forested and grasslands are at a critical point in the West. When a fire occurs today the result is far too often an intense conflagration that consumes everything, wildlife and livestock, public grasslands and hay meadows. This is the result of management by environmental litigation and court edict. The Federal managers should look to the private property land managers to see what works and defend them in court as policies that work. The “control group” in the scientific habitat management experiment previously suggested. The agencies should reject all wilderness (no management) legislation and support forest fuel load reduction (HR 1526) to improve habitat for all species. The best tool to reduce wildfire is prevention. Prevention requires logging, removal of overgrown sagebrush stands, and most important prescribed fire on a regular basis to prevent catastrophic fire that sterilizes the soil. Only invasive species seem to thrive in habitats burned by intense fires.

Some fires (low intensity) should be allowed to burn to remove fuel load and prevent intense, catastrophic fires. When fires require response the use of retardants becomes a problem. Have all fire retardants been thoroughly tested and found to be environmentally safe? Under court order the U.S. Forest Service issued the December 2011 “Nationwide Aerial Application of Fire Retardant on Forest System Land” Record of Decision. Page 2, Decision:” “Aerial retardant drops are not allowed in mapped avoidance areas for threatened, endangered, proposed, candidate or sensitive (TEPCS) species or in waterways.” Will this determination by the Forest Service preclude the use of fire retardants on all other public lands? The BLM representative conducting the 9 January 2014 Open House in Dillon informed me that the Retardant ROD only applied to Forest Service Waterways. That is NOT what the ROD says. Mapped areas of critical habitat for threatened or endangered species are also included. Once the Preliminary Priority and Preliminary General Management Areas become final and “Mapped” are they automatically added to the map contained within the ROD? Will the court add the BLM lands to this ROD during the next round of litigation that is assured to occur? Is the Forest Service required to amend the ROD to include new “mapped” areas of concern? We are currently “amending” multiple Land Use Plans (LUP) to accommodate perceived sage-grouse declines. When will scientific all encompassing land management be returned to public lands?



Climate change discussion in a scientific document can only reflect the fact that the earth's climate has been changing continually since creation. The earth has gone through heating (Jurassic) and cooling (Ice Age) for millions of years without man's influence. The current revelations of data manipulation by certain scientists working for the IPCC casts a large shadow on any data from this organization. Current independent temperature data in fact shows some cooling taking place. All references to manmade climate change and any management decisions formulated by this manipulated data must be removed from this plan.

Cattle and sheep grazing have been targeted as the villain causing all of the problems on public land. The opposite in fact is the truth. Grazing promotes wildlife habitat health. The rangelands of the West have simply changed one of the grazing species. At the time of westward expansion American Bison numbered in the tens of millions (est. 30-50 million) and roamed the Great Plains grazing where the pastures were the greenest. Replacing the tens of millions of bison with a few million cattle and fewer sheep reflects the need for increases in grazing. Fire has been listed as the third most important factor in sage-grouse decline. Invasive species are listed as the number one threat to sage-grouse habitat. Grazing reduces fuel loads in sage brush steppes while fertilizing the same area. When properly utilized in large enough numbers, sheep and cattle grazing improves habitat in a similar manner as the millions of bison that once covered the West.

In conclusion the Beaverhead Outdoors Association recommends Alternative A, No Action. We would further suggest a more active fuel reduction policy combined with defending that policy in court with determination. Presenting the theory, in court, that fuel reduction protects endangered species will deflate the no management preference of the environmental community.

A one size fits all plan must be replaced by local plans that fit the conditions within the local community. Logging, grazing and reductions in invasive species (conifers and cheat grass) should be coordinated to produce range lands that will support all species.

Steve Jennings  
Beaverhead Outdoors Association

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:

blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	1/14/14
Name:	Aron Bennett
Address:	1301 Hwy 67. Grand View, ID 83624

The BLM + USFS should adopt Alternative E,  
the Idaho Governor's Alternative. This is ~~the~~  
alternative uses a robust adaptive management  
strategy on the most urgent threats to  
sage grouse and an aggressive approach  
to fire and fuels management.



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## BRC Comment Letter - Draft LUPA/DEIS - Idaho and Southwestern Montana Greater Region

1 message

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Don Amador <damador@cwo.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov  
Cc: Don Amador2011 <damador@cwo.com>

Wed, Jan 29, 2014 at 1:24 PM

Dear BLM,

Please find a copy of BRC's comment letter on the Draft LUPA/DEIS - Idaho and Southwestern Montana Greater Region

Best regards,

*Don*

Don Amador  
Western Representative  
BlueRibbon Coalition, Inc.  
555 Honey Lane  
Oakley, CA 94561  
Office: 925.625.6287  
Email: [brdon@sharetrails.org](mailto:brdon@sharetrails.org)  
Web: [www.sharetrails.org](http://www.sharetrails.org)





Sage Grouse Idaho.MT BLM.BRC.Comments.1.29.14.pdf

357K



January 29, 2014

*(Sent via U.S. Mail and electronic transmission)*

BLM—Greater Sage-grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709.

Re: DLUPA/EIS -Idaho and Southwestern Montana Greater Region

Dear BLM Planning Team:

This correspondence will act as the official comments of the Blue Ribbon Coalition (BRC), a national trail-based recreation group, regarding the Idaho and Southwestern Montana Greater Sage-Grouse Draft LUP Amendments/Draft EIS.

This document shall not supplant the rights of other BRC agents and organizational or individual members from submitting their own comments and the agency should consider and appropriately respond to all comments received. For purposes of this comment document, the Greater Sage-Grouse will be referred to hereafter as the Grouse.

In our March 20, 2012 scoping comment letter (see attached), BRC urged a “common sense” approach to management. BRC believes local land managers at the Resource Area/Field Office or Forest/District level should be heavily involved with the motorized public to establish achievable goals for protection of the Grouse (lek /nest disturbance, wintering areas and sagebrush steppe habitat degradation) and to mitigate potential affects upon recreation through designation and active management of existing and inventoried routes.

Blanket closures should always be viewed as the most extreme measure to undertake after all other management techniques and measures have failed. BRC believes that sound, proven OHV management techniques can allow the agency to protect the Grouse and habitat and to provide for all forms of responsible, family oriented OHV/ORV recreation.

BRC concluded the Grouse has been intensively studied for the last 60 years and there are a number of factors that have been identified as major contributors to the decline of the species. These include but are not limited to:

- Habitat destruction/modification thru urbanization/fragmentation
- Introduction and dominance of invasive annual grasses and noxious weeds
- Intrusion of Juniper ecotype
- Wildfire and fire management including prescribed burns
- Predation
- Fragmentation from fences, power-lines, roads and other infrastructure
- Hard and liquid mineral leases and development
- Livestock and wildlife grazing
- Wild horse/burro management
- Disease (including West Nile Virus)

In reviewing the available literature and studies as noted in our March 20, 2012 letter, BRC noted there is little to no information suggesting that motorized/mechanized access on designated routes is causally related to Grouse decline or habitat destruction, and there are no definitive studies to that effect cited anywhere in the database. Particularly considering the intense scrutiny and collective scientific energy expended on this species, BRC concludes that motorized/mechanized recreation in any of its forms does not have a significant impact on the Grouse. The USFWS listing petition decision supports this as well. Motorized recreation and/or OHV/ORV are barely mentioned and the limited references are anecdotal in nature. However, BRC does understand that OHV-related site-specific research may be needed to fine tune vehicle-based recreation on roads, trails, and areas so that future Grouse-friendly motorized access is assured.

## **IMPLICATIONS FOR VEHICULAR RECREATION**

In response to the listing decision and as the lead agency, the BLM, where most of the Grouse habitat is located, issued its National Greater Sage-Grouse Planning Strategy (Charter) and subsequent Instruction Memorandums (IM), along with various FAQ sheets, range maps and other incidental publications.

The production of National Environmental Policy Act (NEPA) documents such as this Draft LUPA when completed, will guide future management decisions for the Grouse and associated sagebrush steppe habitat. Because of the size of the landmass involving current Grouse habitat and distribution, BRC considers the production of this NEPA document to be a major landscape level decision. The Final LUPA/EIS and Record of Decision (ROD) will affect motorized recreation.

BRC is remains concerned this process has the potential to greatly affect/impact all aspects of motorized/mechanized recreation, from traditional camping, hunting and fishing access to access for photography, bird watching, mountain biking, boating, cross country skiing and wilderness areas. Most of all, this proposal could have a serious negative impact on casual OHV use and permitted special events such as enduros, trials, hare-scrambles and dual sport rides. All forms and aspects of motorized recreation --off-highway/off road motorcycle, dual sport/adventure sport motorcycle, ATV, SBS, OSV, 4WD and even all street legal vehicles -- could be adversely yet unjustifiably impacted, should the agency craft a "one size fits all" decision.

This has occurred in the past when elements of the motorized recreation community were not sufficient engaged in the planning process. OHV was not included in many of the stakeholder planning and political efforts associated with the Northern Spotted Owl because the issue was cast primarily as a “resource industry” problem. Recreation, including OHV use, was hardly mentioned.

Because of that lesson, BRC has been engaged from the beginning of the Grouse issue. That involvement has included submitting scoping comments in the very early stages of this issue and by submitting comments on subsequent DEIS plans. BRC has also been urging its members and land use partners to attend public meetings and to also submit comments.

As BRC has noted, Grouse leks are concise, well-established, historic areas that are used and usually identified for decades. Since leks are mostly in use for strutting/mating during crepuscular hours and motorized recreation is generally NOT undertaken during those hours the two can be successfully separated.

BRC also notes the BLM, like the Forest Service, state, county, local and tribal land management agencies are moving towards a mostly “designated route” planning effort for use of roads and trails that are compatible for motorized recreation use and we support that concept. On Forest Service lands the designation of routes are being driven by the 2005 Travel Management Rule Plans and in BLM planning efforts that have been developed or revised in 2008 and later where travel has been changed in most areas from “Open” designation to “Limited” per agency policy established in 2007.

While BRC supports OHV use limited to existing or designated routes, BRC also believes that an “open” to cross-country travel designation is an important recreational opportunity and is appropriate at some units. “Open” areas are often active sand dunes or associated staging areas that have minimal, if any, areas of even possible Grouse habitat.

Except for OSV winter use, where snowpack allows, BRC recognizes that unauthorized/unmanaged cross country travel can impact both wildlife and habitat.

BRC believes the preferred Alternatives D/E recognized the local Ranger District and Field Office level recreation planners and managers are the best suited to work with the motorized stakeholders to establish a manageable, designated, user- and nature-friendly route network for motorized access. This includes access roadways away from paved highways, high clearance routes for pickups, jeeps and other 4WD vehicles that can be shared under combined use by other OHV/ORV categories such as trail bikes, ATV/SBS and or OSV in the winter. Lesser used but just as important to the motorized community are rural 2 track routes, ATV width trails and trail bike single track width routes. Routes that are duplicitous, fill no need or are illegally established may often be properly considered for closure and/or rehabilitation. The desired condition is an adequate system/mixture of routes of suitable length and skill levels that follow Best Management Practices (BMP) established by Best Available Science (BAS).

BRC commends the agency for embracing the concept of limiting OHV use to existing and/or designated roads and trails as a primary strategy to help protect Grouse habitat. BRC believes this is the appropriate method by which to “minimize” impacts and otherwise comply with applicable law.

BRC supports the LUPA revision/amendment process, travel and transportation area decisions (open, limited, or closed) would be revisited at the local level based on existing inventory information associated with a myriad of resources and resource uses.

The local Forest/District or Field Office level comprehensive review of the recreation activities that occur in the amendment areas is important. Throughout most of the planning area recreational activities are mostly dispersed and do not rely on developed facilities and use is year-round and consists of varied activities including hiking, mountain biking, OHV riding, camping, hunting, and scenic touring. Day use is high, and there are very few developed facilities. Areas of concentrated use occur at popular destinations. There could be many motorized special events, mostly in late Spring, that could be adversely impacted by Alt. D/E. BLM permitted events include competitive motorcycle races, OHV and other vehicle races, competitive horse endurance rides, organized camping events, and competitive mountain bike races. These types of events and use patterns need to be understood and addressed at the site-specific level as opposed to being painted over by some generic, one-size-fits-all management direction.

The agency should allow SRPs and Forest Service Recreation Special Use Authorization (RSUA) in PPMAs and PGMAs that have neutral or beneficial effects on Grouse.

BRC support agency direction in Alternatives (D/E) that empowers local land managers the ability to grant special recreation permits. Depending on need and other factors, mitigation or restrictive measures could be placed on types, locations, and timing of activities to ensure consistency with the related management objectives. Group events could be subject to seasonal or timing prescriptions, which could limit the ability of some participants to attend. For example, many recreation events for which permits are issued on public land take place in June. In June the grouse are on nests and brood rearing. If the proposed activity poses a threat, the event may be moved or timing changed in order to reduce impacts during this period. It is possible that organizers may decide not to hold their event if they cannot hold the event at a particular time. This would represent a reduction in opportunity for participants who would otherwise have been attending such events each year. Regardless, it is essential that these factors be evaluated and decisions ultimately made at a site-specific level, and not through some broad criteria that cover all public lands.

BRC believes Alternatives D/E will enhance critical habitat, inhibit degradation, and avoid unwarranted impacts to historic OHV recreation including permitted events in proposed unit lands, BRC is recommending the agency review – and adopt as appropriate - the following (and proven) OHV management prescriptions into the Final LUPA/EIS and Record of Decision.

### **OHV Management Prescriptions**

**OHV Management Guideline One:** Limit Use to Existing and/or Designated Roads and Trails

**Overview:** On Forest Service lands, no off-road driving is allowed; the BLM does allow some cross-country travel in “Open” areas. Existing travel routes on BLM have not been completely evaluated through a travel management planning process and have not been completely “designated.” The current OHV designation for much of the BLM managed land in the amendment area is “open” to unrestricted cross-country travel.



“Open” to cross-country travel is an important recreational opportunity and is appropriate at designated sites.

**Prescription:** Except where “Open” OHV use is appropriate (i.e. sand dunes, specific geographic locations, designated/destination OHV areas, etc.), prohibit cross-country travel as the agency’s primary OHV management tool. Limit OHV use to existing use where travel plans have not yet been completed and restrict OHV use to designated roads and trails where travel plans have been completed. Casual driving and use of existing or designated trails should be considered a diffuse disturbance with no long-term effects.

#### **OHV Management Guideline Two** – Limited Operating Period for OHV Permitted Events

**Overview:** There are many motorized special events in the planning area, mostly in June. These include competitive motorcycle races, OHV and other vehicle races, competitive horse endurance rides, organized camping events, and competitive mountain bike races. Lekking occurs between March 1 and May 15.

**Prescription:** Between March 1 and May 15, prohibit OHV events from using routes that pass through an active lek. Impose a time of day restriction (after 10 a.m.) for routes that pass within ¼ mile of an active lek. Consider a reroute around the active lek site as preferable to a seasonal restriction or closure on said route.

#### **OHV Management Guideline Three** – OHV Sound Restriction

**Overview:** Although there are not studies specifically focused on the noise effects of OHV use on the Grouse, there are OHV noise studies related to the Northern Spotted Owl (specifically OHV events) and other wildlife. At least one project shows that noise levels could affect the breeding success of the owl. BRC believes that noise impacts to wildlife must be addressed when managing routes for OHV use. Land managers in states that do not have any statewide OHV sound laws should consider adopting sound laws for special management areas or units that have been designated as critical habitat. (40 CFR, Chapter 1, Section 201.158)

**Prescription:** Adopt a defensible standard OHV sound regulation for grouse mitigation. Consider Idaho’s OHV Sound Law – A muffler and Forest Service approved spark arrestor. Your muffler must be at or below 96dB at the half-meter test, SAE J1287. IC 67-7125

#### **OHV Management Guideline Four** – Invasive Species

**Overview:** Cheatgrass and Medusahead wildrye have become the most problematic of the exotic annual grasses within the Sage-grouse Conservation Area” (Miller et al. 2011) OHVs can inadvertently spread invasive/noxious weeds including cheatgrass and medusahead. It is important that vehicles be weed-free before travelling off-highway. Thoroughly washing the OHVs will ensure that the seeds are removed and will help mitigate the spread of noxious weeds.

**Prescription:** Adopt and promote an invasive species related prevention/education program based on the tenets at - <http://playcleango.org/>

**Conclusion:**

BRC strongly feels that the right blend of Alternatives D/E could allow the agency to meet its goals and objectives to protect the Grouse and its habitat without unnecessarily or unjustifiably restricting responsible, managed motorized recreation. Thank you for this chance to comment and we look forward to assisting in the NEPA planning process as it moves forward.

Sincerely yours,

*Don*

Don Amador  
Western Representative  
BlueRibbon Coalition, Inc.  
555 Honey Lane  
Oakley, CA 94561  
Office: (925) 625.6287  
Email: [brdon@sharetrails.org](mailto:brdon@sharetrails.org)

Attached: BRC March 20, 2012 Scoping Comment Letter  
[http://www.sharetrails.org/uploads/Sage\\_Grouse\\_BRC\\_scoping\\_comments3.20.12.pdf](http://www.sharetrails.org/uploads/Sage_Grouse_BRC_scoping_comments3.20.12.pdf)

cc: Idaho Greater Sage-Grouse Management Planning Team  
BLM Greater Sage-Grouse EIS





SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Please Protect habitat for Greater Sage-Grouse

1 message

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Greg Bodker <lbodker@hotmail.com>

Wed, Jan 22, 2014 at 2:27 PM

Reply-To: lbodker@hotmail.com

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Dear Bureau of Land Management officials:

I am an active birder in Michigan and enjoy traveling around the states to see birds. I have birded CA, AZ, TX, AK, NV, and MO so far. One year I will take a vacation in hopes of seeing a Greater Sage Grouse.

Please take all actions available to save critical breeding habitat for this bird. Birding, Eco tourism, and Eco photography have an economic benefit to those in the area where people want to visit. It is incumbent on the BLM to protect that land so people want to visit an area. Not only to protect Eco tourism, but to protect a species that cannot protect itself from man's decisions.

Thank you for considering these comments.

Greg Bodker  
138 Frisco Drive  
Houghton Lake, MI 48629



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Idaho and Southwest Montana Sage Grouse Land Use Plan - Comment

1 message

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Bortz, D (Dennis) <Dennis.Bortz@raboag.com>

Wed, Jan 29, 2014 at 10:30 AM

To: "blm\_id\_swmt\_sagegrouse\_eis@blm.gov" <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Good Morning,

I would like to take a few minutes to voice my support for Governor Otter's Alternative "E" as the final management plan for managing sage grouse in Southern Idaho.

As a cattle producer, I take very seriously the stewardship of the rangeland I use. I think we can all relate to the pride we feel when we leave something better than when we "found" it. The same goes for our rangelands - both public and private. We have a civic duty to manage those lands in such a way to safely produce protein for human consumption; improve and maintain habitat for the wildlife that share those lands; and to preserve and maintain the recreational opportunities that our region offers. This stewardship needs to be driven by sound science and not ulterior agendas that are often "cloaked with the welfare of habitat or wildlife".

I believe the Governor's alternative "E" provides a plan for that type of stewardship.

Dennis R. Bortz, ARA

VP Senior Appraiser

Pacific Territory

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Rabo AgriFinance  
237 Canyon Crest Dr., Twin Falls, ID 83301

Phone: (208) 737-6851 / Fax: (855) 631-0289 / Cell: (208) 650-9411

Email: [dennis.bortz@raboag.com](mailto:dennis.bortz@raboag.com)

Please consider the environment before printing this e-mail.

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SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage Grouse EIS

1 message

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Nancy Brackett <nancyb660@gmail.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 12:50 PM

To Whom It May Concern:

I submit the following comments on the BLM and Forest Service sage grouse management proposals. Idaho's Governor's Alternative E should be the sole final alternative for managing sage grouse within the state of Idaho.

Alternative E is based upon already existing Idaho Rangeland Health Standards and upon the premise that any management changes should be linked to the population status of the bird which must be conducted on a site-specific basis.

If the sage grouse populations are stable, there should be no need to trigger additional management measures. If the species population is threatened for any specific area, changes to grazing management will not be made unless it can be proven that improperly-managed grazing is the casual factor and will be weighed against the habitat capabilities.

Livestock grazing provides an effective line of defense against fire and noxious weeds.

Wildfire is the greatest threat to destroying sage grouse habitat. Livestock grazing should be used to reduce the risk of catastrophic wildfires, improve forage, and remove invasive species, and provide open space.

Alternative E has an aggressive approach to fire and fuels management. It incorporates livestock grazing as a mechanism for fuels reduction. It also highlights the significance of Rural Fire Protection Association in the Sage Grouse Management Area.

Also, to be considered are the impacts to our human environment and economy, including grazing, mining, oil and gas, and other multiple-use industries. If grazing permits are reduced as a result of this effort, the negative economic impact to rural communities would be significant. The final EIS should acknowledge the human circumstances and the consequences to the economy.

Alternative E offers the best option for conserving sage grouse and its habitat and achieving the goal of avoiding an unnecessary federal listing of the species, while protection and maintaining land-use activities in the state and preserving Idaho's way of life.

Sincerely,  
Nancy Brackett

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:

blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	1/14/14
Name:	Lee Brashtaw
Address:	1916 Fillmore St Culbuck, ID 83605

The BLM & USFS should adopt Alternative E, the  
Federal Government's Alternative as the sole or final  
alternative for managing sage grouse within the state  
of Idaho. Alternative E centers around meeting  
the Idaho Rangeland Health Standards (IRHS).  
The Alternative E strategy includes habitat  
characteristics to be incorporated into relevant  
grazing permits or guidelines upon permit  
renewal, as well as adaptive management process  
to adjust grazing outside of the normal schedule  
permit renewal process if grazing is determined  
to be a causal factor in GRSB population or  
habitat decline. This component also  
provides much much needed predictability for  
livestock producers who operate in GRSB habitat.





SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## SAGE GROUSE EIS COMMENT

1 message

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James Brendemuehl DVM <jpbdvm@mindspring.com>

Mon, Jan 27, 2014 at 8:07 PM

Reply-To: jpbdvm@mindspring.com

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Feral horses and burros are not native species.

They were introduced by man.

Sage Grouse are native species and should be protected.

Cattle and sheep are not native species and should not be considered superior to the native species.

James Brendemuehl DVM  
3565 LEE ROAD 10  
AUBURN, AL 36832



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Support Alt. 3 for managing Sage Grouse

1 message

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randolph brown <farmerrandybrown@hotmail.com>

Mon, Jan 27, 2014 at 6:43 PM

To: "blm\_id\_swmt\_sagegrouse\_eis@blm.gov" <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

January 27, 2014

To Whom It May Concern,

As an Idaho rancher, I submit the following comments on the BLM /Forest Service sage grouse management proposals. My Livelihood depends on my ability to graze livestock on public and private lands. As such, it is in my best interest that the lands are managed to optimum condition, which is both ecologically and economically beneficial. I am concerned that the pending effort to significantly amend the land use plans has the potential to create unnecessary restrictions on my ability to graze livestock and will result in unintended consequences that will be more harmful than helpful to sage grouse.

For these reasons, I encourage the BLM and Forest Service to adopt Alternative E, the Idaho Governor's Alternative, as the sole final alternative for managing sage grouse within the state of Idaho. Alternative E. offers the best option for conserving sage grouse and its habitat and achieving the goal of avoiding an unnecessary federal listing of the species, while protecting and maintaining land-use activities in the state and preserving Idaho's way of Life.

Sincerely,

Randy Brown  
Rexburg, Idaho



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Idaho and Southwest Montana Sage Grouse Draft Land Use Plan amendment and environmental Impact Statement

1 message

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Josh Bruce <bruc0002@hotmail.com>

Tue, Jan 28, 2014 at 11:13 AM

To: "blm\_id\_swmt\_sagegrouse\_eis@blm.gov" <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

To whom it may concern,

As an Idaho rancher, I submit the following comments on the BLM/Forest Service sage grouse management proposals. My livelihood depends on the ability to graze livestock on public and private lands. It is in my best interest that the lands are managed to optimum condition, which is both beneficial for the cattle and the sage grouse. I am concerned that the pending effort to significantly amend the land use plans had the potential to create unnecessary consequences that will be more harmful than helpful to sage grouse.

For these reasons, I encourage the BLM and Forest Service to adopt Alternative E, the Idaho Governor's Alternative, as the sole final alternative to managing sage grouse within the state of Idaho. Alternative E offers the best option for conserving sage grouse and its habitat and achieving the goal of avoiding an unnecessary federal listing of the species, while protecting and maintaining land use activities in the state and preserving Idaho's way of life.

Bruce Ranch LLC

*Josh Bruce*

208 318 3336

Fax 1-830-331-1649

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:  
blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	Jan 14, 2014
Name:	Art Butler
Address:	269 Spring Creek Rd Bliss ID 83314

As an Idaho Rancher I fully support  
and encourage the BLM and USFS to adopt  
Alternative E of the sage grouse management  
plan. This plan recognizes the #1 threat  
to grouse is fire and a good, effective &  
economical tool for fire control or suppression  
is livestock grazing. This alternative  
would result in the best chance for  
sage grouse and the the most beneficial  
to Idaho communities and least harm  
to ranchers who depend on public lands  
for our livelihood.

Sincerely  
Art Butler  
Bliss ID

4

Dillon

I would like to thank you for the opportunity to give testimony tonight.

Wayne J. Butts the chairman of the  
My name is Wayne J. Butts and I am a Custer County Commissioner in Custer County with Challis being our county seat. We have over 3 mil acres of State & Federal owned land with only 158,000 acres of taxable land. Custer County, located in central Idaho contains just over 982,000 acres. Your area has

acres of sagebrush uplands, many of which are home to the Greater Sage Grouse. Within Custer County 236,379 acres of Sage Grouse preliminary priority habitat and 1,213,677 acres of Sage Grouse preliminary general habitat have been identified.

Although Sage Grouse populations are thought to be suppressed from historic levels, the population within Custer County is widely dispersed and currently has adequate surplus to allow for a limited, regulated harvest under the management of the Idaho Department of Fish & Game.

2

Although Custer County does not agree with the Governor's plan because of it's lack of good scientific data. If that is what it takes to keep our permittees on their allotments, then we support our permittees.

The Custer County Commissioners are proposing a Coordinated Initiative involving representation from the following:

Custer County Commissioners

US Fish & Wildlife

BLM

Forest Service

Idaho Department of Fish & Game

Office of Species Conservation

Challis Local Working Group

Natural resource Advisory Committee

*unsuccessful with the Tribes*

13

These departments will, through the Intense Sage-Grouse Predator Control Study Area, ensure that the lands within Custer County are managed to provide for viable population of Greater Sage Grouse dispersed across suitable habitat such that sustainability concerns are addressed today and into the future. Our study group will put together a ten year program to collect scientific data of what we feel is the true threat to Sage Grouse habitat and what will need to

be done to protect or enhance it. We truly feel that predation is the top priority not fire. The one size fits all party has does not work for Custer County. Our local working group has decades of quality Scientific data which

includes collaring and Lek studies. This information is available in layers that we can build on.

The Governor's plan certainly fits the needs of the Treasurer Valley. which burns EVERY year,

We too deserve a study for our area and areas like ours. So we have taken the lead in the state of Idaho to address predation

Thank you

Wayne J. Butts  
Custer County Commissioner  
208-833-2332



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Alternative E

2 messages

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Timbri Hurst <timbri.hurst@cassiacounty.org>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 11:33 AM

Please see attached from the Cassia County Commissioners regarding their stance on the Greater Sage Grouse EIS Alternatives.

### Timbri M. Hurst


Cassia County Administration

(208) 878-7302 ex. 235

Fax: (208) 878-3510

*Come what may and love it!*

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 GreaterSageGrouseAlternative.pdf  
48K


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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: IDMTSagegrouse\_EIS@empsi.com

Mon, Jan 27, 2014 at 11:35 AM

[Quoted text hidden]

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 GreaterSageGrouseAlternative.pdf  
48K





Office of the Board of County Commissioners

Cassia County, Idaho

COURTHOUSE

1459 Overland Ave., Rm. 4

Burley, ID 83318

Dennis D. Crane, *Chairman*  
Paul Christensen, *Commissioner*  
Robert "Bob" Kunau, *Commissioner*

Phone: 208-878-7302  
Fax: 208-878-3510  
[www.cassiacyounty.org](http://www.cassiacyounty.org)

January 27, 2014

BLM- Greater Sage Grouse EIS  
1387 South Vinnell Way  
Boise, Idaho 83709

Sent via email only to: [blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

To whom it may concern:

Cassia County Commissioners support: (ES.6.6 Alternative E)

Alternative E focuses primarily on management for the threats of wildfire, invasive species, and large infrastructure projects, and secondarily on management for the threats of improper livestock grazing management and related infrastructure, West Nile Virus, and recreation. It recommends use of an adaptive management approach and implementation of triggers or thresholds that adjust zone criteria. There would be a 5 percent disturbance cap associated with fluid mineral development under Alternative E.

We feel that Alternative E would cause less of an economic impact to Cassia County.

Board of Cassia County Commissioners:

DENNIS D. CRANE, Commissioner Chair

PAUL CHRISTENSEN, Commissioner

BOB KUNAU, Commissioner

# IDAHO AND SOUTHWESTERN MONTANA GREATER SAGE-GROUSE DRAFT LAND USE PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT



## COMMENT CARD

Please check your affiliation below:

<input checked="" type="checkbox"/> Individual (no affiliation)	<input type="checkbox"/> Citizen's Group
<input type="checkbox"/> Private Organization	<input type="checkbox"/> Elected Representative
<input type="checkbox"/> Federal, State, or Local Government	<input type="checkbox"/> Tribal

Name: Joe Caywood

Organization (if applicable): \_\_\_\_\_

Street Address: Box 3

City/State/Zip: Tennoy ID 83468

If you wish to provide written comments, please write your comments below (use back if needed). Written comments may be submitted using this card, an e-mail, or any other written format provided to the BLM by the means noted below and within the public comment period.

Comments:

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**Please submit tonight or mail/email by January 29, 2014 to:**

BLM-Greater Sage-Grouse EIS  
1387 S. Vinnell Way, Boise, ID 83709

**E-mail:** [blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

<sup>1</sup> Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

Joe R Caywood  
PO Box 3  
Tendoy, ID 83468  
(208) 756-2553

January 8, 2013

**To: Bureau of Land Management – Greater Sage Grouse Planning leaders**

**Subject: Comments on Public Meeting of Greater Sage Grouse Planning Efforts**

I have questions on why reduction in livestock grazing is being considered in an effort to restore sage grouse?

In an effort to fully understand the situation I have researched various reports and data from the Idaho Fish and Game, BLM and other sources. Looking at this data one of the only negative comment on grazing impact to sage grouse is referenced in the 1997 Fish & Game recovery plan tied directly to comments that some of the public feel strongly that grazing and hunting have caused declines and demand that these two activities cease.

Sage grouse and related species population west of the Rocky Mountains varied greatly in the last 200 years depending on climate conditions ("little ice age" of 1815, winter of 1886, droughts of 1864, 1895 and 1935) understanding during this time period different versions are passed down by various people. From sources I have researched sage grouse reached their peak after WWII in about 1946 to 1950.

Utilizing the US Department of Interior BLM grazing data use on USDI-BLM lands 1953 to 1998 shows:

- Approximately 18 million AUM in 1953
- Approximately 17 million AUM in 1960
- Approximately 14 million AUM in 1980
- Approximately 12 million AUM in 1998

Specifically looking at sheep the US Department of Agriculture data shows that in 1946 approximately 56 million sheep grazed in the Western US compared to approximately 5 million in 2010 or a reduction of 91%.

From the 1997 Idaho Fish & Game plan it reported during the 1960's and 1970's large numbers of sage grouse and livestock were compatible resulting in good ecological conditions providing acceptable nesting, chick rearing and winter habitat. It was also noted that common concerns today with fire can be minimized with grazing practices.

Negatives about grazing in riparian areas has also been mentioned. I would like to note that the vast majority, estimated at over 90% of riparian habitat in Lemhi County Idaho is held by private landowners. If grazing is reduced on public lands and shifting those animals to private land it will have a negative impact on all fish, wildlife and birds in the riparian areas. Further negative impact may occur if grazing changes impact economic conditions and ranchers sell more ranch land is subdivided. In 2010 the American Farm Land Trust reported 40% of farm and ranch land was converted to other uses between 1960 and 2010. By 2020 it estimates 11% more will be lost.

The economic impact to the area is also a concern. The biggest income and tax base in Lemhi County is ranching operations and cattle sales. In an area such as Lemhi county that is suffering a loss of jobs, outdated and underfunded schools and a challenging business environment we must be thoughtful on the negative impact of reducing the most significant income and tax producer. As an example in Lincoln County Montana (Libby), it went from having on the highest income levels in all the state to having the greatest percentage of people on public assistance as a result of logging and fish restrictions in the 1980's that failed to help any endangered species.

If we are looking at opportunities to increase sage grouse numbers, is predator control being considered? Depredation by prey species has an significant impact on sage grouse (predators such as coyotes and fox as well as raptors such as hawks, eagles and ravens). In 1997 Tim Craig a local wildlife biologist conducted a sage grouse study for the Salmon Fish & Game. Grouse were study through radio telemetry and other field studies. In the Leadore area were ten sage hens were collared and tracked, over the winter 7 of the 10 were killed by coyotes.

Looking at the current conditions sage grouse continue to decline.

- If over 50% of sage grouse are being lost to predators
- If private land habitat continues to be reduced and turned into subdivisions
- If public land habitat is further reduced through road and energy development in other regions and states
- And all while grazing has been significantly reduced

Wouldn't we want to try and keep as much open space land available (ie ranching) and return to the conditions of 1950 to 1980? Understanding public land has many stakeholders, but it is the time to use facts and not make politically correct decisions on strong feelings of an unformed public.

Respectfully,

Joe R Caywood



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Central Idaho Range lands Network EIS Comments

1 message

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Aaron Harp and Heidi Berven <berv\_harp@fastmail.fm>

Wed, Jan 29, 2014 at 10:49 AM

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov


Please see the attached comments from the Central Idaho Rangelands Network regarding the "Idaho and Southwestern Montana Sub-regional Greater Sage-Grouse Draft Environmental Impact Statement."

Thank you for the opportunity to comment.

Aaron Harp, Ph.D.

For CIRN

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 CIRN\_SageGrouse\_EIS\_LetterandComments.pdf  
315K

# CENTRAL IDAHO RANGELANDS NETWORK

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*NETWORK PARTICIPANTS:*

Merrill Beyeler  
Beyeler Ranch  
Leadore, ID

January 29, 2014

Lowell Cerise  
Cerise Ranch  
Salmon, ID

Dave Ellis  
Beaverhead Peaks Ranch  
Carmen, ID

BLM-Greater Sage Grouse EIS  
Bureau of Land Management  
U.S. Department of the Interior  
1387 S. Vinnell Way  
Boise ID 83709

Glenn & Caryl Elzinga  
Alder Springs Ranch  
May, ID

Lava Lake Land & Livestock  
Hailey, ID

To Whom It May Concern:

Monte & Anne MacConnell  
Triple M Ranch  
Arco, ID

Attached please find the comments of the Central Idaho Rangelands Network (CIRN) regarding the "Idaho and Southwestern Montana Sub-Regional Greater Sage-Grouse Draft Environmental Impact Statement." CIRN recognizes the critical role that sage grouse play in the rangeland ecosystem of Idaho. As land owners and ranch operators, we are intimately involved in the stewardship of our range resources and formed the Network to ensure that we share the best information and management practices available to support that stewardship.

Tom & Seth McFarland  
Carmen Creek Ranch  
Salmon, ID

Tom Page  
Big Creek Ranches  
May, ID

CIRN is comprised of ten ranches with over 80,000 acres of private land and more than 1.5 million acres of federal and state grazing permits spread across South Eastern and Central Idaho from Salmon to Richfield. Much of this landscape, both public and private, is core sage grouse habitat or Preliminary Primary Habitat (PPH). Supporting sage grouse is consistent with our mission to foster innovative approaches to grazing, land and water management that sustain and enhance the natural and community values of our region. Managing our public land allotments in support of sage grouse populations is a vital part of this objective.

John Peavey  
Flat Top Sheep Company  
Hailey, ID

Shane Rosenkrance  
Mountain Springs Ranch  
Mackay, ID

*NETWORK PARTNERS:*

The Nature Conservancy  
Hailey, ID

We appreciate this opportunity to comment on the draft Environmental Impact Statement.

Trout Unlimited  
Hailey, ID

Sincerely,

Lemhi Regional Land Trust  
Salmon, ID

/s/ Aaron J. Harp, Ph.D.  
*For the Central Idaho Rangelands Network*

Salmon Valley Stewardship  
Salmon, ID

*COORDINATOR:*

Aaron Harp, Ph.D.  
Aaron.Harp@fastmail.fm

1. We support, in general, projects that work on long-term habitat enhancement for security, chick nutrition, moisture retention, and infrastructure removal and mitigation. With that in mind, we support Alternative D's broad-based approach to habitat recovery. The focus on conifer removal emphasized by Alternative E is too narrow. Conifer encroachment, particularly into aspen groves at higher altitudes, needs to be addressed on some of our allotments but only within the context of the larger landscape and overall habitat recovery planning.
2. The mapping efforts of the Challis Local Working Group have been solid, and the Alt E map for the Mountain Valleys region is more accurate than the map from Alternative D. As our Local Working Group maps are an accurate reflection of sage grouse and their habitat here, we would like to see the map designations for Alternative E be selected for use in the final alternative.
3. We support the need for better wildfire suppression and response efforts as proposed. We believe that rangelands need added emphasis on research into invasive and noxious weed species, such as cheatgrass, as well as the expanded control and suppression efforts represented in both Alternatives D and E. We would like to see the targeted grazing methods outlined in Alternative E included in the final alternative as we believe this is a vital tool for both vegetation management and wildfire suppression.
4. Regarding Rights of Way (RoW), we would support the compromise designation of "avoidance with limited exclusion" for RoWs, as suggested in Alternative D, as opposed to the less-stringent emphasis in Alt E, or the "exclusion with limited exceptions" as proposed in Alternative F. Regions such as the Upper Pahsimeroi are candidates for evaluation as an area of exclusion as there is currently no infrastructure in that area.
5. To reduce weed spread, fire risk and general disturbance, we support Alternative D with respect to ORV travel areas, where all travel within ID is limited to roads and designated trails; rather than Alternative E, which allows unrestricted ORV travel in many places.
6. We are concerned that under Alternative E, our Mountain Valleys region will become responsible for the maintenance of sage grouse populations over time. The restrictions needed to maintain 65% of the birds, as proposed by the Idaho Office of Species Conservation may well fall to our region as we have reduced levels of many primary threats to sage grouse populations such as wildfire, habitat fragmentation, cheatgrass, energy and human infrastructures that the other regions have. If this population trigger is maintained will the remainder of the region look to us to maintain dwindling sage grouse populations? Under such an outcome, none of the Alternatives offer a specific remedy for us as ranchers. In such a case, one alternative is a third-party voluntary and permanent buyout of permits. Another is the compensation of ranchers for supplying and improving habitat on allotments. Each of these is preferable to having the value of the permit fall to nothing due to restrictions or further AUM cuts and the fragmentation of land ownership into smaller parcels with uncertain management goals. We would like to see language supporting future agency and Congressional language legalizing such options for BLM permits included in the final decision.



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Comment submittal for the Challis Sage -Grouse Local Working Group

1 message

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Guyer, Vincent <vguyer@blm.gov>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tue, Jan 28, 2014 at 5:12 PM

The Challis Local Working Group has asked that I forward the following comments for the dEIS.

--  
Vincent Guyer  
BLM - Salmon Field Office  
208-756-5403

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 Comments to dEIS.docx  
25K



The Challis Sage-Grouse Local Working Group would like to submit the following comments to the Bureau of Land Management concerning the Idaho and Southwestern Montana Greater Sage-Grouse Draft Land Use Plan & Environmental Impact Statement.

- 1) It would be helpful if the final document is easier to understand. In the Draft, the reader has to flip between volumes within the document to find management details. For instance, Table 2-18 refers the reader to Appendix D often and it would be helpful to have page numbers in parentheses to locate the information more quickly.
- 2) Under Alternative E we want to make sure the language from Appendix D is incorporated into the Alternative in regards to Conservation Areas. Current language in Chapter 2, including Table 2-18, does not have the level of detail that the Appendix has on how the Conservation Areas work. For example, under the alternative description, it should state that there are four Conservation Areas. It should clearly state that if a trigger is reached in one Conservation Area, the adaptive management then only applies to that Conservation Area and not to the other three areas.
- 3) We suggest the portion of the Mountain Valley Conservation Area that is adjacent to the Desert Conservation Area between the Wood River and Mountain Home be included with the Desert Conservation Area. We feel that the issues are more similar with that conservation area then with Mountain Valleys.
- 4) The Areas of Critical Environmental Concern (ACEC) details need to be corrected. Two of the maps did not say which Alternative they represented. On page 2-65 under Alternative C the BLM will designate 39 new ACECs, but elsewhere the number 4 is used, including on Figure 2-44.
- 5) For Livestock Grazing/Range Management (LG/RM)-1 we do not agree with annual changes to grazing management. If changes are made every year managers and permittees would have difficulty knowing what is working and what is not working. We prefer the Alternative E approach of making changes after three years if data shows a decline in habitat or population. The Alternative E approach would provide more stability for permittees.
- 6) LG/RM-2 and RM-4 state that priorities for land health evaluations and permit renewals should be based on sage-grouse population and habitat information, but the BLM and USFS manage other listed T&E species concurrently. The alternative should use the terminology “*consider sage-grouse population and habitat*” rather than “*based on sage-grouse population and habitat*” in setting priorities.
- 7) LG/RM-2 discussed grazing management measures and habitat objectives under Alternative D. The discussion should include language such as “*not meeting one indicator or characteristic does not necessarily mean an area is not providing suitable sage-grouse habitat*”. This is important because site potential and capability need to be taken into account and Land Managers need to have the ability to adjust objectives based on principals of adaptive management. .
- 8) Alternative E/LG/RM-2 discusses adaptive regulatory triggers. These triggers should be defined and the subsequent changes to grazing permits should be transparent. (*i.e.* through an assessment and a grazing decision or through some other mechanism)
- 9) LG/RM-9 Alternative E: Instead of: “*Manage allotments only for the primary seasonal habitat that it has the potential to support.*” We would prefer, “*Manage allotments for seasonal habitat that it has the potential to support.*” Because in many areas seasonal

habitats overlap and we are managing for spring breeding/brood rearing, summer, and winter habitats in these areas.

- 10) Alternative E talks about an Implementation Team. We would like to see more detail on who the team is and when they become involved. What is their role?
- 11) For LG/RM-21 we support Alternative E. Flexibility is crucial for adaptive management.
- 12) We were unclear on how existing lands identified for disposal under current Land Use Plans would be affected under Alternative D. Would they still be available for disposal?
- 13) When avoidance areas and exclusion areas are discussed we were not sure if it applies to all rights-of-way (ROWs) or just those listed in Alternative D-Lands and Realty (LR)-3. We feel that there are some types of ROWs that would still be appropriate, for instance fish screens to promote listed fish recovery.
- 14) Under Alternative E there is also language about an Implementation Commission. We would like more clarification on what their role is and who they are.
- 15) We feel it is important to remember the budget cycles of the BLM and USFS when talking about adaptive management under Alternative E. For instance, if a threshold is crossed in spring or early summer, the agencies may not have the budget to change from managing an area as Important to Core until some funds can be appropriated in the next fiscal year.
- 16) We want to make sure that more precise habitat information can be used at the local level. For instance, there will be areas within mapped core habitat that are non-habitat but due to scale are included in the EIS maps.
- 17) We support the Alternative E map for habitat (Figure 2-5) with the exception of the Challis LWG Hat Creek Priority Area that we have mapped in our local plan. We would like to have that added to Core Habitat.
- 18) We want to emphasize cheatgrass control efforts in the EIS. As well as further research on new and improved control methods.
- 19) We want to emphasize the importance of all restoration of habitat in areas that have missing components for sage-grouse. While wildfire, invasive species and juniper encroachment are big issues in southern Idaho the Mountain Valleys area is more intact and the threats are less. We still feel it is important to also focus restoration and protection in this area to protect and enhance our habitat.
- 20) We would like the EIS to acknowledge the impacts of grazing management changes on livestock operations. It would be good to look at options like grass banks and AUM buy outs by third parties if grazing becomes unviable on an allotment.
- 21) The LUP amendment needs to have realistic agency monitoring requirements under Alternative D and E and have contingencies and/or actions listed if the agencies cannot fulfill the monitoring requirements.



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## sage grouse

3 messages

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Terry Chandler <tchandler@ontario.k12.or.us>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Thu, Jan 23, 2014 at 12:42 PM

I feel that alternative E is the best to insure the future of sage grouse as well as continuing multiple use of public lands.

---

SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: IDMTSagegrouse\_EIS@empis.com

Thu, Jan 23, 2014 at 1:07 PM

[Quoted text hidden]

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: Terry Chandler <tchandler@ontario.k12.or.us>

Thu, Jan 23, 2014 at 1:08 PM

Hello Terry,

We have received your comments. Thank you and have a nice day.

-BLM Idaho

[Quoted text hidden]



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage grouse impact state ment com ments

1 message

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Kirk Chandler <kchandler@co.washington.id.us>

Tue, Jan 28, 2014 at 10:08 PM

To: "blm\_id\_swmt\_sagegrouse\_eis@blm.gov" <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Kirk Chandler Private Rancher in Washington county, Idaho

I would like to comment on the draft that is being proposed for the sage grouse. I have been to a couple of the meetings about this and I find it interesting that we are concerned about the sage grouse and there has been little done by the BLM and FS to do anything about the concerns except for planning. It was brought to our attention at the meetings that wildfire is the number one problem on the list because of habitat loss. When I asked what was being done I was told that very little is being done. The main things that seem to be in progress are taking the cattle off the land and restricting any kind of growth or development. I think that taking the cattle off the land is doing more harm to the habitat. Back in the day when it is referred to that the sage grouse were so plentiful there were hundreds of thousands of cattle and sheep on the ranges. How could that be if they damage the habitat the way they are being accused. There have been no studies on the relationship between cattle, sheep and sage grouse. I think that sage grouse like cattle and sheep. The lek areas were pobably old salt licks that the cattle used. The more you take cattle and sheep off the range the lower the sage grouse numbers drop. The grass grows up and drys and then we have these huge uncontrolable fires that we have been seeing more of. The grazing of animals is the cheapest and best way to slow down and control fires. The suggestions in the meetings for controlling the burnable fuels were to plant green strips and locate fire crews closer to the possible fire starts. These are very expensive and less that adequate solutions. The rancher would create fire breaks and pasture off invasive species for free and do a much better job than your agencies could ever do. The thing that is interesting is that these solutions have not been even considered and yet they are very simple. I would hope that you could use a little common sense in you jobs and look at some of the simple solutions that have already been used and found to work through history. Another issue is the predator loss in the sage grouse. Because of regulations that have been put in to law over the years it is promoting the growth and population of predators to sage grouse. The ravens, eagles, hawks, badgers, foxes, coyotes, snakes, magpies and many more all prey on sage grouse, their chicks and the eggs. The more habitat you provide the better eating it is for these predators. This just goes around and around. It seems that the more you agencies work at this the worse it gets. The ranchers and people who have used these lands through out history are being blamed and are losing their livelihoods because of the regulations that you impose. I realize that it is not your falt. If you weren't getting taken to court all the time by groups that have only an interest in the money form the Equal Access to Justice Fund you would be able to manage the land better. So please take some of these ideas into consideration and keep doing the best you can. Thank-you Kirk Chandler



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage grouse

1 message

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Jim Childs <Jim.Childs@agri.idaho.gov>  
Reply-To: Jim.Childs@agri.idaho.gov  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tue, Jan 28, 2014 at 10:42 AM

I would like to comment on your sage grouse alternative management plans. I am 62 years of age, a native Idahoan and have hunted sage grouse in Idaho since I was 15 years old, hunting mainly in the desert near Blackfoot, the Owyhee desert, south of Twin Falls and north of Shoshone. I remember huge flocks of sage hen (200 +) in Owyhee County in the Battle Cr., Jacks Cr. and Blue Cr. areas, this in the late 60s and mid-70s. The flocks of birds could be seen in the evenings flying from their roosts on the hilltops to the small reservoirs in Owyhee Co. There were also substantial numbers of sage hen in the South Hills, south of Twin Falls and north of Shoshone in the Magic Dam and Richfield Canal areas as well as the desert areas near Dietrich. Grazing has always been allowed in these areas and the sage grouse numbers did not seem to be affected by grazing. Sage grouse decline was very noticeable in all of these areas, especially Owyhee Co., Magic Dam and the Dietrich areas after fires devastated their habitat. I am not talking about the fires that have occurred in the last few years, but the fires that occurred sometime in the 70s, 80s or 90s. These fires destroyed a huge amount of sage grouse habitat, virtually reducing the populations by the thousands. The birds have never fully recovered from the fires and loss of habitat. I see the alternative management plans discuss making large areas roadless, limiting power line installation, mining, grazing, etc. but from my experience and observations of the fate of Idaho's sage grouse, I believe that immediate suppression of range fires, no matter the cost (slurry planes must be used liberally to do this), re-establishment of habitat and predator control is of utmost importance. Protecting the leks should be a priority also. Making more roadless areas in the state does not seem to be an answer but a way of shutting the general public out from "multiple use" public land. More aggressive fire control, habitat restoration and predator control will bring back this great bird. The sage grouse thrived in the past alongside grazing cattle, power lines, desert roads used by ranchers, BLM and the Forest Service, and the general public. They cannot thrive on downy brome covered range. A major effort to restore habitat and suppress fires should be the mainstay of any plan. Oh, did I mention that I was, in the early late 70s and early 80s, a Forest Service firefighter on a Helitak Crew located at Price Valley (near New Meadows). I was on initial attack on a lightning caused forest fire, flown to the site via helicopter, immediately called in a slurry drop, the first load did not put the fire out but the second drop I requested did. All that was left was mop up for a small crew. Was reprimanded by supervisor for spending too much money (calling in the second drop). I hope the BLM and Forest Service are not still operating with that mentality. If not for that second drop the fire would have progressed into a major forest fire destroying thousands of acres in the Payette National Forest and costing the taxpayer millions of dollars.

Thank You

Jim Childs

Twin Falls, ID



SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Idaho and Southw est MT SAGE Grouse Plans

3 messages

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Greg <horseman\_c@yahoo.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 11:06 AM

Enclosed are Comments on the Idaho and SW MT Greater Sage Grouse Draft Plans

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 Sage.doc  
27K

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: IDMTSagegrouse\_EIS@empssi.com

Mon, Jan 27, 2014 at 11:19 AM

[Quoted text hidden]

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 Sage.doc  
27K

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: Greg <horseman\_c@yahoo.com>

Mon, Jan 27, 2014 at 11:20 AM

Hello Greg,

We have received your comments. Thank you very much.

-BLM Idaho

[Quoted text hidden]

NEPA Coordinator  
BLM Greater Sage-Grouse EIS  
1387 S. Vinnell Way  
Boise, ID 83709

Submitted by Email to [blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

Dear NEPA Coordinator:

I am writing in response to the Idaho and Southwestern Montana Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement. We have an opportunity to get this right the first time. The National Technical Team (NTT) report represents a good basis on which to create the foundation for Greater Sage-Grouse recovery. Unfortunately, most of the recommendations of the report do not appear to be included in the preferred alternatives D&E in their current form. If D or E were adopted they would do little to improve the habitat and long term survival of the Greater- Sage Grouse. In particular:

**The Final draft strategy should include adequate buffers to occupied leks in order to conserve the species.** The proposed 1-mile no surface occupancy buffer is not large enough to encourage the use of leks. (Strategy 14) 1 mile is too close to encourage breeding. According to the (NTT) report a buffer of 4 miles is necessary to provide adequate protection from surface disturbance. Four miles should be the surface disturbance buffer for surface disturbance of leks.

The NTT report recommends limiting surface disturbance to no more than 3 percent per section (SGNTT 2011:8) Knick (2013) found that 99 percent of active Greater Sage-Grouse leks are in landscapes with less than 3 percent disturbance within 5km of the lek. D has no limits (ES.6.5) and the E alternative recommends a 5% limit (ES.6.6). These alternatives allow for too great of disturbance levels and will lead to a further decline in Greater Sage-Grouse numbers.

Alternative D is does not meet even the minimum level of protection for Greater Sage -Grouse as suggested in the National Technical Team Report. Please consider the recommendations of the NTT report and include them in any draft that the BLM comes up with. **Not** doing so will ensure the further demise of the Greater Sage-Grouse.

**Alternative D allows further declines in rangeland health.** Alternative D emphasizes the need for livestock permittees to achieve the Idaho Rangelands Health Standards. This clearly does not work. Currently 61 allotments in Idaho are not meeting rangeland health standards. (DEIS at 3-73) Allotments that are not meeting Rangeland Health Standards should to be closed to grazing until they can meet the standards.

**Overall, the best choice for the long term viability of the Greater Sage Grouse is Alternative F. It appears to include most of the recommendations of the NTT report and if implemented would provide for a scientific approach to Sage Grouse recovery.**

Thank you for taking the time to put together this ground breaking plan. Please consider the comments and suggestions I have made to ensure the long term survival of the Greater Sage-Grouse.

Greg Cooper  
500 Trista Dr  
Dillon MT, 59725  
(406) 660-1449





SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Comments for the Idaho Montana Sage Grouse Plan EIS

3 messages

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CTVA Action Committee <ctva\_action@q.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tue, Nov 26, 2013 at 7:45 PM

Dear Sir/Madam,

We have assembled the following information and issues from our members and other motorized recreationists for the project record.

Thank you for considering our comments.

Sincerely,

/s/ Action Committee on behalf of our members

Capital Trail Vehicle Association (CTVA)<sup>[1]</sup>

P.O. Box 5295

Helena, MT 59604-5295

[CTVA\\_Action@q.com](mailto:CTVA_Action@q.com)

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[1] CTVA is also a member of Montana Trail Vehicle Riders Association ([mtvra.com](http://mtvra.com)), Blue Ribbon Coalition ([sharetrails.org](http://sharetrails.org)), and New Mexico Off highway Vehicle Alliance ([nmohva.org](http://nmohva.org)). Individual memberships in the American Motorcycle Association ([ama-cycle.org](http://ama-cycle.org)), Citizens for Balanced Use ([citizensforbalanceduse.com](http://citizensforbalanceduse.com)), Families for Outdoor Recreation ([ffor.org](http://ffor.org)), Montana 4X4 Association, Inc. ([m4x4a.org](http://m4x4a.org)), Montana Multiple Use Association ([montanamua.org](http://montanamua.org)), Snowmobile Alliance of Western States ([snowmobile-alliance.org](http://snowmobile-alliance.org)), Treasure State Alliance, and United Four Wheel Drive Association ([ufwda.org](http://ufwda.org))

 CTVA Idaho Montana Sage Grouse Comments 1.pdf  
125K

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov> Wed, Dec 4, 2013 at 1:03 PM  
To: CTVA Action Committee <ctva\_action@q.com>

Dear CTVA Action Committee Members,

We have received your comments and will analyze them in our assessment. Thank you for your comments, we appreciate hearing from you.

-BLM Idaho

[Quoted text hidden]

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov> Wed, Dec 4, 2013 at 1:03 PM  
To: IDMTSagegrouse\_EIS@emp.si.com

More comments...

[Quoted text hidden]

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 CTVA Idaho Montana Sage Grouse Comments 1.pdf  
125K

# **CAPITAL TRAIL VEHICLE ASSOCIATION (CTVA)**

**P.O. Box 5295  
Helena, MT 59604-5295**

November 24, 2013

[blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

BLM-Greater Sage-Grouse EIS  
1387 S. Vinnell Way  
Boise, ID 83709.

RE: Comments for the Idaho-Montana Sage Grouse Plan EIS

Dear Sir/Madam,

We have assembled the following information and issues from our members and other motorized recreationists for the project record. We appreciate the opportunity to provide our comments for the Idaho-Montana Sage Grouse Plan EIS. We enjoy riding our OHVs on primitive trails and roads on public land managed by the BLM and National Forest. All multiple-use land managed by the Bureau of Land Management and Forest Service provides a significant source of these OHV recreational opportunities. We feel strongly about OHV recreation for the following reasons:

## **Enjoyment and Rewards of OHV Recreation**

- Opportunity for a recreational experience for all types of people.
- Opportunity to strengthen family relationships.
- Opportunity to experience and respect the natural environment.
- Opportunity to participate in a healthy and enjoyable sport.
- Opportunity to experience a variety of opportunities and challenges.
- Camaraderie and exchange of experiences.
- For the adventure of it.

## **Acknowledged Responsibilities of Motorized Visitors**

- Responsibility to respect and preserve the natural environment. We are practical environmentalists who believe in a reasonable balance between the protection of the natural environment and the human environment.
- Responsibility to respect all visitors.
- Responsibility to use vehicles in a proper manner and in designated places.
- Responsibility to work with land, resource, and recreation managers. We are committed to resolving issues through problem solving and not closures.
- Responsibility to educate the public on the responsible use of motorized vehicles on public lands.

We feel that we are representative of the needs of the majority of visitors who recreate on public lands but are not organized with a collective voice to comment on their needs during the public

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*Page 1 of 7*

IDMT\_0077376

input process. These independent multiple-use recreationists include visitors who use motorized routes for weekend drives, mountain biking, sightseeing, exploring, picnicking, hiking, ranching, rock climbing, skiing, camping, hunting, RVs, shooting targets, timber harvesting, fishing, viewing wildlife, snowmobiling, accessing patented mining claims, and collecting firewood, natural foods, rocks, etc. Mountain bikers seem to prefer OHV trails because we clear and maintain them and they have a desirable surface for biking. Multiple-use visitors also include physically challenged visitors who must use wheeled vehicles to visit public lands. All of these multiple-use visitors use roads and motorized trails for their recreational purposes and the decision must take into account motorized designations serve many recreation activities, not just recreational trail riding. We have observed that 97% of the visitors to this area are there to enjoy motorized access and motorized recreation.

Issue:

Adequate recreational opportunity for all visitors is the supreme issue that must be addressed by this action. The relative importance of recreation on a national basis is demonstrated by the Bureau of Economic Analysis statistics for spending on recreation. In 1979 the index for recreation spending was 32.537 (year 2000 = 100, <http://www.bea.gov/national/nipaweb/TablePrint.asp?FirstYear=1979&LastYear=2004&Freq=Year&SelectedTable=33&ViewSeries=NO&Java=no&MaxValue=155.606&MaxChars=7&Request3Place=N&3Place=N&FromView=YES&Legal=Y&Land=>). In 2004, the index was 113.695 for an increase of 349%. No other sector has increased this dramatically. Clearly, the public wants and needs adequate recreational opportunity and this should be the over-arching theme of this evaluation and decision.

Issue:

Many federal actions have led to the continual closure of motorized recreational opportunities and access and at the same time the number of OHV recreationists has grown to 50 million and at the same time other outdoor activities have declined 18 to 25% (Journal of Environmental Management 80 (2006) 387–393, <http://www.redrockinstitute.org/uploads/PNAS.pdf> and <http://www.msnbc.msn.com/id/22998037/>). Multiple uses of our public lands are marginalized every time a forest plan or resource management plan or travel management plan comes up for action. The motorized closure trend has created significant cumulative effects and has reached the point where it is causing severe public distress. Reasonable alternatives to motorized closures must be pursued. The continual loss of motorized recreational opportunities is our primary concern. Because of the significant cumulative effect of motorized closures at this point in time, we feel strongly that there can be “no net loss” of motorized recreational opportunities with the Sage Grouse Plan.

Issue:

The project area with its current level of motorized access and recreation is where residents from nearly all western states go to enjoy motorized recreation. The project area is where we go and what we do to create those memories of fun times with family and friends. Management of these lands for multiple-uses including reasonable motorized use allows the greatest enjoyment of these lands by the widest cross-section of the public to continue. These lands are designated as multiple-use lands. We ask that management for sharing of these lands for continued multiple-use be selected as the preferred alternative.

Issue:

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Every BLM and Forest Service planning action has resulted in less motorized access and motorized trails. Motorized recreationists have become extremely frustrated with this disconnect between their needs and Forest Service actions. We often hear others say that the BLM and Forest Service are going to close our roads and trails regardless of what we say or do. Another common comment is “Why are motorized recreationists the only ones to lose in every action?” We are very concerned about the perception of a federal agencies with a stated commitment to equal program delivery. We urge the BLM and Forest Service to address this significant issue by developing a preferred alternative based on no impacts to motorized access and motorized recreation.

Issue:

Northeast Montana has the healthiest, most diverse grassland ecosystem in the world. We have so many sage grouse that the Montana Department of Fish, Wildlife & Parks is transplanting some of them to Canada. This region’s sage grouse production is in good shape due to decades of cooperation between ranchers and the BLM. The EIS must adequately acknowledge this condition.

Issue:

The EIS should include an analysis of the importance of this public-private partnership to the sage grouse. Please explore things the FS and BLM can do to strengthen this partnership by keeping ranches economically viable. When amending the RMPs, please protect northeast Montana from any changes in land management. Instead, this region’s land use traditions should be used as a model for sage grouse conservation and restoration elsewhere.

Issue:

Motorized recreationists see the sage grouse as another potential mechanism used by the Forest Service and Bureau of Land Management to close public lands to motorized access and motorized recreation without any real basis for assumed impacts and conditions. To avoid this serious issue, the EIS must be based on site-specific information and data. The EIS and decision must be based on site specific data prepared by licensed biologists and peer reviewed by independent licensed biologists in all impact areas where significance is claimed.

Issue:

The 3-State OHV decision and National OHV rule require site-specific data and analysis to be used in any actions that could affect OHV recreation.

Issue:

Wildlife populations are significantly affected by hunting regulations. This fact must be acknowledged in the analysis and development of alternatives. In a letter from Montana Fish, Wildlife and Parks to Lori Wood, Helena National Forest dated October 31, 2011 stated the following facts:

“To infer elk numbers have increased in spite of low values of hiding cover is not the case and doesn’t recognize the primary mechanism of population management in regards to big game. Populations of most big game species are managed through hunting regulations and specifically by manipulation of permits/licenses to control harvest. The value of adequate hiding cover or security is to reduce vulnerability of wildlife during the hunting season and during other times of the year. Keeping vulnerability at desired levels has been instrumental in Montana being able to maintain a 5-week general hunting season and also in being able to have relatively liberal hunting regulations on most species.” More sage grouse can be protected by banning sage grouse hunting and eliminating

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predators than all of the proposed actions. This is a reasonable alternative that must be evaluated and selected.

Issue:

Next in line affecting sage grouse populations are natural conditions including weather and fires and induced conditions such as wolves. Sage grouse populations are significantly impacted by natural conditions including drought. The benchmark for evaluation of impacts on sage grouse by OHV recreation should be established by comparison to these natural conditions and hunting regulations. The evaluation and subsequent decision-making must be based on comparison to these real world conditions.

Issue:

The preparation of the document must work hard to avoid “confirmation bias. Confirmation bias is a tendency to favor information that confirms an individual’s or group think preconceptions or hypotheses regardless of whether the information is true ([http://en.wikipedia.org/wiki/Confirmation\\_bias](http://en.wikipedia.org/wiki/Confirmation_bias) ). Only studies with negative motorized conclusions have been cited. The evaluation should have included a broad screening of issues, information, data, opinions, and needs so that it is not based on confirmation bias and meets NEPA procedural requirements. One important component required to avoid confirmation bias is the inclusion of OHV and other motorized recreationists on the inter-disciplinary team. OHV recreationists must be included on the inter-disciplinary team to help avoid confirmation bias.

Issue:

An adequate sense of magnitude must be employed within the analysis and decision-making. For example, the total naturally occurring loss of soil from the Cibola National Forest is estimated to be on the order of 1,577 acre-feet per year (1,892,000 acres total forest area times a depth of 0.008 feet of soil loss per year). The loss associated with OHV use is on the order of 52 acre-feet (5,200 acres of roads and trails times a depth of 0.01 feet of soil loss per year). Therefore, the soil erosion associated with OHV recreation is relatively insignificant compared to the naturally occurring erosion rate and acceptable for multiple-use lands. Moreover, there are many mitigation measures that can be employed to reduce soil erosion on roads and trails while still allowing the public to enjoy them. Other examples that should be part of the evaluation include the naturally occurring mortality rate of sage grouse compared to the mortality rate associated with OHV recreation. The evaluation and disclosure to the public must include the analysis and a comparison of the magnitude of OHV impacts to naturally occurring impacts for all resource areas used to assess impacts based on site-specific data. Lack of the comparison of impacts to naturally occurring levels combined with the lack of site-specific data could allow inaccurate statements and opinions due to the lack of an adequate sense of magnitude.

Issue:

The EIS must evaluate and acknowledge that close range viewing of sage grouse leks produces significantly more impacts on sage grouse than motorized recreation which is located some distance away. The EIS must include an accurate inventory of all viewing activity in order to reasonably assess this activity and its impact. Examples of the popularity and magnitude of the lek viewing activity include:

- <http://www.craigdailynews.com/news/2011/mar/01/local-environmental-groups-organizing-sage-grouse/>

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- <http://www.siskadee.org/view.htm>
- [http://www.gorp.com/parks-guide/travel-ta-birdwatching-la-junta-comanche-and-cimarron-national-grasslands-golden-spike-national-historic-site-sidwcmdev\\_055433.html](http://www.gorp.com/parks-guide/travel-ta-birdwatching-la-junta-comanche-and-cimarron-national-grasslands-golden-spike-national-historic-site-sidwcmdev_055433.html)
- <http://coloradobirdingsociety.net16.net/zsbirdingspots.htm>
- <http://www.naturescapes.net/phpBB3/viewtopic.php?f=9&t=150579>
- [http://gf.state.wy.us/wildlife/wildlife\\_management/sagegrouse/index.asp](http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/index.asp)
- <http://www.blm.gov/nstc/library/pdf/TN424.pdf>
- <http://wildlife.state.co.us/Viewing/EventsFestivals/Pages/ViewingEvents.aspx>
- [http://billingsgazette.com/lifestyles/recreation/blm-wgf-holds-sage-grouse-lek-viewing-trip/article\\_d3f3abe0-d2ec-56b1-9eb9-3cfad0a1d561.html?print=1](http://billingsgazette.com/lifestyles/recreation/blm-wgf-holds-sage-grouse-lek-viewing-trip/article_d3f3abe0-d2ec-56b1-9eb9-3cfad0a1d561.html?print=1)
- [http://uwacadweb.uwyo.edu/wildlifesociety/NewSite/photo\\_gallery/LekViewing/LekViewing.htm](http://uwacadweb.uwyo.edu/wildlifesociety/NewSite/photo_gallery/LekViewing/LekViewing.htm)
- [BLM Buffalo Field Office Hosts Sage-grouse Lek Viewing Trip](#)

Issue:

If a motorized route is within a distance of a lek that might cause some disturbance, then a reasonable alternative that can be easily implemented is to relocate the motorized route as opposed to closing that route.

Issue:

According to available literature and studies there is little information related to the effects of motorized recreation on the Grouse. Based on current science it appears that motorized recreation in, any of its forms, does not have a significant impact on the Grouse.

Issue:

We strongly oppose components of the 2010 Conservation Measures that lack the flexibility to adapt to local management issues. The plan amendments should avoid inflexible management standards. Rather than impose an inflexible, broad-brush management prescription for the Grouse, we suggest the BLM adopts a "landscape specific" approach to minimize the impacts on both the Grouse and the recreating public.

For example, we oppose the provision mandating that any "anthropogenic disturbances" cover less than 3% of the total sage grouse habitat. Without any flexibility, the implementation of this standard on the ground will be extremely difficult. Indeed, the agencies may be forced to restrict activities that have been found to have little to no impact on the grouse.

Issue:

Regarding recreation, the plan amendments should direct local land managers to cooperate and coordinate with local governments and affected stakeholders to establish achievable goals for protection of the Grouse (lek /nest disturbance, wintering areas and sage habitat degradation) and to mitigate potential affects upon recreation through closure of existing, inventoried and managed routes.

Issue:

The amendments should recognize that local agency recreation planners and managers are the best suited to work with motorized stakeholders to establish a manageable, designated, user and nature friendly route network for motorized access. This includes access roadways away from paved

highways; high clearance routes for pickups, jeeps and other 4WD vehicles; that can be shared under mixed-use by other OHV categories such as trail bikes, ATV/UTV and/or OSV in the winter. Just as important to the motorized community are rural 2 track routes, ATV width trails, and trail bike single-track width routes.

Issue:

Any plan amendment should include adequate site-specific analysis on anticipated impacts of motorized and non-motorized recreational activities, which often have little to no impact on wildlife. The impacts of motorized and mountain bike routes that are primarily used for recreation should not be "lumped in" with highways and other high-speed access roads.

Issue:

The analysis should also disclose impacts of the hunting of the Grouse, which is still allowed in at least 8 of the 11 states where it is found. Importantly, Sage Grouse conservation efforts such as seasonal restrictions and bag limits have been quite successful in maintaining healthy populations. The same has been shown for motorized access and use. For example, Grouse leks are concise, well-established, historic areas that can last for decades. Add to this that leks are mostly in use for strutting/mating during crepuscular hours and that motorized recreation is generally NOT undertaken during those hours...the two can be successfully separated.

Issue:

The analysis should include the fact that the BLM, Forest Service, state, county, local and tribal land management agencies are moving towards a "limited to designated route" paradigm. This process should prioritize areas where such planning has not yet occurred. We strongly believe that the goals, objectives and new paradigm can be met without severely limiting or restricting responsible, managed motorized recreation uses within the planning area.

Issue:

This strategy "in no way expands the review authority of any state agency". Significant new requirements will be required before projects are approved and no timelines are given to these agencies. Timelines for review need to be clearly established and followed if this document is to be accepted. This document seems to have expanded authority in order to accomplish its directive. We oppose any expansion of that authority.

Issue:

A contractor bidding work would have no idea of the amount of mitigation required by the permitting agency. We would like some more definition of ratios of mitigation to be in this document. Who would take responsibility for the mitigation and/or set a directive on how the mitigation should be done. For example, with our OHV group, we are not wildlife biologists. The responsibility should not be placed on groups such as ours.



Issue:

These seasonal use and timing restrictions are problematic for public access to public lands. Do the agencies anticipate creating special stipulations for OHV and public access?

Issue:

Permits will include requirements for mitigation that promote genetic diversity, critical connectivity, and population viability. This is new language for industry. What agency would come up with these requirements and when would we see them?

Issue

The timing restrictions and the buffer around leks are problematic. These time frames cover most of the recreation season and the distance is excessive.

Issue:

Permitting- The agency has a role of consultation, recommendation and facilitation. Reasonable timelines need to be established for completion of these functions.

Issue: Implementation - The formation of Sage Grouse Oversight Team is concerning since we aren't sure if a balance of competing interests will serve on the team. The make-up of the team needs to include a process where it will fairly include all interests.

Issue:

The evaluation does not adequately consider that humans are part of the environment and the impact on the human environment of the proposed regulations and restrictions.

We appreciate your consideration of our comments for the project record.

Sincerely,

/s/ Action Committee on behalf of our members  
Capital Trail Vehicle Association (CTVA)<sup>1</sup>  
P.O. Box 5295  
Helena, MT 59604-5295  
[CTVA\\_Action@q.com](mailto:CTVA_Action@q.com)

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<sup>1</sup> CTVA is also a member of Montana Trail Vehicle Riders Association (mtvra.com), Blue Ribbon Coalition (sharetrails.org), and New Mexico Off highway Vehicle Alliance (nmohva.org). Individual memberships in the American Motorcycle Association (ama-cycle.org), Citizens for Balanced Use (citizensforbalanceduse.com), Families for Outdoor Recreation (ffor.org), Montana 4X4 Association, Inc. (m4x4a.org), Montana Multiple Use Association (montanamua.org), Snowmobile Alliance of Western States (snowmobile-alliance.org), Treasure State Alliance, and United Four Wheel Drive Association (ufwda.org)



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## 2nd Comments for the Idaho-Montana Sage Grouse Plan EIS

3 messages

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CTVA Action Committee <ctva\_action@q.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Thu, Dec 5, 2013 at 7:19 PM

Dear Sir/Madam,

We have assembled the following information and issues from our members and other motorized recreationists for the project record.

Thank you for considering our comments.

Sincerely,

/s/ Action Committee on behalf of our members

Capital Trail Vehicle Association (CTVA)[1]

P.O. Box 5295

Helena, MT 59604-5295

[CTVA\\_Action@q.com](mailto:CTVA_Action@q.com)



CTVA Idaho Montana Sage Grouse Comments 2.pdf  
50K

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: CTVA Action Committee <ctva\_action@q.com>

Thu, Dec 19, 2013 at 12:40 PM

Dear Action Committee,

We have received your comments and will analyze them. Thank you for your input.

Have a great day.

-BLM Idaho

[Quoted text hidden]

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>  
To: IDMTSagegrouse\_EIS@empis.com

Thu, Dec 19, 2013 at 12:41 PM

[Quoted text hidden]



CTVA Idaho Montana Sage Grouse Comments 2.pdf  
50K



# **CAPITAL TRAIL VEHICLE ASSOCIATION (CTVA)**

**P.O. Box 5295  
Helena, MT 59604-5295**

December 5 2013

BLM-Greater Sage-Grouse EIS  
1387 S. Vinnell Way  
Boise, ID 83709  
[blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov)

RE: Comments for the Idaho-Montana Sage Grouse Plan EIS

Dear Sir/Madam,

We have assembled the following information and issues from our members and other motorized recreationists for the project record. We appreciate the opportunity to provide our comments for the Idaho-Montana Sage Grouse Plan EIS. We enjoy riding our OHVs on primitive trails and roads on public land managed by the BLM and National Forest. All multiple-use land managed by the Bureau of Land Management and Forest Service provides a significant source of these OHV recreational opportunities.

Issues:

1. Motorized recreationists endorsed and accepted millions of acres of area restriction under the Off-Highway Vehicle Environmental Impact Statement and Proposed Plan Amendment for Montana, North Dakota and South Dakota (3-State OHV) decision (<http://www.mt.blm.gov/ea/ohv/FSROD.pdf>) and the Travel Management; Designated Routes and Areas for Motor Vehicle Use, Final Rule (<http://www.fs.fed.us/recreation/programs/ohv/final.pdf>) as a positive action to control environmental impacts. We accepted area restriction and not area closure. Area closure is permanent. Area restriction allows flexibility as needed to address site specific conditions. Each motorized road and trail exists because it serves some multiple-use need. Every road and trail is important to some individual for some purpose. Each motorized road and trail must have adequate site-specific analysis to determine all of its values including motorized recreational value.
2. Motorized recreationists gave up 97% of the area historically available to them under both the 3-State ROD and the National Route Designation rule as the ultimate act of mitigation so that we would continue to have use of existing motorized routes that cover or provide access to an area estimated at less than 3% of the total area. Now motorized recreationists have been given almost no credit for our cooperation during that action and we have only been penalized for our past cooperation by current route designations, resource management plans, forest plans and travel plans that seek to close 50% to 75% of the existing motorized routes. This outcome was not part of the 3-State OHV and National Route Designation agreement and this level of closure is not acceptable to us for that reason. The 3-State OHV and National Route Designation agreements

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*Page 1 of 2*

IDMT\_0077385

were not made with the intention of massive closures beyond that agreement. We ask that all BLM and Forest Service actions include proper recognition of the agreement behind the 3-State OHV and National Route Designation decisions which allow continued use of the existing networks of motorized roads and trails without massive motorized closures.

3. The final 3-States OHV Rule (<http://www.fs.fed.us/recreation/programs/ohv/final.pdf>) included graphic examples of motorized and OHV routes that must be adequately identified and addressed by a site specific analysis. We request that all motorized routes currently in use be adequately evaluated by a site specific analysis demonstrating with scientific evidence the claimed impact on sage grouse.

We appreciate your consideration of our comments for the project record.

Sincerely,

/s/ Action Committee on behalf of our members  
Capital Trail Vehicle Association (CTVA)<sup>1</sup>  
P.O. Box 5295  
Helena, MT 59604-5295  
[CTVA\\_Action@q.com](mailto:CTVA_Action@q.com)

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<sup>1</sup> CTVA is also a member of Montana Trail Vehicle Riders Association ([mtvra.com](http://mtvra.com)), Blue Ribbon Coalition ([sharetrails.org](http://sharetrails.org)), and New Mexico Off highway Vehicle Alliance ([nmohva.org](http://nmohva.org)). Individual memberships in the American Motorcycle Association ([ama-cycle.org](http://ama-cycle.org)), Citizens for Balanced Use ([citizensforbalanceduse.com](http://citizensforbalanceduse.com)), Families for Outdoor Recreation ([ffor.org](http://ffor.org)), Montana 4X4 Association, Inc. ([m4x4a.org](http://m4x4a.org)), Montana Multiple Use Association ([montanamua.org](http://montanamua.org)), Snowmobile Alliance of Western States ([snowmobile-alliance.org](http://snowmobile-alliance.org)), Treasure State Alliance, and United Four Wheel Drive Association ([ufwda.org](http://ufwda.org))

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:

blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	1-15-14
Name:	Joseph Daniels
Address:	294N. 100W MA/AD, Idaho

I am a Idaho Rancher and run cattle  
in areas where there are sage grouse. work  
hard to maintain a good habitat for  
the sage grouse. I fully support  
Alternative E, the Idaho Governor alternative.  
I hope that the BLM / Forest Service  
will also recognize this type of way  
to handle livestock & grouse.

Thank you  
Joe



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## SAGE GROUSE EIS COMMENT

1 message

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kim danielsen <rmagickd@yahoo.com>  
Reply-To: rmagickd@yahoo.com  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Mon, Jan 27, 2014 at 5:03 PM

It's ridiculous to blame wild horses for damaging greater sage grouse habitat when the number of wild horses is dwarfed by the number of livestock [cattle & sheep] being allowed to graze on federally protected land instead of federally protected wild horses. Reduce the freeloading cattle and sheep, leave the wild horses where they are and save us all some money while preserving what needs to be preserved for all.

Sincerely,

Kim Danielsen

kim danielsen  
2463 e. co. 14th st.  
yuma, AZ 85365



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## It is Important to Do More to Ensure Sustainable Management for Greater Sage-Grouse

2 messages

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Victoria De Goff and family <vjdrs@pacbell.net>

Wed, Jan 22, 2014 at 1:43 PM

Reply-To: vjdrs@pacbell.net

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Dear Bureau of Land Management officials:

Although it appears that the BLM is making an effort to conserve the Greater Sage-Grouse, one of the most iconic and imperiled bird species of the American West, we are concerned that BLM's draft preferred alternatives do not comply with the best available science or with standards necessary to stabilize and recover grouse populations.

BLM should therefore adopt the conservation alternative to ensure sustainable management to conserve the species. These include science-based recommendations to limit future development and to create protected areas.

Conserving the Greater Sage-Grouse will require both protecting large areas of habitat and making significant changes in land management to reverse population declines of this wide-ranging species. Most priority sage-grouse habitat is already heavily degraded and grouse are only persisting in large, relatively undisturbed blocks of habitat. For years, fossil fuels production and other commercial uses have dominated public land management across sagebrush habitats, resulting in significant impacts to wildlife, public recreation, and air and water quality. Protecting large expanses of important sage-grouse habitat—as outlined in the conservation alternative—will help stem the decline of many species of wildlife across the American West. The conservation alternative will begin restoring balance to an iconic American landscape by identifying areas most appropriate for development and those that need to be protected.

Thank you for considering our comments.

Victoria De Goff and family  
1916 Los Angeles  
Berkeley, CA 94707

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

Thu, Jan 23, 2014 at 10:24 AM

To: IDMTSagegrouse\_EIS@empsi.com

[Quoted text hidden]





SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## SAGE GROUSE EIS COMMENT

1 message

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Margaret Doane <gargoyle3\_2000@yahoo.com>

Mon, Jan 27, 2014 at 6:16 PM

Reply-To: gargoyle3\_2000@yahoo.com

To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tired of the BLM using any excuse to destroy what's left of OUR national treasure, the mustang herds. Why don't you try doing the job you were charged with, SAVING our national treasures.

Sincerely,

Margaret Doane  
645 Wisecarver Rd  
mosheim, TN 37818



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Save the Wild Horse s

1 message

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doublemfarm <doublemfarm1@hotmail.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 29, 2014 at 12:06 PM

To whom it may concern,

Please leave the wild horses and burrow alone. They were their before you were. God has a plan for us all, he created the horse and the burrow and put them there. You have no authority to kill them or move them. There is enough land for us all. The freedom of the wild horse give us hope, that the U.S.A. as bad as it is now, that we still might have faith and hope in our fellow man . God gave us animals to love and to take care of, there are ways to work this out not just for man and his greed, but for the good of all. Look at our Government , man has messed that up and if you start messing with Gods creations it will be on you're hands. What if the Government says that a race of people are not needed does that give you the right to kill them too. This is Gods world not mans, in his hunger to change everything man is the worst of all creations, we are sinful. Animals have no sin, they are pure, what gives you the right to kill what God has made. Has man not done enough already to make the world a worst place to live than better. Instead of Land Management it should be, Man Management of his on sins.

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:  
blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	Jan 14 2014
Name:	Stanley M Dowton
Address:	700 burstedt Ln Ellis ID 83235

Ranchers are the stewards of sage grouse habitat on both the private & public land they use. Without ranchers, who provide an effective line of defence against fire & noxious weeds who manage forage for optimum production and who are the primary protectors of open space in the private land of the west, large areas of sage grouse habitat would be in jeopardy. The benefits by ranching relate directly to several identified threats to greater sage-grouse habitat, include wildfire, invasive plants and urbanization & development.

*Stan Dowton*



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage Grouse EIS Comments

1 message

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Barbara Clark <mustangsb@hughes.net>  
To: blm\_ut\_comments@blm.gov  
Cc: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tue, Jan 28, 2014 at 1:37 PM

To: Bureau of Land Management/Forest Service Sage Grouse Environmental Impact Statement  
Attention: Qunicy Bahr  
Utah Bureau of Land Management

GREATER SAGE GROUSE EIS BLM  
Idaho

(Emailed to: blm\_ut\_comments@blm.gov  
blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date: January 28, 2014

RE: Sage Grouse EIS Comment

Dear Mr. Bahr, Bureau of Land Management, and Forest Service:

I am writing on behalf of the DreamCatcher Wild Horse and Burro Sanctuary to give feedback regarding the Sage Grouse Environmental Impact Statement. This document/work is vitally important and will impact significant portions of public lands for many years. Of particular interest to me is the impact it can have on the remaining wild horse and burro populations legally living on their Herd Management Areas (HMAs).

These animals are historically removed as the first order of business; i.e., before cattle grazing is reduced or other restrictions put in place, the wild horses and burros usually are the first to be displaced whenever competition for public lands heats up. And once again, this EIS fails to protect the interests of the wild horses and burros as the law demands, i.e., treating them as "an integral part of the natural system of the public lands."

For starters, the impacts of these proposals to wild horses are not adequately analyzed. None of the alternatives analyzed adequately protects wild horses and burros.

Specifically, our federally-protected wild horses and burros are not livestock; they are a wildlife species with their own Act unanimously passed by Congress to protect them. Yet this EIS fails to distinguish the wild horses and burros from livestock.

Alternatives described would allow the BLM too much discretion in forage allocations to private livestock and wild horses. It would allow BLM to decrease AUMS (Animal Unit Months), their forage allocations, and AUMS (Allowable Management Levels) for wild horses and burros even though these federally-protected species are vastly outnumbered by livestock in the planning area, including within their federally designated habitat areas, the HMAs.

A gross inequity long present in BLM's lack of management strategy for the wild horses would continue

as, outrageously, in some alternatives, reductions in forage allocations would be borne equally by livestock and wild horses even though livestock vastly outnumber wild horses and burros.

CASE IN POINT: livestock vastly outnumber wild horses in terms of:

- 1) land impacted (66% of BLM land nationally used for livestock vs. 12% of BLM land used for wild horses);
- 2) forage allocated within wild horse Herd Management Areas (82+% for private livestock vs. 18% for federally-protected wild horses);
- 3) population numbers (livestock outnumber wild horses by at least 50 to 1 on BLM land); and
- 4) presence in critical sage grouse habitat (just 8-11% for wild horses vs. extensive presence by livestock).

Finally, the EIS fails to consider the significant differences in range impacts caused by livestock vs. wild horses.

Bearing these facts in mind, will you please tell us in what way this EIS meets the federal government's obligation, i.e. BLM's and Forest Service's obligation, to consider these animals as integral parts of the natural system of the public lands? Where does it state that about livestock? Yes, FLPMA and PRIA have impacted the 1971 Act, but that mandate expressed in the first paragraph of the Act continues.

## SUMMARY

To meet its legal and ethical obligations, the final EIS must include the following:

1. Language that clearly distinguishes between federally protected wild horses and burros from livestock.
2. Language that acknowledges and numbers that reflect the BLM's legal mandate (requirement under the law which is not optional) to protect wild horses under federal law as well as sage grouse, vs. its discretion to authorize livestock grazing
3. A clear directive to all BLM districts to preserve wild horses and burros above a level that allows for adequate genetic diversity. Genetic diversity must be specifically defined in the final EIS.
4. Directives that prohibit the reductions of current Animal Unit Months (AUMS) of forage allocated for wild horses and burros. The EIS must outline a reduction, and if necessary elimination of livestock grazing, before any reduction of AUMs for wild horses and/or burros could occur. Discretionary livestock grazing occurs on a drastically larger scale in critical sage grouse habitats than wild horse and/or burro usage.
5. Provisions to allow for increases in wild horse and burro Appropriate Management Levels and for restoration of zeroed out (Herd Area) habitat where appropriate.
6. Requirement that any land use policy changes resulting from the sage grouse plan be in conformance with the National Academy of Sciences' 2013 recommendations for reform of federal wild horse management program. BLM commissioned this report and has thus far chosen to studiously ignore it since it confirms many of the advocates points regarding mismanagement and the inadvisability of continuing BLM's failed, outlandishly expensive "just round them up" strategy.
7. Recognition of the current scientific consensus that the wild horse is a native, reintroduced North American wildlife species that co-exists with sage grouse in the high desert sagebrush ecosystems in the North American West.
8. A truly competent EIS which meets its legal intent and requirement must include detailed and comprehensive information on the following:
  - a. Vitally important Maps which set forth distinctly all HMAs and which distinguish the HMAs from the Herd Areas (HAs), with accompanying data on:

i) number of horses estimated within each area along with the number of livestock within each area;

ii) AUM allocations for wild horses and/or burros COMPARED with livestock AUMs usage, i.e., set forth AUMs for each.

b. All information describing and documenting the differences between wild horse and burro and livestock range impacts;

c. All genetic reports and documentation of genetic viability status of all wild horse and burro herds within the planning area.

These are reasonable, realistic, and do-able expectations. Providing secure protections for viable numbers of wild horses and burros falls within the scope of this EIS since it is analyzing a plan that in all likelihood will significantly impact wild horse and burro management, wild species Congress and the American people continue to cherish and prioritize. These are populations capable of reproducing themselves without human interference and have the resources available to sustain that population, and this EIS cannot appropriately simply include them as another form of livestock, nor cause them to bear an equal burden with the livestock that so greatly outnumbers them, in reducing impacts to the ranges or Sage Grouse Habitat.

In summary, the EIS is analyzing an inclusive management plan that will significantly impact protected wild horses and burros; thus, it is expected that all of these issues will be addressed in the final EIS.

Respectfully submitted,

Barbara Clarke, Director

DreamCatcher Wild Horse and Burro Sanctuary

PO Box 9

Ravendale CA 96123



SAGE GROUSE EIS FEEDBACK.doc

39K

Bureau of Land Management/Forest Service Sage Grouse Environmental Impact Statement  
Attention: Qunicy Bahr  
Utah Bureau of Land Management

GREATER SAGE GROUSE EIS BLM  
IDAHO

(Emailed to: [blm\\_ut\\_comments@blm.gov](mailto:blm_ut_comments@blm.gov)  
[blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov))

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In summary, the EIS is analyzing an inclusive management plan that will significantly impact protected wild horses and burros; thus, it is expected that all of these issues will be addressed in the final EIS.

Respectfully submitted,

Barbara Clarke, Director  
DreamCatcher Wild Horse and Burro Sanctuary  
PO Box 9  
Ravendale CA 96123  
mustangsb@hughes.net

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:

blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	JANUARY 14, 2014
Name:	MAT DUCKETT
Address:	19331 WAGNER ROAD CANDWELL ID 83607

IT IS MY REQUEST THAT THE BLM AND USFS ADOPT

ALTERNATIVE E, GOVERNOR OTTER'S ALTERNATIVE, AS THE PLAN  
FOR MANAGING SAGE GROUSE IN IDAHO.

RANCHES ARE DEPENDENT ON PUBLIC LAND FOR

LIVESTOCK GRAZING. EFFORTS TO SIGNIFICANTLY AMEND

LAND USE PLANS HAS THE POTENTIAL TO CREATE UNNECESSARY

RESTRICTIONS ON GRAZING AND WILL RESULT IN UNINTENDED

CONSEQUENCES THAT WILL BE HARMFUL TO SAGE GROUSE.

ALTERNATIVE E OFFERS THE BEST OPTION FOR CONSERVING

SAGE GROUSE AND ITS HABITAT WHILE PROTECTING LAND

USE ACTIVITIES.

THANK YOU,

MAT DUCKETT

Twin

# Idaho and Southwestern Montana Sage Grouse Draft Land Use Plan Amendment and Environmental Impact Statement Comment Form

Send by Jan. 29th to:

BLM-Greater Sage Grouse EIS  
1387 S. Vinnell Way  
Boise ID 83709

Or, e-mail comments to:

blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Date:	1-14-14
Name:	Ken Eliason
Address:	23370 W old Hwy 37 Holbrook, Id 83243

I am an Idaho Rancher & my livelihood depends completely on my ability to graze livestock on public & private lands. As such, it is in my best interest that these lands are managed to optimum condition which is both ecologically & economically beneficial. I am concerned that the pending ~~issue~~ effort to significantly amend the land use plans has the potential to affect my ability to graze livestock and will result in unintended consequences that will ~~be~~<sup>be</sup> more harmful than helpful to sage grouse.

For these reasons, I encourage the BLM & Forest Service to adopt Alternative E.

Sincerely Ken Eliason Holbrook, Id  
Eliason Livestock



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## SAGE GROUSE EIS COMMENT

1 message

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Christie Finn <christieffinn@gmail.com>  
Reply-To: christieffinn@gmail.com  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Tue, Jan 28, 2014 at 2:20 PM

I have serious concerns about whether either the FWS or the BLM has the ability to use science non-biased by ideology to manage any species. Based on thoughtful scientific review of the BLM's wild horse and burro program, the NAS found that science is not evidence in the program, and the program's management of the wild horses forces the horses into a constant survival mode forcing the horses to push beyond the equilibrium they could find if left alone.

Furthermore, the BLM's willingness to entertain the idea that horses are not native to North America even when research has proven that there is no genetic difference between the Old World and the New World *Equus caballus*. Furthermore, a many of the variations is size and shape in *Equus caballus* are due to the genetic variation that God equipped the horse with in order for it to adapt to the rapidly changing climate of the PLeistocene that included 16 different ice ages.

As a citizen, it concerns me that a federal agency with the primary responsibility for manage wild horses that co-evolved here in North America allows itself to remain so studiously ignorant of the truth. Anyone in the world could find the research articles and books that exist. The horse and burro are native to North America and were here for hundreds of thousands, perhaps a million or two years before the warming period in the Holocene which bright the grouse of Mongolian and a number of grouse to the American grass lands. It appears that the grouse actually diversified in the U.S. from other grouse.

One concern I found perusing research abstracts about sage grouse is that sage grouse females are polygamous and will fly away from her range to find a mate. This abstract discussed how fragmentation of the range would to greater hybridization and pointed out that eventually the genetic variation to become so low that the sage grouse may become extinct or mutate into another species. So, I recommend that before any new land management plans are put into place, find some ornithologist to see if someone can do a study of what percentage of sage grouse have already hybridized.

Furthermore, while you are learning about genetic viability of sage grouse, you should realize that the formulas for genetic viability in horses came from wildlife population biology. Therefore, what you learn from this program can transfer to others.

The West is a big place, and it is hard to imagine how there could possibly not be enough grasslands and area for wild horses, wild life, cattle and other livestock, as well as the extricable industries to exist. Maybe fewer roads or smaller roads and more of them to allow for transportation into and out of areas where wildlife, cattle, and other uses can co-exist.

The BLM is charged with protecting the wild horses and burros that belong to the American people. I don't have issues with livestock grazing or limited mining and extraction—wind mills are something else.

It is time that FWS and the BLM begin serving all the American people and making sure that all our native wild animals have the opportunity to survive in the wild. It would be tragic to destroy these wonderful resources that could return to us if every we should truly need them.

I urge you to find untained science and experts that are not preselected because they will advise you manage

land and animals according to their ideology, and not for the health of the land and the people. We need to find the balance.

Sincerely yours,

Christie Finn

Christie Finn  
5000 Heddon Way  
Greensboro, NC 27455



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Idaho and SW MT GSG draft LUPA/EIS

1 message

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Doris Fischer <dfischer@3rivers.net>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 29, 2014 at 12:03 PM

Greetings BLM Folks,

I am offering a comment on the draft land use plan amendment for Greater Sage-Grouse in the Idaho and SW Montana sub-region.

This may not count as a "substantive" thought, but I have studied your preliminary map of priority/general habitat. I see a good deal of priority habitat on the map, and suggest that you identify those additional habitats that demonstrate good potential for being "priority", with effective land management.

This also may not count as a substantive comment, but I urge you to give strong preference to professionally collected and verified science-based information. Claims by laypersons or advocates for one "side" or another should be set aside respectfully, in favor of what the best available science points to.

I am hoping that Governor Bullock and the State of Montana's Greater Sage-Grouse Advisory Council take a similar approach, in which case the two parallel efforts should produce a set of consistent and effective land management strategies.

Thank you for the opportunity to comment on this important aspect of our natural world.

Doris Fischer  
P.O. Box 584  
Sheridan, MT 59749  
(406) 842-7161

# IDAHO AND SOUTHWESTERN MONTANA GREATER SAGE-GROUSE DRAFT LAND USE PLAN AMENDMENT AND ENVIRONMENTAL IMPACT STATEMENT



## COMMENT CARD

Please check your affiliation below:

<input type="checkbox"/> Individual (no affiliation)	<input checked="" type="checkbox"/> Citizen's Group
<input type="checkbox"/> Private Organization	<input type="checkbox"/> Elected Representative
<input type="checkbox"/> Federal, State, or Local Government	<input type="checkbox"/> Tribal

Name<sup>1</sup>: KATIE FINE  
 Organization (if applicable): WESTERN WATERHEADS  
 Street Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_

If you wish to provide written comments, please write your comments below (use back if needed). Written comments may be submitted using this card, an e-mail, or any other written format provided to the BLM by the means noted below and within the public comment period.

Comments:  
WE OBJECT TO BLM  
HOLDING THE MEETINGS  
AND THE PUBLIC HAS TO WALK  
THROUGH THE BEEF CONVENTION  
THE EIS IS A DISASTER,  
HABITAT IS CHOPPED AWAY  
FOR NO REASON.  
THESE ARE PLANS TO DRIVE  
SAGE GROUSE EXTINCT.

**Please submit tonight or mail/email by January 29, 2014 to:**  
 BLM-Greater Sage-Grouse EIS  
 1387 S. Vinnell Way, Boise, ID 83709  
**E-mail:** blm\_id\_swmt\_sagegrouse\_eis@blm.gov

<sup>1</sup> Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.



SWMT\_SageGrouse\_EIS, BLM\_ID &lt;blm\_id\_swmt\_sagegrouse\_eis@blm.gov&gt;

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## Sage Grouse EIS Comment

1 message

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Elyse G <singingrider@gmail.com>

Tue, Jan 28, 2014 at 12:37 PM

To: blm\_ut\_comments@blm.gov, blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Cc: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Dear Mr. Bahr, BLM, FS,

Enclosed, and below, please find my feedback regarding the Sage Grouse EIS. Please feel free to contact me with any questions or comments you may have. This is a serious matter, and I hope to see some changes to the final document as I've outlined in my letter. Thank you for your attention to these matters.

For the wild horses and their stalwart burro friends, captive and free,  
for all who came before and all those yet to be,

Elyse Gardner

[elysegardner@me.com](mailto:elysegardner@me.com)

415/235-7533

To: Bureau of Land Management/Forest Service Sage Grouse Environmental Impact Statement  
Attention: Qunicy Bahr  
Utah Bureau of Land Management

GREATER SAGE GROUSE EIS BLM  
Idaho

(Emailed to: [blm\\_ut\\_comments@blm.gov](mailto:blm_ut_comments@blm.gov)  
[blm\\_id\\_swmt\\_sagegrouse\\_eis@blm.gov](mailto:blm_id_swmt_sagegrouse_eis@blm.gov))

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For starters, the impacts of these proposals to wild horses are not adequately analyzed. None of the alternatives analyzed adequately protects wild horses and burros.

Specifically, our federally-protected wild horses and burros are not livestock; they are a wildlife species with their own Act unanimously passed by Congress to protect them. Yet this EIS fails to distinguish the wild horses and burros from livestock.

Alternatives described would allow the BLM too much discretion in forage allocations to private livestock and wild horses. It would allow BLM to decrease AUMS (Animal Unit Months), their forage allocations, and AUMS (Allowable Management Levels) for wild horses and burros even though these federally-protected species are vastly outnumbered by livestock in the planning area, including within their federally designated habitat areas, the HMAs.

A gross inequity long present in BLM's lack of management strategy for the wild horses would continue as, outrageously, in some alternatives, reductions in forage allocations would be borne equally by livestock and wild horses even though livestock vastly outnumber wild horses and burros.

CASE IN POINT: livestock vastly outnumber wild horses in terms of:

- 1) land impacted (66% of BLM land nationally used for livestock vs. 12% of BLM land used for wild horses);
- 2) forage allocated within wild horse Herd Management Areas (82+% for private livestock vs. 18% for federally-protected wild horses);
- 3) population numbers (livestock outnumber wild horses by at least 50 to 1 on BLM land); and
- 4) presence in critical sage grouse habitat (just 8-11% for wild horses vs. extensive presence by livestock).

Finally, the EIS fails to consider the significant differences in range impacts caused by livestock vs. wild horses.

Bearing these facts in mind, will you please tell me in what way this EIS meets the federal government's obligation, i.e. BLM's and Forest Service's obligation, to consider these animals as integral parts of the natural system of the public lands? Where does it state that about livestock? Yes, FLPMA and PRIA have impacted the 1971 Act, but that mandate expressed in the first paragraph of the Act continues.

## SUMMARY

To meet its legal and ethical obligations, the final EIS must include the following:

1. Language that clearly distinguishes between federally protected wild horses and burros from livestock.
2. Language that acknowledges and numbers that reflect the BLM's legal mandate (requirement under the law which is not optional) to protect wild horses under federal law as well as sage grouse, vs. its discretion to authorize livestock grazing
3. A clear directive to all BLM districts to preserve wild horses and burros above a level that allows for adequate genetic diversity. Genetic diversity must be specifically defined in the final EIS.
4. Directives that prohibit the reductions of current Animal Unit Months (AUMS) of forage allocated for wild horses and burros. The EIS must outline a reduction, and if necessary elimination of livestock grazing, before any reduction of AUMs for wild horses and/or burros could occur. Discretionary livestock grazing occurs on a drastically larger scale in critical sage grouse habitats than wild horse and/or burro usage.
5. Provisions to allow for increases in wild horse and burro Appropriate Management Levels and for restoration of

zeroed out (Herd Area) habitat where appropriate.

6. Requirement that any land use policy changes resulting from the sage grouse plan be in conformance with the National Academy of Sciences' 2013 recommendations for reform of federal wild horse management program.

BLM commissioned this report and has thus far chosen to studiously ignore it since it confirms many of the advocates points regarding mismanagement and the inadvisability of continuing BLM's failed, outlandishly expensive "just round them up" strategy.

7. Recognition of the current scientific consensus that the wild horse is a native, reintroduced North American wildlife species that co-exists with sage grouse in the high desert sagebrush ecosystems in the North American West.

8. A truly competent EIS which meets its legal intent and requirement must include detailed and comprehensive information on the following:

a. Vitally important Maps which set forth distinctly all HMAs and which distinguish the HMAs from the Herd Areas (HAs), with accompanying data on:

i) number of horses estimated within each area along with the number of livestock within each area;

ii) AUM allocations for wild horses and/or burros COMPARED with livestock AUMs usage, i.e., set forth AUMs for each.

b. All information describing and documenting the differences between wild horse and burro and livestock range impacts;

c. All genetic reports and documentation of genetic viability status of all wild horse and burro herds within the planning area.

These are reasonable, realistic, and do-able expectations. Providing secure protections for viable numbers of wild horses and burros falls within the scope of this EIS since it is analyzing a plan that in all likelihood will significantly impact wild horse and burro management, wild species Congress and the American people continue to cherish and prioritize. These are populations capable of reproducing themselves without human interference and have the resources available to sustain that population, and this EIS cannot appropriately simply include them as another form of livestock, nor cause them to bear an equal burden with the livestock that so greatly outnumbers them, in reducing impacts to the ranges or Sage Grouse Habitat.

In summary, the EIS is analyzing an inclusive management plan that will significantly impact protected wild horses and burros; thus, it is expected that all of these issues will be addressed in the final EIS.

Respectfully submitted,

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SWMT\_SageGrouse\_EIS, BLM\_ID <blm\_id\_swmt\_sagegrouse\_eis@blm.gov>

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## Sage Grouse DEIS

1 message

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jggsta@myidahomail.com <jggsta@myidahomail.com>  
To: blm\_id\_swmt\_sagegrouse\_eis@blm.gov

Wed, Jan 15, 2014 at 2:21 PM

Attached are my comments on the Draft Land Use Plan Amendments/Draft EIS Statement for Greater Sage Grouse for the Idaho-Southwest Montana subregion.

Jim Gerber  
P.O. Box 514  
St. Anthony, ID 83445

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To: BLM

Subject: Sage-Grouse Plan/DEIS for Idaho-Southwest Montana

Date: 1/15/14

Attached are my comments on the Draft Land Use Plan Amendments/Draft Environmental Impact Statement for Greater Sage Grouse for the Idaho-Southwest Montana subregion. I appreciate the opportunity to comment on this proposal that could affect my use and enjoyment of the public lands in Idaho.

Normally I would begin by stating some things I like about the proposal but, unfortunately, there is precious little I agree with in this document. So, I apologize for the negative tone of my comments, but I have little choice.

I will begin with Planning Issues and work my way through to the environmental consequences.

#### Planning Issues

I believe "natural succession" in sagebrush is a distinct threat to sage grouse. As sagebrush ages it becomes denser and forces out the grass/forb understory. Doing so eliminates the sage as grouse habitat because there is little food for hens and chicks and, in addition, chicks have a hard time negotiating the thick, gnarly old sagebrush.

To what extent can the BLM and FS set overmature sagebrush back to an early stage to intervene in the succession process to improve the grass/forb condition for hens and chicks? I believe this is the major policy decision you have to make. If succession is not identified as an issue, it will not be addressed in the alternatives, and if succession is not addressed in the alternatives it will not be addressed in the environmental consequences, and therefore will play no role in the decision making process to determine which alternative best meets the long-term survival of sage grouse. This is exactly what happened in your DEIS. Sage grouse was not identified as an issue, was not addressed in the alternatives, and was not addressed in the environmental consequences. This seems like a huge oversight since sagebrush is the primary habitat for sage grouse.

To elaborate further, on one hand sagebrush is being consumed in large fires each year that burn nearly all of the sagebrush, rendering it almost useless for sage grouse. On the other hand, suppression of fires over the years has resulted in old, overmature stands of sage that are stocked with large plants that cover 50-60% of the site, or more, with almost no undergrowth of grass and forbs, also rendering it useless for grouse. Scrunched in between these two extremes is a mixture of sage, grass, and forbs, itself moving along the succession track toward an overmature condition. What can be done to arrest this relentless march of natural succession and make the sagebrush habitat more usable for sage

grouse? I believe that is the major policy decision we face today. The proposed DEIS, however, does not address this question. That does not bode well for grouse survival because the most important question to solving preservation of grouse is not even addressed in the DEIS. How sad!

I strongly recommend that natural succession of sagebrush be added as a planning issue.

The other planning issue that is missing is predator control. Predator control is an integral part of protecting and conserving sage grouse. Studies in Idaho show predators account for 26 to 76 percent of lost sage grouse nesting sites annually. That's not one egg out of a hatch; it's the loss of the entire hatch. This is too important of a factor to ignore in the DEIS and leave to individual agency action.

I understand that your reason for not including predator control as an issue is because it is a state- and federal-related action you feel is outside the scope of the LUPA/EIS. But, as you point out, the agencies will continue to work with IDFG and MFWP on predator control problems. This is a pretty loose arrangement. With all due respect, why would you not address predator control in one document that coordinates all of the factors of sage grouse management and, instead, spread predator control over 29 independent units and 4 different agencies?

Predator control should be addressed in each alternative as part of a unified action for that alternative, and evaluated in the consequences as one unified action for each alternative, not as a separate action by four different agencies on 29 different individual FS and BLM units. Do you really want to treat predator control as a separate action outside the DEIS? I think not.

The federal and state agencies are already coordinating on predator control. I recommend you include predator control as a planning issue, and look at different alternative ways to accomplish it in the DEIS. Who knows, you might even discover a better way to get the job done, beyond a MOU.

### Alternatives

1. At least one of the alternatives ( Alt. A) talks about maintaining a mosaic of species and age classes on the landscape to protect grouse habitat, which I thought was a great idea. But when I went to the environmental consequences section of the DEIS to see what the benefits of having a mosaic are, there were none. In fact, there was no discussion of a mosaic of age classes at all. Call me crazy, but if you are going to have an alternative that strives to maintain a mosaic of species and age classes, there should be some benefit from doing that, and that benefit should show up in the consequences. The fact that you prescribe an alternative with the objective of producing a mosaic of age classes on the landscape, but that objective is never achieved, makes it appear like this is a straw man alternative designed to achieve some purpose, when in fact it does not.

My point is: management actions ( like achieve a mosaic of age classes) proposed in the alternatives should be addressed and quantified in the environmental consequences so they can be evaluated and weighed in the decision of which alternative to select. I suggest you need to either 1) remove achieving a mosaic of age classes in the alternative(s), or 2) propose some advantage to doing that (achieve a mosaic) and quantify the advantage so the decision maker can decide whether it is useful or not.

2. There is a very small range between the alternatives, except for Alternative C, which eliminates all grazing. Otherwise, the alternatives all occur in a tight band that reflects little difference between them. For instance, there is only 1.4 million acres difference in GRSG habitat between the highest and lowest alternatives, out of 11.6 million acres total. This is only a 12% difference from best to worst. I doubt if that qualifies as a reasonable range of alternatives that produce feasible, distinct and implementable management scenarios that 1) address the full range of identifiable major planning issues, 2) explore opportunities to enhance management resources, 3) resolve conflicts between resources, and 4) meet the purpose and need for the LUPA.

I suggest you expand the alternatives to achieve a greater difference between them so they 1) reflect the major planning issues and 2) resolve conflicts between resources. One way to do that would be to develop one or more alternatives that more aggressively convert the mature and overmature sagebrush to a younger age class.

I would put less emphasis on factors like mineral management, land uses and realty management, renewable energy, roads, and special designations. I suspect the 4 factors of natural selection in sagebrush, predator control, grazing and wildfire account for roughly 95% of sage grouse mortality. The other factors just detract from these 4 main factors and weaken our efforts to conserve sage grouse.

#### Affected Environment (AE)

1. There is no historical record in the affected environment to indicate how grouse populations have fluctuated over time, and what factors may have caused those shifts. It's like we suddenly discovered sage grouse in 2004 and started to develop a management plan for them.

There is a rich historical record for sage grouse, going back at least to the first European explorers that visited the west. The record indicates early explorers rarely encountered sage grouse, and this continued until the late 1880's. From the late 1880's until the 1960's there was a significant increase in the sage grouse population. Near the end of the 1960's the population started to decline, and has done so ever since.

The increase in birds after the 1880's occurred at the same time that livestock grazing and predator control began on the western ranges, and then the birds increased in tandem with the increase in the human population in the west. In 1934 the FS initiated the 10 AM policy of putting out wildfires by 10 AM of the following day, or requesting more fire fighting forces to extinguish the fire by the next burning period. As a result fewer acres burned and sagebrush increased in size and area. This continued until the 1960's when policies changed, which removed livestock from the range and reduced predator control. Finally in 1988 the rule of unintended consequences caught up with us and huge, intense wildfires burned the western landscape which was overloaded with dense overstocked sagebrush. This phenomenon continued until today. As a result, large areas of sagebrush burned and were no longer suitable for sage grouse because it no longer provided cover or food for the birds. That brings us to 2004 and is the beginning point, I believe, for the DEIS.

Much could be learned about the interrelationship between grazing, wildfire, and predator control and sage grouse response to those factors during the last 200 years. Unfortunately, we will not learn from the past because it is not discussed in the DEIS.

I recommend you include the historical record for grouse and its habitat (sagebrush) in the FEIS.

2. There is no discussion of predator control in the AE. Are there no studies of predators and their affect on sage grouse in Idaho and other parts of the country? I know this is not true because I am aware of studies in Idaho that show predators cause a 26 to 76 % loss of nesting sites. This is not a loss of 1 egg in each brood, but the loss of all eggs in the brood. Is this not an important factor to consider in the affected environment?

I recommend you include a discussion of predator control in the AE.

3. There is no discussion of natural succession in the AE. Natural succession is the most important factor in the survival of sage grouse, because it is the only factor that affects every square foot of grouse habitat, every year. Fire, predators, and grazing affect some part of the habitat every year, but only succession affects every acre. Succession should be discussed to show the progression sagebrush goes through from the seedling stage to old overmature stage, and how that progression affects sage grouse.

I recommend you include a discussion of succession in the vegetation section of the AE.

4. There is no information on the different stages of vegetation in the AE (ie, seedling, immature, mature and overmature stages), and how many acres there are of each. How are the agencies going to measure the rate of increase or decrease in the acres of each age class over time if you don't even know how many acres there are to begin with?

The AE is the basis for Alt. A, the No Action Alternative, to which all other alternatives are compared. But if you don't know what the make-up of the vegetation in Alternative A looks like, you won't be able to estimate what the affects of the different alternatives will be on sage brush, and therefore sage hen.

I don't even know what to say about this. In my experience of writing roughly 12 EA's, and participating in 2 Forest Plan EIS's, I never ran into this situation before, and I doubt that the people who wrote the NEPA instructions ever anticipated it.

This lack of specificity is akin to saying: There are 1.8 million acres of forest in a certain area. We don't know what the age class distribution is, only that it is forested. We want to make a 6 million board foot timber sale there. Since we don't know what the age classes are, we don't know where the merchantable timber is. We will play it by ear as we go. Here is the environmental document Mr. Line Officer. Please sign on the dotted line. Thank you. What do you think your chances are of getting a signature?



I suppose you could start from scratch, with zero acres of sagebrush habitat for grouse. Then add the acres burned in wildfire in the last 10 years, and assume those are seedling areas.

Then add acres to each alternative that propose some kind of vegetative action (like prescribed fire or mechanical treatment), that anticipates meeting some objective of vegetation management (like return it to a seedling stage).

At 10 years, total the result and the alternative that creates the most acres of fire and vegetation treatment that improves grouse habitat would be the alternative that best meets the needs of sage grouse.

This assumes, of course, the money to accomplish the work will be appropriated by Congress, and the work actually accomplished on the ground. Good luck with this one!

#### Environmental Consequences (EC)

1. Since the affected environment section is not quantified, neither are the environmental consequences. For instance, the EC for Alt. B, Vegetation, says Alt. B would “implement numerous conservation measures to reduce impacts from human activities, which would reduce the likelihood for vegetation removal, degradation, or fragmentation and maintain the acreage and condition of sagebrush vegetation”. Good grief! What does that mean? Or, for Livestock Grazing, Alt. C, the EC states the consequences of “beneficial or adverse impacts on range management from other resource uses (eg, ROW or fluid mineral development) would be diminished in scale and intensity because of the elimination of grazing in all allotments intersecting occupied habitat.” What! How does eliminating grazing diminish the scale and intensity of beneficial or adverse impacts on range management from other resources, and to what degree? There are many, many other examples I could cite, but I lack the strength to list them all. How do these broad, generalized, superficial, nebulous, statements help anyone decide what the preferred alternative should be? After all, that is what the environmental consequences section is for; to provide specific information to the decision makers to help them select the Preferred Alternative.

The lack of specificity in the EC makes it nearly impossible to analyze the alternatives in any useful way. If I was one of the line officers that had to decide which alternative best meets the decision criteria, and thus be the selected alternative, I would not be very happy with the environmental consequences section of this DEIS. It provides no help in making the decision.

As an aside, I was.....surprised.....by the “Nature is good, humans are bad” tone of this document. That is, anything nature does is good for sage grouse, anything humans do is bad for sage grouse. I would expect to find this attitude in an environmental preservation document, but not in a professional land management agency document. You might want to lose this attitude before you get to the FEIS. You lose credibility when you use this approach.

## New Alternative Proposal

I hereby propose a new alternative, one that is focused primarily on creating a mosaic of species and age classes on the landscape. Direction in livestock grazing, wildfire management and predator control play a supporting role in accomplishing this goal.

A landscape is defined as an area of land over 100,000 acres with similar characteristics of climate, vegetation and geologic features. So, for example, a landscape might be the upper end of the Snake River drainage that receives more than 12 inches of rain per year.

### 1. Vegetation

The objective would be to, within the larger 100,000 acre landscape, focus on creating large openings (200 to 300 acres) in mature/overmature sagebrush, with smaller patches of sagebrush scattered through the open matrix. The small leave patches would be about 4 acres (400' by 400') which occupy about 10% of the total area (so within a 200 acre treatment area there might be 5 - four acre patches; 10% x 200 acres is 20 acres; 20 acres divided by 4 acre patch = 5 patches). A large patch is needed to protect sage grouse from predators.

In addition, there would be even smaller patches of sage approximately 25' x 25' up to 50' x 50', accounting for say, another 1% of the larger 200 acre area, or some 50 of these smaller patches per treatment area. These would provide temporary protection from predators.

The rest of the sagebrush in the treatment area would be removed by mechanical treatment. If necessary, the area should be seeded with grass and forbs following treatment. Also, thick patches of slash may have to be piled and burned to remove the greater concentrations of fuel. Roughly 89% of the 200 acre treatment area would be cleared of vegetation.

Overall, 30% of the sagebrush community, on a landscape basis, should be seedling age, 40% immature sagebrush, and 30 % mature/overmature vegetation.

Remove DF and pinyon-juniper that are encroaching into sagebrush to increase the total amount of sagebrush available to sage grouse.

### 2. Wildfire

Fight all wildfire in grouse habitat as soon as it is detected in June, July and August, the hottest part of the fire season. This will preserve as much of the sagebrush as possible for sage grouse.

Use prescribed fire outside of the June – August period whenever the window of opportunity for controlled burning allows. This would occur as a general maintenance program to keep sagebrush in a usable condition for grouse. Pre-approve a number of prescribed fire projects to take advantage of short windows of opportunity to burn.

### 3. Predator Control

Use predator control while hens are sitting on eggs and until the chicks can hatch and fly; do this the season following the 200 acre treatment. This generally is a 3 to 4 week period. This gives the chicks a chance to hatch and grow to a point where they can fend for themselves. I envision 2-3 people with shotguns walking through the 200 acre area and blasting away at ravens, hawks, coyotes and anything else that might want to eat a sage grouse. It might be necessary to do this for 2 or 3 seasons following the treatment.

### 4. Grazing

Allow grazing on all occupied GRS habitat in order to remove fine fuels and keep large concentrations of fuel from accumulating in the habitat.

Also use the Alan Savory method of “stomp and poop” grazing on dry sites (and other sites where appropriate) to concentrate cattle for a brief time (3 to 20 days).” Cattle excretion inoculates the soil with key bacteria and fungi that are awakened in the soil by the influence of dung and urine. This works especially well in cheatgrass-invaded areas. Native seedlings simply wait for the cheatgrass to die in summer. The native plants then act as a water-conserving , sheltering mulch that mature on summer and fall rainfall. The following spring cheatgrass seeds (if present) do not even germinate in the presence of native perennials and their allied native bacteria and fungi” (quote from Stephen H. Rich, president of Rangeland Restoration Academy in Salt Lake City; [steve@rangelandandrestoration.com](mailto:steve@rangelandandrestoration.com)).

### 5. Invasive Species

Implement noxious weed and invasive species control using integrated weed management in cooperation with State and Federal agencies, counties, and private landowners.

### 6. Internet Grouse Site

Create a nationwide grouse.com site where agency employees can post management practices they have tried and the result they had, good or bad. Other employees could visit the site to see what is working, and what is not. A sort of clearing house, so to speak, for what other employees are experiencing with adaptive management in sage grouse management.

Bottom line, I would say this DEIS has a loooong way to go before it is ready for prime time as an FEIS!

That concludes my comments. Again, thank you for the opportunity to comment on this proposal. I hope the agencies will actually read these public comments and use them to broaden and strengthen the DEIS, and not just put them in pigeon-holes, like this comment is about vegetation and that one is about

predator control. Together there were 85 comments about vegetation and 63 about predator control. This kind of shallow analysis does no good. As a minimum the people who are preparing the FEIS should read the public comments to see what they really say. Occasionally we, the public, do come up with an idea you didn't think of.

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